

**K.S. School of Engineering and Management**  
**No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109**



Department of Civil Engineering

## Certificate

*This is to certify that the Project work entitled "Design and Analysis of Multi Storied Building Using E-TABS" is a bonafide work carried out by*

**DINESH KUMAR G**

**1KG16CV402**

**SYED KHADEER S**

**1KG16CV412**

*In partial fulfilment for the award of "Bachelor of Engineering in Civil Engineering" of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Shashi*  
Signature of the Guide  
**Shashi Prasad.N**  
Assistant Professor  
Dept. of Civil Engg  
KSSEM, Bengaluru

*Vijayalakshmi*  
Signature of HOD  
**Dr. Vijayalakshmi Akella**  
Professor  
Dept. of Civil Engineering  
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Bangalore-560 062.

*Rama Narasimha*  
Signature of Principal  
**Dr. Rama Narasimha**  
Principal  
KSSEM  
Bengaluru  
**Dr. K. RAMA NARASIMHA**  
Principal/Director  
K S School of Engineering and Management  
Bengaluru - 560 109

**Examiners**

\_\_\_\_\_  
Name and Signature of Examiner-1

\_\_\_\_\_  
Name and Signature of Examiner-2



**KSSEM**

Department of Civil Engineering

# Certificate

This is to certify that the project work entitled "**ANALYSIS AND DESIGN OF MULTI-STOREYED HOSPITAL BUILDING USING ETABS**" is a bonafide work carried out by

**SHASHANK.PANDAGA.M**

in partial fulfillment for the award of "**Bachelor of Engineering**" of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

Naveena M P

Name and Signature of Internal Guide  
**Mr.Naveena.M.P**  
Assistant Professor  
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Professor & Head  
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**Dr. Vijayalakshmi Akella**  
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**Dr. K. RAMA KRISHNA**  
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University Examiners:

**Dr. AREKA VISAY** 14/6/19

Name and Signature of Examiner-1

**Karpagam Ramesh**

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Mechanical Engineering**

## Certificate

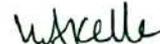
*This is to certify that the project work entitled "Optimization of RCC Multi-Storey buildings subjected to Seismic Forces by considering Retaining Wall as an additional supporting system" is a bonafide work carried out by*

Shravan C	1KG15CV049
Lakshmi S	1KG16CV404
Suman Bharadwaj	1KG16CV411
Vyshak Gowda P	1KG16CV413

*in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2013-14. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
12/6/19  
Name and Signature of  
Internal Guide

  
12/6/19  
Name and Signature of  
Industrial Guide

  
Head of the  
Department  
Professor & Head

  
Principal/  
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University Examiners:

\_\_\_\_\_  
Name and Signature of Examiner-1

\_\_\_\_\_  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**

No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Civil Engineering**

*Certificate*

*This is to certify that the Project work entitled “Suitable Site selection for Solid waste disposal using Remote Sensing and GIS technique in Kanakapura Municipality, Karnataka” is a bonafide work carried out by*

DINESH V	1KG15CV010
K NAGASRI	1KG15CV020
MYTHRI YADAV D	1KG15CV034
SACHIN T	1KG15CV046

*In partial fulfilment of award degree of **Bachelor of Engineering in Civil Engineering** of Visveswaraya technological university, Belagavi during the year, **2018-2019**. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated.*

**Dr. Vyshali**  
Project Guide

**Dr. Vijayalakshmi Akella**  
Professor & Head  
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**Dr. K. Rama Narasimha**  
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Name and Signature of Examiner-1

Name and Signature of Examiner-2

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**KSSEM**

Department of Civil Engineering

## Certificate

This is to certify that the project work entitled "COLLABORATION OF 3-D MODEL AND CONSTRUCTION SCHEDULE OF A COMMERCIAL BUILDING USING BUILDING INFORMATION MODELLING" is a bona fide work carried out by

ASHWINI M J	1KG15CV003
CHAITANYA M L	1KG15CV007
KISHORE K	1KG15CV019
SAGAR L M	1KG15CV047

In partial fulfilment for the award of "Bachelor of Engineering in Civil Engineering" of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report for the degree.

Name and Signature of  
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**Mr. Thejas C M**  
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University Examiners:

Name and Signature of Examiner-1

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No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



Department of Civil Engineering

## Certificate

*This is to certify that the Project work entitled "Design of Energy Efficient Building Envelope for Moderate Climate" is a bonafide work carried out by*

**KALDEN DORJEE** 1KG15CV021

**RAVI KUMAR.S** 1KG15CV045

**TEJASWI SANGAMITRA** 1KG15CV053

**UBAID AHMAD SODAGAR** 1KG15CV057

*In partial fulfilment for the award of "Bachelor of Engineering in Civil Engineering" of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*W Akella*

Signature of the Internal Guide

**Dr. Vijayalakshmi Akella**

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**Dr. K. Rama Narasimha**  
**Dr. K. RAMA NARASIMHA**  
Principal/Director

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### Examiners

\_\_\_\_\_  
Name and Signature of Examiner-1

\_\_\_\_\_  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project work entitled **Experimental Studies on applications of Jute Geotextiles in Ground Improvement** is a bonafide work carried out by*

<b>Srinivas S V</b>	<b>1KG15CV051</b>
<b>Raghavendra B R</b>	<b>1KG15CV039</b>
<b>Muniraju G B</b>	<b>1KG16CV407</b>
<b>Shyla C</b>	<b>1KG16CV410</b>

*in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*



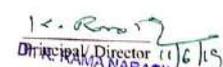
**DR. AREKAL VISAY**

Name and Signature of  
Internal Guide



**Head of the Department**  
**Professor & Head**  
**Dept. of Civil Engineering** KS Sch  
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Head of the Department



**Principal/Director**  
**DR. RAMA NARASIMHA**  
**Principal/Director**  
**S School of Engineering and Management**  
**Bengaluru - 560 109**

Principal/ Director

University Examiners:

\_\_\_\_\_  
Name and Signature of Examiner-1

\_\_\_\_\_  
Name and Signature of Examiner-2



**Department of Civil Engineering**

**Certificate**

*This is to certify that the project work entitled **Study on Synthesis and Characterization of Geo-Polymer Aggregates** is a bonafide work carried out by*

<b>ABILASH J</b>	<b>1KG14CV002</b>
<b>SANDEEP R C</b>	<b>1KG15CV048</b>
<b>VIJAY CHANDRA T K</b>	<b>1KG15CV055</b>
<b>VIJAY KUMAR R</b>	<b>1KG15CV056</b>

*in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Naama MP*

Name and Signature of  
Internal Guide

*Wskelle*

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*MAITHILI K.C.*  
*Maithili*

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**K.S. School of Engineering and Management**  
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**KSSEM**

Department of Civil Engineering

## Certificate

*This is to certify that the project work entitled "Pedestrian Management at KSIT junction by Signal design" is a bonafide work carried out by*

**JAGADEESHAN Y**

**1KG15CV018**

*In partial fulfillment for the award of "Bachelor of Technology in Civil Engineering" of Vishvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Savitha B.G. 11/6/19

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Principal/ Director  
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Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project work entitled “EXPERIMENTAL STUDY ON MECHANICAL AND ELECTRICAL BEHAVIOR OF HARDENED PIEZOELECTRIC CONCRETE” is a bonafide work carried out by*

<b>BHAVYA N</b>	<b>1KG16CV400</b>
<b>JAYANTH KUMAR D</b>	<b>1KG16CV403</b>
<b>NAVEEN K S</b>	<b>1KG16CV408</b>
<b>PRADEEP T</b>	<b>1KG16CV409</b>

*in partial fulfilment for the award of “Bachelor of engineering in civil Engineering” of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Name and Signature of  
Internal Guide

**Mr. MANJUNATH B  
& Mr. PRASHANTH**

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KSSEM, Bengaluru

  
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**Dr. Ramanarasimha**

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KSSEM, Bengaluru

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Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project work entitled “**EXPERIMENTAL INVESTIGATION ON THE MECHANICAL & DURABILITY PROPERTIES OF CONCRETE BY USING PELLETIZED CUT RUBBER AS ALTERNATIVE FOR COARSE AGGREGATE**” is a bonafide work carried out by*

<b>CHETHANA M</b>	<b>1KG15CV009</b>
<b>RANJITHA K R</b>	<b>1KG15CV042</b>
<b>LOKESH M R</b>	<b>1KG16CV405</b>
<b>MOHITH R</b>	<b>1KG16CV406</b>

*in partial fulfilment for the award of “**Bachelor of engineering in civil Engineering**” of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Name and Signature of  
Internal Guide

Professor & Head  
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**Mr. MANJUNATH B  
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**Dr. Ramanarasimha**

Principal  
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\_\_\_\_\_  
Name and Signature of Examiner-1

\_\_\_\_\_  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**

No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



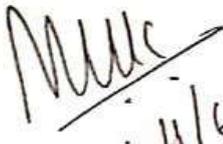
**Department of Civil Engineering**

**Certificate**

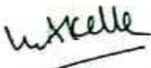
This is to certify that the project work entitled "Analysis and design rail cum road bridge" is a bonafide work carried out by

Manoj Mallik Churchihal	1KG15CV029
Mohith S Reddy	1KG15CV032
Naveen J	1KG15CV035
Nischal Madhu	1KG15CV036

in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

  
11/6/19

Name and Signature of Internal  
Guide



Head of the Department

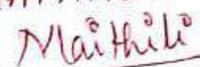
  
12/6/19

Principal/ Director

University Examiners:

  
13/6/19

Name and Signature of Examiner-1

MAITHILI K.C.  


Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



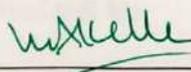
**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project entitled "DESIGN AND ANALYSIS OF THE SKYWALK AT OUTER RING ROAD FROM ESHWARI THEATRE TO APOLLO PHARMACY, BENGALURU" is a bonafide work carried out by*

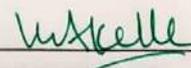
<b>BASAVANAGOWDA GN</b>	<b>1KG15CV005</b>
<b>GANGENENI HARISH KUMAR</b>	<b>1KG15CV014</b>
<b>GONUGUNTLA HARI PRIYA</b>	<b>1KG15CV015</b>
<b>GOWTHAM RJ</b>	<b>1KG15CV016</b>

*in partial fulfilment for the award of "Bachelor of Technology in Civil Engineering" of Vishvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of seminar prescribed for the degree.*

  
\_\_\_\_\_  
Name and Signature of  
Internal Guide

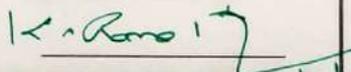
**Dr. Vijayalakshmi Akella**

Professor and Head  
Dept. of Civil Engg.  
KSSEM, Bengaluru

  
\_\_\_\_\_  
Head of the Department

**Dr. Vijayalakshmi Akella**

Professor and Head  
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\_\_\_\_\_  
Dr. K. Rama Narasimha  
Principal/Director  
KSSEM, Bengaluru  
16/19

University Examiners:

\_\_\_\_\_  
Name and Signature of Examiner-1

\_\_\_\_\_  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Civil Engineering**

## Certificate

*This is to certify that the project work entitled **Study on Seismic Behavior of Heritage Monument Gol-Gumbaz Using E-Tabs** is a bonafide work carried out by*

<b>AKSHAY KUMAR H R</b>	<b>1KG15CV001</b>
<b>KUSHAL S</b>	<b>1KG15CV027</b>
<b>MANASA T S</b>	<b>1KG15CV028</b>
<b>YASHAVANTH M</b>	<b>1KG16CV414</b>

*in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*SUSHMA M*

*Sushma M*

Name and Signature of  
Internal Guide

*SASHA PAI*

*S.Pai*

Name and Signature of  
Internal Guide

*w.kelle*

Head of the  
Department

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*w.kelle*

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University Examiners:

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\_\_\_\_\_  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**KSSEM**  
K.S. SCHOOL OF ENGINEERING AND MANAGEMENT

**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project work entitled "BEHAVIOUR OF BUILDING WITH MASONRY INFILLS SUBJECTED TO LATERAL LOADS" is a bonafide work carried out by*

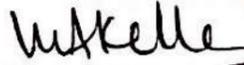
**MADAN GOPAL.V**

**1KG17CSE08**

*in partial fulfilment for the award of "MASTER OF TECHNOLOGY" of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*



Name and Signature of  
Internal Guide



Head of Department



Principal/ Director

**Dr. Vijayalakshmi Akella**

Professor and Head  
Dept. of Civil Engg.  
KSSEM, Bengaluru

**Dr. Vijayalakshmi Akella**

Professor and Head  
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**Dr. K. Rama Narasimha**

Principal  
KSSEM, Bengaluru.

University Examiners:

Name and Signature of Examiner-1

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project work entitled "PARAMETRIC STUDY ON BEHAVIOUR OF POST-TENSIONED RECTANGULAR AND TRAPEZOIDAL BOX-GIRDER BRIDGE USING FINITE ELEMENT AND CLASSICAL METHOD" is a bonafide work carried out by*

**NANDANA P**

**1KG17CSE09**

*in partial fulfilment for the award of "MASTER OF TECHNOLOGY" of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Naveena M.P

Name and Signature of  
Internal Guide

**Mr. Naveena M. P**  
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Principal/Director  
**Dr. K. RAMA NARASIMHA**  
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University Examiners:

Name and Signature of Examiner-1

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
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**KSSEM**

**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project work entitled "PUSHOVER ANALYSIS OF 6+9 STOREY BUILDING WITH AND WITHOUT SHEAR WALLS AT DIFFERENT LOCATIONS" is a bonafide work carried out by*

**KIRAN KUMAR C**

**1KG17CSE06**

*in partial fulfilment for the award of "Master of Technology in Structural Engineering" of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*W Akella*

Name and Signature of  
Internal Guide

**Dr. Vijayalakshmi Akella**

Professor and Head of  
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*W Akella*

Head of the Department

**Dr. Vijayalakshmi Akella**

Professor and Head of  
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*K. Rama*

Principal/ Director 3/9/19

**Dr. K Rama Narasimha**

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KSSEM, Bengaluru

University Examiners:

\_\_\_\_\_  
Name and Signature of Examiner-1

\_\_\_\_\_  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project work entitled "EFFECT OF TRANSFER SLAB IN HIGH RISE BUILDINGS UNDER SEISMIC CONDITIONS" is a bonafide work carried out by*

**KAILASH.N**

**1KG17CSE04**

*in partial fulfilment for the award of "MASTER OF TECHNOLOGY" of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Prashanth M Manjunath*  
3/18/19

*Prashanth M Manjunath*  
Name and Signature of  
Internal Guide

**Prashanth.M  
Manjunath.B**  
Assistant Professor  
Dept. of Civil Engg.  
KSSEM, Bengaluru.

*Dr. Vijayalakshmi Akella*

Head of Department

**Dr. Vijayalakshmi Akella**  
Professor and Head  
Dept. of Civil Engg.  
KSSEM, Bengaluru.

*Dr. N. Ramanarasimha*  
3/18/19

Principal/ Director

**Dr.N. Ramanarasimha**  
Principal  
KSSEM, Bengaluru.

University Examiners:

\_\_\_\_\_  
Name and Signature of Examiner-1

\_\_\_\_\_  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Computer Science and Engineering**

## Certificate

*This is to certify that the project work entitled **Development of Automated Water Distribution System using IoT and Cloud Applications** is a bonafide work carried out by*

Archana M S	1KG15CS005
Bhat M Krishna Chaitanya	1KG15CS008
N Ganesh	1KG15CS058

*in partial fulfilment for the award of **Bachelor of Engineering in Computer Science and Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and satisfies the academic requirement in respect of project work prescribed for the degree.*

*S. Poonamsree* 10/6/19

Mrs. Poonamsree S  
Assistant Professor,  
Dept. of CSE

*Veena R S* 10/6/19

**HOD**  
Mrs. Veena R S  
Associate Professor & HOD,  
Dept. of Computer Science & Engineering  
K.S. School of Engineering & Management  
Bangalore-560 062

*W. Kelle*

Dr. K Rama Narasimha  
Principal/ Director  
**Principal / Director**  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

*Santosh* 11/6/19

Name and Signature of Examiner-1

*Santosh*

*Hail Kumar S* 11/6/19

Name and Signature of Examiner-2

*Hail Kumar S*

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Computer Science and Engineering**

## Certificate

*This is to certify that the project work entitled "Design and Development of Web Application to Detect Informal Cribbing by Students using NLP Technique" is a bonafide work carried out by*

<b>L S DINAKAR RAM</b>	<b>1KG15CS047</b>
<b>NAVEEN KUMAR P V</b>	<b>1KG15CS060</b>
<b>RAJESH KUMAR</b>	<b>1KG15CS085</b>

*in partial fulfilment for the award of Bachelor of Engineering in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and it satisfies the academic requirement in respect of project work prescribed for the degree.*

*Megha J*  
13/6/19

Mrs Megha J  
Associate Professor  
Internal Guide

*Veena R S*  
13/6/19

Prof. Veena R S,  
Associate Prof. & Head  
Dept. of CSE

*Dr. R. Ramanarashimha*  
13/6/19

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Dept. of Computer Science & Engineering  
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Bangalore-560 062.

University Examiners:

*Santosh Kumar J*  
13/6/19

Name and Signature of Examiner-1

*Santosh Kumar J*

*Dr. R. Ramanarashimha*  
13/6/19

Name and Signature of Examiner

*Dr. R. Ramanarashimha*



**Department of Electronics and Communication Engineering**

*Certificate*

*This is to certify that the project work entitled **Braille based Mobile Communication and Translation Glove for Deaf-Blind People** is a bonafide work carried out by*

Yashwanth K H	1KG14EC102
Prasanna P	1KG15EC061
Shashank P	1KG15EC075
Vishwas S	1KG15EC096

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Kripa K.B*  
*Kripa K.B*  
Name and Signature of Guide

*[Signature]*  
Head of the Department

*[Signature]*  
Principal  
**D. K. MA NARASIMHA**  
Principal/Director  
K S School of Engineering and Management  
Bengaluru - 560 109

University Examiners:

*[Signature]*  
Name and Signature of Examiner-1

*P. B. Manoj* / *[Signature]* / *13.6.19*  
Name and Signature of Examiner-2



**Department of Electronics and Communication Engineering**

*Certificate*

*This is to certify that the project work entitled **Implementation of IoT based Intelligent Vehicle System for Pollution Monitoring using ARM7** is a bonafide work carried out by*

Aishwarya J	1KG15EC001
Anusha R	1KG15EC007
Jeevitha J V	1KG15EC027
P R Aishwarya	1KG15EC053

*in partial fulfilment for the award of **Bachelor of Engineering in Electronics and communication Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Zoiba Zoiba*

Name and Signature of  
Guide

*[Signature]*  
Head of the Department  
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Bangalore-560 109

*[Signature]*  
Principal/  
Director

University Examiners:

*[Signature]*  
Name and Signature of Examiner-1

*P. B. Manoj* / *[Signature]* / *12.6.19*  
Name and Signature of Examiner-2

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No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**Department of Electronics and Communication Engineering**

## Certificate

*This is to certify that the project work entitled "Implementation of Biometric Based and Aadhaar Linked Electronic Voting Machine for Migrated People" is a bonafide work carried out by*

P Sai Teja

1KG15EC054

K Y Keerthi

1KG15EC031

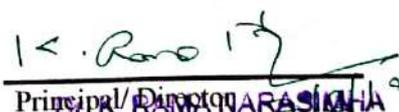
Anusha S P

1KG15EC008

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

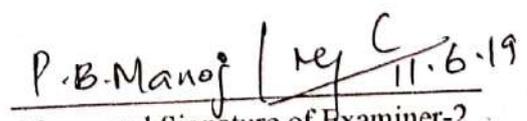
  
Gunasheela T. J  
Name and Signature of  
Internal Guide

  
Head of the Department  
Professor & Head  
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Bangaluru - 560 109

University Examiners:

  
Name and Signature of Examiner-1

  
P. B. Manoj  
Name and Signature of Examiner-2  
11.6.19

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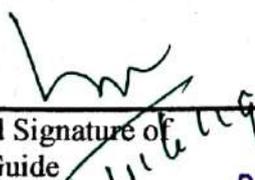
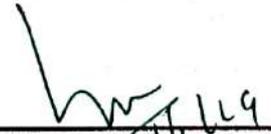
**Department of Electronics and Communication Engineering**

## Certificate

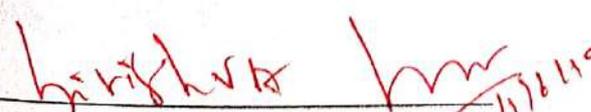
*This is to certify that the project work entitled Design and Implementation of Canal Automation using LabVIEW is a bonafide work carried out by*

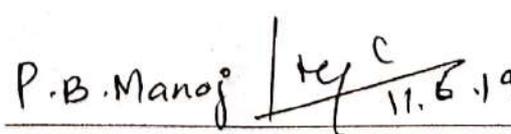
Ajay Kumar U	1KG15EC002
Aravind R K	1KG15EC011
Chethan M	1KG15EC015
H P Ruthwik Nayak	1KG15EC022

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

 Name and Signature of Internal Guide	 Head of the Department Professor & head Dept. of Electronics & Communication Engineering K. S. School of Engineering & Management Bangalore-560 109	 Principal/ Director Dr. K. RAMA NARASIMHA Principal/Director K. S. School of Engineering and Management Bengaluru - 560 109
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University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

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No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Electronics and Communication Engineering**

## Certificate

*This is to certify that the project work entitled **Design and Implementation of a Smart Glove using ESP32 for Gesture Recognition Applications** is a bonafide work carried out by*

Sahana R	1KG15EC070
Sumithraj Shetty U	1KG15EC085
Sushma G S	1KG15EC090

*in partial fulfilment for the award of **Bachelor of Electronics and Communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

BAu  
(Ravikiran B.A.)

Name and Signature of  
Internal Guide

[Signature]  
Head of the Department  
Professor & Head

Dept. of Electronics & Communication Engineering  
K. S. School of Engineering & Management  
Bengaluru-560 109

[Signature]  
Principal/ Director  
Dr. K. RAMA NARASIMHA  
Principal/Director

Dept. of Engineering and Management  
Bengaluru - 560 109

University Examiners:

[Signature]  
Name and Signature of Examiner-1

P. B. Manoj / [Signature]  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
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**Department of Electronics and Communication Engineering**

## **Certificate**

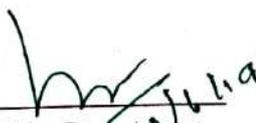
*This is to certify that the project work entitled **Implementation Of Smart Robot For Land Survey Using Arduino Mega** is a bonafide work carried out by*

<b>Alekhya J</b>	<b>1KG15EC004</b>
<b>Atiya Fatima</b>	<b>1KG15EC013</b>
<b>Mamatha M</b>	<b>1KG15EC041</b>
<b>Pathipati Yaswanth Kumar</b>	<b>1KG15EC057</b>

*in partial fulfilment for the award of **Bachelor of Engineering in Electronics and communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
**SHANTHALA. G. M.**

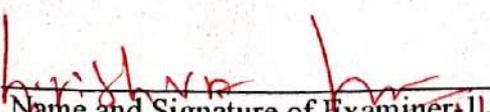
Name and Signature of  
Internal Guide

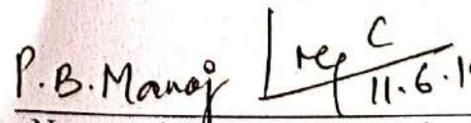
  
Head of the Department  
Professor & Head

Dept. of Electronics & Communication Engineering  
K. S. School of Engineering & Management  
Bangalore-560 109

  
Principal/ Director  
**Dr. K. RAMANARASIMHA**  
Principal/Director  
of Engineering and Management  
Bangalore - 560 109

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2



**Department of Electronics and Communication Engineering**

*Certificate*

*This is to certify that the project work entitled "Design and Implementation of Human Emotion Recognition System From Voice Samples Using MFCC and SVM" is a bonafide work carried out by*

<b>G Mahesh</b>	<b>1KG15EC018</b>
<b>Kavitha GN</b>	<b>1KG15EC033</b>
<b>Lekhashree K</b>	<b>1KG15EC040</b>
<b>R M Mouhith</b>	<b>1KG15EC064</b>

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belagavi, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Shilpa A.P (E.P)*  
Internal Guide

*[Signature]*  
Head of the Department

*[Signature]*  
Principal/ Director

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K. S. School of Engineering & Management  
Bangalore-560 109

Principal/ Director  
K. S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

*[Signature]*  
Name and Signature of Examiner-1

*P.B. Manoj* / 13.6.19  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**

No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560062



Department of Electronics and Communication Engineering

*Certificate*

*This is to certify that the project work entitled "Design and Implementation of LFM for Radar Timing Generation by DDS Technique on an FPGA" is a bonafide work carried out by*

Pooja M R	1KG15EC058
Sanjana M	1KG15EC073
Sudhanva Anand	1KG15EC083
Vibha N	1KG15EC095

*in partial fulfilment of the requirements for VIII Semester of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.*

Dinesh  
10/6/19  
Name and Signature of  
Internal Guide

[Signature]  
10/6/19  
Head of the  
Department

[Signature]  
Principal/  
Director

University Examiners:

Dept. of Electronics & Communication Engineering  
K. S. School of Engineering & Management  
Bangalore-560 109

School of Engineering & Management  
Bangalore-560 062

[Signature]  
12/6  
Name and signature of examiner 1

P. B. Manoj  
12/6-19  
Name and signature of examiner 2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Electronics and Communication Engineering**

# Certificate

*This is to certify that the project work entitled Design And Implementation Of Autonomous Driverless Car is a bonafide work carried out by*

Sai Smitha Reddy P	1KG15EC071
Srikanth V M	1KG15EC082
Varsha M	1KG15EC093
Velur Geethanjali	1KG15EC094

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Internal Guide  
Mrs. Shalini Shravan  
Assistant Prof, Dept of ECE  
KSSEM, Bangalore

Head of the Department  
Professor & Head  
Dept. of Electronics & Communication Engineering  
K. S. School of Engineering & Management  
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Principal/Director  
KAMA NARASIMHA  
Principal/Director  
K. S. School of Engineering and Management  
Bangaluru - 560 109

University Examiners:

Name and Signature of Examiner-1

Name and Signature of Examiner-2



**Department of Electronics and Communication Engineering**

*Certificate*

*This is to certify that the project work entitled **Design and Implementation of Smart Energy Management System** is a bonafide work carried out by*

Sanjana R	1KG15EC074
Sireesha M	1KG15EC080
Suhas G R	1KG15EC084

*in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Renuka V. J*  
8/6/19

Name and Signature of  
Internal Guide

*[Signature]*  
10/6/19

Head of the  
Department  
Dept. of Electronics & Communication Engineering  
K. S. School of Engineering & Management  
Bangalore-560 109

*[Signature]*

Principal/  
Direct  
Principal / Director  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

*[Signature]*  
12/6/19

Name and Signature of Examiner-1

*[Signature]*  
12.6.19

Name and Signature of Examiner-2

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560062.



**KSSEM**  
K.S. School of Engineering and Management

Department of Electronics and Communication Engineering

## Certificate

*This is to certify that the project work entitled Smart Traffic Awareness System is a bonified work carried out by*

**Aniruddha M Vajpeyam**

**1KG14EC005**

**Yeshwanth Kumar M R**

**1KG13EC118**

**Umesh N**

**1KG14EC056**

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of technical seminar prescribed for the degree.*

*Vijayalaxmi C. Kalal*  
*V. Kalal*

Name and Signature of the  
Internal Guide

*[Signature]*

Head of the Department  
Professor & Head  
Dept. of Electronics & Communication Engineering  
K. S. School of Engineering & Management  
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**Dr. K. RAMANARAJAN**  
Principal & Director  
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Bengaluru - 560 109

University Examiners  
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*17/6/19*  
**Dr. P. Karthik**

Name and Signature of Examiner-1

*[Signature]*  
**G. K. VENKATESH**

Name and Signature of Examiner-2



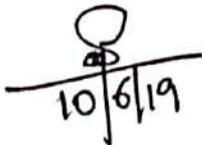
**Department of Electronics and Communication Engineering**

*Certificate*

*This is to certify that the project work entitled "Design and Implementation of Agricultural Robot for Sowing Seeds and Irrigation in Real Time using IoT" is a bonafide work carried out by*

Divya Prathibha	1KG15EC017
Harshitha T H	1KG15EC025
K Vineeth	1KG15EC030
KavyaShree P	1KG15EC036

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
10/6/19

Internal Guide

  
10/6/19

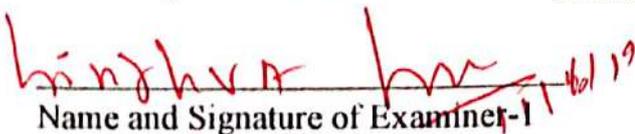
Head of the Department  
Professor & Head

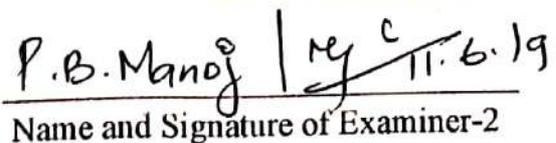


Principal/Director  
Principal/Director

Dept. of Electronics & Communication Engineering School of Engineering & Management  
K. S. School of Engineering & Management Bangalore-560 062  
Bangalore-560 109

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



## Department of Electronics and Communication Engineering

### Certificate

This is to certify that the project work entitled "Development of IoT based Remote Monitoring System for Air and Water Pollutants in Industrial Environment" is a bonafide work carried out by

Anupamashree S	1KG15EC006
Gowri Priya A C	1KG15EC021
Harshitha P	1KG15EC024
Keerthishree K V	1KG15EC037

in partial fulfilment for the award of **Bachelor of Engineering in Electronics and communication Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

PUNGETH S 20/5/19  
Name and Signature of  
Guide

[Signature]  
Head of the  
Department

[Signature]  
Principal/  
Director  
Dr. K. RAMA NARASIMHA  
Principal/Director  
K.S. School of Engineering and Management  
Bengaluru - 560-109

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Dept. of Electronics & Communication Engineering  
K. S. School of Engineering & Management  
Bangalore-560 109

[Signature]  
Name and Signature of Examiner-1

[Signature]  
Name and Signature of Examiner-2



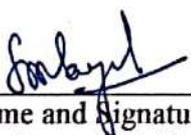
**Department of Electronics and Communication Engineering**

*Certificate*

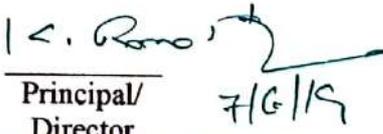
*This is to certify that the project work entitled **Age Estimation Using Deep Learning** is a bonafide work carried out by*

Divya O	1KG14EC021
Nikhath Ameena	1KG15EC047
Nischitha B	1KG15EC048
Priyadarshini N D	1KG15EC062

*in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

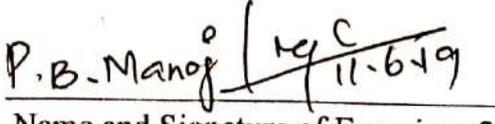
  
Name and Signature of  
Internal Guide

  
Head of the  
Department  
Professor & Head  
Dept. of Electronics & Communication Engineering  
K. S. School of Engineering & Management  
Bengaluru-560 109

  
Principal/  
Director  
**Dr. K. RAMA NARASIMHA**  
Principal/Director  
K.S. School of Engineering and Management  
Bengaluru - 560 109

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bengaluru-5600109



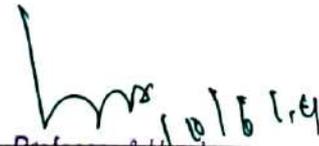
Department of Electronics and Communication Engineering

## Certificate

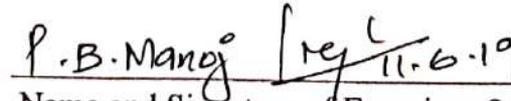
*This is to certify that the project work entitled **Development and Implementation of Highway Electric Power Generation Using Wind Turbine for Smart Traffic and Light Control System** is a bonafide work carried out by*

Apeksha M	1KG15EC009
Apoorva J Purohit	1KG15EC010
Ashalatha A	1KG15EC012
Kouser Khanum	1KG15EC038

*in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

 Name and Signature of Guide	 Professor & Head Dept. of Electronics & Communication Engineering K. S. School of Engineering & Management Bengaluru - 560 109	 Principal/Director Dr. K. RAM NARASIMHA K S School of Engineering and Management Bengaluru - 560 109
--	--	--

University Examiners:

 Name and Signature of Examiner-1	 Name and Signature of Examiner-2
---	--

# Design and Development of the Pneumatic powered wall Hang-Painting Robot using Arduino and RF Controller

*A Project Work submitted to*



*Visvesvaraya Technological University*

*in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

**Bharath H S  
Sushmitha V  
Arun H K**

**1KG14EE009  
1KG14EE047  
1KG15EE401**

*Under the Guidance of*  
**Mrs. Prathiksha**  
Asst. Professor, Department of EEE  
KSSEM, Bangalore



Department of Electrical and Electronics Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109  
**2018-19**

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Electrical and Electronics Engineering**

## Certificate

*This is to certify that the project work entitled "DESIGN AND DEVELOPMENT OF THE PNEUMATIC POWERED WALL HANG-PAINTING ROBOT USING ARDUINO AND RF CONTROLLER" is a bonafide work carried out by*

Bharath H S	1KG14EE009
Sushmitha V	1KG14EE047
Arun H K	1KG15EE401

*in partial fulfilment for the award of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belagavi, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Prathiksha*  
**PRATHIKSHA**

Name and Signature of  
Internal Guide

*Dr. Pranjula B S*

Head of the Department  
Dept. of Electrical & Electronics Engineering  
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*U. Kelle*

Principal/  
Director

K.S. School of Engineering & Management,  
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University Examiners:

*Lamya K.R* 15/6/19  
Name and Signature of Examiner-1

*H. S. Srinivas* 15/6/19 (H. Srinivas)  
Name and Signature of Examiner-2

# Design and Development of Induction Motor Fault Detection System using IoT

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

Amruthavarshini B V	1KG15EE003
Niharika K	1KG15EE015
Vamsi Krishna Ramineni	1KG14EE042

*Under the Guidance of*

**Mr. Anil Kumar T.R.B**

Assistant Professor

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**Department of Electrical and Electronics Engineering**

## Certificate

*This is to certify that the project work entitled **Design and Development of Induction Motor Fault Detection System using IoT** is a bonafide work carried out by*

Amruthavarshini B V      1KG15EE003  
Niharika K                      1KG15EE015  
Vamsi Krishna Ramineni    1KG14EE042

*in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

**ANIL KUMAR T.R.B**

Name and Signature of  
Internal Guide

Head of the Department

Professor & Head

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Bangalore-560 092.

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**DR. K. RAMA NARASIMHA**

Principal/Director  
**K.S. School of Engineering and Management**  
Bangaluru - 560 109

University Examiners:

**Gousia Sultana**

Name and Signature of Examiner-1

Name and Signature of Examiner-2

# Design and Development of Transmission Line Protection Unit using PLC

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

**Submitted by**

<b>Bharath R</b>	<b>1KG15EE005</b>
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<b>Lokeshwari H B</b>	<b>1KG16EE406</b>
<b>Shivaswamy M S</b>	<b>1KG16EE407</b>

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**Department of Electrical and Electronics Engineering**

## *Certificate*

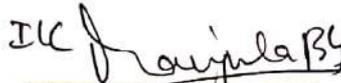
This is to certify that the project work entitled “**Design and development of transmission line protection unit using PLC**” is a bonafide work carried out by

<b>Bharath R</b>	<b>1KG15EE005</b>
<b>Sushma R</b>	<b>1KG15EE024</b>
<b>Lokeshwari H B</b>	<b>1KG16EE406</b>
<b>Shivaswamy M S</b>	<b>1KG16EE407</b>

*in partial fulfilment for the award of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

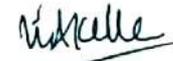
  
**MANJULA B G**

Name and Signature of  
Internal Guide



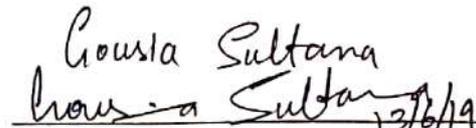
Head of the Department  
Professor & Head

Dept. of Electrical & Electronics Engineering  
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Principal/ Director  
**Principal / Director**  
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University Examiners:

  
**Gousia Sultana**  
12/6/19  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

# Design and Development of Electromagnetic Robot with Four Wheels Drive Applied PID System

*A Project Work submitted to*



*Visvesvaraya Technological University*  
*in partial fulfilment of the requirements*  
*for the award of degree of*  
**Bachelor of Engineering**  
**in**  
**Electrical and Electronics Engineering**

**Submitted by**

<b>Sandhya B.S.</b>	<b>1KG15EE020</b>
<b>Varshitha S.C.</b>	<b>1KG16EE403</b>
<b>Karthik M.</b>	<b>1KG16EE404</b>
<b>Jeevan Kishore J.</b>	<b>1KG16EE405</b>

Under the Guidance of

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**Mrs. Tejaswini G.V.**  
Assistant Professor  
Dept. of Electrical and Electronics Engg  
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*This is to certify that the project work entitled "Design and Development of Electromagnetic Robot with Four Wheel Drive using PID System" is a bonafide work carried out by*

<b>Sandhya B.S.</b>	<b>1KG15EE020</b>
<b>Varshitha S.C.</b>	<b>1KG16EE403</b>
<b>Karthik M.</b>	<b>1KG16EE404</b>
<b>Jeevan Kishore J.</b>	<b>1KG16EE405</b>

*in partial fulfilment for the award of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belagavi, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Tejaswini*  
*Ramya K.R*  
Name and Signature of  
Internal Guide

*ILC*  
*Ranjana B.S.*  
Head of the  
Department  
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*K. S. Ramo*  
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**Dr. KRAMA NARASIMHA**  
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University Examiners:

*Cousia Sultana*  
*Cousia Sultana*  
Name and Signature of Examiner-1

*Rueel*  
Name and Signature of Examiner-2

# Magnetic Levitation Model Using PID Controller

*A Project Work submitted to*



*Visvesvaraya Technological University*

*In partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

Manmohan Raj K.N	1KG14EE018
Lekhana R.	1KG15EE012
Paresh Hirani Lakhman	1KG15EE016
Ranjitha S.	1KG15EE018

Under the Guidance of

**Mr. Akshay Kumar.D**

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**Department of Electrical and Electronics Engineering**

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*This is to certify that the project work entitled "Magnetic Levitation Model Using PID Controller" is a bonafide work carried out by*

Manmohan Raj K.N	1KG14EE018
Lekhana R.	1KG15EE012
Paresh Hirani Lakhman	1KG15EE016
Ranjitha S.	1KG15EE018

*in partial fulfilment for the award of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belagavi, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

AKSHAY KUMAR.D  
Akshay Kumar D

Name and Signature of  
Internal Guide

Ille

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Professor & Head  
Head of the  
Dept. of Electrical & Electronics Engineering  
Department of K.S. School of Engineering & Management  
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W. K. Kelle

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Gousia Sultana  
13/6/19  
Name and Signature of Examiner-1

H. Suresh  
13/6/19  
Name and Signature of Examiner-2  
(H. Suresh)

# Design and Development of Andriod Based Cooking Robot in Open-Environment

*A Project Work submitted to*



*Visvesvaraya Technological University*

*in partial fulfilment of the requirements*

*for the award of degree of*

**Bachelor of Engineering**

**in**

**Electrical and Electronics Engineering**

*Submitted by*

Agnes Priya D'Souza	1KG15EE002
Bharath Kumar Goyal	1KG15EE004
Shloka T. R	1KG15EE022

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Department of Electrical and Electronics Engineering

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This is to certify that the project work entitled **Design and development of Android Based Cooking Robot in Open Environment** is a bonafide work carried out by

Agnes Priya D'Souza

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Bharath Kumar Goyal

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Shloka T. R

IKG15EE022

in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

Srinivas Kalyan K  
12/06/2019

Mr. Srinivas Kalyan,

Assistant Professor,

Internal Guide

Mahjula B.G

Mrs. Mahjula B.G

Professor & Head

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Principal/Director

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Gousia Sultana  
13/6/19

Name and Signature of Examiner-1

H. Suresh  
13/6/19 (H. Suresh)

Name and Signature of Examiner-2

# Study of Bangalore City Transmission Network with Respect of Under Voltage - Remedial Measures

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical & Electronics Engineering**

*Submitted by*

<b>Jai Krishna R</b>	<b>1KG14EE015</b>
<b>Shashank B Patil</b>	<b>1KG14EE032</b>
<b>Spoorthi L.K</b>	<b>1KG15EE408</b>

*Under the Guidance of*

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Assistant Professor  
Department of E&E Engineering  
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**Mr. Chethan D**  
Executive Engineer (Elect)  
Power System Study Cell  
KPTCL, Bangalore



**KSSEM**  
K.S. SCHOOL OF ENGINEERING AND MANAGEMENT

Department of Electrical & Electronics Engineering  
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2018-19



Department of Electrical & Electronics Engineering

Certificate

This is to certify that the project work entitled *Study of Bangalore City Transmission Network with Respect of Under Voltage - Remedial Measures* is a bonafide work carried out by

Jai Krishna R	IKG14EE015
Shashank B Patil	IKG14EE032
Spoothi L.K	IKG15EE408

in partial fulfilment for the award of *Bachelor of Engineering in Electrical & Electronics Engineering* of *Visvesvaraya Technological University, Belgaum*, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

<u>Gousia Sultana</u> Name and Signature of Internal Guide	<u>D. CHETHAN</u> Executive Engineer (Elec) Industrial Guide KPTCL, Kaveri Bhavan Bangalore.	<u>Kanjulab</u> Head of the Department	<u>K. Rama Narasimha</u> Principal/Director K S School of Engineering and Manag Bangaluru - 560 109
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University Examiners:

Vinusha Srikanth  
12.12.2019

VINUSHA SRIKANTH  
Name and Signature of Examiner-1

KIRAN.P  
12/12/19  
Name and Signature of Examiner-2

# K.S.SCHOOL OF ENGINEERING AND MANAGEMENT



**KSSEM**

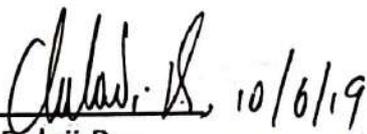
## Department of Mechanical Engineering

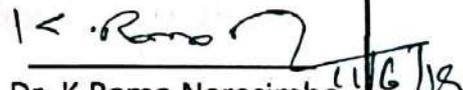
### Certificate

*This is to certify that the Project Work entitled "Design and fabrication of Segway for Industrial purpose" is a bonafide work carried out by*

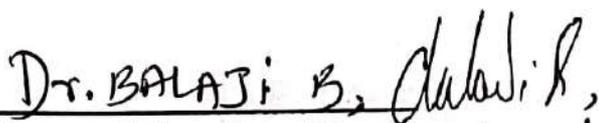
<b>RAKESH SIMHA</b>	<b>1KG13ME035</b>
<b>SANJEEV.V.JADAV</b>	<b>1KG13ME047</b>
<b>KARTHIK.R</b>	<b>1KG14ME403</b>
<b>LIKHITH KUMAR.K.S</b>	<b>1KG14ME404</b>

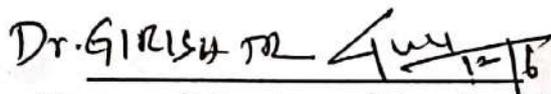
*In partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belagavi, during the year 2018-2019, it is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Mr. Balaji B.  
**Professor & Head**  
Associate Professor & HOD,  
Department of Mechanical Engineering,  
Department of Mechanical Engineering,  
K.S. Group of Institutions  
School Of Engineering & Management  
Bangalore-560 109

  
Dr. K. Rama Narasimha,  
**Dr. K. RAMANARASIMHA**,  
Principal/Director,  
KSSEM  
K S School of Engineering and Management  
Bengaluru - 560 109

University Examiners:

  
Name and Signature of Examiner-1 12/6/19

  
Name and Signature of Examiner-2

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**Department of Mechanical Engineering**

## Certificate

This is to certify that the project work entitled **Effect of Process Parameters on the Mechanical Properties of a 3D Printed Standard Tensile Test Specimen** is a bonafide work carried out by

PAVAN.H	1KG15ME029
RAHUL.J	1KG15ME033
RAJESH.B	1KG15ME036
SHREYAS.S	1KG15ME048

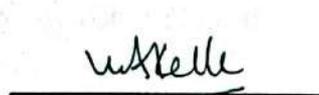
in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of **Visvesvaraya Technological University, Belgaum**, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.



**Mr. NAGARAJ.M.S**  
Assistant Professor  
Dept. of Mechanical Engg.  
K.S.S.E.M.



**Mr. Balaji B**  
Head of Department  
Dept. of Mechanical Engg  
K.S.S.E.M.  
**Professor & Head**  
Department Of Mechanical Engineering  
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K.S. School Of Engineering & Management  
Bangalore-560 109



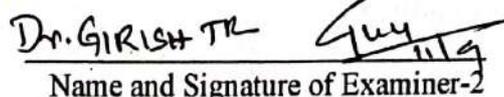
**Dr. K Ramanarasimha**  
Principal / Director  
K.S.S.E.M.  
**Principal / Director**  
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University Examiners:



Name and Signature of Examiner-1

11/6/19



Name and Signature of Examiner-2



K.S. School of Engineering and Management  
No.15, Mallasandra, Off Kanakapura Road, Bangalore-560109  
2018 - 19



**KSSEM**

Department of Mechanical Engineering

## Certificate

This is to certify that the Project Work entitled "Experimental Investigation on the Mechanical Properties of Friction Stir Welded Joints of Aluminium 5052 & Aluminium 7075 Alloys" is a bonafide work carried out by

AKASH G S	1KG14ME003
DARSHAN J	1KG14ME011
VIVEK N G	1KG14ME061
MOHAMMED BILAL	1KG16ME407

In partial fulfillment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2018-19, it is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

*Harsha J*  
10/6/19

Mr. Harsha J  
Assistant Professor  
Dept. of Mechanical Engg.

*Balaji B*  
10/6/19

Mr. Balaji B  
Associate Professor & Head  
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*K. Ramanarasimha*

Dr. K Ramanarasimha  
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11/6/19

*Dr. GIRISH TR*  
Name and Signature of Examiner-2  
11/6/19

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**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled "Design and Fabrication of Drainage Metal Waste Collecting and Segregating System" is a bonafide work carried out by*

Binod Mahato	1KG15ME012
Jai Chand	1KG15ME018
Amogha K	1KG15ME019
Rahul Ramanathan	1KG15ME035

*in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Praveen Kumar PHM*  
10/06/19  
**Mr. Praveen Kumar PHM**  
Assistant Professor  
Dept. of Mechanical Engg.

*Dr. Balaji B*  
10/6/19  
**Prof. Balaji B**  
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*Dr. K. Ramanarasimha*  
**Dr. K. Ramanarasimha**  
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*Dr. GIRISHAN*  
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2018 - 19



KSSEM

Department of Mechanical Engineering

## Certificate

*This is to certify that the Project Work entitled "Experimental Analysis of a Double Pipe Heat Exchanger with Perforated Disc Inserts" is a bonafide work carried out by*

AKSHARA V GOWDA  
ARFA NIHAL DELVI  
SHREYAS B S  
SREE PRAVEEN N

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1KG15ME047  
1KG15ME049

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Nishanth Nag HD 10/6/19

Mr. Nishanth Nag HD  
Assistant Professor  
Dept. of Mechanical Engg.  
KSSEM

Balaji B. 10/6/19

Mr. Balaji B  
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Dr. GIRISHA 10/6/19  
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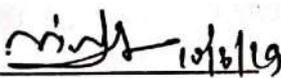
**Department of Mechanical Engineering**

## Certificate

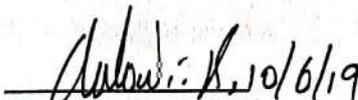
This is to certify that the project work entitled “**Computational Analysis on Array of Perforated fins**” is a bonafide work carried out by

CHETHAN KUMAR A	(1KG15ME013)
NEERAJ S G	(1KG15ME027)
RAHUL J	(1KG15ME034)
RAKSHITH P	(1KG15ME037)

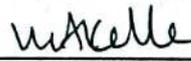
in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of **Visvesvaraya Technological University, Belgaum**, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.



**Signature of Guide**  
Mr. Vinod A  
Assistant Professor  
KSSEM



**Signature of HOD**  
Mr. Balaji B  
Associate Professor & HOD  
KSSEM  
**Professor & Head**

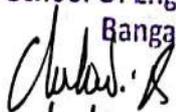


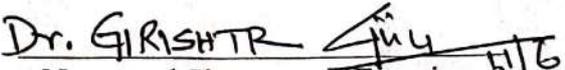
**Signature of Principal/Director**  
Dr. K Rama Narasimha  
Principal/Director  
KSSEM  
**Principal / Director**

Department Of Mechanical Engineering  
K.S. Group Of Institutions

K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners: K.S. School Of Engineering & Management  
Bangalore-560 109

  
**Dr. BALAJI B**, 11/6/19  
Name and Signature of Examiner-1

  
**Dr. GIRISH R**, 11/6/19  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled "Experimental Investigation on Performance of Double Pipe Heat Exchanger with Perforated Discs Insert using MWCNT and Al<sub>2</sub>O<sub>3</sub> Nano Fluid" is a bonafide work carried out by*

Prajwal N	1KG15ME032
Sathwik S Nayak	1KG15ME044
Sumanth Bharadwaj K R	1KG15ME050
Varun V	1KG16ME413

*in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belagavi, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

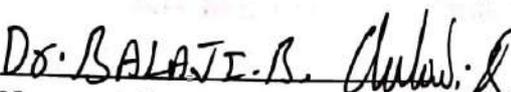
  
Sumanth Kumar K R  
Name and Signature of  
Internal Guide

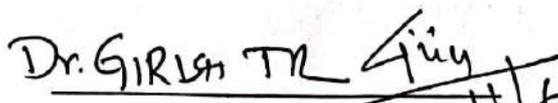
  
Name and Signature of  
Head of the Department  
**Professor & Head**

  
Name and signature of  
Principal/Director  
**Principal/Director**  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

Department Of Mechanical Engineering  
K.S. Group Of Institutions  
K.S. School Of Engineering & Management  
Bangalore-560 109

  
Name and Signature of Examiner-1  
11/6/19

  
Name and Signature of Examiner-2  
11/6

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, Off Kanakapura Road, Bengaluru-560109



**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled "Design of HVAC System for Mechanical Block-KSSEM" is a bonafide work carried out by*

Ravi Teja M	1KG14ME024
Lokesh T	1KG15ME020
Madhusudhan A	1KG15ME022
Ayyappa B	1KG16ME401

*In partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*M. K. Ramesh*  
10.6.19

Name and Signature of Internal Guide

*Chandrasekhar R* 10/6/19  
Head of the Department  
**Professor & Head**  
Department Of Mechanical Engineering  
K.S. Group Of Institutions  
K.S. School of Engineering and Management  
Bengaluru - 560 109

*K. Rama Narasimha*  
Principal/Director  
**Dr. K. RAMA NARASIMHA** 11/6/19  
Principal/Director

University Examiners:

**K.S. School Of Engineering & Management**  
Bangalore-560 109

*Dr. BALAJI. B.*  
Name and Signature of Examiner-1  
11/6/19

*Dr. HIRISH. T. R.*  
Name and Signature of Examiner-2  
11/6/19

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled "Design and Fabrication of Rocker Bogie Mechanism" is a bonafide work carried out by*

MANISH H	1KG15ME024
MUTTURAJ WALI	1KG15ME026
SANATH S	1KG15ME041
SANTHOSH KUMAR S	1KG15ME043

*In partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Avilasha B.G.*  
Name and Signature of Internal Guide

*Chakraborty, B.* 10/6/19  
Head of the Department  
**Professor & Head**  
Department Of Mechanical Engineering  
K.S. Group Of Institutions  
K.S. School Of Engineering & Management  
Bangalore-560 109

*W. Kelle*  
Principal/ Director  
**Principal/ Director**  
K.S. School of Engineering & Management  
Bangalore-560 082

University Examiners:

*Dr. BALAJI B.*  
Name and Signature of Examiner-1  
11/6/19

*Dr. HIRISH T.R.*  
Name and Signature of Examiner-2  
21/6



**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



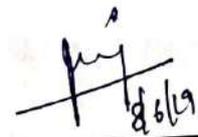
**Department of Mechanical Engineering**

## Certificate

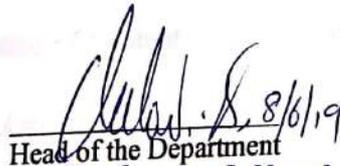
*This is to certify that the project work entitled "Experimental investigation of Nano based bio-oils as cutting fluids during turning operation of Aluminium 6061-T6 Alloy" is a bonafide work carried out by*

Abishek S	1KG15ME003
Akash S N	1KG15ME004
Prajwal N	1KG15ME031
Uday Kumar K B	1KG15ME053

*In partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
8/6/19

Name and Signature of Internal Guide

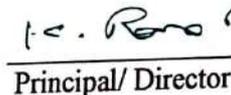
  
8/6/19

Head of the Department  
**Professor & Head**

Department Of Mechanical Engineering

K.S. Group Of Institutions K S School of Engineering and Management

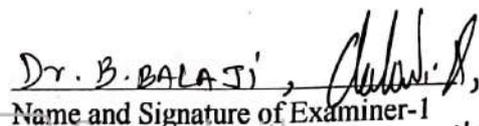
K.S. School Of Engineering & Management Bangalore-560 109

  
8/6/19

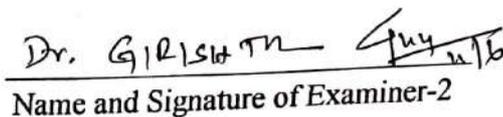
Principal/ Director

Dr. K. RAMA NARASIMHA  
Principal/Director

University Examiners:

  
11/6/19

Name and Signature of Examiner-1

  
11/6/19

Name and Signature of Examiner-2

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



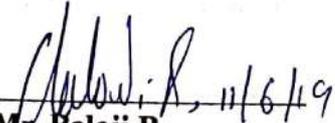
Department of Mechanical Engineering

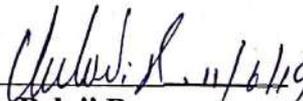
## Certificate

This is to certify that the project work entitled *Structural Safety Analysis of Power Axle and Wheel Assembly of Train Using Finite Element Analysis* is a bonafide work carried out by

ANIL KUMAR K	IKG15ME008
ARUN KUMAR P S	IKG15ME010
DEEPAK A	IKG16ME403
VENKATESH NAIK M	IKG16ME414

in partial fulfilment for the award of *Bachelor of Engineering in Mechanical Engineering* of *Visvesvaraya Technological University, Belgaum*, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

  
Mr. Balaji B  
Associate Professor & HOD  
Dept. of Mechanical Engg.  
K.S.S.E.M.

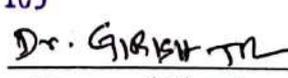
  
Mr. Balaji B  
Head of Department  
Dept. of Mechanical Engg.  
K.S.S.E.M.

  
Dr. K. Ramanarasimha  
Principal/Director  
K.S.S.E.M.  
K.S. School of Engineering and Management  
Bangalore - 560 109

University Examiners:

Professor & Head  
Department Of Mechanical Engineering  
K.S. Group Of Institutions  
K.S. School Of Engineering & Management  
Bangalore-560 109

Dr. BALAJI B.  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Mechanical Engineering**

## Certificate

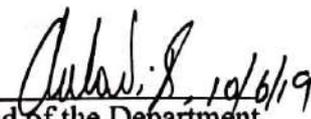
*This is to certify that the project work entitled "Modelling and Analysis of Seat Belt Bracket Using Composite Materials" is a bonafide work carried out by*

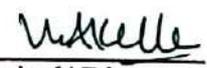
MANOJ S  
VAMSHI KRISHNA S  
RAKESH R

1KG15ME025  
1KG15ME056  
1KG16ME410

*In partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

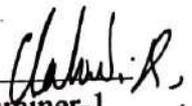
SHIVANAND  
  
Name and Signature of Internal Guide

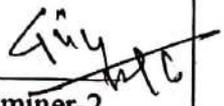
  
Head of the Department

  
Principal/ Director

**Professor & Head**  
Department Of Mechanical Engineering  
K.S. Group Of Institutions  
**Principal/ Director**  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners: K.S. School Of Engineering & Management  
Bangalore-560 109

Dr. BALAJI. B.   
Name and Signature of Examiner-1  
12/6/19

Dr. GIRISH. T. R.   
Name and Signature of Examiner-2

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



## Department of Mechanical Engineering

### Certificate

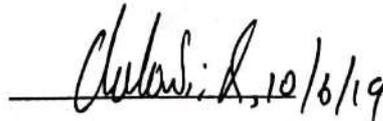
*This is to certify that the project work entitled "Design and fabrication of coconut de-husking and chopping machine" is a bonafide work carried out by*

<b>HariPrasad S</b>	<b>1KG16ME404</b>
<b>Pramod M B</b>	<b>1KG16ME408</b>
<b>Sharath Nayak V</b>	<b>1KG16ME411</b>
<b>Vijay Kumar D</b>	<b>1KG16ME415</b>

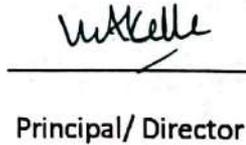
*In partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
p/10/06/19

Name and Signature of Internal Guide

  
10/6/19

Head of the Department  
**Professor & Head**

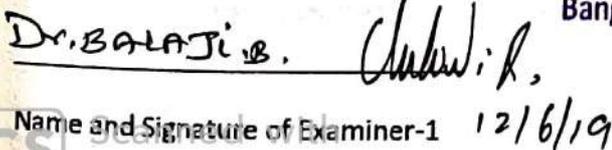
  
w.kelle

Principal/ Director

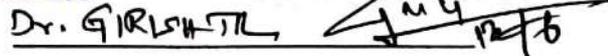
University Examiners:

Department Of Mechanical Engineering  
K.S. Group Of Institutions  
K.S. School Of Engineering & Management  
Bangalore-560 109

**Principal/ Director**  
K.S. School of Engineering & Management  
Bangalore-560 062

  
Dr. BALAJI B. 12/6/19

Name and Signature of Examiner-1

  
Dr. GIRISH T. 12/6

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Mechanical Engineering**

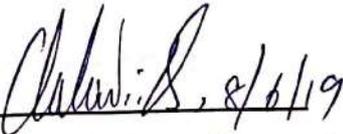
## Certificate

This is to certify that the project work entitled "Experimental Investigation on Performance Analysis of a VCR with Nano-Refrigerant" is a bonafide work carried out by

NIKHILESH R P	1KG15ME028
PRAJWAL K	1KG15ME030
SENTHIL KUMAR A B	1KG15ME045
TAMIL SELVANA	1KG15ME051

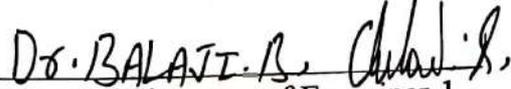
are the bonafide students of Department of Mechanical Engineering in partial fulfilment for the award of Bachelor of Engineering in Visvesvaraya Technological University, Belagavi, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.

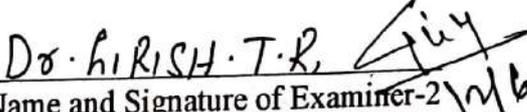
  
Mr. Prabhu K S  
Assistant Professor  
Dept. of Mechanical Engg.  
K.S.S.E.M.

  
Mr. Balaji B  
Head of Department  
Professor & Head  
Dept. of Mechanical Engineering  
K.S. School of Engineering & Management  
K.S. Group of Institutions  
Bangalore-560 109

  
Dr. K Ramanarasimha  
Principal / Director  
K.S.S.E.M.  
Dr. K. RAMA NARASIMHA  
Principal/Director  
K S School of Engineering and Management  
Bengaluru - 560 109

University Examiners:

  
Name and Signature of Examiner-1  
12/6/19

  
Name and Signature of Examiner-2  
12/6



**K.S. School of Engineering and Management**  
No.15, Mallasandra, Off Kanakapura Road, Bangalore-560109  
2018 - 19



**KSSEM**

**Department of Mechanical Engineering**

## *Certificate*

*This is to certify that the Project Work entitled "Experimental Investigation on the Mechanical Properties of Friction Stir Welded Joints of Aluminium 6061 & Aluminium 7075 Alloys" is a bonafide work carried out by*

**PUNITH M  
SUDHEER P**

**1KG14ME043  
1KG14ME054**

*In partial fulfillment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018-19, it is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Mr. Ganesh Arjun Bhargav  
Assistant Professor  
Dept. of Mechanical Engg.

Dr. Balaji B  
Professor & Head  
Dept. of Mechanical Engg.

**Professor & Head**

Department Of Mechanical Engineering  
K.S. Group Of Institutions

University Examiners: K.S. School Of Engineering & Management  
Bangalore-560 109

Dr. K Ramanarasimha  
Principal/Director  
K.S. School of Engineering & Management  
Bangalore-560 062

Name and Signature of Examiner-1 12/6/19

Name and Signature of Examiner-2 12/6





# NEO LABELS INC.

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All types of Manufacturing Electronic Labels, Dome Labels, Barcode Labels, ESD Labels, Caution Labels & Aluminium Name Plates

21 Feb 2019

## CERTIFICATE

This is to certify that **Mr. ANIL H S (USN-1KG17MBA02)** Student of **K.S. School of Engineering and Management** Bangalore, has successfully completed his "Project Work" in our organization,

**NEO LABELS INC** located at # 57, 8th Main, Yelachenahalli, Bangalore. From 26<sup>th</sup> Dec 2018 to 16th Feb 2019

he took keen interest in the work assigned to his. his conduct and behavior was found good.

we wish his the very best in all his future endeavors.

Neo Labels Inc

Bangalore



# 57, 8th Main, Nanjappa Layout, Kanakapura Main Road, Yelachenahalli, Bangalore- 560 062.  
Ph: 080-2686 0616 Mob : 99007 49879 E-mail : gneolabelsinc@gmail.com website: www.neolabelsinc.com

**promac** Engineering Industries Ltd.



Registered Office & Factory : Off Kanakapura Road  
Alahalli, Anjanapura Post, Bangalore - 560 108 India.

Phone : + 91 - 80 - 26320372  
26320373, 26320432  
28436229, 28436230  
Fax : + 91 - 80 - 26321204  
E-mail : mail@promacindia.com  
Visit us at : www.promacindia.com  
CIN No : U24210KA1972PLC002255

Ref.: HR/Internship/238 /2018-19

February 08, 2019

**TO WHOMSOEVER IT MAY CONCERN**

This to certify that Ms.Anusha L (USN No.1KG17MBA03) from K.S.School of Engineering and Management, Bengaluru, who is pursuing her IV Semester MBA, had undergone Internship between 31<sup>st</sup> December, 2018 and 8<sup>th</sup> February, 2019 in our HRD Department and completed the same.

During her internship, she studied the whole concept of HR under the guidance of the H.O.D.

During her stay with us, we found her a very good and fast learner and enthusiastic in knowing more about the practicality concerning her subjects.

We wish her Good Luck,

FOR PROMAC ENGINEERING INDUSTRIES LTD.

*K.M.S. Shrinika Kumar*

Sr. Manager - HRD



# ಬೆಂಗಳೂರು ಮಹಾನಗರ ಸಾರಿಗೆ ಸಂಸ್ಥೆ

ಕೇಂದ್ರ ಕಛೇರಿ : ಬೆಂಗಳೂರು

BENGALURU METROPOLITAN TRANSPORT CORPORATION  
HUMAN RESOURCE DEVELOPMENT DEPARTMENT

No: BMTC: CO: HRD: 014 / 2018-19

Date: 02/04/2019



## CERTIFICATE

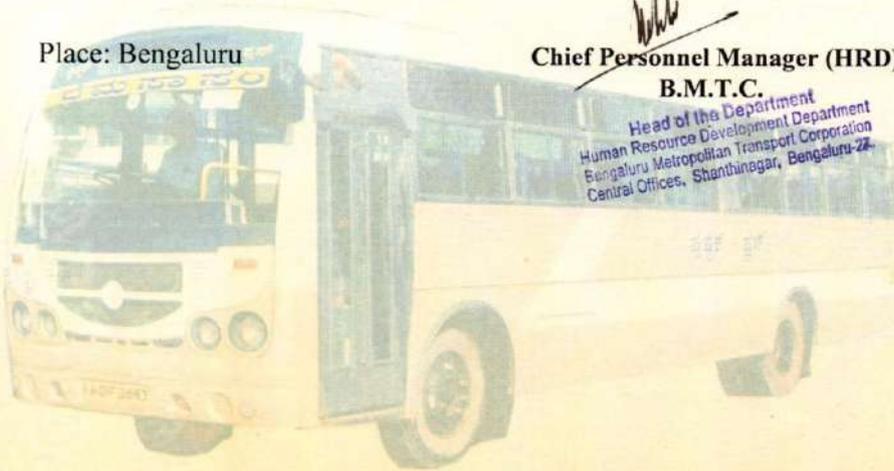
This is to certify that Mr. Basavesha D (Reg. No. 1KG17MBA04) student of MBA, K. S. School of Engineering & Management, Bengaluru has successfully completed the project work on the title "A study on Financial Statement Analysis at BMTC" from 14/01/2019 to 25/02/2019, at Bengaluru Metropolitan Transport Corporation.

The Corporation wishes him a bright future.

Place: Bengaluru

Chief Personnel Manager (HRD)  
B.M.T.C.

Head of the Department  
Human Resource Development Department  
Bengaluru Metropolitan Transport Corporation  
Central Offices, Shanthinagar, Bengaluru-22.



# Propack Shreiner Pvt. Ltd.



Date:16-2-2019

## TO WHOM SO EVER IT MAY CONCERN

Here by certifying Miss.CHANDRIKA .S bearing USN No 1KG17MBA05 has been completed project study “A study on assets and liabilities management at PROPACK SHREINER PVT. LTD.” In our organization from 26-12-2018 to 16 -2 - 2019 .During the above period her performance and conduct were good.

For PROPACK SHREINER PVT.LTD.

  
Navarathna Raju  
(Manager)





# ಬೆಂಗಳೂರು ಮಹಾನಗರ ಸಾರಿಗೆ ಸಂಸ್ಥೆ

ಕೇಂದ್ರ ಕಛೇರಿ : ಬೆಂಗಳೂರು

BENGALURU METROPOLITAN TRANSPORT CORPORATION

HUMAN RESOURCE DEVELOPMENT DEPARTMENT

No: BMTC: CO: HRD: 06 / 2018-19

Date: 01 / 04 / 2019

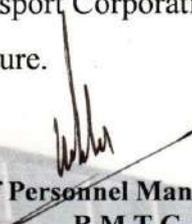


## CERTIFICATE

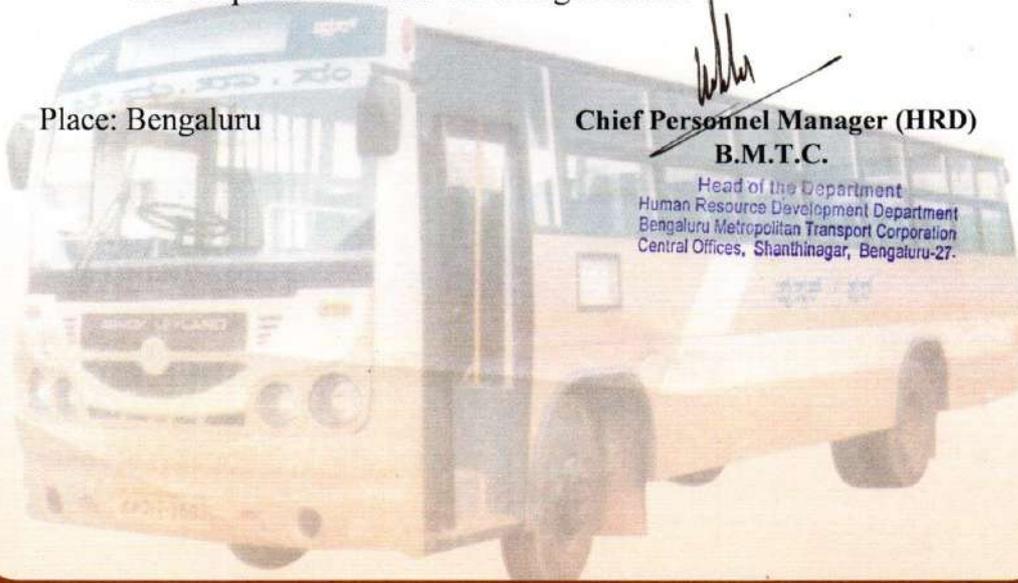
This is to certify that Ms. Dharini Y (Reg. No. 1KG17MBA08) student of MBA, K. S. School of Engineering & Management, Bengaluru has successfully completed the project work on the title "A study on Assets and Liabilities Management at BMTC" from 07/01/2019 to 16/02/2019, at Bengaluru Metropolitan Transport Corporation.

The Corporation wishes her a bright future.

Place: Bengaluru

  
**Chief Personnel Manager (HRD)**  
**B.M.T.C.**

Head of the Department  
Human Resource Development Department  
Bengaluru Metropolitan Transport Corporation  
Central Offices, Shanthinagar, Bengaluru-27.



# FUTURE RETAIL

## CERTIFICATE

Date: 06.04.2019

This is to certify that Ms Greeshma T K student of K.S. School of Engineering and Management, Bangalore. Bearing USN **1KG17MBA09** has completed the project in HR Department at BIG BAZAAR, Bengaluru under the project title "EMPLOYEE ABSENTEEISM". During the period 26<sup>th</sup> Dec 2018 to 16<sup>th</sup> Feb 2019.

This certificate is issued to produce before "K.S. School of Engineering and management, Bangalore" for the completion of internship of project at BIG BAZZAR, Bengaluru. She has successfully completed her project in our organization.

During this period, we found her to be sincere and hard working. We wish her all the best in future endeavors.

For BIG BAZZAR.

Naveen

HR Manager.

# PARSONS NUTRITIONALS PVT LTD

Plot No.319C, 320 A & B 321, 2nd Phase, Harohalli Indl Area,  
Kanakapura Tq., Ramanagar Dist.- 562112, Karnataka,  
e-mail : hrm@parsonsnutritionals.in web : www.mannventures.com  
CIN : U65311DL2002PTC115025



Date: 02-04-2019

## **CERTIFICATE**

This is to certify that **Ms. Harshitha D**, student of K.S. School and Management bearing USN: 1KG17MBA10 in MBA in the branch of Human Resources and Finance of Visvesvaraya Technological University Belagavi, has completed her project from 26.12.2018 to 16.02.2019.

We found her extremely hard working. She was very much interested to learn the functions of our divisions and followed up the procedures correctly. Also followed our company rules and regulations in her project period.

**For Parsons Nutritionals Pvt. Ltd.,**



**Shashidhara GK**  
**Senior Manager-HR, IR and Admin**

REGD OFFICE : C-48, KAILASH APARTMENTS, KAILASH COLONY, NEW DELHI-48

REGD OFFICE : C-48, KAILASH APARTMENTS, KAILASH COLONY, NEW DELHI-48

Senior Manager-HR, IR and Admin

Shashidhara GK





CIN : U31409KA2007PTC042474

ELMEASURE INDIA PRIVATE LIMITED  
Plot no: 47-P, Hardware Park, KIADB, Huvina  
Bengaluru- 562149 Karnataka India

This is to certify that Ms.KAVYA K of 4th Semester of Master of Business Management (MBA) K S School of Engineering and Management Bangalore university bearing university registration number (URN) 1KG17MBA11 has completed the project "A STUDY ON EMPLOYEE MOTIVATION" at Elmeasure India pvt ltd on 15<sup>th</sup>February 2019 (15/02/2019)

We sincerely appreciate her effort and dedication towards the company and during the period of completion of the project, we found her conduct to be good and satisfactory.

We wish her Good Luck in all future endeavours.

For Elmeasure India Pvt Ltd.

**Srinivas Bramha**  
**Dy. General Manager**  
**Hr and Admin**



	<b>विजया बैंक</b> (भारत सरकार का उपक्रम) <b>VIJAYA BANK</b> (A Govt. of India Undertaking) <b>प्रधान कार्यालय Head Office</b> 41/2, एम जी रोड M G Road बेंगलोर Bangalore – 560 001	<b>शाखा</b> : केंगेरी <b>Branch</b> : KENGERI <b>ई-मेल</b> <b>Email</b> : ban.kengeri1443@VIJAYABANK.co.in <b>वेब Web</b> : www.vijayabank.com <b>फोन Phone</b> : 080-28486655 <b>फैक्स Fax</b> :

**TO WHOM SOEVER IT MAY CONCERN**

This is to certify that **Mr. MAHESH V (Register no: 1KG17MBA12)** student of KS School of Engineering and Management, Bangalore has completed the project report: **COMPARATIVE ANALYSIS OF VIJAYA BANK AND SBI AT VIJAYA BANK, KENGERI Branch**. During the period of **25-12-2018 to 16-02-2019**. During dissertation we have found him to be diligent and honest in the work.

Place: Bangalore

Date: 25-02-2019

कृते विजया बैंक/For VIJAYA BANK  
  
 बसिष्ठ शाखा प्रबंधक/Branch Manager  
 केंगेरी शाखा, बेंगलूर-560 050  
 KENGERI BRANCH, BANGALORE-560 050



KARNATAKA STATE FINANCIAL CORPORATION

KSFC Bhavan

No: 1/1 Thimmaiah Road

Bangalore-560051

Phone: 22263355

[www.ksfc.in](http://www.ksfc.in)

Ref: F006/PR/2049/2019

DATE: 03/04 / 2019

## CERTIFICATE

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr.Manjunath** bearing **Reg.No: 1KG17MBA13** student of **M.B.A. IV Semester**, studying at **K.S.School of Engineering and Management** has successfully completed the Project on "**A Study on Assets and Liabilities Management**" in our Organization from 26-12-2018 to 16-02-2019.

During his stay in our Organization his zeal and Enthusiasm was appreciable.

He deserves all Encouragement.

We wish him all the best for his future.

Karnataka State Financial corporation.  
General Manager

*Chaitanya*  
#1/1, Thimmaiah Road, Vasahat Nagar,  
Bangalore-560051.

Date: 3.4.2019

**CERTIFICATE**

**TO WHOMSOEVER IT MAY CONCERN**

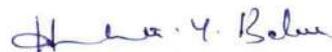
This is to certify that MS. PADMAJA NELLORE (USN NO. 1KG17MBA15) from K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BANGALORE has successfully completed her Project Training starting from 31.12.2018 to 14.2.2019 the project titled "A STUDY ON TRAINING METHODS, BANGALORE".

She has exhibited a high level of enthusiasm and commitment in her work.

On completion of the project, she has submitted a written report of the above studies.

We wish all the best for her future Endeavour's.

Regards,



Hemalatha Y Belur  
Manager - HR  
Karnataka Hybrid Micro Devices Ltd.  
Bangalore.



**AEROSPACE | DEFENCE | AUTOMOTIVE**

No.103, 4th Cross, Electronics City, Phase-I, Bengaluru -560 100, Karnataka, India.

Tel : +91 80 2852 1506 / 1507 / 1456 | Fax : +91 80 2852 0209 | E-mail : info@khmdl.com | www.khmdl.com





## Certificate

### To whomsoever it may concern

This is to certify that **Mr Ottikunta Yeswanth, Reg.No:- 1KG17MBA16**, M.B.A(Finance) student of the **K.S. School of Engineering and Management**, Bangalore was placed with us for training from **27/12/2018 to 17/02/2019**. This training has been organized as part of his study curriculum.

During the period, he had done an internship with the title of "**A Study on Ratio Analysis in Amara Raja Group of Companies**" under the guidance of Mr Chandra sekar, Asst. Manager, Department of finance at Amara Raja Group of Companies at our Head Office, Tirupati.

**Mr Ottikunta Yeswanth** has shown his keen interest while doing the internship. We found his enthusiastic, diligent and creative. We wish him a bright future.

For **Amara Raja Group of Companies**,

**K.Nalini Kumar**

**Asst General Manager – Human Resources**

**Date- 18/03/2019**

**AMARA RAJA  
Group of  
Companies**

An Amara raja Group of company  
Registered office & Works: Karakanbadi-517520 Tirupati, Andhra Pradesh, India.  
Tel o. +91 877 2264000, Fax no. +91 877 2285600.  
Corporate Operations Office:  
Terminal A  
1-18/1/AMR/NR, Nanakramguda, Gachibowli, Hyderabad-500032, India.  
Tel no. +91 40 23139000, Fax no. +91 40 23139001,  
E-mail: [mangal@amararaja.co.in](mailto:mangal@amararaja.co.in)  
Website: [www.mangalltd.com](http://www.mangalltd.com), Corporate ID no. U15122AP1990PLC011932.

Ref: GRID / INTERNSHIP/2019

18th February, 2019

**TO WHOMSOEVER IT MAY CONCERN**

CERTIFICATE

This is to certify that **Ms. Pavani .V.** Reg. No. 1KG17MBA17, M.B.A student of K S School of Engineering & Management, has done **INTERNSHIP** in " A Study on Recruitment & Selection " at "GRID R & D" BANGALORE from 26th Dec 2018 to 16<sup>th</sup> Feb 2019.

We found her punctual, agile and efficient.

We wish her prosperity in the posterity.

For **GRID R & D**



Vani S.P  
Director of Administration



Ref : SKPL: 06/2019

## CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Praveena K B** – USN NO : 1KG17MBA19, Student of MBA studying at K S School of Engineering and Management, Bangalore has undergone the project training work, has completed project title as “**A Study on Receivable Management with Special Reference to Stove Kraft Limited**” provided at STOVE KRAFT LTD with regards to job satisfaction from 26<sup>th</sup> December 2018 to 16<sup>th</sup> February 2019, In our company.

We wish to express our appreciation for his excellent work done and wish him all the success in his new endeavor. This certificate is issued purely of Academic purpose only.

For STOVE KRAFT LTD

Authorised Signatory



Place : Harohalli

Date : 01.04.2019

### Stove Kraft Limited

#81/1 Medamaranahalli Village, Harohalli Hobli, Harohalli Industrial Area,  
Kanakapura Taluk, Ramanagara District, Bengaluru, India- 562 112

☎ +91 80 28016222 | 📠 +91 80 2801 6209 | ✉ info@stovekraft.com



## DECLARATION

I, Roopa MN, hereby declare that the Project report entitled “**A Study on working capital management ” at OJUS Power and Technologies Private Ltd** prepared by me under the guidance of **Prof. Maheshwari ,Asst. Professor M.B.A. Department, K.S. School of Engineering and Management** and external assistance by **Mr. ARUN, Accounts manager, OJUS Power and Technologies Private Ltd.**

I also declare that this Project work is towards the partial fulfilment of the university regulations for the degree of Master of Business Administration by Visvesvaraya Technological University, Belgaum.

I have undergone a project for a period of Six weeks. I further declare that this project is based on the original study undertaken by me and has not been submitted for the award of any degree/ diploma from any other University/ Institution.

Place: Bangalore

**Signature of the student**

Date: Mar 27<sup>th</sup> 2019

( Roopa MN)

**PAGARIYA FOOD PRODUCTS (P). LTD.**

An ISO 22000:2005 Certified Company

Corporate office: Pragathi Arcade, No. 243, 2nd Floor, 3rd Main Road,  
Chamrajpet, Bangalore, Karnataka –560018.

P : 080-26606204/205

CIN No: U15300KA2009PTC051190



DATE : 27/02/2019

**TO WHOM SO EVER IT MAY CONCERN**

This is certify that Mr. **SRINIVAS. R (USN-1KG17MBA21)**, student of **K. S. School of Engineering & Management** Bangalore, had undertaken an project at our organization. From 26th December 2018 to 16<sup>th</sup> February 2019. He has completed the project report and organization study successfully.

During the project we found him to be diligent and hardworking

We wish him all the best in his future endeavors.

Best Regards

For PAGARIYA FOOD PRODUCTS PVT LTD



---

**Factory:** Unit Plot No # 302 A, Phase -2, KIADB Industrial Estate, Harohalli  
Taluka Kanakapura, Dist Ramanagara, Pin Code: 562 112, Karnataka State, India.



Manufacturers & Exporters of Leather & Leather Garments

### CERTIFICATE

This is to certify that **Ms.SUJATHA K.S.(USN NO.1KG17MBA22)**MBA student of K.S.School of Engineering and Management Bangalore, has successfully completed the “**project work A study on working capital management** ” in Namaste Exports Ltd, Chamarajpet Bangalore, Under valuable guidance of Krishna Bhat Finance Manager. From 01.01.2019 to 11.02.2019. Hers performance and conduct during the project work was good.

We wish her all the best in her future endeavors.

Date-16.02.2019

Place-Bangalore

Thanking you

Yours faithfully

For Namaste Exports Ltd

  
Authorised Signatory

21/2, Vittalnagar, Chamarajpet, Bangalore - 560 018, INDIA.  
Tel. : (080)26747993, 26740774, Fax : (91) 080-26747776  
E-mail : info@namasteexports.net



### **CERTIFICATE**

This is to certify that Ms. Sukanya H S, bearing reg no 1KG17MBA23, Student of second year MBA from K.S. School of engineering and management, Bangalore – 560062 has undergone project in the area "A STUDY ON EFFECTIVENESS OF INVENTORY MANAGEMENT SYSTEM AT NATURAL REMEDIES PRIVATE LIMITED" during the period from 07-01-2019 TO 16-02-2019.

The project has been completed successfully to our satisfaction and her conduct during the tenure of the project was good and we wish all the best for her future.

FOR Natural Remedies Private Ltd

Authorised Signatory



**Natural Remedies Private Limited**

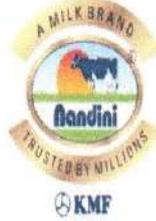
**Regd. Office & Factory**

CIN No.: U24232KA1998PTC023573

5 B, Veerasandra Industrial Area, Hosur Road, Electronic City Post, Bangalore 560 100. INDIA

Tel: 91 80 4020 9999 / 8 / 7, 2783 2265, Fax: 91 80 40209817, Email: [finance@naturalremedy.com](mailto:finance@naturalremedy.com), Web: [www.naturalremedy.com](http://www.naturalremedy.com)

19f-81 80 4050 8888 \ 8 \ 1 \ 3183 3382' Fax: 81 80 40508811' Email: [finance@naturalremedy.com](mailto:finance@naturalremedy.com) Web: [www.naturalremedy.com](http://www.naturalremedy.com)  
5 B' Veerasandra Industrial Area' Hosur Road' Electronic City Post' Bangalore 560 100' INDIA  
CIN No.: U24232KA1998PTC023573  
Regd. Office & Factory  
Natural Remedies Private Limited



## KARNATAKA MILK FEDERATION

### HASSAN

#### CERTIFICATE

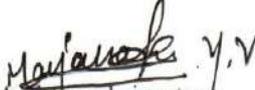
This is to certify that SUMA M V (1KG17MBA24) a student pursuing master of business administration from K.S.SCHOOL OF ENGINEERING AND MANAGEMENT, BANGALORE has successfully completed her project report at KMF LTD HASSAN. During the period from 02-01-2019 to 15-02-2019, as a part of her curriculum and has submitted a report titled "A STUDY ON INVENTORY MANAGEMENT AT KMF LTD"

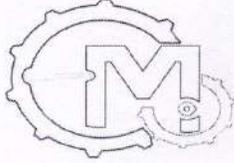
During the above period, we have found her to be diligent and honest in her work and we wish her success in all her future endeavors.

Date:-16-03-2019

Place: - HASSAN

For KMF LTD

  
Authorized signature



# Electro Mechs

No 27, Industrial shed no 1, Belagola Food Industrial area, KRS Road, Mysore-570016  
Ph No: 9964893190 Email:electromechs10@gmail.com

## CERTIFICATE

*This is to certify that Miss. Sushma.n(1KG17MBA25) student Master of Business Management has completed project work on "A Study on Capital Budgeting & its Techniques in Electro Mechs" Mysore from 26/12/2018 to 16/02/2019.*

*She has exhibited punctuality and diligence during the training period.*

*For Electro Mechs,*

*For Managing Director*



*Miss. Sushma.N*

*Student of MBA.,*

*K.S. Group Institutions*

*K. S. School of Engineering & Management*

*Bengaluru - 5600062*

Regd. No. : DYR 443  
ESTD. : 1966



Phone : 2315 1204  
Telefax : 2315 2073

## THE RAJAJINAGAR CO-OPERATIVE BANK LIMITED

ದಿ ರಾಜಾಜಿನಗರ ಕೋ-ಆಪರೇಟಿವ್ ಬ್ಯಾಂಕ್ ಲಿಮಿಟೆಡ್

# 741, 3RD BLOCK, RAJAJINAGAR, BENGALURU - 560 010.

RCB/ 14 //2019-20

Date: 4-4-2019

### CERTIFICATE

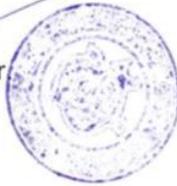
This is to certify that **Mr.Vasantha.R.** bearing Reg.No.1KG17MBA26 student of **M.B.A. IV Semester**, studying at **K.S. Scholl of Engineering and Management** has successfully completed the project on "A Study on Loans and advances" in our Bank from **26-12-2018 to 16-2-2019.**

During his stay in our organization his zeal and enthusiasm was appreciable.

He deserves all encouragement.

We wish him all the best for his future.

For The Rajajinagar Co-operative Bank Ltd.,

Manager   




ದೂರವಾಣಿ: 26654018

## ಕೆಂಪೇಗೌಡ ಕ್ರೆಡಿಟ್ ಕೋ-ಆಪರೇಟಿವ್ ಸೊಸೈಟಿ ಲಿಮಿಟೆಡ್

(ರ. ನಂ. ಜೆಆರ್.ಬಿ./ಆರ್.ಜಿ.ಎನ್ 22/7/26157/99-2000. ದಿನಾಂಕ 3-7-1999)

ನಂ. 12, ಪಾಪಾಂಬರಿನಗರ, 9ನೇ ಅಡ್ಡರಸ್ತೆ, 1ನೇ ಹಂತ, ಜಿ. ಪಿ. ನಗರ, (ಇಂದಿರಾ ಗಾಂಧಿ ಸರ್ಕಲ್)  
ಬೆಂಗಳೂರು-560 078.

### TO WHOM IT MAY CONCERN

This is certify that **Mr. Yogesh J R.** Register NO. **1KG17MBA27** student of **MBA** in **KS Group of institute** has successfully completed his project in finance specialization in kemepegowda credit co-operative society ltd from the period of 26<sup>th</sup> December 2018 to 16<sup>th</sup> February 2019.

During the period of his internship programme with us he was found punctual, hardworking and inquisitive.

We wish his every success in life

ಪರವಾಗಿ ಕೆಂಪೇಗೌಡ ಕ್ರೆಡಿಟ್ ಕೋ-ಆಪರೇಟಿವ್ ಸೊಸೈಟಿ

10/2/2019  
ಮುಖ್ಯ ಕಾರ್ಯನಿರ್ವಾಹಕಾಧಿಕಾರಿ



Regd. Off : H.No. 1-88/1/102, 102, Shanti Vanam, Kavuri Hills Extn.,  
Madhapur, Hyderabad-500 081. Ph: 040-65133344, Fax: 040-40183344.  
Email : koppalgreen@rediffmail.com, koppalgreen@gmail.com

Date: 17/02/2019

### INTERNSHIP COMPLETION CERTIFICATE

This is to Certify that Mr Yuvashankar Manne , bearing Reg No:1KG17MBA28 student of Second year MBA from K.S.School of Engineering and Management ,Benaglore has completed 6 Weeks (3<sup>rd</sup> Jan 2019 to 16<sup>th</sup> Feb 2019) internship in our organization.

During internship period he has conducted a project Title "A Study on Cost Control and Cost Control techniques" at Koppal Green Power Ltd.

We wish him very best for his future endeavours.

For Koppal Green Power Ltd

*K. Suresh*

K Suresh  
PR Manager



POWER PLANT : Opp. 110KV KPTCL Substation R.G. Road, KARATAGI, Gangavathi Tq, Koppal District  
KARNATAKA - 583 229, Ph : 08533 - 274663, 08533 - 274674, Fax : 08533 - 275286.

CIN No : U40109TG2000PLC034520

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**KSSEM**

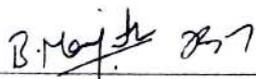
**Department of Civil Engineering**

## Certificate

*This is to certify that the project work entitled "Effect of Size of the Aggregate on Fresh and Hardened Properties of Self Compacting Concrete" is a bonafide work carried out by*

<b>RAKSHITH P</b>	<b>1KG14CV034</b>
<b>SUHAS V NAIDU</b>	<b>1KG14CV048</b>
<b>VAIDHYANATH N S</b>	<b>1KG14CV053</b>
<b>VENKATESHA</b>	<b>1KG14CV057</b>

*in partial fulfillment for the award of "Bachelor Of Engineering In Civil Engineering" of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

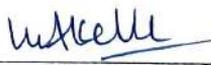


Name and Signature of  
Internal Guide

**Mr. Thejas C M**

**Mr. Manjunath B**

Assistant Professor  
Dept. of Civil Engg.  
KSSEM, Bengaluru



Head of the Department

**Dr. Vijayalakshmi akella**

Professor and Head  
Dept. of Civil Engg  
KSSEM, Bengaluru

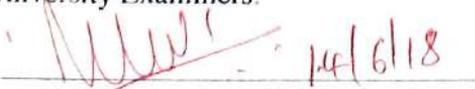


Principal/ Director

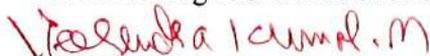
**Dr. S N Sridhara**

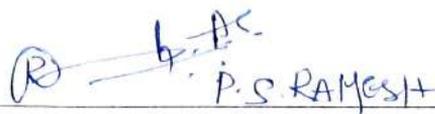
Principal  
KSSEM, Bengaluru

University Examiners:



Name and Signature of Examiner-1





Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Civil Engineering**

## Certificate

*This is to certify that the project work entitled **Feasibility study of Geopolymeraggregate in PSC sleeper** is a bonafide work carried out by*

**Bharath Gowda D 1KG15CV400**  
**Charan Kumar V 1KG15CV401**  
**Naveen Kumar M H 1KG15CV404**  
**Vinodh Kumar S 1KG15CV408**

*in partial fulfilment for the award of **Batchelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Name and Signature of  
Internal Guide

Head of the Department

**Professor & Head**  
**Dept. of Civil Engineering**  
**K.S. Group of Institutions**  
**K.S. School of Engineering & Management**  
**Bangalore-560 062**

  
**Dr. S. N. SRIDHARA**  
Principal/Director

**K. S. School Of Engineering & Management**  
**BENGALURU::560 109.**

University Examiners:

  
14/6/18

Name and Signature of Examiner-1

**Veerendra Kumar. M**

  
P. S. Ramesh

Name and Signature of Examiner-2



**Department of Civil Engineering**

*Certificate*

*This is to certify that the project work entitled **ANALYSIS AND DESIGN OF MULTI-STOREY PARKING STRUCTURE BY USE OF COMMERCIAL SOFTWARE** is a bonafide work carried out by*

<b>HARSHA C S</b>	<b>1KG14CV014</b>
<b>JEEVAN KUMAR L N</b>	<b>1KG14CV018</b>
<b>MEGHAN MAYUR</b>	<b>1KG14CV025</b>
<b>SHARATH MAYYA V</b>	<b>1KG14CV042</b>

*In partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Savitri B. Y.  
Name and Signature of  
Internal Guide 1

[Signature]  
Name and Signature of  
Internal Guide 2

[Signature]  
Head of the  
Department

[Signature]  
Principal/  
Director  
**D. S. N. SRIDHARA**  
Principal/Director  
K. S. School Of Engineering & Management  
BENGALURU-560 062

Professor & Head  
Dept. of Civil Engineering  
K.S. Group of Institutions  
K. S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

[Signature]  
**Vijayalaxmi Atelle**

Name and Signature of Examiner-1

[Signature]  
Name and Signature of Examiner-2  
13.6.18

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**KSSEM**

Department of Civil Engineering

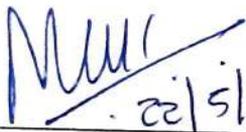
## Certificate

This is to certify that the project work entitled "**ANALYSIS AND DESIGN OF MULTI-STORYED RESIDENTIAL BUILDING USING COMMERCIAL SOFTWARE**" is a bonafide work carried out by

**RAMYA.D.N**  
**SUMA.S.MUDDI**  
**VANI.G.C**

**1KG14CV035**  
**1KG14CV049**  
**1KG14CV054**

in partial fulfillment for the award of "**Bachelor of Engineering**" of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

  
22/5/18

Name and Signature of  
Internal Guide

**Mr. Veerendra Kumar.M**  
Assistant Professor  
Dept. of Civil Engg.  
KSSEM, Bengaluru



Head of the Department

**Dr. Vijayalakshmi Akella**  
Professor and Head  
Dept. of Civil Engg.  
KSSEM, Bengaluru  
Professor & Head  
Dept. of Civil Engineering

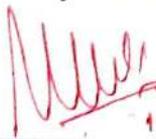


Principal/ Director

**Dr. S N Sridhara**  
Principal  
KSSEM, Bengaluru

**Dr. S. N. SRIDHARA**  
Principal/Director

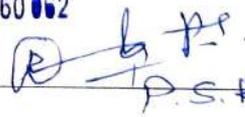
University Examiners:

  
14/6/18

Name and Signature of Examiner-1

**Mr. Veerendra Kumar.M**

K.S. School of Engineering & Management  
K.S. Group of Institutions  
K. S. School Of Engineering & Management  
**BENGALURU::560 109.**  
Bengaluru-560 062

  
**P.S. RAMESH**

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Civil Engineering**

## Certificate

*This is to certify that the project work entitled "Experimental Study on Mechanical Properties of Ultra High Performance Concrete" is a bonafide work carried out by*

<b>JAYANTH PATEL H.H</b>	<b>1KG13CV017</b>
<b>NIRAJ. C</b>	<b>1KG13CV035</b>
<b>RAAHUL JAYA SAI. G.B</b>	<b>1KG13CV041</b>
<b>PREETHAM .S</b>	<b>1KG14CV033</b>

*in partial fulfilment for the award of "B.E in Civil Engineering" of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Prashanth M*

*B. Manjunath*

Name and Signature of  
Internal Guide

**Mr. Prashanth M**

**Mr. Manjunath B**

Assistant Professor  
Dept. of Civil Engg.  
KSSEM, Bengaluru

*Uthappa*

Head of the Department

Professor & Head

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**Dr. Vijayalakshmi Akella**

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Principal/ Director

**Dr. S N Sridhara**

**Dr. S. N. SRIDHARA**  
Principal/Director

K. S. School Of Engineering & Management  
Principal  
**BENGALURU-560 109**  
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University Examiners:

*Dr. AREKAR Vijay*

*14/6/19*

Name and Signature of Examiner-1

*Karpagam Ramesh*

*14/6/19*

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Civil Engineering**

## Certificate

*This is to certify that the project work entitled **Planning, Cost Estimation and Scheduling of Hostel Building Using Microsoft Project** is a bonafide work carried out by*

Ridhisha M Dev	IKG14CV036
Sumitha R	IKG14CV050
Vivek K S	IKG14CV058
Yashaswini G R	IKG14CV059

*in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Mrs. Kavya M

Dr. Vijayalakshmi Akella

Dr. S N Sridhara

Name and Signature of  
Internal Guide

Head of the  
Department  
Professor & Head  
Dept. of Civil Engineering  
K. S. Group of Institutions  
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**Dr. S. N. SRIDHARA**  
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University Examiners:

Name and Signature of Examiner-1

*Rasad CSIV [Signature] 2.6.18*

Name and Signature of Examiner-2

## K.S. School of Engineering and Management

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### Department of Civil Engineering

## Certificate

This is to certify that the project work entitled "*Experimental studies on desiccation potential of compacted soils for landfill liners*" is a bonafide work carried out by

DARSHAN C	1KG14CV010
HARSHITH N	1KG14CV015
NIKHIL S	1KG14CV029
SUHAS K	1KG14CV047

in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

AREKAL VIJAY

Name and Signature of  
Internal Guide

Head of the Department  
Professor & Head

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K.S. Group of Institutions

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**Dr. S. N. SRIDHARA**  
Principal Director

K. S. School Of Engineering & Managr  
BENGALURU-560 100.

University Examiners:

Vijayalakshmi Akelle

Name and Signature of Examiner-1

Rasadasmw GMR 13.6.18

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**Department of Civil Engineering**

## Certificate

*This is to certify that the project work entitled **Environmental Impact Assessment for Metro construction in Kanakapura road Phase-II** is a bonafide work carried out by*

Malavika D Sindye	1KG14CV024
Mokshith Jeevan J S	1KG14CV026
Nishanth H S	1KG14CV030
Raghavendra C R	1KG15CV406

*in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Sa. L. R. Y  
Name and Signature of  
Savitha B G

Vyshali  
Name and Signature of  
Dr. Vyshali

W. K. C. L. L.  
Head of the  
Department  
Professor & Head

Dr. S. N. SRIDHARA  
Principal/  
Director  
Principal/Director

University Examiners:

V. Lakshmi  
Name and Signature of Examiner-1

V. Lakshmi

Dept. of Civil Engineering  
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P. S. RAMESH  
Name and Signature of Examiner-2

# K. S. School of Engineering and Management

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**KSSEM**  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

Department of Civil Engineering

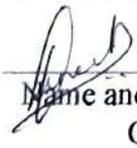
## Certificate

This is to certify that the project work entitled **Experimental Investigation on the Mechanical Properties of Concrete by Partial Replacement of Cement with Arecanut Husk Ash** is a bonafide work carried out by

Alex Peter Njau	1KG14CV006
Irfan Lone	1KG14CV017
Syed Abubakker Siddiq	1KG14CV052
Varun N	1KG12CV048

in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2017-2018. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

PUNEETH T

  
Name and Signature of  
Guide



Head of the Department



Principal/Director

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2



**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project work entitled **Design and modelling of Sewage treatment plant at K.S.S.E.M** is a Bonafide Work carried out by*

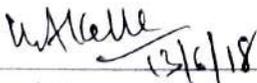
<b>A YASWANTH</b>	<b>1KG13CV002</b>
<b>MADHUSUDHAN N</b>	<b>1KG13CV027</b>
<b>LAKSHMI PRIYA KC</b>	<b>1KG14CV023</b>
<b>SAHANA S</b>	<b>1KG14CV038</b>

*in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Name and signature of  
Internal Guide

  
Head of the Department  
Professor & Head  
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K.S. Group of Institutions  
K.S. School of Engineering & Management  
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Principal/ Director  
**Dr. S. N. SRIDHARA**  
Principal/Director  
K. S. School Of Engineering & Management  
BENGALURU::560 109.

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



Department of Civil Engineering

## Certificate

This is to certify that the project work entitled *Experimental Studies on the Effects of Shape of Footing on Bearing Capacity of Sand* is a Bonafide Work carried out by

Deepak Naidu V

1KG14CV011

Hemanth S

1KG14CV016

P Dileep Chowdary

1KG14CV031

S Uday Prakash

1KG14CV037

in partial fulfilment for the award of *Bachelor of Engineering in Civil Engineering* of *Visvesvaraya Technological University, Belgaum*, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

AREKAL VIJAY

Name and signature of  
Internal Guide

Head of the Department  
Professor & Head

Dept. of Civil Engineering  
K.S. Group of Institutions

K.S. School of Engineering & Management, K.S. School Of Engineering & Management  
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Director

Dr. S. N. SRIDHARA  
Principal/Director

K.S. School Of Engineering & Management  
BENGALURU-560062

Name and Signature of Examiner-1

Vasudeva Kumar. M

Name and Signature of Examiner-2

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**KSSEM**  
K.S. School of Engineering & Management

Department of Civil Engineering

## Certificate

This is to certify that the project work entitled "**Experimental and prediction of properties of SCC containing fly ash aggregate**" is a bonafide work carried out by

**GAGAN B**

**1KG16CSE06**

in partial fulfillment for the award of "**MASTER OF TECHNOLOGY**" of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

Name and Signature of

Internal Guide

**Mr. NAVEENA M P**

**Mr. C M THEJAS**

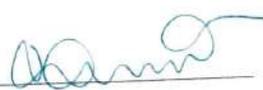
Assistant Professor

Dept. of Civil Engg.

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Professor & Head  
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**Dr. S. N. SRIDHARA**  
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Principal  
KSSEM, Bengaluru

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



Department of Civil Engineering

## Certificate

*This is to certify that the project work entitled "Analytical and Experimental Studies on Single mantapa and Closed mantapa of Amruteshwara Temple" is a bonafide work carried out by*

**KEERTHI PRASAD M 1KG16CSE08**

*in partial fulfillment for the award of "MASTER OF TECHNOLOGY" of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Name and Signature of  
Internal Guide

**Dr. Vijayalakshmi Akella**  
Professor and Head  
Dept. of Civil Engg.  
KSSEM, Bengaluru.

Head of the Department  
Professor & Head

Dept. of Civil Engineering  
K.S. Group of Institutions  
**Dr. Vijayalakshmi Akella**  
Professor and Head  
Dept. of Civil Engg.  
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Principal/ Director  
**Dr. S. N. SRIDHARA**

Principal/Director  
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**Dr. S. N. Sridhara**  
Principal  
KSSEM, Bengaluru  
BENGALURU-560 109.

University Examiners:

Name and Signature of Examiner-1

**Dr. Ravindra P M**

  
09/11/18  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**KSSEM**

**Department of Civil Engineering**

## Certificate

*This is to certify that the project work entitled "Feasibility Studies on Lead Rubber Bearing as a Base Isolation Using ETABS" is a bonafide work carried out by*

**ARUN KUMAR H**

**1KG16CSE02**

*in partial fulfilment for the award of "MASTER OF TECHNOLOGY" of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Name and Signature of  
Internal Guide

**PUNEETH T**

**NAVEENA M P**

Assistant Professor  
Dept. of Civil Engg.  
KSSEM, Bengaluru.

Head of the Department

**Dr. Vijayalakshmi Akella**

Professor and Head  
Dept. of Civil Engg.

KSSEM, Bengaluru.

Professor & Head  
Dept. of Civil Engineering  
K.S. Group of Institutions

K.S. School of Engineering & Management  
Bengaluru-560062.

Principal/ Director

**Dr. S N Sridhara**

Principal  
KSSEM, Bengaluru

**Dr. S. N. SRIDHARA**  
Principal/Director

K. S. School Of Engineering & Management  
BENGALURU:-560 109.

University Examiners:

**PUNEETH T**

Name and Signature of Examiner-1

**Dr. Ravindra P M.**

Name and Signature of Examiner-2

03/11/18

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



Department of Civil Engineering

## Certificate

This is to certify that the project work entitled "Load-Deflection Behaviour of Concrete-Filled Steel Tube Columns under Axial Loading" is a bonafide work carried out by

**MOHAMMED ZUNED**

**1KG16CSE11**

in partial fulfilment for the award of Master of Technology in Structural Engineering of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

*Akella*

Name and Signature of  
Internal Guide

**Dr. Vijayalakshmi Akella**  
Professor and Head  
Dept. of Civil Engg.  
KSSEM, Bengaluru

*Akella*

Head of the Department

**Dr. Vijayalakshmi Akella**

Professor and Head

Dept. of Civil Engineering

KSSEM, Bengaluru

K.S. Group of Institutions

K.S. School of Engineering & Management

Bangalore-560062

*Shridhara*

Principal/ Director

**Dr. S N Shridhara**

Principal

KSSEM, Bengaluru

K.S. School of Engineering & Management

BENGALURU-560109

University Examiners:

*Akella* 31-10-18

**Dr. Vijayalakshmi Akella**

Name and Signature of Examiner-1

*Rajeeva* 31-10-18

**Dr. S.V. RAJEEVA**

Name and Signature of Examiner-2

K.S. School of Engineering and Management  
No. 15, Malleshwara, off Kanakapura Road, Bengaluru-560109



Department of Computer Science & Engineering

## Certificate

This is to certify that the project work entitled 'Development and Implementation of Smart Cradle using IoT' is a bonafide work carried out by

Naveen R	1KG14CS074
Pooja N K	1KG14CS084
Rachana M S	1KG14CS087
Sanjann M Nadig	1KG14CS100

in partial fulfillment for the award of Bachelor of Engineering in Computer Science & Engineering of Visvesvaraya Technological University, Belagavi, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

Dr. M. T. Gopalakrishna

Professor, Dept. of CSE  
K.S. School of Engineering & Management

Bengaluru-560109.  
University Examiners:

Dr. B. K. Raghavendra

Professor & Head, Dept. of CSE  
K.S. School of Engineering & Management  
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Dr. S. N. Sridhara

Principal/Director  
K.S. School of Engineering & Management

BENGALURU-560109.

Name and Signature of Examiner-1

Name and Signature of Examiner-2

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



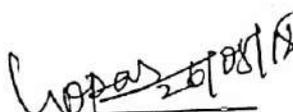
Department of Electronics and Communication Engineering

## Certificate

*This is to certify that the project work entitled **Design and implementation of Robot assisted Arduino based object recognition and sorting** is a bonafide work carried out by*

Mahesh R	1KG13EC048
Keerthana M	1KG14EC039
Sneha S	1KG14EC084
Nayana R	1KG14EC103

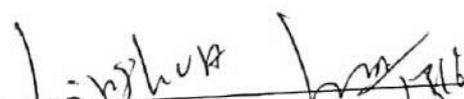
*in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

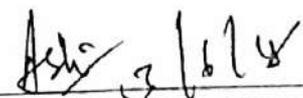
  
Name and signature of Guide

  
Head of the Department  
Professor & Head  
Dept. of Electronics & Communication Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560062

  
Principal/Director  
**Dr. S. N. SRIDHARA**  
Principal/Director  
K. S. School Of Engineering & Management  
BENGALURU-560 109

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Electronics and Communication Engineering**

## Certificate

This is to certify that the project work entitled *Design and Optimization of IP based Communication Network using Cisco Packet Tracer* is a bonafide work carried out by

Bindu N	1KG14EC011
Bindu S	1KG14EC012
Meghana R	1KG14EC050
Mohanapriya G	1KG14EC054

in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

P. 21/5/18  
Name and Signature of  
Internal Guide  
(PUNBETHS)

Saket Agrawal  
Name and Signature of  
Industrial Guide  
(SAKET AGRAWAL)

[Signature]  
Head of the Department  
Principal/Director  
**DR. S. N. SRIDHARA**  
Principal/Director  
K.S. School Of Engineering & Management  
BENGALURU-560 109.

University Examiners:

[Signature] 12/6/18  
Name and Signature of Examiner-1

[Signature] 13/6/18  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Electronics and Communication Engineering**

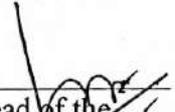
## Certificate

*This is to certify that the project work entitled **Design and Implementation of real time handwritten character recognition system using accelerometer sensor** is a bonafide work carried out by*

PREETHI.S	1KG14EC061
R.SAI SIREESHA	1KG14EC064
RASHI KHANDELWAL	1KG14EC071
SAHANA.A	1KG14EC075

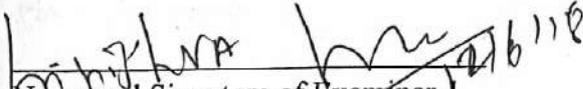
*in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

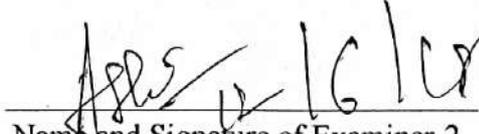
  
Name and Signature of  
Internal Guide

  
Head of the  
Department  
Dept. of Electronics & Communication Engineering  
K.S. Group of Institutions  
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Principal/  
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**Dr. S. N. SRIDHARA**  
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University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Electronics and Communication Engineering**

## Certificate

*This is to certify that the project work entitled Design and Implementation of an Autonomous Vehicle with Lane detection, Speed control and Emergency alert system is a bonafide work carried out by*

Ankith Rao P	1KG14EC006
Charan C. R	1KG14EC015
Joshi Yaznik Venkatraman	1KG14EC036
Madhusudana Nayak	1KG14EC048

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and communication Engineering of Visvesvaraya Technological University, Belagavi, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

P. H. S. 12/5/18  
Name and Signature of  
Guide (PUNBETH.S)

University Examiners:

[Signature]  
Name and Signature of Examiner-1

[Signature] 12/6/18  
Name and Signature of Examiner-2

[Signature]  
Head of the Department  
Dept. of Electronics & Communication Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560062

[Signature]  
Principal/  
Director  
**DR. S. N. SRIDHARA**  
Principal/Director  
K.S. School Of Engineering & Management  
BENGALURU-560 109.

**K. S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Electronics and Communication Engineering**

## Certificate

*This is to certify that the project work entitled Implementation of Health Monitoring System for Neonatal Units using IoT is a bonafide work carried out by*

A K Yamini	1KG14EC001
Anupama Suresh Rao	1KG14EC007
Harshith P G	1KG14EC031
Kavya A	1KG14EC038

*in partial fulfilment for the award of Bachelor of Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*



\_\_\_\_\_  
Name and Signature of the  
Guide



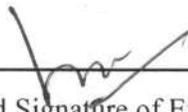
\_\_\_\_\_  
Head of the Department  
Professor & Head



\_\_\_\_\_  
Principal/Director

Dept. of Electronics & Communication  
K. S. School of Engineering & Management  
Bangalore-560 109

University  
Examiners:



\_\_\_\_\_  
Name and Signature of Examiner-1



\_\_\_\_\_  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**

No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560062



**Department of Electronics and Communication Engineering**

*Certificate*

*This is to certify that the project work entitled **Implementation of sensor based Intelligent Street light system** is a bonafide work carried out by*

B. V. Mahesh Kumar	1KG14EC009
Gowthami .B	1KG14EC029
Gutta Sai Sudha	1KG14EC030
Jahnvi .D	1KG14EC033

*in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Shalini J*

Name and Signature of  
Internal Guide

*Shalini Shrivani*

Head of the  
Department

*[Signature]*

*[Signature]*  
Principal/Director

**K.S. School of Engineering & Management  
Bangalore-560 062**

Professor & Head  
Dept. of Electronics & Communication Engineering  
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University Examiners:

*[Signature]*

Name and Signature of Examiner-1

*[Signature]*  
13/11/18

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**Department of Electronics and Communication Engineering**

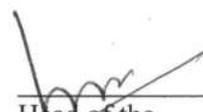
## Certificate

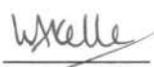
*This is to certify that the project work entitled **Implementation of Face and Voice Recognition (Multimodal Biometrics) using Raspberry Pi** is a bonafide work carried out by*

R C Harish	1KG14EC063
Ravi Prakash B R	1KG14EC072
Suhas P D	1KG14EC088
Venkat Lohit P	1KG14EC099

*in partial fulfilment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Name and Signature of  
Internal Guide

  
Head of the  
Department & Head  
Dept. of Electronics & Communication Engg.  
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Department of Electronics and Communication Engineering

## Certificate

*This is to certify that the project work entitled Design and Implementation of Automatic Gun Turret System using OpenCV and Python is a bonafide work carried out by*

Naveen T R	1KG14EC057
Rangasai K R	1KG14EC068
Smitha J	1KG14EC083
Ujjwala Prasad N	1KG14EC094

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

(VENAY R)

Name and Signature of  
Internal Guide

Head of the Department

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**Dr. S. N. SRIDHARA**

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Name and Signature of Examiner-1

Name and Signature of Examiner-2.

**K.S. School of Engineering and Management**  
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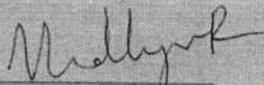
**Department of Electronics and Communication Engineering**

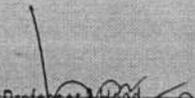
## Certificate

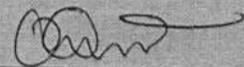
*This is to certify that the project work entitled **Design and Implementation of a Vehicle to Vehicle Communication System Using VANET Technology** is a bonafide work carried out by*

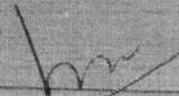
Lathashree S	1KG14EC042
Manasa H N	1KG13EC051
Neelu R	1KG12EC062

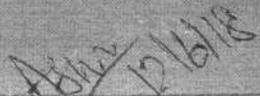
*in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of **Visvesvaraya Technological University, Belgaum**, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Internal Guide

  
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Name and Signature of Examiner-2

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**Department of Electronics and Communication Engineering**

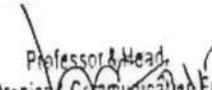
## Certificate

*This is to certify that the project work entitled **Implementation of Sericulture Farm Automation using Sensor Network and GSM Technology** is a bonafide work carried out by*

Chiranjeevi .M	1KG14EC018
D.R.Chiranjeevi	1KG14EC019
Maddipatla Venkata Saijagan	1KG14EC046
Mohan .C	1KG14EC053

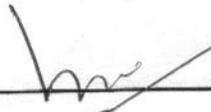
*in partial fulfilment for the award of Bachelor of Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
**Gunashree T.T.**  
Name and Signature of the  
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University  
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Name and Signature of Examiner-1

  
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**Department of Electronics and Communication Engineering**

## Certificate

*This is to certify that the project work entitled **Development of Farmland Surveillance System Using Micro Air Vehicle** is a bonafide work carried out by*

Abhishek C	1KG13EC001
Ramya A	1KG14EC066
Sangeetha R	1KG14EC077
Swathi N	1KG14EC090

*in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*ND DVA*

**Dr. Dushyant N D**  
Professor  
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**Dr. S. N. SRIDHARA**  
Principal/Director  
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Name and Signature of Examiner-1

*[Signature]* 12/16/18  
Name and Signature of Examiner-2

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No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



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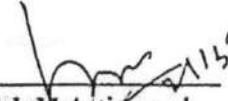
## Certificate

*This is to certify that the project work entitled **Design and Implementation of Real Time Emotion Detection Using Thermal Imaging and Expression Analysis** is a bonafide work carried out by*

Rahul Srinivasan	1KG13EC083
Pramod B N	1KG14EC060
Revanth J	1KG14EC073
Ronit T E	1KG14EC074

*in partial fulfilment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2014-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Mr. Chethan Sharma P  
Assistant Professor  
Dept. of ECE  
KSSEM

  
Dr. Girish V Attimarad  
Professor & Head  
Dept. of Electronics & Communication Engineering  
Dept. of ECE  
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Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

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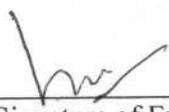
*This is to certify that the project work entitled **Design and implementation of an E-Phoropter using Raspberry Pi** is a bonafide work carried out by*

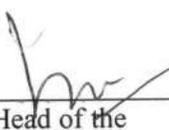
Ajay Shashidharaya Hiremath	1KG14EC002
Akash Deep	1KG14EC003
Chaitra N	1KG14EC013
Jyesta Venkatesh	1KG14EC037

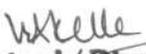
*in partial fulfilment for the award of **Bachelor of Engineering in Electronics and communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
\_\_\_\_\_  
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Internal Guide

University Examiners:

  
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Name and Signature of Examiner-1

  
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Head of the  
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\_\_\_\_\_  
Principal/Director  
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**Department of Electronics and Communication Engineering**

## Certificate

*This is to certify that the project work entitled 'Development and Implementation of AUV for Data Acquisition and Image Enhancement' is a bonafide work carried out by*

Arun Gowda P	1KG14EC008
Jamuna N	1KG14EC034
Anand B N	1KG14EC004
Madhu Sai B	1KG14EC047

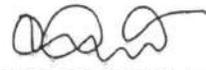
*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*



**Dr. P. KARTHIC**  
Name and Signature of  
Guide

  
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Bangalore-560062



**Dr. S. N. SUDHARA**  
Principal/Director

School Of Engineering & Management  
BENGALURU-560 109.

University Examiners:



Name and Signature of Examiner-1



Name and Signature of Examiner-2

K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



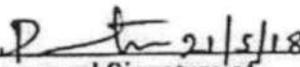
Department of Electronics and Communication Engineering

## Certificate

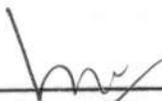
*This is to certify that the project work entitled Design and Implementation of an Autonomous Vehicle with Lane detection, Speed control and Emergency alert system is a bonafide work carried out by*

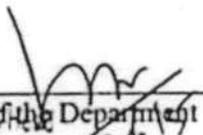
Ankith Rao P	1KG14EC006
Charan C. R	1KG14EC015
Joshi Yaznik Venkatraman	1KG14EC036
Madhusudana Nayak	1KG14EC048

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and communication Engineering of Visvesvaraya Technological University, Belagavi, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

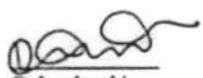
  
Name and Signature of  
Guide (PUNBETH-S)

University Examiners:

  
Name and Signature of Examiner-1

  
Head of the Department

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K. S. School Of Engineering & Management  
BENGALURU-560 109.

  
Name and Signature of Examiner-2

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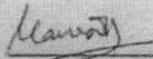
Department of Electronics and Communication Engineering

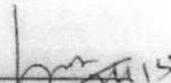
## Certificate

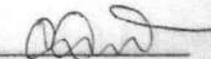
This is to certify that the project work entitled *Design and Implementation of Solar Powered Automated Garbage Monitoring System* is a bonafide work carried out by

Pushpavathi M.R	1KG14EC062
Satish J	1KG14EC079
Shashi Kumar D.M	1KG14EC080
Sudha K.R	1KG14EC087

in partial fulfilment for the award of *Bachelor of Engineering in Electronics and Communication Engineering* of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

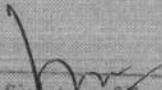
  
Mr Manu D.K  
Associate Professor

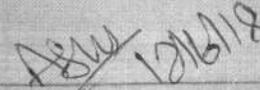
  
Dr. Girish Attimarad  
Head of the  
Department  
Professor & Head

  
Dr. S.N. Sridhara  
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**Dr. S. N. SRIDHARA**  
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K. S. Group of Institutions  
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Bangalore-560 062

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2



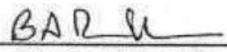
**Department of Electronics and Communication Engineering**

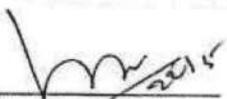
*Certificate*

*This is to certify that the project work entitled LABVIEW BASED EARLY DETECTION OF ATHEROSCLEROSIS USING PHOTOPLETHYSMOGRAM SIGNAL is a bonafide work carried out by*

Thejashwini L	1KG14EC093
Urmila A S	1KG14EC095
Vatsala K S	1KG14EC098
Vinoshia W	1KG14EC100

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during the internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of technical seminar work prescribed for the degree.*

  
Mr. Ravikiran B A  
Associate Professor  
Guide

  
Dr. Girish V Attimarad  
Head of the Department  
Professor & Head  
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Dr. S N Sridhara  
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University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

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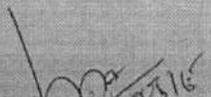
## Certificate

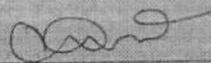
*This is to certify that the project work entitled **Implementation of a Smart Gadget for Women Safety using Raspberry Pi** is a bonafide work carried out by*

Dharmavarapu Bharath	1KG14EC020
Gunasree .G	1KG14EC024
Jayashree .G	1KG14EC035
Medamanuri Preethi	1KG14EC049

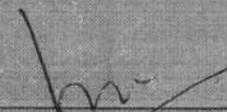
*in partial fulfilment for the award of **Bachelor of Electronics and Communication Engineering** of **Visvesvaraya Technological University, Belgaum**, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

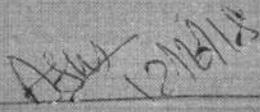
  
Swati Sankar  
Name and Signature of the Guide

  
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University  
Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2  
12/16/18

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**Department of Electronics and Communication Engineering**  
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*This is to certify that the project work Implementation of Abnormal Event Detection for Video Surveillance System using Sparse Combination Algorithm to Enhance Public Safety is a bonafide work carried out by*

Pooja M	1KG14EC059
Sandhya D S	1KG14EC076
Sriresh N	1KG14EC086
Punith Kumar Y	1KG15EC402

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Devika N*

Name and Signature of  
Internal Guide

*[Handwritten Signature]*

Head of the Department

Professor & Head

Dept. of Electronics & Communication Engineering

K.S. Group of Institutions

K.S. School of Engineering & Management

Bangalore-560062

*[Handwritten Signature]*

Principal/Director

**Dr. S. N. SRIDHARA**

Principal/Director

K. S. School Of Engineering & Management

**BENGALURU-560 062**

University Examiners:

*[Handwritten Signature]*

Name and Signature of Examiner-1

*ASW / 12/11/18*

Name and Signature of Examiner-2

# Design and Development of a GSM and DTMF based Monitoring System for Power Transformer Incipient Fault Diagnosis

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

<b>Rahul Chowdary B</b>	<b>1KG12EE028</b>
<b>Bharath Kumar N M</b>	<b>1KG14EE401</b>
<b>Umesha D</b>	<b>1KG14EE411</b>

*Under the Guidance of*

**Mr. Srinivas Kalyan K**

Assistant Professor

Department of Electrical and Electronics Engineering  
KSSEM, Bangalore



**KSSEM**

Department of Electrical and Electronics Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062  
**2017-18**



**Department of Electrical and Electronics Engineering**

*Certificate*

*This is to certify that the project work entitled Design and Development of a GSM and DTMF based monitoring system for Power Transformer Incipient Fault Diagnosis is a bonafide work carried out by*

<b>Rahul Chowdary B</b>	<b>1KG12EE028</b>
<b>Bharath Kumar N M</b>	<b>1KG14EE401</b>
<b>Umesha D</b>	<b>1KG14EE411</b>

*in partial fulfilment for the award of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belagavi, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Srinivas Kodya*

Name and Signature  
of Internal Guide

*B. R. N.*

Head of the  
Department  
Professor & Head

Dept. of Electrical & Electronics Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

*[Signature]*

Principal/  
Director  
**Dr. S. N. SRIDHARA**  
Principal/Director  
K. S. School Of Engineering & Management  
BENGALURU::560 109.

University Examiners:

*Shubha Rao*

Name and Signature of Examiner-1

*Ramya K.R* 15/6/18

Name and Signature of Examiner-2

**Design and development of an efficient power and energy  
management system for an Autonomous robot**

*A Project Work submitted to*



*Visvesvaraya Technological University*

*in partial fulfilment of the requirements*

*for the award of degree of*

**Bachelor of Engineering**

**in**

**Electrical and Electronics Engineering**

*Submitted by*

Abhishek C U	1KG14EE002
Bhavana R	1KG14EE010
T Vamsi	1KG14EE040
Yatheeswar M	1KG14EE046

*Under the Guidance of*

**Mrs. Gousia Sultana**

Asst. Professor

Department of EEE

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**KSSEM**  
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**2017-18**

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



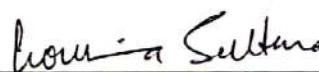
Department of Electrical and Electronics Engineering

## Certificate

*This is to certify that the project work entitled **Design and development of an efficient power and energy management system for an autonomous robot** is a bonafide work carried out by*

Abhishek C U	IKG14EE002
Bhavana R	IKG14EE010
T Vamsi	IKG14EE040
Yatheeswar M	IKG14EE046

*in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

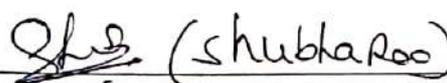
  
Name and Signature of Internal Guide

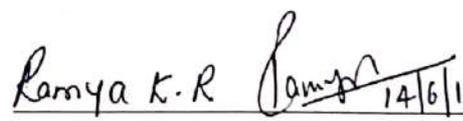
  
Head of the Department  
Professor & Head

  
Principal/  
Director **N. SRIDHARA**  
Principal/Director  
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Dept. of Electrical & Electronics Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

# **“Design and Implementation of Crop Protection and Proper Usage of Rain Water Using GSM”**

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

**Submitted by**

<b>ARUN B</b>	<b>1KG14EE006</b>
<b>HITHU K</b>	<b>1KG14EE013</b>
<b>RAKSHITHA K N</b>	<b>1KG14EE027</b>
<b>YASHASWINI S</b>	<b>1KG14EE045</b>

Under the Guidance of

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**2017-18**



**Department of Electrical and Electronics Engineering**

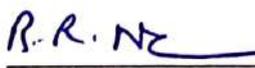
*Certificate*

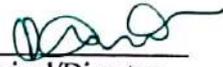
*This is to certify that the project work entitled "Design and Implementation of Crop Protection and Proper Usage of Rain Water Using GSM" is a bonafide work carried out by*

ARUN B	1KG14EE006
HITHU K	1KG14EE013
RAKSHITHA K N	1KG14EE027
YASHASWINI S	1KG14EE045

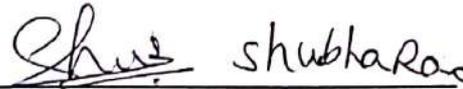
*in partial fulfilment for the award of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during Internal assessment have been incorporated in the report and this Thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

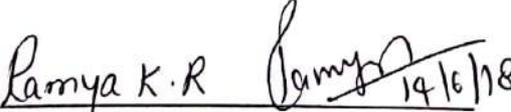
  
**ANIL KUMAR T.R.B.**  
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**R.R.N.**  
Head of the Department  
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**Dr. S. N. SRIDHARA**  
Principal/Director  
Principal/Director  
K. S. School Of Engineering & Management  
BENGALURU-560 109.

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

# Design and Development of Automated Smart Homes using the Concept of Internet of Things (IOT)

*A Project Work submitted to*



*Visveshvaraya Technological University*

*In partial fulfilment of the requirements*

*For the award of degree of*

**Bachelor of Engineering**

**In**

**Electrical & Electronics Engineering**

*Submitted by*

**1KG13EE002 Bhatta Rajesh**

**1KG13EE029 Rashmi.S**

**1KG13EE030 Roopashree.PR**

*Under the Guidance of*

**Ms. Dharshini G**

Assistant Professor

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No. 15, Mallasandra off Kanakapura Road, Bangalore-560062

**2017-2018**

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



Department of Electrical & Electronics Engineering

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*This is to certify that the project work entitled "Design and development of automated smart homes using the Concept of Internet of Things (IOT)" is a bonafide work carried out by*

1KG13EE002 Bhatta Rajesh

1KG13EE029 Rashmi.S

1KG13EE030 Roopashree.PR

*in partial fulfilment for the award of Bachelors of Engineering in Electrical & Electronics Engineering of K.S. School of Engineering and Management, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Dhanhini.G*  
*Rashmi*

Name and Signature  
of Internal Guide

*R.R.N*

Head of the Department  
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Dept. of Electrical & Electronics Engineering  
K.S. Group of Institutions  
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Bangalore-560062.

*S.N.S*

Principal/Director  
**Dr. S. N. SRIDHARA**  
Principal/Director  
K. S. School Of Engineering & Manag  
BENGALURU--560062

University Examiners:

*Shubha Rao.K* *Shubha*

Name and Signature of Examiner-1

*Ranya K.R* *Ranya* 15/6/18

Name and Signature of Examiner-2

# Design and Development of Data Acquisition and Controlling Unit for Power Generation

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

Ayesha Firdose	1KG14EE007
Shradha Jaiswal	1KG14EE031
Srikant Shanu	1KG14EE035
Vishal B.V	1KG14EE044

*Under the Guidance of*

**Mrs. Manjula B.G**  
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**K.S. School of Engineering and Management**  
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**Department of Electrical and Electronics Engineering**

## *Certificate*

*This is to certify that the project work entitled **Design and Development of Data Acquisition and Controlling Unit for Power Generation** is a bonafide work carried out by*

Ayesha Firdose	1KG14EE007
Shradha Jaiswal	1KG14EE031
Srikant Shanu	1KG14EE035
Vishal B.V	1KG14EE044

*in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Manjula B.G.* 25/5/18  
**MANJULA B.G.**  
Name and Signature of  
Internal Guide

*B. K. M.*  
Head of the Department  
Professor & Head  
Dept. of Electrical & Electronics Engineering  
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K.S. School of Engineering & Management  
Bangalore-560062.

*[Signature]*  
Principal/Director  
**Dr. S. N. SRIDHARA**  
Principal/Director  
K. S. School Of Engineering & Management  
BENGALURU-560 109.

University Examiners:

*Shubha Rao* *[Signature]*  
Name and Signature of Examiner-1

*Ramya K.R* *[Signature]* 19/6/18  
Name and Signature of Examiner-2

# Design and Development of a DC/DC Converter for Battery Energy Storage System Supporting Railway DC Feeder Systems

*A Project Work submitted to*



*Visvesvaraya Technological University*

*in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

<b>Akash M V</b>	<b>1KG14EE003</b>
<b>Meghana Raj C G</b>	<b>1KG14EE019</b>
<b>Naga Sankalpa G</b>	<b>1KG14EE020</b>
<b>Sudheendra H R</b>	<b>1KG14EE037</b>

*Under the Guidance of*  
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Asst. Professor, Department of EEE  
KSSEM, Bangalore



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**2017-18**

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



Department of Electrical and Electronics Engineering

## Certificate

*This is to certify that the project work entitled **Design and development of a dc/dc converter for battery energy storage system supporting railway dc feeder systems** is a bonafide work carried out by*

Akash M V	1KG14EE003
Meghana Raj C G	1KG14EE019
Naga Sankalpa G	1KG14EE020
Sudheendra H R	1KG14EE037

*in partial fulfilment for the award of **Bachelor of Engineering in "Electrical and Electronics Engineering"** of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*H.P. Prof* 13/6/18  
Name and Signature of Guide

*B.K.M*  
Head of the Department  
Professor & Head

*[Signature]*  
Principal/ Director  
**DR. S. N. SRIDHARA**

Dept. of Electrical & Electronics Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
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**Principal/Director**  
**K. S. School Of Engineering & Man-**  
**BENGALURU-560**

University Examiners:

*[Signature]*  
Shubha Rao K

*[Signature]* Ranya K.R *[Signature]* 14/6/18

# Design & Implementation of Automation in Electro-Plating Plant using PLC & SCADA

*A Project Work submitted to*



*Visvesvaraya Technological University*

*in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering**  
in  
**Electrical and Electronics Engineering**

*Submitted by*

<b>Gautham B U</b>	<b>1KG14EE012</b>
<b>Naganand B N</b>	<b>1KG14EE021</b>
<b>Pooja N</b>	<b>1KG14EE023</b>
<b>Sushmitha N</b>	<b>1KG14EE039</b>

*Under the Guidance of*

**Mrs. Ramya K R**  
Associate Professor  
Dept. of Electrical and Electronics Engineering  
KSSEM, Bangalore



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**2017-18**

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



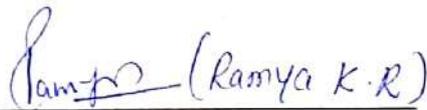
**Department of Electrical and Electronics Engineering**

## Certificate

*This is to certify that the project work entitled "DESIGN AND IMPLEMENTATION OF AUTOMATION IN ELECTRO-PLATING PLANT USING PLC & SCADA" is a bonafide work carried out by*

Gautham B U (1KG14EE012)  
Naganand B N (1KG14EE021)  
Pooja N (1KG14EE023)  
Sushmitha N (1KG14EE039)

*in partial fulfilment for the award of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belagavi, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

 (Ramya K.R.)

Name and Signature of  
Internal Guide

Professor/Head of the  
Dept. of Electrical & Electronics Engineering

K.S. Group of Institutions

K.S. School of Engineering & Management

Bangalore-560 062, K. S. School Of Engineering & Management

BENGALURU-560 109.

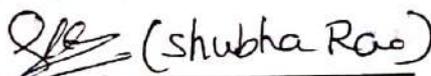


Principal/  
Director

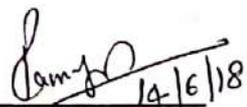
**Dr. S. N. SRIDHARA**

Principal/Director

University Examiners:

 (Shubha Rao)

Name and Signature of Examiner-1

Ramya K.R.  14/6/18

Name and Signature of Examiner-2

# Design and Development of a Voltage Multiplier based High Voltage DC Generator

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

<b>B.Divya</b>	<b>1KG14EE008</b>
<b>Prathima.K.J</b>	<b>1KG14EE024</b>
<b>Subramani.M</b>	<b>1KG14EE036</b>
<b>Vinutha.S</b>	<b>1KG14EE043</b>

*Under the Guidance of*  
**Dr.B.R.NATARAJAN**  
Head of the Department  
Department of Electrical and Electronics Engineering  
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No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109  
**2017-18**

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**Department of Electrical and Electronics Engineering**  
**Certificate**

*This is to certify that the project work entitled Design and Development of a Voltage Multiplier based High Voltage DC Generator is a bonafide work carried out by*

B.Divya            1KG14EE008  
Prathima.K.J    1KG14EE024  
Subramani.M    1KG14EE036  
Vinutha.S        1KG14EE043

*in partial fulfilment for the award of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

**Dr. B. R. NATARAJAN**

R. R. N  
Name and Signature of  
Internal Guide

B. R. N  
Head of the Department  
Professor & Head  
Dept. of Electrical & Electronics Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

Dr. S. N. SRIDHARA  
Principal/Director  
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BENGALURU-560 109.

University Examiners:

Shubha Rao  
Name and Signature of Examiner-1

Ranya K.R 15/6/18  
Name and Signature of Examiner-2

# Design and Development of a Child Rescue System Against Open Bore wells at Agriculture Field in India

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

ARCHANA.V	1KG14EE005
MANASA.K.R	1KG14EE017
SHIVANIM.RAO	1KG14EE033
MANJUNATH	1KG15EE405

*Under the Guidance of*  
**Mr.SRINIVAS KALYAN K**

Assistant Professor  
Department of Electrical and Electronics Engineering  
KSSEM, Bangalore



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**K.S. School of Engineering and Management**  
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**Department of Electrical and Electronics Engineering**  
*Certificate*

*This is to certify that the project work entitled **Design and Development of a Child Rescue System Against open Bore wells in Agriculture field in India** is a bonified work carried out by*

Archana.V	1KG14EE005
Manasa. K.R	1KG14EE017
Shivani.M.Rao	1KG14EE033
Manjunath	1KG15EE405

*in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Srinivas Kalpana K*  
Internal Guide

*R. R.*  
Head of the Department  
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*Dr. S. N. Sridhara*  
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University Examiners:

*Shubha Rao*  
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*Ramya K.R* 15/6/18  
Name and Signature of Examiner-2

# Design and Development of Intelligent Submersible Pump using IoT for Irrigation Purpose

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

<b>Lakshmikanth R</b>	<b>1KG14EE016</b>
<b>Sanjana Kulkarni</b>	<b>1KG14EE029</b>
<b>Anil Kumar V</b>	<b>1KG15EE400</b>
<b>Bindushree M</b>	<b>1KG15EE402</b>

*Under the Guidance of*  
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**2017-18**

**K.S. School of Engineering and Management**  
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**KSSEM**  
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## *Certificate*

*This is to certify that the project work entitled, "Design and Development of Intelligent Submersible Pump for Irrigation Purpose Using IoT" is a bonafide work carried out by*

<b>Lakshmikanth R</b>	<b>1KG14EE016</b>
<b>Sanjana Kulkarni</b>	<b>1KG14EE029</b>
<b>Anil Kumar V</b>	<b>1KG15EE400</b>
<b>Bindushree M</b>	<b>1KG15EE402</b>

*in partial fulfilment for the award of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

(Gousia SULTANA)

*Gousia Sultana*

Name and Signature of  
Internal Guide

*RRM*

Head of the Department

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K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560062.

*Dr. S. N. SRIDHARA*

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**Dr. S. N. SRIDHARA**  
Principal/Director

K. S. School Of Engineering & Management  
BENGALURU-560 109

University Examiners:

*shubharao shive*

Name and Signature of Examiner-1

*Lanya K.R Lanya* 14/6/18

Name and Signature of Examiner-2

# Design and Development of Wireless Sensor Networks for Soldier's Status Monitoring Based on Zigbee

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

Arun Kumar D S	1KG14EE048
Shobhitha K	1KG14EE049
Sindhu Patil	1KG14EE050
Sulochana K V	1KG14EE051

*Under the Guidance of*  
**Mrs RAMYASHREE H.P**

Assistant Professor  
Department of Electrical and Electronics Engineering  
KSSEM, Bangalore



**KSSEM**

Department of Electrical and Electronics Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062

2017-18



**Department of Electrical and Electronics Engineering**

*Certificate*

*This is to certify that the project work entitled **Design and Development of Wireless Sensor Networks for Soldier's Status Monitoring Based on Zigbee** is a bonafide work carried out by*

<b>Arun Kumar D S</b>	<b>1KG14EE048</b>
<b>Shobhitha K</b>	<b>1KG14EE049</b>
<b>Sindhu Patil</b>	<b>1KG14EE050</b>
<b>Sulochana K V</b>	<b>1KG14EE051</b>

*in partial fulfilment for the award of **Batchelor of Engineering in Electrical and Electronics Engineering** of **Visvesvaraya Technological University, Belgaum**, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*H.P. Singh* 14/6/18

Name and Signature of  
Internal Guide

*R.R.M*

Head of the  
Department  
**Dept. of Electrical & Electronics Engineering**  
K.S. Group of Institutions  
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*S. N. SRIDHARA*

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**DR. S. N. SRIDHARA**  
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**BENGALURU-560 109.**

University Examiners:

*Shubha Rao*

Name and Signature of Examiner-1

*Ramya K.R* 15/6/18

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**

No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Mechanical Engineering**

**Certificate**

*This is to certify that the project work entitled **Redesign of Mini Tiller for small farming** is a bonafide work carried out by*

Modupalle Chaitanya Kumar

1KG14ME027

Vasanth D

1KG14ME058

Karthik S

1KG15ME408

Krishne Gowda S N

1KG15ME409

*In partial fulfillment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgavi, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Name and Signature of Internal Guide

Name and Signature of Co Guide

(A. Harresh)

Head of the Department

Dr. S. N. SRIDHARA  
Principal/Director

Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.  
K. S. School Of Engineering & Management  
BENGALURU-560 109.

University Examiners:

  
Dr. Yuvaraja Naik

Name and Signature of Examiner-1

  
Abhishek. M. R

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



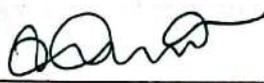
**Department of Mechanical Engineering**

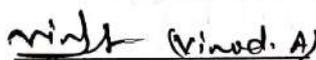
## Certificate

*This is to certify that the project work entitled **Computational Studies on Heat Transfer in a 2D cavity Flow** is a bonafide work carried out by*

<b>BHARATH. K</b>	<b>1KG14ME008</b>
<b>GUNASHEKAR R</b>	<b>1KG14ME014</b>
<b>PAWAN K</b>	<b>1KG14ME035</b>
<b>PRANAV BHARADWAJ K</b>	<b>1KG14ME038</b>

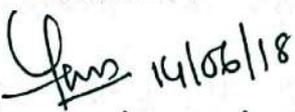
*in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of **Visvesvaraya Technological University, Belgaum**, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

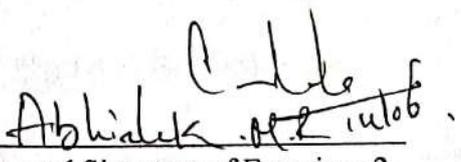
  
Name and Signature of  
Academic Guide

  
Name and Signature of  
Academic Co-Guide

  
Head of the Dept. of Mechanical Engineering  
Principal/Director  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062. **Dr. S. N. SRIDHARA**  
**SCHOOL OF ENGINEERING & MANAGEMENT**  
**BANGALURU-560 109**

University Examiners:

  
**Dr. Yuvaraja Naik**  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**KSSEM**

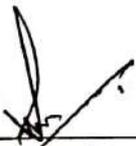
## Department of Mechanical Engineering

### Certificate

*This is to certify that the project work "Investigation of influence of turning tool surface modification on various machining parameters" is a bonafide work carried out by*

**Mr. AKSHAY.S.BHARADWAJ - 1KG14ME005**  
**Mr. RAHUL PARAJULI - 1KG14ME064**  
**Mr. SUMAN KUMAR. L - 1KG14ME065**  
**Mr. SURENDRA YADAV - 1KG14ME066**

*In partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belagavi during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
\_\_\_\_\_  
Signature of Internal Guide  
with date

  
\_\_\_\_\_  
Head of Department  
Professor & Head  
with date  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

  
\_\_\_\_\_  
Principal / Director  
**Dr. S. N. SRIDHARA**  
with date  
Principal/Director  
K.S. School Of Engineering & Management  
BENGALURU-560 109.

University Examiners:

  
14/06/18  
**Dr. Yuvaraja Naik**  
\_\_\_\_\_  
Name and Signature of Examiner-1

  
**Abhishek R. B.**  
\_\_\_\_\_  
Name and Signature of Examiner-2

# K.S.SCHOOL OF ENGINEERING AND MANAGEMENT



**KSSEM**

Department of Mechanical Engineering

## Certificate

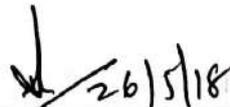
*This is to certify that the Project Work entitled "Performance Evaluation of Nano based Bio-oils as Cutting fluids for Turning operation of Mild Steel" is a bonafide work carried out by*

<b>YASHWIN G</b>	<b>1KG13ME059</b>
<b>SUJITH KASHYAP A R</b>	<b>1KG14ME001</b>
<b>KUSHAL S</b>	<b>1KG14ME020</b>
<b>PUNEETH H</b>	<b>1KG14ME042</b>

*In partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belagavi, during the year 2018, it is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
24/6/18

Dr. Jyothi PN  
Professor  
Dept. of Mechanical Engg

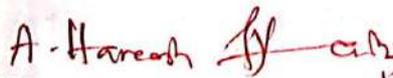
  
26/5/18

Dr. Shailesh Rao A  
Professor & Head  
Dept. of Mechanical Engg  
Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

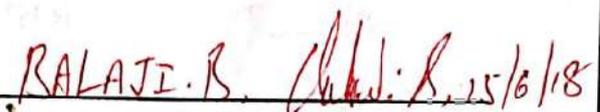


Dr. S.N. Sridhara  
Principal/Director  
KSSEM  
K. S. School of Engineering & Man  
BENGALURU-560 1

University Examiners:

  
12/6/18

Name and Signature of Examiner-1

  
15/6/18

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



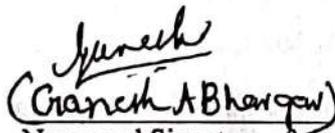
**Department of Mechanical Engineering**

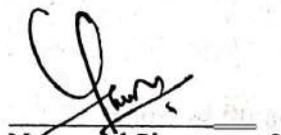
## Certificate

This is to certify that the project work entitled *Experimental study of axial forces Of 6082 aluminium plate by friction stir welding* is a bonafide work carried out by

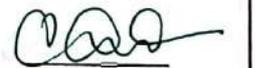
Harsha K	1KG13ME019
Sagar D	1KG13ME042
Abhishek K S	1KG14ME002
Akshath Rao M	1KG14ME004

in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

  
Name and Signature of  
Internal Guide

  
Name and Signature of  
internal Co- Guide

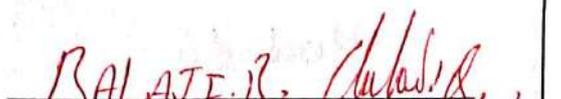
  
Head of the  
Department

  
Principal/  
Director

**Dr. S. N. SRIDHAR**  
Principal/Director  
K. S. School Of Engineering & Mana  
BENGALURU-560 10

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2



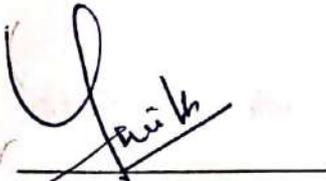
Department of Mechanical Engineering

Certificate

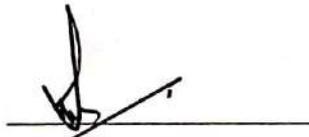
This is to certify that the Project Work entitled *REDESIGN AND FABRICATION OF PORTABLE PNEUMATIC PRESS* is a bonafide work carried out by

ADITHYA.V.D	1KG15ME400
ADITYA.M.S	1KG15ME401
PUNEETH NAG	1KG15ME411
SHASHANK.H	1KG15ME413

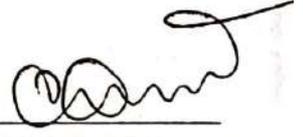
In partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2017-18, it is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.



Dr. Yuvaraja Naik  
Associate Professor  
Dept. of Mechanical Engg



Dr. Shailesh Rao A  
Professor & Head  
Dept. of Mechanical Engg



Dr. S. N. SRIDHAR  
Principal/Director  
K. S. School of Engineering & Management  
BENGALURU-560 10

University Examiners:

A. Hanur A. 15/6/18

Name and Signature of Examiner-1

BALAJI.B. Chakr. 15/6/18

Name and Signature of Examiner-2

# K.S.SCHOOL OF ENGINEERING AND MANAGEMENT



**KSSEM**

**Department of Mechanical Engineering**

## Certificate

*This is to certify that the Project Work entitled "Design And Fabrication Of Semi-Automatic Tap Root Harvester" is a bonafide work carried out by*

<b>R SUBRAMANIAN</b>	<b>1KG12ME046</b>
<b>PARAMESH N</b>	<b>1KG13ME411</b>
<b>NIKHIL S</b>	<b>1KG14ME033</b>
<b>RANJITH KUMAR L</b>	<b>1KG15ME412</b>

*In partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018, it is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Mr. Harsha J  
Assistant Professor  
Dept. of Mechanical Engg

Dr. Shailesh Rao A  
Professor & Head  
Dept. of Mechanical Engg

Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 082.

Dr. S N Sridhara  
Principal/Director  
**Dr. S. N. SRIDHARA**  
Principal/Director

K.S. School Of Engineering & Management  
BENGALURU-560 109.

University Examiners:

  
14/06/18

Name and Signature of Examiner-1

Name and Signature of Examiner-2

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**KSSEM**  
K.S. School of Engineering and Management

Department of Mechanical Engineering

## Certificate

*This is to certify that the project work entitled **Synthesis and Characterization of Biopolymer Nanocomposite** is a bona fide work carried out by*

<b>SAMEEL SHARIFF</b>	<b>1KG14ME050</b>
<b>GANESH GADDE</b>	<b>1KG13ME016</b>
<b>SARATHY VENKATESH</b>	<b>1KG13ME048</b>
<b>SOWNDARIYA M C</b>	<b>1KG13ME414</b>

*In partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Name and Signature of Internal Guide

Head of the Department  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

Principal/ Director

**Dr. S. N. SRIDHARA**  
Principal/Director  
K.S. School Of Engineering & Management  
BENGALURU:-560 109

University Examiners:

Name and Signature of Examiner-1

Name and Signature of Examiner-2



**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Mechanical Engineering**

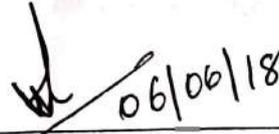
## Certificate

*This is to certify that the project work entitled **Experimental Investigation On the performance characteristics of DTS-i engine fuelled with Gasoline-Butanol blend** is a bonafide work carried out by*

AKARSH D	1KG12ME003
CETHAN G T	1KG13ME012
MADHU H M	1KG14ME405
VEERESH R K	1KG14ME416

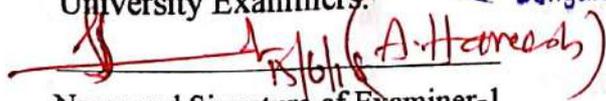
*In partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

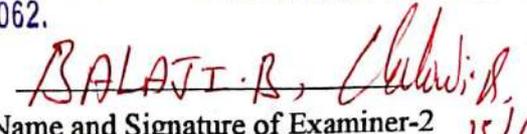
  
06.06.18  
Name and Signature of Guide

  
06/06/18  
Head of the Department  
Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560062.

  
Principal/ Director  
**Dr. S. N. SRIDHAR**  
Principal/Director  
K. S. School Of Engineering & Man  
BENGALURU:-560 10

University Examiners:

  
15/6/18 (A. Hareesh)  
Name and Signature of Examiner-1

  
BALAJI B, Chelvi B,  
Name and Signature of Examiner-2 15/6/18

**K.S. School of Engineering and Management**

No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



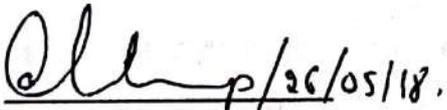
**Department of Mechanical Engineering**

*Certificate*

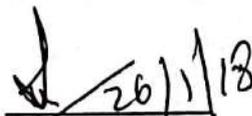
*This is to certify that the project work entitled Design and fabrication of coconut de-husking and chopping machine is a bonafide work carried out by*

ARJUN R	1KG11ME005
E MAHESH	1KG14ME013
KORAPATI POORNA KUMAR	1KG14ME019
AKSHAY B	1KG15ME405

*In partial fulfilment for the award of Batchelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belagavi, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
26/05/18.

Name and Signature of  
Internal Guide

  
26/11/18

Head of the Department  
Professor & Head

Dept. of Mechanical Engineering  
K.S. Group of Institutions

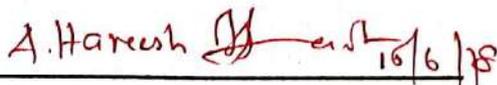
K.S. School of Engineering & Management  
Bangalore-560 062.



Principal/Director  
**DR. S.N. SRIDHARA**  
Principal/Director

K. S. School Of Engineering & Management  
BENGALURU-560 109.

University Examiners:

  
16/6/18

Name and Signature of Examiner-1

  
15/6/18

Name and Signature of Examiner-2



# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**KSSEM**  
K.S. School of Engineering and Management

## Department of Mechanical Engineering

### Certificate

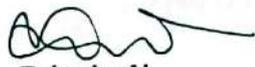
*This is to certify that the project work entitled "Design and fabrication of lowcost simplified electric car" is a bonafide Work carried out by*

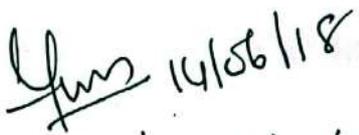
CHASWIN SHETTY	1KG14ME010
HARSHAVARDHAN T L	1KG14ME015
NAGARJUNA M	1KG14ME029
SRIKANTH S	1KG14ME052

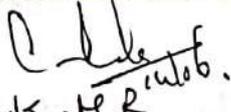
*in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Name and signature of  
Internal Guide

  
Head of the Department

  
Principal/  
Director  
Dr. S. N. SRIDHARA  
K. S. School Of Engineering & Management  
BENGALURU::560 109.

  
Dr. Yuvaraja Naik  
Name and Signature of Examiner-1

  
Abhishek H.R.  
Name and Signature of Examiner-2



**K.S. School of Engineering and Management**

No. #15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Mechanical Engineering**

**Certificate**

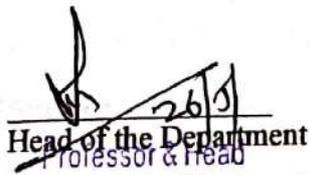
*This is to certify that the project work entitled **Design and Fabrication of Bi-Directional side dumping trailer for trucks** is a bonafide work carried out by*

K Prakash	1KG14ME017
Praveen Kumar K V	1KG14ME041
Vuppalapati Hareesh	1KG14ME062
Ajith Kumar Naidu R S	1KG15ME403

*in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree*

  
CSHIVANAND

Name and Signature of Internal Guide

  
26/11

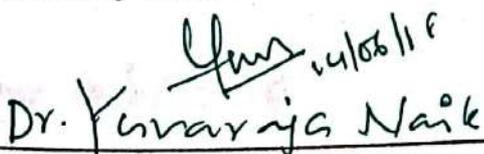
Head of the Department  
Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions

K.S. School of Engineering & Management  
Bengaluru-560062.

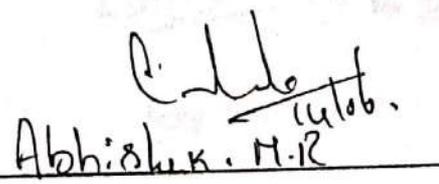
  
Principal/ Director  
**Dr. S. N. SRIDHARA**  
Principal/Director

K. S. School Of Engineering & Management  
BENGALURU-560 109.

University Examiners:

  
4/10/18

Name and Signature of Examiner-1

  
4/10/18

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
#15, Mallasandra, Off Kanakapura road, (Near Vajarahalli)  
Bengaluru-560109



**Department of Mechanical Engineering**

## Certificate

*This is to certify that the Technical Seminar Report entitled "Experimental Investigation of Forced Convection Heat Transfer through Perforation Fins" is a bonafide work carried out by*

MITUN T	1KG14ME026
NIKHIL S	1KG14ME032
PRAMODA A J	1KG14ME037
RAHUL RAO R	1KG14ME044

*In partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Nikhil* 24/5/18  
Signature of Internal  
Guide With date

*[Signature]*  
Head of Department  
with date

*[Signature]*  
Principal / Director  
**Dr. S. N. SRIDHARA**  
with date  
Principal/Director  
K.S. School Of Engineering & Management  
BENGALURU-560 109

University Examiners.

*[Signature]* 24/06/18  
**Dr. Yuvaraj A. Khair**  
Name and Signature of Examiner-1

*[Signature]* 24/06/18  
**Abhishek H.R**  
Name and Signature of examiner-2

**K.S. School of Engineering and Management**  
No. #15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled Design and Fabrication of semi-automatic coil rewinding machine a bonafide work carried out by*

<b>Sachin Gowda</b>	<b>1KG13ME040</b>
<b>Dinesh Babu K</b>	<b>1KG14ME016</b>
<b>Rakshith N</b>	<b>1KG14ME046</b>
<b>Sagar C</b>	<b>1KG14ME049</b>

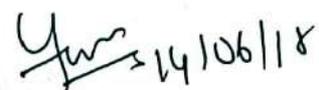
*in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belagavi, during the year 2017-18. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Name and Signature of Internal Guide

  
Head of the Department

  
**Dr. S. N. SRIDHARA**  
Principal/Director  
School Of Engineering & Managr  
BENGALURU-560 10

University Examiners:

  
**Dr. Yamanja Maik**  
Name and Signature of Examiner-1

  
**Abhishek. H. R.**  
Name and Signature of Examiner-2





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Ph: (0437) 233483, 233484, 233441, 233245 Fax: (04347) 233246, E-mail: [durofLEX\\_fa@rediffmail.com](mailto:durofLEX_fa@rediffmail.com)

Date: 07.04.2018

**TO WHOM SO EVER IT MAY CONCERN**

This is to certify that **MR. PUNEETH**, REG No: **1KG16MBA20**, Student of **K.S. SCHOOL OF ENGINEERING AND MANAGEMENT**, #15, Mallasandra, off-Kanakapura main road Bangalore 62. Doing master of Business of administration as undergone 12weeks projects work in our organisation from 15.01.2018 to 28.03.2018 under the topic, **“A STUDY ON IMPACT OF THE ADVERTISING ON DUROFLEX PRODUCTS”**.

He has shown keen interest in learning the systems during his trainings.

We wish him all the success for his future endeavours.

Thanking You,

For Duroflex Pvt Ltd,



  
Mr. Sunil Kumar

MANAGER, HR DEPARTMENT

# SHAHI EXPORTS PVT. LTD.

Date:31.03.2018

## To Whom so ever it may Concern

This is to certify that Ms. Ambrutha C S (1KG16MBA01) Studying MBA in K.S School of Engineering and Management Bangalore, Successfully completed an project titled "A Study on Employee Welfare Measures" at "Shahi Exports Pvt Ltd". The Period of the Project was from 15th January 2018 to 31th March 2018.

During the above period. Performance and conduct of Ambrutha C S (1KG16MBA01) has been good and satisfactory.

we wish her all the best for her future. Endeavours.

For Shahi Exports Pvt Ltd.

  
Suresh  
HR Manager

Address:  
No: 37/1B, 43/2, 43/3. Arekere Village,  
Bannerghatta Main Road, angalore-560076

Telephone: 40351000/2648855  
Facsimile: 0091-80-28591123

Email: [www.shahi.co.in](http://www.shahi.co.in)

**PAGARIYA FOOD PRODUCTS (P), LTD**

An ISO 22000-2005 certified company  
Corporate office: # 222, 1<sup>st</sup> floor, 3<sup>rd</sup> main road, Above Jain lab, I.L.S Enclave  
Chamrajpet, banagalore-560018, INDIA  
P: +91 80-26606204/5 E:INFO@kwalitiy spices.com



**INTERNSHIP CERTIFICATE**

**TO WHOM SO CONSTANTLY IT MAY APPREHENSION**

This is to certify that **BEERAPPA C. N (1KG16MBA02)** Student of K.S School of engineering and management, Bangalore, VTU has successfully completed his internship training the project titled "**A STUDY ON EFFECTIVENESS OF CHANNEL OF DISTRIBUTION AT KWALITIY SPICES (PAGARIYA FOOD PRODUCTS PVT, LTD)**" Harohalli from 17-1-2018 to 29-3-2018.

This project on appraisal fulfils all the stated criteria and the student's finding are his original work, we wish him all the best for future Endeavour's.

A handwritten signature in blue ink, appearing to read "M. N. H.", is written over a horizontal line.

(External Guide)



Date: 09-04-2018



**KAMMAVARI SANGHAM (R), 1952**  
**K.S. School of Engineering and Management**

Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi  
#15, Near Vajarahalli, Mallasandra, off Kanakapura Road,  
Bengaluru - 560 109, www.kssem.edu.in  
Tel : +91 80 28425012/013/163, Fax : +91 80 2842 5164, Mob : 8884444408

REF: KSSEM/MBA-2018-PROJECT REPORT

CERTIFICATE

This is to certify that **BOYUNAPALLI RAVI** bearing USN 1KG16MBA03, is a bonafide student of Master of Business Administration course of this Institute Batch 2016-2018, affiliated to Visvesvaraya Technological University, Belagavi. Internship report on "A STUDY ON CUSTOMER SATISFACTION AT KK DISTRIBUTORS, BANGALORE" is prepared by him under the guidance of **PROF. MANJUNATHA S**, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visveswaraya Technological University, Belagavi, Karnataka.

Internal Guide & HOD,  
Prof. Manjunatha S,  
Professor & Head  
Dept. of Management Studies  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

Dr. S. N. SRIDHARA  
Principal  
K. S. School Of Engineering & Management  
BENGALURU-560 109.



ಟೆಕ್ಸ್ಟೈಲ್ ಕೋ - ಆಪರೇಟಿವ್ ಬ್ಯಾಂಕ್ ಲಿ.,

**TEXTILE  
CO-OPERATIVE BANK LTD.,**

ಆಡಳಿತ ಕಛೇರಿ : 2ನೇ ಮಹಡಿ, ದೇವಾಂಗ್ ಮಾರ್ಕೆಟ್,  
ಜುಮ್ಮಾ ಮಸಜಿದ ರಸ್ತೆ, ಬೆಂಗಳೂರು - 560 002.

☎ 22274953, 65372435  
Fax : 22231352  
E-mail : textilecbi@gmail.com

**ADMINISTRATIVE OFFICE :**  
DEVANGA MARKET, 2nd FLOOR,  
JUMMA MASJID ROAD,  
BENGALURU - 560 002.

**5 MAY 2018**

Date.....

Ref. : TCB/ADMN/ 418 /18-19

**CERTIFICATE**

This is to certify that Mr.R.Chethan Kumar . Reg. No.1KG16MBA04 a student of MBA in K.S.School of Engineering and Management, Bangalore, has completed Internship on "**A study on Comparative Analysis of Textile Co-op Bank Loan Schemes with BCC Bank Loan Scheme**" from 19.01.2018 to 31.03.2018 in our Bank at Gottigere Branch.

This permission to do a Internship Training was accorded on the request from the Institution which the student is studying for practical fulfillment for completion of his course.

The student evinced keep in the Training and during the period of Training his conduct was satisfactory.

  
**MANAGER(A.O.)**

MAIN BR : 1st Floor, Devanga Market, J.M. Road, Bengaluru - 560 002 Ph : 22217905 - 22237655 - 65372433  
BRANCHES : No. 16, 1st 'A' Main Road, Sudhamanagar, Bengaluru - 560 027 - Ph : 22243772 - 65372439  
No. 11, 3rd Cross, Gramadevatha Street, Adugodi, Bengaluru - 560 030 - Ph : 25703133 - 65372437  
No. 38/1, Magadi Rd. Main (near Anjan Theatre), Bengaluru - 560 023 - Ph : 23389481 - 65372438  
No. 14/4, (K-64), 10th Cross, Lakshminarayanapuram, Bengaluru - 560 021 - Ph : 23325357 - 65372440  
No. 1562/1575/825, 2nd Cross, Weavers Colony, Gottigere, Bengaluru - 560 083. - Ph : 28429403 - 65372436  
No. 1/1, Taluk Office Road, Anekal - 562 106 - Ph : 27830603

Date 31-03-2018

**To whomever it may concern**

This is to certify that **Ms. Deeksha Yadav B** (USN No. 1KG16MBA05) has undergone internship at our organization and successfully completed her project titled on "**Recruitment and Selection Process**" From the date of 15<sup>th</sup> January 2018 to 31<sup>st</sup> March 2018.

During above period we found her sincere, enthusiastic and hardworking.

We wish her all the very best in her future endeavors.

**For Anchor Electricals Pvt. Ltd.,**



**Authorized Signatory**

---

**Anchor Electricals Pvt. Ltd.**

# 8-12, Prestige Nebula, Block-2  
3rd Floor, Infantry Road  
Bangalore - 560 001.

Tel : 080 - 30284400  
Fax : 080 - 30284411

Regd. Office - 3rd Floor, B Wing  
iThink Techno Campus, Pokhran Road No. 2  
Thane (West), Pin Code 400 807

TIN : 29700389082

Tel : (022) 30418888  
F : (022) 30418884/5/6/7  
www.anchor-world.com

A member of Panasonic Group.



Inflow Technologies Pvt. Ltd.  
Inflow House, # 33 & 34, Indiranagar 1st stage,  
Off 100 Feet Road, Bangalore - 560 038.  
Ph: +91 80 41265151, Fax: +91 80 41265152  
info@inflowtechnologies.com / inflowtechnologies.com  
CIN No.: U72200KA2008PTC048560

**March 27, 2018**

To

**The Professor & Head  
Department of Management Studies  
KS Group of Institutions  
Bangalore**

This is to inform that Mr. Hassan Noumon Khan ( USN No. 1KG16MBA06) has completed his project titled "A Study On HR Policies And Implementation" at Inflow Technologies Pvt Ltd Bangalore during the period of 15-1-2018 to 24-3-2018 towards fulfilling his academic requirement for the completion of his course.

Thanking you

Yours sincerely

  
**Nancy Varghese  
Head - HR & Admin**





# NEO LABELS INC.

AN ISO 9001 : 2008 CERTIFIED COMPANY



All types of Manufacturing Electronic Labels, Dome Labels, Barcode Labels, ESD Labels, Caution Labels & Aluminium Name Plates

Date: 31/03/2018

Place: Bangalore

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. HEMAVATHLG (Reg.No.-1KG16MBA07) pursuing IV semester MBA at M/s. K S School of Engineering & Management affiliated to VTU University. As part of her curriculum and for the partial fulfilment of MBA degree she has successfully completed Project at M/s. Neo Labels Inc., for the period of 15<sup>th</sup> January 2018 to 31<sup>st</sup> March 2018 on "Working Capital Management with special reference to Neo Labels Inc."

During the period of her Internship project work with us her conduct was good.

We wish her all the very best for her future Endeavour.

For Neo Labels Inc,  
Somegowda  
Manager – Accountant.



# 57, 8th Main, Nanjappa Layout, Kanakapura Main Road, Yelachenahalli, Bangalore- 560 062.  
Ph: 080-2686 0616 Mob : 99007 49879 E-mail : gneolabelsinc@gmail.com website: www.neolabelsinc.com

CIN : U85110KA1980SGC003871



ಕರ್ನಾಟಕ ಸಾಬೂನು ಮತ್ತು ಮಾರ್ಜಕ ನಿಯಮಿತ

(ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಸ್ವಾಮ್ಯಕ್ಕೆ ಒಳಪಟ್ಟಿದೆ)

**Karnataka Soaps & Detergents Limited**

(A Government of Karnataka Undertaking)



KSDL/HRD/59[C]-A/2017-18/ **434**

Date:24.03.2018

## **CERTIFICATE**

This is to certify that **Ms. Kusuma.S**, Student of MBA, Reg.1KG16MBA08, of K.S.School of Engineering and Management, No.15, Vajarahalli, Mallasandra, Off. Kanakapura Road, Bengaluru-560 054. Affiliated to Visveswaraya Technological University, Belagavi, has done Project work "**A Study on Employee Job Satisfaction**" at Karnataka Soaps & Detergents Limited, Bengaluru-560055, from: **15.01.2018 to 24.03.2018.**

During her Project work in our Company, we found her Character & Conduct is Good.

We wish her success in Life and Career.

*T. Krishna* 24/3/18

ASST.GENERAL MANAGER  
[Human Resource & Development]

Karnataka Soaps & Detergents Limited

# 27, Industrial Suburb,  
Bengaluru-Pune Highway,  
Rajajinagar, Bengaluru-560 055

ಅಧಿಕಾರಿ ಮತ್ತು ಕಾರ್ಯಾಲಯ : ನಂ.27, ಇಂಡಸ್ಟ್ರಿಯಲ್ ಸಬುರ್ಬ್, ಬೆಂಗಳೂರು-ಪುಣೆ ಹೆದ್ದಾರಿ, ರಾಜಾಜಿನಗರ, ಬೆಂಗಳೂರು-560 055, ಭಾರತ  
ದೂರವಾಣಿ : ■ ಕಾರ್ಖಾನೆ : 080-2216 4800 ■ ಶುಲ್ಕ ರಹಿತ ಕರೆ : 1800 425 1103 ■ ಫ್ಯಾಕ್ಸ್ : 080-2337 0498 / 2337 5102 ■ ಟೆಲಿಫ್ಯಾಕ್ಸ್ : 2337 7691

Corporate Off. & Factory : #27, Industrial Suburb, Bangalore-Pune, Highway, Rajajinagar, Bangalore - 560 055. INDIA  
Ph : ■ Factory : 080-2216 4800 ■ Toll Free 1800 425 1103 ■ Fax : 080-2337 0498 / 2337 5102 ■ Telefax : 2337 7691

Website : <http://www.mysoresandal.co.in>

CIN : U85110KA1980SGC003871



ಕರ್ನಾಟಕ ಸಾಬೂನು ಮತ್ತು ಮಾರ್ಜಣ ನಿಯಮಿತ

(ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಸ್ವಾಮ್ಯಕ್ಕೆ ಒಳಪಟ್ಟಿದೆ)

**Karnataka Soaps & Detergents Limited**

(A Government of Karnataka Undertaking)



KSDL/HRD/59[C]-A/2017-18/ **433**

Date:24.03.2018

**CERTIFICATE**

This is to certify that **Ms.K.Lakshmi Pavithra**, Student of MBA, Reg.1KG16-MBA09, of K.S.School of Engineering and Management, No.15, Vajarahalli, Mallasandra, Off. Kanakapura Road, Bengaluru-560 054. Affiliated to Visveswaraya Technological University, Belagavi, has done Project work "A Study on Inventory Management" at Karnataka Soaps & Detergents Limited, Bengaluru-560055, from: **15.01.2018 to 24.03.2018**.

During her Project work in our Company, we found her Character & Conduct is Good.

We wish her success in Life and Career.

*T. Krishna* 24/3/18  
ASST. GENERAL MANAGER  
[Human Resource & Development]  
Karnataka Soaps & Detergents Limited  
# 27, Industrial Suburb,  
Bengaluru-Pune Highway,  
Rajajinagar, Bengaluru-560 055

ಆರಾಜ್ಯ ಕಛೇರಿ ಮತ್ತು ಕಾರ್ಖಾನೆ : ನಂ.27, ಇಂಡಸ್ಟ್ರಿಯಲ್ ಸಬುರ್ಬ್, ಬೆಂಗಳೂರು-ಪುಣೆ ಹೆದ್ದಾರಿ, ರಾಜಾಜಿನಗರ, ಬೆಂಗಳೂರು-560 055. ಭಾರತ  
ದೂರವಾಣಿ : ■ ಕಾರ್ಖಾನೆ : 080-2216 4800 ■ ಶುಲ್ಕ ರಹಿತ ಕರೆ : 1800 425 1103 ■ ಫ್ಯಾಕ್ಸ್ : 080-2337 0498 / 2337 5102 ■ ಟೆಲಿಫ್ಯಾಕ್ಸ್ : 2337 7691  
Corporate Off. & Factory : #27, Industrial Suburb, Bangalore-Pune, Highway, Rajajinagar, Bangalore - 560 055. INDIA  
Ph : ■ Factory : 080-2216 4800 ■ Toll Free 1800 425 1103 ■ Fax : 080-2337 0498 / 2337 5102 ■ Telefax : 2337 7691  
Website : <http://www.mysoresandal.co.in>

**Certificate from the guide and head of the department**



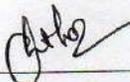
**KAMMAVARI SANGHAM (R),1952**  
**K.S. School of Engineering and Management**

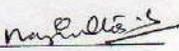
Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi  
#15, Near Vajarahalli, Mallasandra, off Kanakapura Road,  
Bengaluru - 560 109, www.ksem.edu.in  
Tel : +91 80 28425012/013/163, Fax : +91 80 2842 5164, Mob : 8884444408

REF: KSSEM/MBA-2018-PROJECT REPORT

**CERTIFICATE**

This is to certify that **MADHUSHREE U S** bearing USN **1KG16MBA10**, is a bonafide student of Master of Business Administration course of this Institute Batch 2016-2018, affiliated to Visveswaraya Technological University, Belagavi. Project report on "**A STUDY ON BUDGETING FRAMEWORK AND PROCESS AT PARSONS NUTRITIONALS PVT LTD.,**" is prepared by her under the guidance of **Prof. CHETHAN M J**, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visveswaraya Technological University, Belagavi, Karnataka.

  
Internal Guide,  
**Prof. Chethan M J**  
Assistant Professor of MBA Dept,  
KSSEM, Bengaluru

  
Head of the Department,  
**Prof. Manjunatha.S,**  
Professor & Head  
Dept. of Management Studies  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560062.

  
Principal  
**Dr. S.N. Sridhara,**  
**Dr. S. N. SRIDHARA**  
Principal/Director  
K.S. School Of Engineering & Management  
BENGALURU-560 109.



ಕರ್ನಾಟಕ ವಿದ್ಯುತ್ ಕಾರ್ಖಾನೆ ನಿಯಮಿತ  
(ಕರ್ನಾಟಕ ರಾಜ್ಯ ಸರ್ಕಾರದ ಸ್ವಾಮ್ಯಕ್ಕೀಡಿನಲ್ಲಿರುವ.)  
**KARNATAKA VIDYUTH KARKHANE LIMITED**  
(A Karnataka Government Undertaking)  
ISO-9001-2008 Company CIN : U31101KA1975PLC002954

KAVIKA/PA/2017-2018/ 4263

Date: 23.03.2018

## CERTIFICATE

This is to certify that Ms.MANASA.S. (1KG16MBA11), Student of 4<sup>TH</sup> Semester MBA studying in "K.S.School of Engineering & Management " Mallasandra, off Kanakapura Road Bangalore-560 062 has undergone Project in the area "A STUDY ON COST CONTROL & COST CONTROL TECHNIQUES AT KAVIKA LTD" during the period from 16.01.2018 to 23.03.2018.

The Project has been completed successfully to our satisfaction and her conduct during the tenure of the Project Project was good and we wish all the best in her career.

KARNATAKA VIDYUTH KARKHANE LIMITED

  
(R.VENKATESHWARA PRASAD)  
PERSONNEL OFFICER

ಕಾರ್ಖಾನೆ ಮತ್ತು ಆಡಳಿತ ಕಛೇರಿ : ಕರ್ನಾಟಕ ವಿದ್ಯುತ್ ಕಾರ್ಖಾನೆ ನಿಯಮಿತ, ಅಂಚೆ ಪೆಟ್ಟಿಗೆ ಸಂಖ್ಯೆ 2610, ಮೈಸೂರು ರಸ್ತೆ, ಬೆ  
FACTORY & REGISTERED OFFICE : KARNATAKA VIDYUTH KARKHANE LIMITED, POST BOX NO. 2610, MYSORE ROAD,  
ಮೂರವಾನಿ / Telephone : 080 - 26987200, 26743331, 26742337, ಫ್ಯಾಕ್ಸ್ / Fax : 080-26744;  
ಈ-ಮೇಲ್ / e-mail : @kavika.co.in Website: kavika.co.in



# ಬೆಂಗಳೂರು ಮಹಾನಗರ ಸಾರಿಗೆ ಸಂಸ್ಥೆ

ಕೇಂದ್ರ ಕಛೇರಿ : ಬೆಂಗಳೂರು

BENGALURU METROPOLITAN TRANSPORT CORPORATION  
HUMAN RESOURCE DEVELOPMENT DEPARTMENT

No: BMTC: CO: HRD: 070 / 2018-19

Date: 04/04/2018



## CERTIFICATE

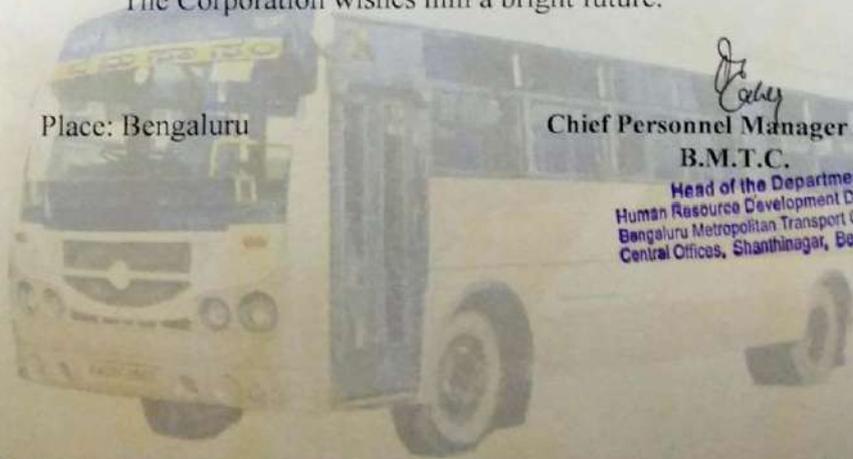
This is to certify that Mr. Muthuraj. M. (Reg. No. 1KG16MBA12) student of Master of Business Administration, K.S. School of Engineering and Management, Bengaluru has successfully completed the Project on the title "A Study on Cash Management at BMTC" from 13/01/2018 to 23/03/2018, at Bengaluru Metropolitan Transport Corporation.

The Corporation wishes him a bright future.

Place: Bengaluru

  
Chief Personnel Manager (HRD)  
B.M.T.C.

Head of the Department  
Human Resource Development Department  
Bengaluru Metropolitan Transport Corporation  
Central Offices, Shanthinagar, Bengaluru-27.





**APPLE AUTO**

**CERTIFICATE BY THE COMPANY**

Your Ref. \_\_\_\_\_

Our Ref. \_\_\_\_\_

**TO WHOM SO EVER IT MAY CONCERN**

This is to certify that **MR. VENKATESULU N** Reg No IKG16MBA13 student at KSSEM COLLEGE, BANGALORE , Has successfully completed the project from JANUARY 3<sup>rd</sup> 2018 to MARCH 23<sup>rd</sup> 2018 . The project titled on ' **A STUDY ON IMPACT OF ADVERTISEMENT**' at APPLE AUTO AGENCY PVT.LTD. BANGALORE.

During the above period , performance conduct by. **MR. VENKATESULU N (REGNO1KG16MBA13)** has been good and satisfactory.

We wish him all the best for his future endeavors.

THANKING YOU,  
Regards

For APPLE AUTO AGENCY PVT LTD

(JAYA PRAKASH)



**APPLE AUTO AGENCY PVT. LTD.**

(Authorised Dealers for : Suzuki Motorcycle India Pvt. Ltd.)  
# 615, 100ft Ring Road, Kathriguppe, BSK 3rd Stage  
Bangalore - 560 085. Phone : 26697070, 26698080

# PRADEEP SURGICAL DRESSINGS PVT. LTD.

MANUFACTURERS OF SURGICAL GAUZE SWABS, DRESSINGS & ALLIED PRODUCTS



3-A, Sarakki Industrial Estate, 3rd Phase, J.P. Nagar, Bannerghatta Road, Bangalore 560 076, INDIA.  
Tel : 080-26586254 / 26586042 Fax : 080 41536143 E-mail : pradeep.surgical@gmail.com

**AN ISO 9001:2008 Company**

Date:31-03-2018

## TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Nagamani.k (Reg.No-1KG16MBA14) pursuing IV semester MBA at M/s. K S School of Engineering & Management affiliated to Vishweshwaraya Technological University. As part of her curriculum and for the partial fulfilment of MBA degree she has successfully completed Project at M/s Pradeep Surgical and Dressing Pvt Ltd., for the period of 15<sup>th</sup> January 2018 to 31<sup>st</sup> March 2018 on the study of "Analysis of Financial Statement with special reference to Pradeep Surgical and Dressing Pvt Ltd".

During the period of her internship project work with us her conduct was good. We wish her all the very best for her future Endeavour.

For Pradeep Surgical and Dressing Pvt Ltd

  
Managing Director  
(Pradeep Rao)



**Registered Office :** No. S-404, HM Tambourine, Kanakapura Main Road,  
Jaraganahalli, J.P. Nagar 6th Phase, Bangalore - 560 078



## CERTIFICATE

Date: 23.03.2018

This is to certify that Ms. Nayana Banakar student of K.S. School of Engineering and Management, Bangalore. Bearing USN 1KG16MBA15 has completed the project in HR Department at SYNTHITE INDUSTRIES LTD, Harihar under the project title "EMPLOYEE ABSENTEEISM". During the period 15<sup>th</sup> January to 24<sup>th</sup> March 2018.

This certificate is issued to produce before "K.S. School of Engineering and Management, Bangalore" for the completion of internship of project at SYNTHITE INDUSTRIES LTD, Harihar. She has successfully completed her project in our organization.

During this period, we found her to be sincere and hard working. We wish her all the best in future endeavors.

For SYNTHITE INDUSTRIES LTD.

Chetan H.K.

Assistant manager HR

## CERTIFICATE FROM THE ORGANIZATION



Date: 31/03/2018

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Pallavi S (Reg. No.- 1KG16MBA16) pursuing IV semester MBA at M/s. K S School of Engineering & Management affiliated to VTU University. As part of her curriculum and for the partial fulfillment of MBA degree she has successfully completed Project at M/s. Precimeasure Controls Pvt. Ltd., for the period of 15<sup>th</sup> Jan 2018 to 31<sup>st</sup> March 2018 on "Financial Analysis with special reference to Precimeasure Controls Pvt. Ltd.,"

During the period of her Internship project work with us her conduct was good.

We wish her all the very best for her future Endeavour.

for Precimeasure Controls Pvt. Ltd.,



Asst. Manager - HR

PRECIMEASURE CONTROLS PVT. LTD.

Branch & Works : Plot No. 65, 1st Stage, KIADB, Sompura Industrial Area, Dabaspet - 562111, Bengaluru, India  
Ph : 080-66080108 / 109 / 107 Website : www.precimeasure.com

CIN : U33130KA2001PTC029210



## CERTIFICATE

### TO WHOM SO EVER IT MAY CONCERN

This is to certify that Ms.POORNIMA B G (USN No. 1KG16MBA18) from K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BANGALORE has successfully completed her Internship/Project Training starting from 15-01-2018 to 24-03-2018 the project titled "A STUDY ON TRAINING METHODS, BANGALORE.

She has exhibited a high level of enthusiasm and commitment in her work.

On completion of the project, she has submitted a written report of the above studies.

We wish all the best for her future Endeavour's.

Regards,

Vivek V

Business Associate  
Lkp Securities Ltd  
BANGALORE.



### **LKP Securities Ltd.**

Member : NSE Sebi Regn. No. INB / INF 230720030 / MAPIN ID 1000000331  
Regd. Off. / WDM : 404, Embassy Centre, Nariman Point, Mumbai - 400 021 022-6635 1234, Fax 022-6635 1249

Shantha Complex, IInd Floor, 18-20, Lady Curzon Road, Infantry Road Cross, Bangalore - 560 001  
Tel. : +91 80 3074 1400 Fax : +91 80 3074 1516 Website: www.lkpsec.com

Agra Ahmedabad Ahmednagar Aligarh Amritsar Bangalore Chandigarh Chennai Faridabad Gurgaon  
Hyderabad Jaipur Jalandhar Jamshedpur Jodhpur Kolkatta Ludhiana Mathura Mumbai Nasik  
New Delhi Noida Pune Rishikesh Sangner Shrinagar Surat Vrindavan Vyara Yamunanagar





# Sharekhan

Your guide to the financial jungle

Ref no :

prer/ 2017/035

date :

## CERTIFICATE

This is to certify that, **Mr. PRATHAP KC** (USN-1KG16MBA19) 4<sup>th</sup> semester MBA student of **K,S,SCHOOL OF ENGINEERING AND MANAGEMENT** has approached a organization he was successful completed Project Report on **"A STUDY ON RISK AND RETURN OF SELECTED MUTUAL FUND"** in **SHAREKHAN BY BNP PARIBAS**, from  
5-01-2018 to 10-03 -2018.

We wish him all the best

  
**ASST.GENERAL MANAGER**  
**[MARKETING]**

**SHAREKHAN BY BNP PARIBAS**

492/K, 1st flr, 7th Cross, 7th Blk West, Jayanagar, Bangalore Rural, Karnataka 560082



Date: 25.03.2018

Place: Bangalore

**TO WHOMEVER IT MAY BE CONCERN**

This is to certify that **Mrs.R.SINDHU** bearing USN no: 1KG16MBA21,of MBA batch 2016-2018 of K S School of Engineering and management, Bangalore has undergone 10 weeks of internship training on "Employee retention techniques" at ACEBRIGHT (INDIA) PHARMA PVT LTD,Banglore w.e.f 15<sup>th</sup> January 2018 to 24<sup>th</sup> march 2018 During the training he has shown tremendous learning propensity.

We wish his success for all his future endeavors.

HR Manager



CIN : U31909KA2007PTC043663

**Zreyah Semiconductor Systems Pvt. Ltd.**

March 26, 2018

**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that **Ms. RANJITHA.G (USN 1KG16MBA22)** MBA 4<sup>th</sup> semester student of K S School of Engineering and Management, Bangalore has successfully completed the training on the topic **A Study on Employee Welfare** for the period of 10 weeks from 15<sup>th</sup> January 2018 to 23<sup>rd</sup> March 2018

During her project work, her performance and conduct found to be good and satisfactory. We wish her all the best in all her future endeavors

**For Zreyah Semiconductor Systems Pvt Ltd.**

**Bhoopal Reddy K.C**

**Director**



बी ई एम एल लिमिटेड  
**BEML LIMITED**

( A Govt. Of India Mini Ratna Company under Ministry of Defence )  
Bangalore Complex



**Corporate Office :**

'BEML SOUDHA',  
23/1, 4th Main Road, S. R. Nagar,  
Bangalore - 560 027, INDIA  
Tel : 080 - 2222 4141  
e-mail : office@pr.beml.co.in

**Manufacturing Units :**

**KGF Complex**  
Tel : 08153-263020  
e-mail : bemlede@vsnl.net.in

**Mysore Complex**  
Tel : 0821-2402422  
e-mail : bemlmys@sancharnet.in

**Palakkad Complex**  
Tel : 0491-2568055  
e-mail : beml.gmpalakkad@gmail.com

**International Business Division**  
Tel : +91-80-2222 2730, 2223 3350  
e-mail : office@export.beml.co.in

**Technology Division**  
Tel : +91-80-2296 3100-109  
e-mail : office@ctd.beml.co.in

**Trading Division**  
Tel : +91-80-22963113  
e-mail : office@trading.beml.co.in

**Regional Offices :**

**Bilaspur**  
Tel : 07752-252082  
e-mail : bilaspur@rm.beml.co.in

**Chennai**  
Tel : 044-28270792  
e-mail : chennai@rm.beml.co.in

**Dhanbad**  
Tel : 0326-2205750  
e-mail : dhanbad@rm.beml.co.in

**Hyderabad**  
Tel : 040-23227032  
e-mail : hyderabad@rm.beml.co.in

**Kolkata**  
Tel : 033-22826314  
e-mail : kolkata@rm.beml.co.in

**Mumbai**  
Tel : 022-22049490  
e-mail : mumbai@rm.beml.co.in

**Nagpur**  
Tel : 0712-2248435  
e-mail : nagpur@rm.beml.co.in

**New Delhi**  
Tel : 011-23316500  
e-mail : delhi@rm.beml.co.in

**Ranchi**  
Tel : 0651-2560370  
e-mail : ranchi@rm.beml.co.in

**Sambalpur**  
Tel : 0663-2521604  
e-mail : sambalpur@rm.beml.co.in

**RK/32-C/043**

**25.04.2018**

**CERTIFICATE**

This is to certify that Mrs.SARASWATHI H Y (1KG16MBA24) a student pursuing MASTER OF BUSINESS ADMINISTRATION from K.S.SCHOOL OF ENGINEERING AND MANAGEMENT, BANGALORE has successfully completed her Internship/Project at BEML Ltd. Bangalore Complex, during the Period from 05.01.2018 to 04.03.2018, as a part of her curriculum and has submitted a report titled "A STUDY ON INVENTORY MANAGEMENT AT BEML LTD".

During the above period, we have found her to be diligent and honest in her work and we wish her success in all her future endeavors.

for BEML LIMITED,

(SYED SHUIYBUDDIN KZ)  
Asst. Officer-HR



Date: 22/5/2018

**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that **Satish Madhukar Khode**, (USN: 1KG16MBA25) student of Fourth Semester MBA, of KS School of Engineering and Management, has successfully completed the project titled **Digital Marketing Strategy, Tools And Its Impact On Customers** in our company with reference to the partial fulfillment of the requirements of the MBA Degree course of Visvesvarya Technological University.

All necessary details were provided from our side for the establishment of the project.

We wish him all the very best in his future endeavors.

Thanking you

With Regards  
**For Oracle India Pvt Ltd.**



**Manish Joshi**  
**Sr. Manager- Human Resources**



Ref : SKPL: 003/2018

To

The HOD  
K.S. School of Engineering and Management,  
Mallasandra, Kanakapura Road,  
Bangalore,

---

Subject : Permission for Project in Stovekraft Pvt Ltd

With reference to the above we have granted permission to Mr. Shankar R Registration No. 1KG16MBA26 for project work in Stovekraft Pvt Ltd for the period of 10 Weeks from 20<sup>th</sup> January 2018 as per the letter submitted by you.

For STOVE KRAFT PVT LTD

Authorised Signatory

Place: Bangalore

Date : 20-01-2018



**ROYAL ORCHID  
CENTRAL**

47/1, Dickenson Road, Manipal Centre,  
Bangalore 560 042, India.  
T +91 80 2558 4242 F +91 80 2558 8594  
E central@royalorchidhotels.com  
www.royalorchidhotels.com

Date: 30<sup>th</sup> Mar 2018

**TO WHOM IT MAY CONCERN**

This is to certify that Mr. Shashi Kumar A, a student of MBA 4 Semester, Reg. no. 1KG16MBA27 (Major in Finance), K S School of Engineering and Management Affiliated to VTU University has successfully completed Three months (From 5<sup>th</sup> January, 2018 to 28th Mar, 2018) long internship programme on Credit Management at Royal Orchid Central, a Unit of Icon Hospitality PVT Ltd. During the period of his internship programme with us he was found punctual, hardworking and inquisitive.

We wish him every success in life.

For Royal Orchid Central

T R Nagesh

Unit Financial Controller



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(A Unit of ICON Hospitality Pvt. Ltd.)



ಸನ್‌ನೆಸ್

# 213, 2nd Floor, 5th Main, Opp. Bank of India, RPC Layout,  
Vijayanagar, Bangalore – 560 104, INDIA.  
Ph: +91 80 2310 2812 | Mobile: +91 98446 75485  
E-mail: group@sunnness.in | Web: www.sunnness.in  
CIN : U67120 KA2009 PTC050745

## CERTIFICATE

### TO WHOM SO EVER IT MAY CONCERN

This is to certify that Ms. SHILPA M (USN No.1KG16MBA28) from K.S.SCHOOL OF ENGINEERING AND MANAGEMENT, BANGALORE has successfully completed her Internship/Project Training starting from 15-01-2018 to 24-03-2018 the project titled "A STUDY ON HUMAN RESOURCE DEVELOPMENT ACTIVITIES", BANGALORE.

She has exhibited a high level of enthusiasm and commitment in her work.

On completion of the project, she has submitted a written report of the above studies.

We wish all the best for her future Endeavour's.

Regards, \*

**RANJAN S**  
Business Associate  
SUNNESS CAPITAL INDIA PVT. LTD.  
BANGALORE.

  
**SUNNESS**  
CAPITAL INDIA PRIVATE LIMITED  
# 20, 2nd Floor, 24th Main 5th Cross,  
Above Airtel, J.P. Nagar, 2nd Phase,  
Bangalore - 560 078. Ph : 080-26582058  
www.sunnness.in

**BANGALORE CITY CO-OPERATIVE BANK LTD**

3/7, 3<sup>rd</sup> cross, 2<sup>nd</sup> block, opposite  
Ayyappa swami temple,  
Koramangala, Bangalore 560068  
PH:080-23302009



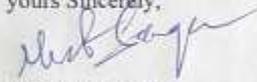
Date:25/03/2018

**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that **Mr. ShivaShankara Reddy SS**, Bearing USN No.1KG16MBA29, studying MBA in KS School of Engineering and Management-Bangalore, Under Visvesvaraya Technological University has successfully completed the Project report "**A Study on Lending policy at Bangalore City Co-operative Bank Ltd**". For a Period of 10 weeks from 19/01/2018 to 25/03/2018.

Thank You.

yours Sincerely,



Mohith Singh. R

Manager HR  
Bangalore City Co-operative Bank Ltd.  
H.R. Manager  
Koramangala Bengaluru - 560051.



Date : 31/03/2018

## CERTIFICATE

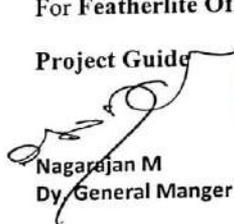
This is to certify that **Ms. Shwetha .P** ( Reg No – 1KG16MBA30 ) pursuing IV semester MBA at **K S School of Engineering and Management** affiliated to **Visvesvaraya Technological University**. As per her part of curriculum and for the partial fulfilment of degree of MBA degree she has successfully completed project at **Featherlite Office System Pvt. Ltd**, for the period of 15<sup>th</sup> January to 31<sup>st</sup> March 2018 on the study of “**Receivable Management**” under the Guidance of **Mr.Nagarajan M, Dy.General Manager – Accounts & Finance**.

During the period her performance and conduct was satisfactory.

Company wishes her all Success in her future career.

For Featherlite Office Systems Pvt. Ltd

Project Guide

  
Nagarajan M  
Dy. General Manger – Accounts & Finance



**FEATHERLITE OFFICE SYSTEMS (P) LTD**

# 83 & 88/1, Bangalore - Mysore Road,  
Hejjala Circle, Ramanagaram Dist.  
Pin Code - 562 109.

Tel : 28437778  
Fax : 28437771

website : [www.featherlitefurniture.com](http://www.featherlitefurniture.com)



#432-A 2nd Block,  
Kalyan Nagar, Bengaluru, 560043  
Contact: +918904904120  
E-mail: info@fincoresoftwares.com  
www.fincoresoftwares.com

**CERTIFICATE**

This is to certify that the project titled "Cash budgeting models based comprehensive study" is submitted to Fincore in fulfillment of the requirement for the degree of MBA from KS SCHOOL OF ENGINEERING AND MANAGEMENT, Bangalore. The project is a bona fide record at work carried out by Miss. SUCHITRA BV (1KG16MBA31) under the supervision and guidance of Mr. Sagar VP, Operations manager, Fincore Bangalore between the periods from 15-01-2018 to 01-04-2018.

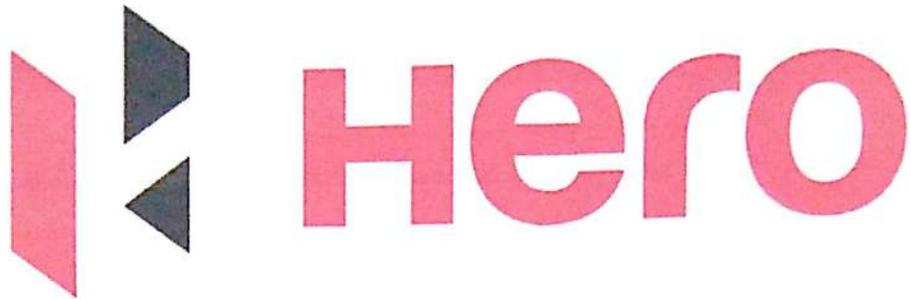
We are happy to recommend that Miss. SUCHITRA BV who completed the project successfully would be an asset to any organization that she is going to serve in future.

Regards,

A handwritten signature in blue ink, appearing to read 'Sagar VP', written over a horizontal line.

Mr. Sagar VP  
Manager Operations

**FINCORE**  
432-A, 2nd Block  
Kalyan Nagar  
Bangalore-560 043



## **HERO MOTOR CORP.**

#2/6, 4th Block, Chamrajpet, Bangalore, Karnataka 5600 02.

Phone number: +91 9066566317

Email:Herochamrajpet@heromotorcorp.in

Date: 15/01/2018 to 24/03/2018

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr.Tahir Sharief** (Reg No. **1KG16MBA32**) Pursuing IV semester MBA at K.S School of Engineering & Management affiliated to VTU University. As part of his curriculum and for the partial fulfillment of MBA degree he has successfully completed Internship project at Hero Motor Corp., for the period of 10 weeks during the period of his internship project work with us his conduct was good.

We wish him all the very best for his future Endeavour.

for Hero Motor Corp.

(HR Manager)

**SANJAY D**



**promac** Engineering Industries Ltd.



Phone : + 91 - 80 - 26320372  
26320373, 26320432  
28436229, 28436230  
Fax : + 91 - 80 - 26321204  
E-mail : mail@promacindia.com  
Visit us at : www.promacindia.com  
CIN No : U24210KA1972PLC002255

Registered Office & Factory : Off Kanakapura Road  
Alahalli, Anjanapura Post, Bangalore - 560 108 India.

March 12, 2018

**TO WHOMSOEVER IT MAY CONCERN**

This to certify that Ms.Uma Devi M (USN No.1KG16MBA33) from K.S.School of Engineering and Management, Bengaluru, who is pursuing her IV Sem MBA, had undergone Internship between January 2018 and March 2018 in our HRD Department and completed the same.

During her internship, she studied the whole concept of HR under the guidance of the H.O.D.

During her stay with us, we found her a very good and fast learner and enthusiastic in knowing more about the practicality concerning her subjects.

We wish her Good Luck,

FOR PROMAC ENGINEERING INDUSTRIES LTD.

*K.M.S. Anisha Kumar*

Sr. Manager - HRD

**Turnkey Projects : Cement Plants, Bulk Material Handling Systems for Power Plants & Other Process Plants**



GE  
Industrial Solutions

GE India Industrial Pvt. Ltd.  
Plot No. 42/1 & 45/14,  
Electronic City - Phase II  
Bangalore - 560 100.

Tel. : +91 80 4111 3000  
Fax : +91 80 2852 8469 / 552

30-march-2018

**TO WHOME SO EVER IT MAY CONCERN**

This is certify that **Jayasree v** bearing register number **1kg16MBA34**, student of **k. s. school of engineering & management**, department of human resource management, Bangalore had undertaken an internship project at our organization . from 15-jan-2018 to 30- march-2018. she has completed the project report and organization study successfully.

During the project we found her to be diligent and hardworking

We wish her all the best in her future endeavors.

For GE India Industrial Pvt Ltd

A handwritten signature in blue ink, appearing to read 'Ashok Dutt'.

Ashok Dutt  
Human Resources Manager





Karnataka State Financial Corporation  
KSFC Bhavan  
No 1/1 Thimmaiah Road  
Bangalore 560051  
Phone:22263355  
Email: admin@ksfc.in  
www.ksfc.in

Ref: F005/PR/HR/1062/18

05/04/2018

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Vishal.V** Bearing USN No.1KG16MBA35, studying MBA in KS School of Engineering and Management-Bangalore, Under Visvesvaraya Technological University has successfully completed the Project report "**A Study on Asset-Liability and Fund Management at Karnataka State Financial Corporation**". For a Period of 10 weeks from 22/01/2018 to 31/03/2018.

We wish him the best for his Future Endeavors.

Thanking You.

Yours's Sincerely,



Ranjith Kumar.S

Assistant HR, KSFC

**Karnataka State Financial corporation.**  
Assistant H.R.  
#1/1, Thimmaiah Road Vasant Nagar.  
Bengaluru-560051.



विजया बैंक  
**VIJAYA BANK**  
(A GOVT. OF INDIA UNDERTAKING)

*A friend you can bank upon*

Date: 31/03/2018

**INTERNSHIP CERTIFICATE**

**TO WHOME SO EVER IT MAY CONCERN**

This is certify VYSHALLR (USN.1KG16MBA36) student of K.S. School of Engineering and Management Bangalore. VTU has successfully completed her internship training the project titled, "A STUDY ON CREDIT APPRAISAL AT VIJAYA BANK", Bangalore from 16-01-2018 to 31-03-2018.

The project on evaluation fulfills all the stated criteria and the student's findings are his original work, we wish her all the best for her future endeavors.

  
MANAGER



ಕರ್ನಾಟಕ ಸಹಕಾರಿ ಹಾಲು ಉತ್ಪಾದಕರ ಮಹಾಮಂಡಳ ನಿಯಮಿತ  
Karnataka Co-Operative Milk Producer's Federation Limited



No.2040/Adm-1/2018

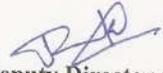
Date: 02.04.2018

CERTIFICATE

This is to certify that **Ms.Yashaswini S** studying M.B.A at K.S.School of Engineering and Management, Mallasandra,Kanakapura Road Bengaluru, has successfully completed her project work on “**Distribution Channel Network at Karnataka Co-operative Milk Federation LTD**” for a period from 15.01.2018 to 31.03.2018. This certificate is issued for the purpose of academics only. Her conduct during this period is found to be satisfactory.

Your's faithfully,

for Karnataka Co-Operative Milk Federation Ltd.,

  
Sr. Deputy Director (Admin)  
Sr. Deputy Director  
Karnataka Milk Federation  
Bangalore - 29.

ಕೆ.ಎಂ.ಎಫ್ ಸಂಕೀರ್ಣ, ಅಂಚೆ ಜಿಲ್ಲಾ ಸಂಖ್ಯೆ : 2915, ಡಾ|| ಎಂ.ಹೆಚ್. ಮರಿಗೌಡ ರಸ್ತೆ, ಬೆಂಗಳೂರು - 560 029.

KMF Complex, P.B. No. 2915, Dr. M.H. Marigowda Road, Bengaluru - 560 029. Phone : 080-26096800, 25536625, Fax : 25536105.  
e-mail : ps.md@kmf.coop / admin@kmf.coop / finance@kmf.coop / marketing@kmf.coop / purchase@kmf.coop / mis@kmf.coop  
ah@kmf.coop / step@kmf.coop / cti@kmf.coop / qc@kmf.coop / Website : www.kmfandini.coop



ಶ್ರೀ ತ್ಯಾಗರಾಜ ಕೋ-ಆಪರೇಟಿವ್ ಬ್ಯಾಂಕ್ ಲಿಮಿಟೆಡ್  
**SREE THYAGARAJA CO-OPERATIVE BANK LTD.**

H.O. : Phone : 2295 8156 / 57  
Telefax : (080) 2295 8152

H. O. No. 5, 9TH CROSS, N. R. COLONY, BANGALORE - 56 0 019.

No.

No.STCB/CO-15/2018-19

Date .....

13.4.2018

PROJECT COMPLETION CERTIFICATE

We hereby certify that **Mr.Bharath.J**, Registration No:1KG16MBA38, MBA student of Visvesvarya Technological University, Belagavi, K.S.School of Engineering and Management, No.15, Mallasandra, Off Kanakapura Road, Bangalore – 560 109, has satisfactorily completed his project work on **"Revenue and Expenditures of Sree Thyagaraja Co-operative Bank Ltd.,"** in our Bank successfully for a period of 10 weeks from 19.01.2018.

During his project work in our Bank we found his character & conduct satisfactory.

We wish him all the best in his future endeavors and career.

Regards,

**Sree Thyagaraja Co-op Bank Ltd**

**General Manager**

**VODAFONE INDIA SERVICE PRIVATE LIMITED**  
SCD 127489283 DIST: SRI DEVIKA RANI ENTERPRICES  
HAROHALLI, KANAKAPURA (TQ)  
RAMANAGARA-562112



REF:VODA/HRD/Trainee Ltr.

DATE:06/04/2018

**TO WHOME SO EVER IT MAY CONCERN**

This is to certify Mr. Anil N ,(1KG16MBA39) student of 4<sup>th</sup> sem MBA, K S School of Engineering and management science, has successfully completed his project titled " **BRAND AWARENESS OF VODAFONE INDIA SERVICE PVT,LTD.** " at vodafone company under my guidance from 15 Januvary-2018 ,to 31 march 2018.

He has shown the keen interest in the subject and has taken immense care in gathering data and information and the project has been completed by him to our utmost satisfaction. During his association with us, his conduct and character were exemplary.

For :Vodafone India service Pvt Ltd

( Bangalore EAST Zone)

  
Mr. RAGHU.T.

(AREA Sales Manager )

DISTRIBUTER  
  
SRIDEVIKARANI ENTERPRISES  
VODAFONE MINI STORE  
Harohalli, Anekal Main Road,  
Kanakapura Taluk, Ramanagara Dist-562112  
POS Code : 142642206



Rapsri Engineering Products Co. Ltd.  
Reg Plant : Plot No. 318F, KIADB Industrial Area  
Harohalli II Phase, Bannikuppe Village, Harohalli,  
Kanakapura Taluk, Ramanagar Dist.-562 112  
Ph : 80-67228244, 67228237  
Fax : +91 80 67228232  
[www.rapsri.com](http://www.rapsri.com)

29<sup>TH</sup> May 2018

**TO WHOMSOEVER IT MAY CONCERN**

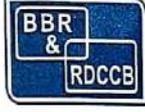
This is certify that Mrs. Deepa B. G (Reg. No-1KG16MBA40) pursuing IV semester MBA at M/s. K S School of Engineering & Management affiliated to VTU University. As part of her curriculum and for the partial fulfillment of MBA degree she has successfully completed project at M/s. Rapsri Engineering Product Company Ltd, for the period of 15<sup>th</sup> January 2018 to 31<sup>st</sup> March 2018 on "Employee Health and Safety Measures at Rapsri Engineering Products Co. Ltd."

During the period of the Internship project work with us her conduct was good.

We wish her all the very Best for her further Endeavour.

For Rapsri Engineering Products Co. Ltd.

Manjunatha S M  
Associate Manager- HR, IR & Admin



**The Bangalore, Bangalore Rural & Ramanagara District  
Central Co-operative Bank Limited**

President : 26601631  
Managing Director : 26601291  
Manager (Adm. & Est.) : 26617441  
EPBX No. 22427940, 41, 42, 47  
Fax : 26601291

Head Office : P.B. No. 1813, "Lakshmi Sadana", 5th Main Road, Chamaraipet, Bengaluru - 560 018

NO:BBR:RDCCB:HO:EST: 327 :2018-19 : 19.05.2018.  
Ref.:..... Branch ..... Date.....

**TO WHOMSOEVER IT MAY CONCERN**

This to Certify that Mr. Mallikarjuna S, (Register No.161NCOM015) pursuing IV Semester MBA, at K.S. School of Engineering and Management, Bangalore, has successfully completed the Project Report on "Credit Risk Management" in Bangalore, Bangalore Rural & Ramanagara District Central Co-Operative Bank Ltd., for the period of 15<sup>th</sup> January 2018 to 31<sup>st</sup> March 2018.

Mr. Mallikarjuna S, was a deligent trainee. He used time effectively for enhancing the learning opportunity.

  
Chief Executive Officer

ಬೆಂಗಳೂರು, ಬೆಂಗಳೂರು ಗ್ರಾಮಾಂತರ ಮತ್ತು ರಾಮನಗರ ಜಿಲ್ಲಾ ಕೇಂದ್ರ ಸಹಕಾರ ಬ್ಯಾಂಕ್ ನಿಯಮಿತ

ಮುಖ್ಯ ಕಛೇರಿ : ನಂ. 6, 'ಲಕ್ಷ್ಮೀಸದನ', 5ನೇ ಮುಖ್ಯರಸ್ತೆ, ಚಾಮರಾಜನೇಟೆ, ಬೆಂಗಳೂರು - 560 018

# *The Coca-Cola Company*

135, 11 & 12 KOLLAR INDUSTRIAL AREA BIDAR INDUSTRIAL AREA BIDAR  
Karnataka INDIA 585403.

PH:080- 27798456  
7892131170

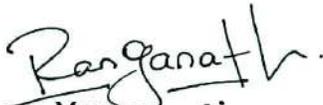
---

Date:31-03-2018

## TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms.NAVEEN C (Reg.No-1KG16MBA42) pursuing IV semester MBA at M/s. K S School of Engineering & Management affiliated to Vishweshwaraya Technological University. As part of her curriculum and for the partial fulfilment of MBA degree he has successfully completed Project in THE COCO-COLA COMPNY LTD for the period of 15<sup>th</sup> January 2018 to 31<sup>st</sup> March 2018 on the study of EFFICTIVENESS OF BRAND POSTIONING with special reference to The Coco-Cola Compny ltd During the period of her project work with us her conduct was good.

We wish him all the very best for her future Endeavour.

  
Manager ..

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project work entitled **Traffic Signal Co-ordination by Progression Method Along The Stretch of Banashankari to BTM** is a bonafide work carried out by*

B Vinod Kumar	1KG13CV007
Menni Jagadeesh	1KG13CV030
Naveen Kumar N	1KG13CV034
Anil Kumar M S	1KG13CV063

*in partial fulfilment for the award of **Batchelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Savithe B.G  
Name and Signature of  
Internal Guide

W. Kelle  
Head of the  
Department  
Professor & Head

Dr. S. N. SRIDHARA  
Principal/  
Director

Dept. of Civil Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
BANGALURU-560 062.

University Examiners:

W. Kelle  
24/6/17  
Name and Signature of Examiner-1

P. S.  
24/6/17  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Civil Engineering**

## Certificate

*This is to certify that the project work entitled **Rainwater Harvesting System for K.S.School of Engineering and Management** is a bonafide work carried out by*

Pramodh Kumar N	1KG12CV411
Shravanthi D	1KG13CV050
Ashwini K P	1KG14CV404
Pavan Kumar M	1KG14CV415

*in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Dr. Vyshal: Vyshal.

Name and Signature of Internal Guide

W Akelle

Head of the Department

Professor & Head

Dept. of Civil Engineering

K.S. Group of Institutions

K.S. School of Engineering & Management

Bangalore-560 062.

Dr. S. N. SRIDHARA

Principal/ Director

**Dr. S. N. SRIDHARA**

Principal/Director

K. S. School Of Engineering & Management

BENGALURU - 560 109

University Examiners:

W Akelle  
23/6/17  
for Vyshal Akelle

Name and Signature of Examiner-1

Renu  
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Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Civil Engineering**

## Certificate

This is to certify that the project work entitled *Implementation of advance traffic management system at silk board junction Bangalore* is a bonafide work carried out by

<b>ABHISHEK B</b>	<b>1KG14CV402</b>
<b>JAIPRAKASH NARAYAN T K</b>	<b>1KG14CV407</b>
<b>KEERTHI T S</b>	<b>1KG14CV408</b>
<b>MADHU A M</b>	<b>1KG14CV411</b>

in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

SWATHI M S

Name and Signature of  
Internal Guide

*AKelle*

Head of the Department,  
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**DR. G. N. SRIDHARA**  
Principal/Director  
K. S. School Of Engineering & Management  
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University Examiners:

*AKelle*  
23/11/17

*Dr. Vijayalakshmi AKelle*

Name and Signature of Examiner-1

*Rohith*  
23/11/17  
*Rohith, At*

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**Department of Civil Engineering**

## Certificate

*This is to certify that the project work entitled **Identification, Analysis and Remedial measures of Black Spots- A Case Study from Madiwala to Electronic city, Bangalore** is a bonafide work carried out by*

A Ashwini	1KG13CV001
Amit Kumar	1KG13CV004
Harish Kumar	1KG13CV015
Shikhar Shukla	1KG13CV049

*in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Savitha B.G.

Savitha B.G.  
Name and Signature of  
Internal Guide

U Akelle  
23/6/17

Head of the Department  
Professor & Head  
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U Akelle  
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Name and Signature of Examiner-1

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24/6/17

Name and Signature of Examiner-2

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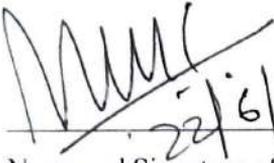
**Department of Civil Engineering**

## Certificate

*This is to certify that the project work entitled "ANALYSIS AND DESIGN OF MULTI-STOREYED RESIDENTIAL BUILDING USING COMMERCIAL SOFTWARE" is a bonafide work carried out by*

<b>SNEHA.S. TOGGI</b>	<b>1KG12CV041</b>
<b>KAILASH.N</b>	<b>1KG13CV019</b>
<b>RAKESH.R</b>	<b>1KG13CV044</b>
<b>SUSHMA.Y. A</b>	<b>1KG14CV421</b>

*in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
22/6/17

Name and Signature of  
Internal Guide

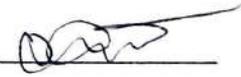
**Mr. Veerendra Kumar.M**

Associate Professor  
Dept. of Civil Engg.  
KSSEM, Bengaluru

  
Professor & Head

Head of the Department  
Dept. of Civil Engineering  
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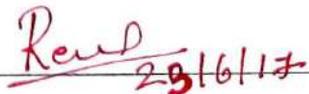
  
Principal/Director  
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**K.S. School of Engineering and Management**  
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**KSSEM**

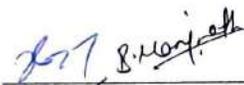
**Department of Civil Engineering**

## Certificate

This is to certify that the project work entitled "**OPTIMIZATION OF MIX DESIGN FOR SELF COMPACTING CONCRETE**" is a bonafide work carried out by

<b>HARISH J</b>	<b>1KG13CV014</b>
<b>MANJUNATH P B</b>	<b>1KG13CV028</b>
<b>MOHAN KUMAR K R</b>	<b>1KG13CV031</b>
<b>ARUN KUMAR H M</b>	<b>1KG13CV061</b>

in partial fulfilment for the award of "**Bachelor of Engineering in Civil Engineering**" of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.



Name and Signature of  
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**Mr. Manjunath B**

**Mr. Thejas C M**

Assistant Professors  
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**Dr. Vijayalakshmi Akella**

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Principal/ Director

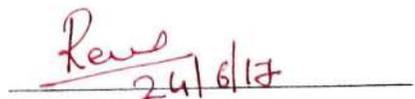
**Dr. S N Sridhara**

Principal  
KSSEM, Bengaluru

University Examiners:



Name and Signature of Examiner-1



Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Civil Engineering**

## Certificate

This is to certify that the project work entitled **Design of a Sewage Treatment Plant at K.S. School of Engineering and Management** is a bonafide work carried out by

MADAN GOPAL V	IKG13CV026
RAJESH R KULKARNI	IKG13CV043
RAVI KIRAN A	IKG13CV045
RAVI KIRAN SHASTRI	IKG13CV046

in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

SWATHY .M.S.  
  
Name and Signature of  
Internal Guide

KAVYA .M  
  
Name and Signature of  
Internal Guide

Professor & Head  
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23/6/17  
Name and Signature of Examiner-2

Rohith. GA

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**Department of Civil Engineering**

## Certificate

This is to certify that the project work entitled *Numerical validation of experimental results for bearing capacity of vertical skirted footing on c- $\phi$  soil* is a bonafide work carried out by

**M PRAVEEN KUMAR**

**1KG13CV025**

**NANDAN R**

**1KG13CV033**

**PRAVEEN**

**1KG13CV039**

**SHAMBHAVI B S**

**1KG13CV048**

in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

**AREKAL VIJAY**

Name and Signature of  
Internal Guide

Professor & Head  
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K.S. Group of Institutions

K.S. School of Engineering & Management  
University Examiners  
Bangalore-560062.

Principal/  
Director

**Dr. S. N. SRIDHARA**  
Principal/Director

K.S. School of Engineering & Management  
**BENGALURU-560 1**

Name and Signature of Examiner-1

Name and Signature of Examiner-2

**Rohith. CA**

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Civil Engineering**

## Certificate

*This is to certify that the project work entitled "Effect of Super Plasticizers on Properties of Concrete" is a bonafide work carried out by*

<b>Nithin G.R</b>	<b>1KG13CV036</b>
<b>Vijaya Saagar A</b>	<b>1KG13CV059</b>
<b>Manoj Kumar J.D</b>	<b>1KG13CV062</b>

*in partial fulfilment for the award of Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

\_\_\_\_\_  
Name and Signature of  
Internal Guide

*NA*  
\_\_\_\_\_  
Name and Signature of  
Industrial Guide

*NAKelle* *AK*  
\_\_\_\_\_  
Professor & Head  
Dept. of Civil Engineering  
K.S. Group of Institutions  
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**DR. S. N. SRIDHARA**  
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**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project work entitled Numerical Simulation of Experimental Results for Bearing Capacity of Internal Inclined Skirted Footing on c-φ Soil is a bonafide work carried out by*

**Madhurya S**

**1KG15CSE07**

*in partial fulfilment for the award of Master of Technology in Structural Engineering of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Arekal Vijay  
Internal Guide

Dr. Vijayalakshmi Akella  
Head of the Department  
Professor & Head  
Dept. of Civil Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560062

Dr. S. N. Sridhara  
Principal/Director  
**Dr. S. N. SRIDHARA**  
Principal/Director

University Examiners:

AREKAL VIJAY 07/12/17

Name and Signature of Examiner-1

KAVYASHREE R.R 07/12/17

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project work entitled "Comparitive study on Tubular Structure subjected to Mega and Diagrid Bracing System" is a bonafide work carried out by*

Ranjitha. S 1KG15CSE15

*in partial fulfilment for the award of Master of Technology in Structural Engineering of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Naveena M.P

Handwritten signature of Naveena M.P in blue ink.

Name and Signature of  
Internal Guide

Handwritten signature of the Head of Department in blue ink.

Head of the  
Department  
Professor & Head

Dept. of Civil Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560102.

Handwritten signature of Dr. S. N. SRIDHARA in blue ink.

Principal/  
Director

**Dr. S. N. SRIDHARA**  
Principal/Director

K.S. School Of Engineering & Management  
BENGALURU-560109

University Examiners:

Handwritten signature of Examiner-1 in blue ink.

Name and Signature of Examiner-1

Handwritten signature of Examiner-2 in blue ink, dated 10/11/2017.

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Civil Engineering**

# Certificate

*This is to certify that the project work entitled "Optimum Positioning of Shear Wall in High Rise Building Subjected to Seismic Loads" is a bonafide work carried out by*

**Kruthi P    1KG15CSE06**

*in partial fulfilment for the award of **Master of Technology in Structural Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*AMRUTHA D. SHENOY*  
*Amrutha D*

Name and Signature of  
Internal Guide

*W. Kelle*

Head of the Department  
Professor & Head  
Dept. of Civil Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore

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**Dr. S. N. SRIDHARA**  
Principal/Director

K. S. School of Engineering & Management

University Examiners:

*[Handwritten Signature]*  
*09/09/17*

Name and Signature of Examiner-1

*W. Kelle*  
*9/9/17*

Name and Signature of Examiner- 2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project work entitled "Lateral Strut Analysis of Masonry Infill Walls With and Without Openings" is a bonafide work carried out by*

Indrajeet.C.Bagi

1KG15CSE05

*in partial fulfilment for the award of Master of Technology in Structural Engineering of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Name and Signature of  
Internal Guide

Head of the  
Department  
Professor & Head  
Dept. of Civil Engineering  
K. S. Group of Institutions  
K. S. School of Engineering & Management  
Bangalore-560 062

Principal/  
Director  
**Dr. S. N. SRIDHARA**  
Principal/Director  
K. S. School Of Engineering & Manag.  
BENGALURU-560 109.

University Examiners:

\_\_\_\_\_  
Name and Signature of Examiner-1

\_\_\_\_\_  
Name and Signature of Examiner-2

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No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



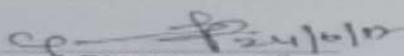
Department of Computer Science Engineering

### Certificate

This is to certify that the project work entitled *An Autonomous Sailing Robot for Underwater Exploration* is a bonafide work carried out by

Priyadarshini S	1KG13CS069
Priyakshitha U	1KG13CS070
Raghavi M	1KG13CS074

in partial fulfilment for the award of Bachelor of Engineering in Computer Science Engineering of Visvesvaraya Technological University, Belagavi, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.

  
Name and Signature of Internal Guide 1

  
Name and Signature of Internal Guide 2

  
Head of the Department

  
Principal/Director

**Dr. B.K. RAJASHEKAR** **Dr. S. N. SRIDHARA**  
Professor & HoD, Dept of CSE Principal/Director  
K.S. School of Engineering & Management K.S. School of Engineering & Management  
Bengaluru-560109 BENGALURU-560 109.

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

# K S SCHOOL OF ENGINEERING AND MANAGEMENT

#15, Mallasandra, off Kanakapura Road, Bengaluru-560109

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



**KSSEM**  
K S SCHOOL OF ENGINEERING AND MANAGEMENT

2016-2017

## CERTIFICATE

Certified that the project work entitled "**DESIGN AND IMPLEMENTATION OF A FRAMEWORK FOR CONTROLLING DATA DEPLICATION IN ENCRYPTED BIG DATA**" carried out by Mr. **MANJUNATH R S**, bearing USN 1KGI58C901, a bonafide student of K S School of Engineering & Management, Bengaluru in partial fulfillment for the award of Master of Technology in Computer Science and Engineering, of the Visvesvaraya Technological University, Belagavi during the year 2016-2017. It is certified that all corrections/suggestions indicated for the Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of the project work prescribed for the M.Tech degree.

  
21/01/17

Dr. B. K. Raghavendra

Internal Guide

Professor & HOD, Dept. of CSE,

KSSEM, Bengaluru

K S School of Engineering & Management

Bengaluru-560109



Dr. S. N. Sridhara

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**Dr. S. N. SRIDHARA**

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Name of the Examiner

Signature with Date:

1.

2.

# K S SCHOOL OF ENGINEERING AND MANAGEMENT

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



**KSSEM**  
K S SCHOOL OF ENGINEERING AND MANAGEMENT

2016-2017

## CERTIFICATE

Certified that the project work entitled "**DESIGN AND IMPLEMENTATION OF A FRAMEWORK FOR CONTROLLING DATA DEPLICATION IN ENCRYPTED BIG DATA**" carried out by Mr. MANJUNATH R S, bearing USN 1KGI58C901, a bonafide student of K S School of Engineering & Management, Bengaluru in partial fulfillment for the award of Master of Technology in Computer Science and Engineering, of the Visvesvaraya Technological University, Belagavi during the year: 2016-2017. It is certified that all corrections/suggestions indicated for the Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of the project work prescribed for the M.Tech degree.



Dr. B. K. Raghavendra

Internal Guide

Professor & HOD, Dept. of CSE,

KSSEM, Bengaluru

K S School of Engineering & Management

Bengaluru-560109



Dr. S. N. Sridhara

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**Dr. S. N. SRIDHARA**

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Name of the Examiner

Signature with Date:

1.

2.

**K.S. School of Engineering and Management**

No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Electronics and Communication Engineering**

*Certificate*

*This is to certify that the project work entitled Design and Implementation of Patient Monitoring System Using Steady State Visual Evoked Potential Signal Based on LABVIEW is a bonafide work carried out by*

Bhavya. S	1KG13EC011
Chethana H.G	1KG13EC016
Harathi Devi. Nalla	1KG13EC026
Harsha K.M	1KG13EC028

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Shalini Shrivastava*

*Shalini J*  
*29/5/17*

Name and Signature of  
Internal Guide

*[Signature]*  
Head of the Department  
Dept. of Electronics & Communication Engineering  
K.S. Group of Institutions  
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Principal/ Director

**Dr. S. N. SRIDHARA**  
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K. S. School Of Engineering & Management  
BENGALURU-560 109.

University Examiners:

*[Signature]*  
Name and Signature of Examiner-1

*Dr. HSM Reddy*  
*[Signature]*  
Name and Signature of Examiner-2

*24/6/17*

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



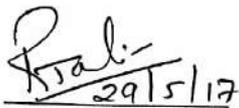
**Department of Electronics and Communication Engineering**

## Certificate

*This is to certify that the project work entitled "Design and Implementation of IoT Based Digital Water Supply Management and Billing System" is a bonafide work carried out by*

Alluri Mahesh	1KG13EC004
B Vaishnavi	1KG13EC009
C Vani	1KG13EC013
K Lakshmi Sagar	1KG13EC036

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
29/5/17

**Mrs Renuka V. Tali**  
Assistant Professor

  
20/5

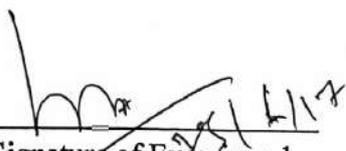
**Dr. Girish Affimarad**  
Head of the Department  
Professor & Head  
Dept. of Electronics & Communication Engineering  
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**Dr. S.N. Sridhara**  
Principal/Director

**Dr. S. N. SRIDHARA**  
Principal/Director  
K. S. School Of Engineering & Management  
BENGALURU-560 109.

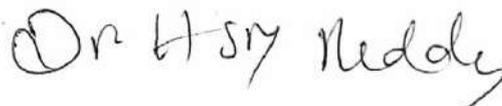
University Examiners:

  
29/5/17

Name and Signature of Examiner-1

  
23/6/17

Name and Signature of Examiner-2



**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Electronics and Communication Engineering**

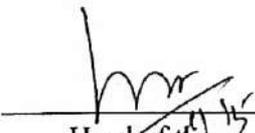
## Certificate

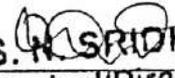
*This is to certify that the project work entitled **Implementation of an Indoor Navigation Robot for Visually Impaired and New Visitors** is a bonafide work carried out by*

Rahul Patil	1KG13EC082
Swaroop Dixit S	1KG13EC108
Ujwal L	1KG13EC111
Hemanth M. V.	1KG14EC403

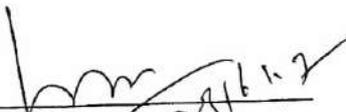
*in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2016-2017. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Name and Signature of  
Guide

  
Professor & Head  
Department  
Dept. of Electronics & Communication Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

  
Dr. S. N. SRIDHARA  
Principal/Director  
K. S. School of Engineering & Management  
BENGALURU-560 109.

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2  
23/6/17  
Dr. E. S. M. Reddy



**Department of Electronics and Communication Engineering**

*Certificate*

*This is to certify that the project work entitled **Implementation of a Human Eye movement Controlled Wheel Chair with Fall Detection using Raspberry Pi** is a bonified work carried out by*

Prudhvi P	1KG13EC080
Salla H Lokesh	1KG13EC095
Sandeep Mani	1KG13EC096
Vinay Kumar M C	1KG14EC409

*in partial fulfilment for the award of **Batchelor of Engineering in Electronics and Communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Shanthala. G.M.*  
29/5/17  
Name and Signature of Guide

*[Signature]*  
Head of the Department  
Professor & Head

*[Signature]*  
Principal/ Director

University Examiners:

Dept. of Electronics & Communication Engineering  
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**Dr. S. N. SRIDHARA**  
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BENGALURU-560

*[Signature]*  
Name and Signature of Examiner-1

*[Signature]* 23/6/17  
Name and Signature of Examiner-2  
**Dr. HSM Reddy**

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No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



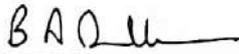
**Department of Electronics and Communication Engineering**

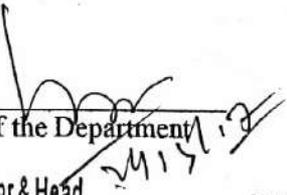
## Certificate

*This is to certify that the project work entitled **Implementation of Stereo Vision Based Robot for Environment Mapping** is a bonafide work carried out by*

Gowtham.R	1KG12EC032
Nanda Prasad.G	1KG13EC065
Prakash B	1KG13EC077
Rakesh Kumar.V	1KG13EC087

*in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2013-14. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Name and Signature of Guide  
(Ravikiran B.A.)

  
Head of the Department  
Professor & Head  
Dept. of Electronics & Communication Engineering  
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Name and Signature of Examiner-2  
Dr. Hsuy Reddy

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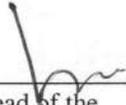
## *Certificate*

*This is to certify that the project work entitled Design and Implementation of Voice, Touch and Gesture based "Natural User Interface"(NUI) is a bonafide work carried out by*

<b>Arpitha D Apthi</b>	<b>1KG13EC007</b>
<b>Chaitra T P</b>	<b>1KG13EC014</b>
<b>Harish Kumar P</b>	<b>1KG13EC027</b>
<b>Jayabharathi B S</b>	<b>1KG13EC034</b>

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgavi, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Name and signature of  
Internal Guide

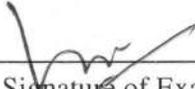
  
Head of the  
Department

  
Principal/Director

**K. S. School of Engineering & Management**  
Bangalore-560 062

Head of the Department  
Department of Electronics & Communication Engineering  
K. S. School of Engineering & Management  
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University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

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## Department of Electronics and Communication Engineering

### Certificate

*This is to certify that the project work entitled **Design and Implementation of Embedded System Based Autonomous Fire Fighter Robot** is a bonafide work carried out by*

Harshana P	1KG13EC029
Harshitha K	1KG13EC030
Manasa L	1KG13EC052
Raghav R Bhaskar	1KG12EC075

*in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
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Head of the Department  
Professor & Head

  
Principal/ Director  
**Principal/ Director**

University Examiners:

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Bangalore-560 109

  
Name and Signature of Examiner-1

  
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## Department of Electronics and Communication Engineering

### Certificate

*This is to certify that the project work entitled Design and Implementation of Surveillance Robot for Outdoor Security is a bonafide work carried out by*

Meghana S	1KG13EC056
Nikhil Teja V	1KG13EC069
Raghuveer Murali	1KG13EC081
Sanjana S	1KG13EC097

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Signature of Internal Guide

  
Head of Department  
Principal / Director  
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**Department of Electronics and Communication Engineering**

## Certificate

*DESIGN AND IMPLEMENTATION OF REAL TIME SIGN LANGUAGE  
DETECTION AND CONVERSION TO SPEECH SYSTEM*

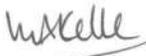
*This is to certify that the project work entitled DESIGN AND IMPLEMENTATION  
OF REAL TIME SIGN LANGUAGE DETECTION AND CONVERSION TO SPEECH  
SYSTEM is a bonafide work carried out by*

Ramya R	1KG13EC089
Rohith Kumar K.J	1KG13EC090
Sundari P.M	1KG13EC103
Usha R	1KG13EC112

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and  
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Name and Signature of  
Internal Guide

  
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## Department of Electronics and Communication Engineering

### Certificate

*This is to certify that the project work entitled "Design and Implementation of Smart Ration Distribution and Controlling System" is a bonafide work carried out by*

Kalluru Sai Kumar Naidu	IKG13EC040
Mukesh N	IKG13EC059
Murthy S	IKG13EC062
V C Anand Babu	IKG11EC080

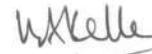
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**Ms. Arpitha Beerala**  
Asst. Professor  
Department of ECE  
KSSEM, Bangalore



**Dr. Girish Vattimarad**  
Professor and HOD  
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## Department of Electronics and Communication Engineering

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This is to certify that the project work entitled **Implementation of Effective Blood Bank Management using IoT** is a bonafide work carried out by

J.Pallavi	1KG13EC032
Karthik. M. B	1KG13EC041
Madhura. S	1KG13EC047
Monika. K. J	1KG13EC058

in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

Name and Signature of  
Guide

Head of the  
Department

Principal/Director

Professor & Head  
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## *Certificate*

*This is to certify that the project work entitled **Design and Implementation of Universal ATM Card using RFID** is a bonafide work carried out by*

<b>Ananthaneni Padmaja</b>	<b>1KG13EC005</b>
<b>Maheswari Maddineni</b>	<b>1KG13EC046</b>
<b>Malathi MM</b>	<b>1KG13EC049</b>
<b>Prashanthi Pallineni</b>	<b>1KG13EC072</b>

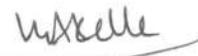
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**Mr. Chethan Sharma.P**  
Assistant prof. & Guide



**Dr. Girish.V.Attimarad**  
Prof. & Head of Dept ECE  
Professor & Head



**Principal**  
Principal/Director  
**K.S. School of Engineering & Management**  
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## Department of Electronics and Communication Engineering

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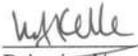
*This is to certify that the project work entitled IoT Based Smart and Secure Home Design Using Solar Powered devices is a bonafide work carried out by*

Divya.M	1KG13EC020
M.Akhil Naidu	1KG13EC061
T. Sree Pallavi.	1KG13EC109
Sunil Sangappa Kagal	1KG13EC105

*in partial fulfilment for the award of Bachelor of Engineering in Electronics And Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Name and Signature of Guide

  
Head of the Department

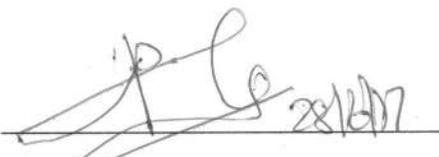
  
Principal/Director

Professor & Head  
Dept. of Electronics & Communication Engineering  
K. S. School of Engineering & Management  
Bangalore-560 109

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Bangalore-560 062

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Name and Signature of Examiner-2

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**Department of Electronics and Communication Engineering**

## *Certificate*

*This is to certify that the project work entitled "Histogram Based Automated Visual Inspection System for Textile Industry using FPGA" is a bonafide work carried out by*

<b>Sumanth.C</b>	<b>1KG11EC071</b>
<b>Manjunatha.B.C</b>	<b>1KG11EC402</b>
<b>Aishwarya.M.Raman</b>	<b>1KG12EC004</b>
<b>Suraj.S</b>	<b>1KG13EC106</b>

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

 Name and Signature of Internal Guide	 Head of the Department Professor & Head Dept. of Electronics & Communication Engineering K. S. School of Engineering & Management Bangalore-560 109	 Principal/Director K. S. School of Engineering & Management Bangalore-560 062
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University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

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**Department of Electronics and Communication Engineering**

## *Certificate*

This is to certify that the project work entitled " **Design and Implementation of Electric Meter Reading, Billing, Theft detection unit And Control**" a bonafide work carried out by

Divya L	IKG13EC019
Divya R	IKG13EC021
Harshitha R	IKG13EC031
Manushri K U	IKG13EC055

in partial fulfilment for the award of **Bachelor of Electronics and Communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.



Name and Signature of  
Guide



Head of the  
Department



Principal/Director  
K. S. School of Engineering & Management  
Bangalore-560 062

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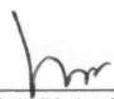
*Certificate*

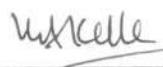
*This is to certify that the project work entitled **Design and Implementation of a Programmable Smart Stick for Visually Impaired using ARM7** is a bonafide work carried out by*

Rajesh C S	1KG10EC084
Suhas R M	1KG13EC101
Sunil Kumar S	1KG13EC104
Suresh J	1KG13EC107

*in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-2017. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

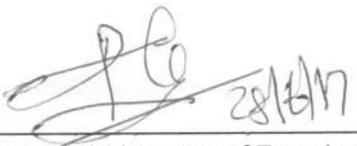
  
**Dr. Girish V Attimarad**  
Professor and HOD  
Internal Guide

  
**Dr. Girish V Attimarad**  
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Dept. of Electronics & Communication Engineering  
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**Principal and Director**  
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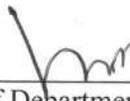
## Certificate

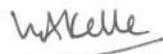
*This is to certify that the project work entitled **RF Based Speed Anti-Violation System with Insurance Detection using IoT** is a bonafide work carried out by*

Nagendra V	1KG13EC063
Rakshitha G	1KG13EC088
Siddharth Nambiar KT	1KG13EC099
Vyshnavi Lakshmi Burle	1KG13EC116

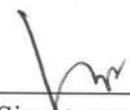
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\_\_\_\_\_  
Garde  
Mr. Manu DK  
Associate Professor  
Dept. of ECE  
KSSEM

  
\_\_\_\_\_  
Head of Department  
Dr. Girish V. Attimarad  
Dept. of Electronics & Communication Engineering  
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\_\_\_\_\_  
Principal/Director  
Sridhara  
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University Examiners:

  
\_\_\_\_\_  
Name and Signature of Examiner-1

  
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23/6/17  
Name and Signature of Examiner-2

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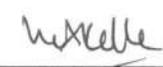
## Certificate

*This is to certify that the project work entitled **Design and implementation of Internet of Things (IoT) based metal and non-metal segregation** is a bonafide work carried out by*

Ashwini B	1KG10EC009
P. Hari Krishna	1KG12EC065
Prakash Kumar Sah	1KG12EC068
Manalee Bhushan	1KG13EC050

*in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of Visvesvaraya Technological University, Belgavi, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
\_\_\_\_\_  
Name and Signature of Internal Guide

  
\_\_\_\_\_  
Head of the Department  
  
\_\_\_\_\_  
Principal/Director  
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Dept. of Electronics & Communication Engineering  
Bangalore-560 062  
**K. S. School of Engineering & Management**  
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University Examiners:

  
\_\_\_\_\_  
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\_\_\_\_\_  
Name and Signature of Examiner-2  
23/6/17

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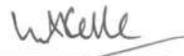
*Certificate*

*This is to certify that the project work entitled "Design and Implementation of a Real-time Surveillance Mini-Rover based on Python-Java using Raspberry Pi 3" is a bonafide work carried out by*

Anirudh.A.S	1KG13EC006
Atul Kumar	1KG13EC008
Mukesh Pandey	1KG13EC060
Partha Sarathy .G	1KG12EC067

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgavi, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Name and Signature of  
Internal Guide

  
Head of the Department  
  
Principal /  
Director  
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23/6/17  
Name and Signature of Examiner-2

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**Department of Electronics and Communication Engineering**

## Certificate

*This is to certify that the project work entitled **Design and Implementation of Acoustic Image Enhancement Using Underwater Vehicle** is a bonafide work carried out by*

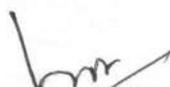
RAJESH S	1KG13EC085
BHARATH N L	1KG14EC401
GOVIND RAJU T	1KG14EC402
PRASHANTH KUMAR N	1KG14EC405

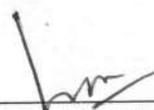
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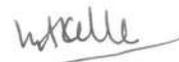
  
**Dr. P. Karthik**

**Dr. Karthik P**  
Professor, Dept. of ECE  
Internal Guide

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Name and Signature of Examiner-1

  
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K. S. School of Engineering & Management  
Bangalore-560 062

  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-109



**Department of Electronics and Communication Engineering**

## *Certificate*

*This is to certify that the project work entitled **Design and Implementation of Voice Operated system for Physically Challenged People** is a bonafide work carried out by*

<b>Kondepati Harshitha</b>	<b>1KG13EC042</b>
<b>Nesara R</b>	<b>1KG13EC068</b>
<b>Pooja Yadav S</b>	<b>1KG13EC075</b>
<b>Jeevitha S</b>	<b>1KG13EC121</b>

*in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of **Visvesvaraya Technological University, Belgaum**, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*



Internal Guide

  
Head of the Department  
Principal/Director  
Department of Electronics & Communication Engineering  
K.S. School of Engineering & Management  
Bangalore-560 109  
Principal/Director  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

  
Name and Signature of Examiner-1  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**Department of Electronics and Communication Engineering**

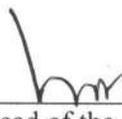
**Certificate**

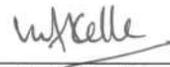
This is to certify that the project work entitled **Implementation of Smart Parking System using Arduino** is a bonafide work carried out by

Neethu R	1KG13EC066
Parnitha Mahesh	1KG13EC073
Prashant D	1KG13EC078
Sumanth Kamath V	1KG13EC102

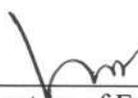
in partial fulfilment for the award of **Bachelor of Electronics and Communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

  
Name and Signature  
of Guide

  
Head of the  
Department  
Dept. of Electronics & Communication Engineering  
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Principal/  
Director  
K. S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

# Design of Electrical Power Theft Detection System and Wireless Meter Reading Using ATMEGA 32

*A Project Work submitted to*



*Visvesvaraya Technological University  
In partial fulfilment of the requirements  
For the award of degree of*

**Bachelor of Engineering  
In  
Electrical and Electronics Engineering**

*Submitted by*

<b>Anusha N</b>	<b>1KG13EE002</b>
<b>Chaithra N</b>	<b>1KG13EE009</b>
<b>Dishashree T N</b>	<b>1KG13EE014</b>
<b>Murali P</b>	<b>1KG13EE027</b>

*Under the Guidance of*

**Mrs. PRATHIKSHA**

Assistant Professor

Department of Electrical and Electronics Engineering  
KSSEM, Bangalore



Department of Electrical and Electronics Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109  
**2016-17**

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**Department of Electrical and Electronics Engineering**

## Certificate

*This is to certify that the project work entitled **Design of Electrical Power Theft Detection System and Wireless Meter Reading Using ATMEGA 32** is a bonafide work carried out by*

Anusha N	1KG13EE002
Chaithra N	1KG13EE009
Dishashree T N	1KG13EE014
Murali P	1KG13EE027

*in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

(PRATHIKSHA)

Prathiksha  
30/5/2017

Name and Signature of  
Internal Guide

University Examiners:

B. R. Nataraj

Head of the Department  
Professor & Head

Dept. of Electrical & Electronics Engineering  
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K.S. School of Engineering & Management  
Bangalore-560 062.

Principal/Director  
**Dr. S. N. SRIDHARA**  
Principal/Director

K. S. School Of Engineering & Management  
BENGALURU-560 109.

B. R. Nataraj  
Dr. B. R. NATARAJAY

Name and Signature of Examiner-1

Dr. Dhanalakshmi R.  
Name and Signature of Examiner-2

# Design and Development of Microcontroller based Auto-Start Three-Phase Induction Motor Protection Unit

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

<b>Cherukuri kireeti</b>	<b>1KG13EE011</b>
<b>Jyothi. Y</b>	<b>1KG13EE017</b>
<b>Mellemputi Manisha</b>	<b>1KG13EE021</b>
<b>Prasad. M</b>	<b>1KG14EE408</b>

*Under the Guidance of*

**Dr. B. R. Natarajan**  
Professor and Head  
Department of Electrical and Electronics Engineering  
KSSEM, Bangalore



**KSSEM**  
K.S. SCHOOL OF ENGINEERING AND MANAGEMENT

Department of Electrical and Electronics Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062  
2016-17

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Electrical and Electronics Engineering**

## Certificate

This is to certify that the project work entitled *Design and Development of Microcontroller Based Auto-Start three-phase Induction Motor protection Unit* is a bonafide work carried out by

Cherukuri Kireeti	IKG13EE011
Jyothi. Y	IKG13EE017
Mellempati Manisha	IKG13EE021
Prasad. M	IKG14EE408

in partial fulfilment for the award of *Bachelor of Engineering in Electrical and Electronics Engineering* of *Visvesvaraya Technological University, Belgaum*, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

  
**Dr. B. R. NATARAJAN**  
Name and Signature of  
Internal Guide

  
Head of the  
Department

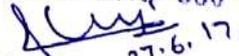
  
Principal/  
Director

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**Dr. S. N. SRIDHARA**  
Principal/Director  
K.S. School of Engineering & Management  
BENGALURU-560 109.

  
**Dr. B. R. NATARAJAN**  
Name and Signature of Examiner-1

  
**Dr. DHANALAKSHMI**  
Name and Signature of Examiner-2

# Design and Development of Micro Grid for Generation of Small Power Using Distributed Generation in Standalone Mode

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

<b>Polarpu Varun Chowdary</b>	<b>1KG12EE025</b>
<b>Sachin H</b>	<b>1KG12EE030</b>
<b>Abhishek D</b>	<b>1KG13EE001</b>
<b>Chethan P</b>	<b>1KG13EE012</b>

*Under the Guidance of*  
**Ms.Gousia Sultana**  
Assistant Professor  
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**KSSEM**  
(K.S. School of Engineering and Management)

Department of Electrical and Electronics Engineering  
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**2016-17**

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**Department of Electrical and Electronics Engineering**

## Certificate

*This is to certify that the project work entitled **Design and Development of Micro Grid for Generation of small Power using Distributed Generation in Standalone Mode** is a bonafide work carried out by*

<b>Polarpu Varun Chowdary</b>	<b>1KG12EE025</b>
<b>Sachin H</b>	<b>1KG12EE030</b>
<b>Abhishek D</b>	<b>1KG13EE001</b>
<b>Chethan P</b>	<b>1KG13EE012</b>

*in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*(GIOUSIA SUKTANA)*  
*Gousia Suktana*  
Name and Signature of  
Internal Guide

*B. R. N.*  
Head of the  
Department  
Dept. of Electrical & Electronics Engineering  
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K.S. School of Engineering & Management  
Bangalore-560 062.

*[Signature]*  
Principal/  
Director  
**Dr. S. N. SRIDHARA**  
Principal/Director  
K.S. School Of Engineering & Management  
BENGALURU-560 109.

University Examiners:

*B. R. N.*  
*Dr. B. R. NATARAJAN*  
Name and Signature of Examiner-1

*[Signature]*  
*2016/17*  
*Dr. DHANALAKSHMI. R.*  
Name and Signature of Examiner-2

# Design and Development of GSM Based Vehicle Parameter Monitoring and Controlling

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

<b>Deelip Kumar V</b>	<b>1KG13EE013</b>
<b>Karthik V R</b>	<b>1KG13EE018</b>
<b>Rajath Kashyap R</b>	<b>1KG13EE028</b>
<b>Vajja Hithesh Siddhartha</b>	<b>1KG13EE033</b>

*Under the Guidance of*

**Mr. Kamalapuram Srinivas Kalyan**  
Assistant Professor  
Department of Electrical & Electronics Engineering  
KSSEM, Bangalore



**KSSEM**

Department of Electrical & Electronics Engineering  
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2016-17

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



## Department of Electrical & Electronics Engineering

### Certificate

This is to certify that the project work entitled *Design and Development of GSM Based Vehicle Parameter Monitoring and Controlling* is a bonafide work carried out by

Deelip Kumar V	1KG13EE013
Karthik V R	1KG13EE018
Rajath Kashyap R	1KG13EE028
Vajja Hithesh Siddhartha	1KG13EE033

in partial fulfilment for the award of *Bachelor of Engineering in Electrical & Electronics Engineering* of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

*Srinivas K*  
02/06/2017  
Srinivas Kalyan K  
Name and Signature of  
Internal Guide

*B.R.N*  
Head of the  
Department

*[Signature]*  
Principal/  
Director  
**D. N. SRIDHARA**  
Principal/Director  
K. S. School Of Engineering & Management  
BENGALURU-560 109.

University Examiners:

*B.R.N*  
**Dr. B. R. NATARAJAN**  
Name and Signature of Examiner-1

*[Signature]*  
27.6.17.  
**Dr. DHANALAKSHMI, R.**  
Name and Signature of Examiner-2

# Design and Implementation of Rain Water, Humidity and Temperature Detector Alarm Unit for Green House Irrigation System

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

<b>Bellam Jyothi Prakash</b>	<b>1KG13EE006</b>
<b>Bimbika R Patel</b>	<b>1KG13EE007</b>
<b>Birendra Kumar Bhagat</b>	<b>1KG13EE008</b>
<b>Nikhil Bhaskar</b>	<b>1KG13EE026</b>

*Under the Guidance of*

**Mrs. Manjula B.G**  
Associate Professor  
Department of Electrical and Electronics Engineering  
KSSEM, Bangalore



**KSSEM**  
K.S. School of Engineering and Management

Department of Electrical and Electronics Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109

**2016-17**



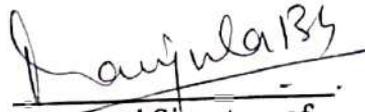
**Department of Electrical and Electronics Engineering**

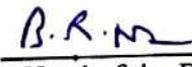
*Certificate*

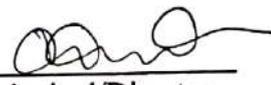
*This is to certify that the project work entitled **Design and Implementation of Rain Water, Humidity and Temperature Detector Alarm Unit for Green House Irrigation System** is a bonafide work carried out by*

Bellam Jyothi Prakash	1KG13EE006
Bimbika R Patel	1KG13EE007
Birendra Kumar Bhagat	1KG13EE008
Nikhil Bhaskar	1KG13EE026

*in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

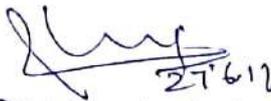
  
Name and Signature of  
Internal Guide

  
Head of the Department  
Professor & Head  
Dept. of Electrical & Electronics Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560062.

  
Principal/Director  
**Dr. S. N. SRIDHARA**  
Principal/Director  
K. S. School Of Engineering & Management  
BENGALURU-560 109.

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

# Design and Experimental Analysis of a DC Motor Speed Synchronization System

*A Project Work submitted to*



*Visvesvaraya Technological University  
In partial fulfilment of the requirements  
For the award of degree of*

**Bachelor of Engineering  
In  
Electrical and Electronics Engineering**

*Submitted by*

<b>Kiran Kumar B</b>	<b>1KG14EE404</b>
<b>Pavan Kumar B</b>	<b>1KG13EE003</b>
<b>Varsha C K</b>	<b>1KG13EE034</b>

*Under the Guidance of*  
**Mrs Prabha N**  
Assistant Professor  
Department of Electrical and Electronics Engineering  
KSSEM, Bangalore



**KSSEM**  
Kannada School of Engineering and Management

Department of Electrical and Electronics Engineering  
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No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109  
2016-17

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**Department of Electrical and Electronics Engineering**

## Certificate

*This is to certify that the project work entitled **Design and Experimental Analysis of a DC Motor Speed Synchronization System** is a bonafide work carried out by*

Kiran Kumar B	1KG14EE404
Pavan Kumar B	1KG13EE003
Varsha C K	1KG13EE034

*in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2013-14. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Preetha N Preetha N  
24/6/17  
Name and Signature of Internal Guide

B.R.N  
Head of the Department  
Professor & Head

Dr. S. N. SRIDHARA  
Principal/Director  
Principal/Director  
Dept. of Electrical & Electronics Engineering  
K.S. Group of Institutions  
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K.S. School of Engineering & Management  
Bangalore-560 062.

University Examiners:

B.R.N  
Dr. B. R. NATARAJAN  
Name and Signature of Examiner-1

Dr. DHANALAKSHMI. R.  
28/6/17  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



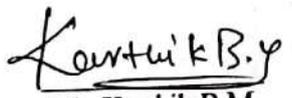
**Department of Mechanical Engineering**

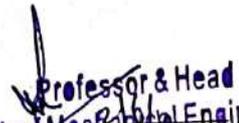
## Certificate

*This is to certify that the project work entitled **Design And Fabrication Of Weather Monitoring Station** is a bonafide work carried out by*

<b>Mr. Charan Raj K N</b>	<b>1KG13ME010</b>
<b>Mr. Rajat S</b>	<b>1KG14ME034</b>
<b>Mr. Sumanth K P</b>	<b>1KG14ME051</b>
<b>Mr. Sai Venkatesh E</b>	<b>1KG14ME064</b>

*in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** in Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Mr. Karthik B M  
Assistant Professor  
Dept. Mechanical Engg

  
Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
Professor & Head  
K.S. School of Engineering & Management  
Dept. Mechanical Engg  
Bangalore-560 062.

  
Dr. S N Sridhara  
Principal/Director  
K.S. School of Engineering & Management  
Principal/Director  
K.S. School Of Engineering & Management  
BENGALURU-560 109.

University Examiners:

  
Dr. Shailesh Rao A  
Name and Signature of Examiner-1

  
BALAJI B. Cheluri  
24/6/17  
Name and Signature of Examiner-2



**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**Department of Mechanical Engineering**

## *Certificate*

*This is to certify that the project work entitled **Design, Fabrication and Testing of Areca nut Tree Climber** is a bonafide work carried out by*

Chandan H	1KG13ME007
Govinda Raju B	1KG13ME018
Prajwal Gadiyar H	1KG13ME029
Shreyas G	1KG13ME050

*in partial fulfillment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Handwritten signature of Dr. S. N. SRIDHARA in black ink.

Name and Signature of  
Internal Guide / Principal

**Dr. S. N. SRIDHARA**  
Principal/Director

K.S. School Of Engineering & Management  
BENGALURU-560 109.

Handwritten signature of Kovthuk B.Y. in black ink.

Name and Signature of Co  
Guide

Handwritten signature of the Head of the Department in black ink, dated 22/5/17.

Head of the  
Department

Professor & Head

Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

University Examiners:

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Mechanical Engineering**

# Certificate

*This is to certify that the project work entitled "IMPROVEMENT OF PRODUCTIVITY AND REDUCTION IN LEAD TIME BY USING CNC SHOT PEENING" is a bona fide work carried out by*

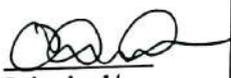
CHANDAN K.M	1KG13ME008
PRAVEEN R	1KG13ME030
RAGHUNANDAN B.R	1KG13ME033
SHIVA N	1KG13ME049

*In partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Name and Signature of  
Internal Guide  
Dr. Shailesh Rao A

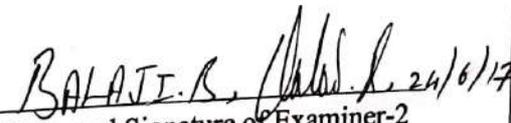
  
Name and Signature of  
External Guide  
K. CHANDRABABU  
By Manager (Methods)  
K.S. School of Engineering & Management  
Helicopter Division, HAL, Bangalore

  
Head of the  
Department  
Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

  
Principal/  
Director  
Dr. S. N. SRIDHAR  
Principal/Director  
K.S. School Of Engineering & Manag  
BENGALURU--560 109

University Examiners:

  
Name and Signature of Examiner-1  
Dr. Shailesh Rao A

  
Name and Signature of Examiner-2  
BALAJI R. (Date: 24/6/17)



**K.S. School of Engineering and Management**  
No. #15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled **Design and Fabrication of solar powered pesticide sprayer** is a bonafide work carried out by*

<i>Pruthvi. D</i>	<i>1KG13ME031</i>
<i>Rakshitha. M</i>	<i>1KG13ME036</i>
<i>Sanjana. S. Kubsad</i>	<i>1KG13ME046</i>
<i>G.Bindu Madhavi</i>	<i>1KG13ME061</i>

*in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*SHIVANAND*  
*Shivnand*  
*02/06/17*  
Name and Signature of Internal Guide

*[Signature]*  
*02/06/17*  
Head of the Department  
Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560062.

*[Signature]*  
Principal/ Director  
**Dr. S. N. SRIDHARA**  
Principal/Director  
K.S. School Of Engineering & Management  
BENGALURU-560 109

University Examiners:

*[Signature]*  
*Dr. Shalish R S*  
Name and Signature of Examiner-1

*[Signature]*  
*BALAJI B. Choudhary*  
*02/06/17*  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
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**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled **Conversion of Non Bio-Degradable Plastic to Synthesis Gas by Pyrolysis Process** is a bonafide work carried out by*

<b>Mr. Manoj Kumar R P</b>	<b>1KG13ME063</b>
<b>Mr. Naveen Kumar H</b>	<b>1KG14ME408</b>
<b>Mr. Parappa S Tamadaddi</b>	<b>1KG14ME049</b>
<b>Mr. Suhas K S</b>	<b>1KG14ME415</b>

*in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** in Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Mr. Harsha J  
Assistant Professor  
Dept. Mechanical Engg

Dr. Shailesh Rao A  
Professor & Head  
Dept. Mechanical Engg  
Dept. of Mechanical Engineering  
K.S. Group of Institutions

Dr. S N Sridhara  
Principal/Director  
KSSEM

**Dr. S. N. SRIDHARA**  
Principal/Director

K.S. School of Engineering & Management, Bengaluru-560 062. K.S. School Of Engineering & Management, BENGALURU-560 109.

University Examiners:

Dr. Shailesh Rao A  
Name and Signature of Examiner-1

BALAJI B. [Signature], 23/6/17  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**

No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Mechanical Engineering**

*Certificate*

*This is to certify that the project work entitled **Design and Fabricate a transplanting system for paddy seedlings by using crank and lever mechanism** is a bonafide work carried out by*

**ANEEL KUMAR N G      1KG14ME400**

**CHANDRASHEKAR B      1KG14ME401**

**MANURAJ                      1KG14ME407**

**T K POORNACHANDRA      1KG14ME410**

*in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*BKumar 29/5/17*

Mr. Bharath Kumar M  
Assistant Professor Dept.  
Mechanical Engg

*[Signature]*

Dr. Shailesh Rao A  
Professor & Head Dept.  
Mechanical Engg  
Professor & Head

Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

*[Signature]*

Dr. S N Sridhara  
Principal/Director

KSSEM  
**Dr. S. N. SRIDHARA**  
Principal/Director

K. S. School Of Engineering & Management  
BENGALURU--560 109

University Examiners:

*[Signature]*

*Dr. Shailesh Rao A*  
Name and Signature of Examiner-1

*BALAJI B. Chelva B. 24/6/17*  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled Performance Evaluation of Nano based Bio-oils as cutting fluids for Drilling operation of Mild Steels a bonafide work carried out by*

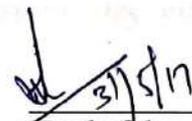
Dhanaraj.S	1KG12ME402
Madhu.M	1KG12ME407
Ravindra. R	1KG13ME416
Venkatesh Nikhil. H. S	1KG13ME420

*in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Dr. Jyoti P.N

  
Name and Signature of  
Internal Guide

\_\_\_\_\_  
Name and Signature of  
Industrial Guide

  
Head of the  
Department  
Professor & Head

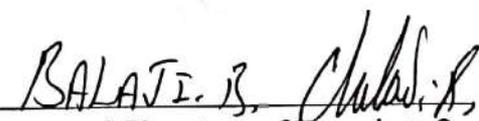
  
Principal/  
Director  
**Dr. S. N. SRIDHARA**  
Principal/Director

Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
BENGALURU-560 109.  
Bangalore-560 062.

University Examiners:

  
Dr. Shalini R

Name and Signature of Examiner-1

  
BALAJI. R, 23/6/17  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**Department of Mechanical Engineering**

## Certificate

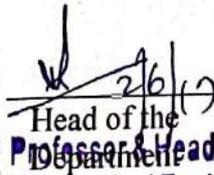
*This is to certify that the project work entitled **Design and Fabrication of Three Axis Modern trailer** is a bonafide work carried out by*

<b>M Dillip</b>	<b>1KG13ME023</b>
<b>Rayapaneni Devi Vara Prasad</b>	<b>1KG13ME039</b>
<b>K Sasi Kumar</b>	<b>1KG13ME062</b>
<b>Yogesh M</b>	<b>1KG12ME055</b>

*In partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

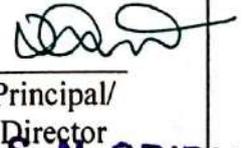
  
2/6/2017

Name and Signature of  
Internal Guide

  
2/6/17

Head of the  
Department  
Dept. of Mechanical Engineering  
K.S. Group of Institutions

K.S. School of Engineering & Management  
Bangalore-560 062.

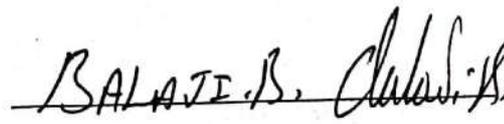


Principal/  
Director  
**Dr. S. N. SRIDHARA**  
Principal/Director  
K. S. School Of Engineering & Management  
BENGALURU-560 109.

University Examiners:

  
Dr. Shailen Rao A

Name and Signature of Examiner-1

  
BALAJI B. Chakraborty 24/6/17

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560062



**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled **Three modes powered hybrid drive to increase the performance in two wheelers** is a bonafide work carried out by*

Karthik J	1KG13ME021
Mahesh kumar B D	1KG13ME024
Punith V	1KG13ME032
Shashi Kumar M	1KG14ME414

*in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Akashdeep B. N.  
Name and Signature of  
Internal Guide Department

Head of the Department  
Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

Principal/ Director  
**DR. S. N. SRIDHARA**  
Principal/Director  
K. S. School Of Engineering & Management  
BENGALURU--560 109.

University Examiners:

Dr. Shalini Rao A  
Name and Signature of Examiner-1

BALAJI B. Chaudhary  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



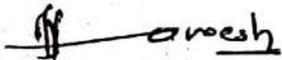
**Department of Mechanical Engineering**

## Certificate

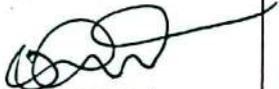
*This is to certify that the project work entitled **Synthesis and Characterization of Biodegradable Polymer Nano Composite** is a bonafide work carried out by*

<b>BALAJI. R</b>	<b>1KG13ME006</b>
<b>DEEPAK.M</b>	<b>1KG13ME013</b>
<b>K.V. DILIP KUMAR</b>	<b>1KG13ME020</b>
<b>MANOJ.V.REDDY</b>	<b>1KG13ME027</b>

*in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Name and Signature of Internal Guide  
(A- HAREESH)

  
Head of Department  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560062.

  
Dr. S.N. SRIDHARA  
Principal/Director  
K.S. School Of Engineering & Management  
BENGALURU-560 109

University Examiners:

  
Dr. Shalini R. A.  
Name and Signature of Examiner-1

  
BALAJI. B.  
Name and Signature of Examiner-2

23/6/17

**K.S. School of Engineering and Management**

No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



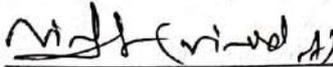
**Department of Mechanical Engineering**

**Certificate**

*This is to certify that the project work entitled **Mechanical Characterization of Welded Joint of Dissimilar Composition of Al-Si Alloy by Using Friction Stir Welding** is a bonifide work carried out by*

Aithal Shashanka Dayananda	1KG13ME004
Chandan S	1KG13ME009
Ganesh J	1KG13ME017
Vinay S	1KG13ME057

*in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*



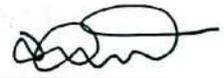
Name and Signature of  
Internal Guide 1  
University Examiners:



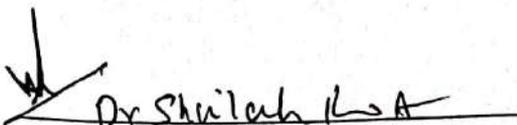
Name and Signature of  
Internal Guide 2



Head of the  
Department



Principal/  
Director



Name and Signature of Examiner-1



Name and Signature of Examiner-2



**Department of Mechanical Engineering**

**Certificate**

*This is to certify that the project work entitled **Design and Fabrication of Multi-utility Machine for Seed Sowing and Planting** is a bonafide work carried out by*

**Srikumar H. S** 1KG12ME045  
**Sai Teja. K** 1KG13ME043  
**Sumukh S. M** 1KG13ME052  
**Suraj. J. Rao** 1KG13ME053

*in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Santosh Kumar*  
3/5/17

Name and Signature of Internal Guide with date

*[Signature]*  
3/5/17

Head of the Department Professor & Head

Dept. of Mechanical Engineering  
K.S. Group of Institutions

K.S. School of Engineering & Management  
Bangalore-560 062.

*[Signature]*

Principal/ Director

**Dr. S. N. SRIDHARA**

Principal/Director

**K.S. School Of Engineering & Management**  
**BENGALURU-560 109.**

University Examiners:

*[Signature]*  
Dr. Shalini K N

Name and Signature of Examiner-1 with date

*[Signature]*  
BALAJI R. Chakraborty 22/0/17

Name and Signature of Examiner-2 with date

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



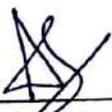
**Department of Mechanical Engineering**

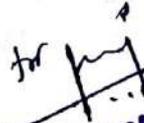
## Certificate

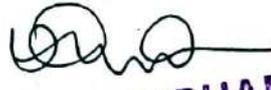
*This is to certify that the project work entitled **Experimental investigation on tool wear during turning operation of mild steel using Gingelly oil as cutting fluid** is a bonafide work carried out by*

<b>Mr. Abhishek P</b>	<b>1KG13ME002</b>
<b>Mr. Manjunatha N</b>	<b>1KG13ME025</b>
<b>Mr. Sandeep K S</b>	<b>1KG13ME044</b>
<b>Mr. Arun Gowda H G</b>	<b>1KG13ME402</b>

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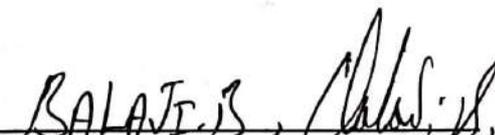
  
Mrs. Alam Radhika  
Associate Professor  
Dept. Mechanical Engg

  
Dr. Shameshiv Rao  
Professor & Head  
Dept. of Mechanical Engineering  
K.S. School of Engineering & Management  
Bangalore-560109

  
Dr. S. N. SRIDHARA  
Principal/Director  
K. S. School of Engineering & Management  
BENGALURU-560 109.

University Examiners:

  
Dr. Shailash R  
Name and Signature of Examiner-1

  
BALAJI B  
Name and Signature of Examiner-2 23/6/17

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled **Friction stir welding of hypoeutectic alloys using yttrium oxide** is a bonafide work carried out by*

Abhishek K B	1KG13ME003
Arkesh D J	1KG13ME005
Chetan R S	1KG13ME011
Sachin Pruthviraj M	1KG13ME041

*in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of **Visvesvaraya Technological University, Belgaum**, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Name and Signature of  
Internal Guide

  
Name and Signature of  
internal Co- Guide

  
Head of the  
Department

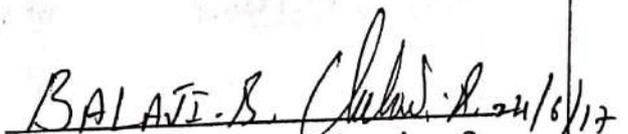
  
Principal/  
Director

Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions K. S. School Of Engineering & Management  
K.S. School of Engineering & Management  
Bangalore-560 062.

**Dr. S. N. SRIDHARA**  
Principal/Director  
K. S. School Of Engineering & Management  
BENGALURU:-560 109.

University Examiners:

  
Dr. Shantilal K. A.  
Name and Signature of Examiner-1

  
BALAJI. B.  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled **Experimental evaluation of optimal Ethanol-Gasoline blend percentage under variable compression ratios in a Four Stroke Digital Twin Spark Ignition Engine**, is a bonafide work carried out by*

<b>Manish Kumar</b>	<b>1KG10ME027</b>
<b>M J Sai Dileep</b>	<b>1KG12ME027</b>
<b>Rohit S Barve</b>	<b>1KG12ME041</b>
<b>Yogesh L</b>	<b>1KG14ME417</b>

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Name and Signature of Internal Guide

Head of the Department  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

Principal/  
Director

**Dr. S. N. SRIDHARA**  
Principal/Director  
K.S. School of Engineering & Management  
BENGALURU-560 109.

University Examiners

**Dr. Shailen Rao A**  
Name and Signature of Examiner-1

**BALAJI B**

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**Department of Mechanical Engineering**

## Certificate

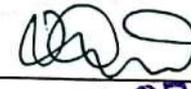
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<b>Mr. Manjunatha N</b>	<b>1KG13ME025</b>
<b>Mr. Sandeep K S</b>	<b>1KG13ME044</b>
<b>Mr. Arun Gowda H G</b>	<b>1KG13ME402</b>

*in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2016-17. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Mrs. Alam Radhika  
Associate Professor  
Dept. Mechanical Engg

  
Dr. S. N. Sridhara  
Professor & Head  
Dept. Mechanical Engineering  
K. S. School of Engineering & Management  
Bangalore-560109

  
Dr. S. N. Sridhara  
Principal/Director  
K. S. School of Engineering & Management  
BENGALURU-560109.

University Examiners:

  
Dr. Shailendra Rao A  
Name and Signature of Examiner-1

  
BALAJI R,  
Name and Signature of Examiner-2, 22/6/17



Reliance Securities Limited  
11<sup>th</sup> Floor, R-Tech IT Park  
Western Express Highway  
Goregoan (East)  
Mumbai - 400 063

Tel: +91 223320 1212  
Fax: +91 223320 1555  
www.rsec.com

## To whom it may concern

This is to certify that Mr. ABHISHEK K R (1KG14MBA01) from K S SCHOOL OF ENGINEERING & MANAGEMENT COLLEGE, Bangalore has successfully completed an internship and project titled " A STUDY ON PORTFLIO MANAGEMENT" at Reliance Securities Ltd." in partial fulfillment of the requirement for the award of him MBA degree from Visvesvaraya Technological University. The period of the project was from 14<sup>th</sup> December 2015 to 17<sup>th</sup> Feb 2016.

During the above period, performance and conduct of. ABHISHEK K R (1KG14MBA01) has been good and satisfactory.

We wish him all the best for his future endeavors.

Place: Bangalore

Date: 17/Feb/2016

SUHAIL AHMED



Registered office:  
11th Floor, R-Tech IT Park Western Express Highway Goregoan (East), Mumbai - 400 063.

CCOM/HR/PRJT/34/2016  
March 3, 2016

**CERTIFICATE**

This is to certify that Mr. Ankepalli Harikrishna (Reg. No: 1KG14MBA02), from KS School Of Engineering and Management, No15, Mallasandra, Kanakapura Road, Bangalore has completed his Project in Finance titled "STUDY ON COMMODITY FUTURES MARKET MCX" at our Institution Celebrus Commodities Limited, Bangalore, under the guidance of Mr. Krishna Bhat, Regional Manager. It is made sure that his original work has not been submitted anywhere in any form. The project work was carried during 14<sup>th</sup> December 2015 to 17<sup>th</sup> February 2016.

Yours truly,

For Celebrus Commodities Limited



Ancy PA  
Assistant Manager-HR



Seal of the organization

## INTERNSHIP CERTIFICATE

### TO WHOM SO EVER IT MAY CONCERN

This is to certify that **HEMA.R.C** (Reg no. 1KG14MBA07) student of K.S School of Engineering and Management , Bangalore, VTU University has successfully completed her internship training the project titled "**DERIVATIVES IN FUTURE AND OPTIONS** " at LKP securities Ltd, Bangalore from 14-12-2015 to 17-02-2016.

She has exhibited a high level of enthusiasm and commitment in her work. On completion of the project, she has submitted a written report of the above studies.

We wish her all the best for her future Endeavour's.



No 572, 11th Main, 5th Block, Near Post office, Jayanagar, Bangalore 560041

### LKP Securities Ltd

Member NSE Sebi Regn. No INB / INF 230720030 / MAPIN ID 1000000331  
Regd Off. / WDM 404, Embassy Centre, Nariman Point, Mumbai - 400 021 022-6635 1234. Fax 022-6635 1249

Shantha Complex, 11nd Floor, 18-20, Lady Curzon Road, Infantry Road Cross, Bangalore 560 001  
Tel +91 80 3074 1400 Fax +91 80 3074 1516 Website: www.lkpsec.com

Agra Ahmedabad Ahmednagar Aligarh Amritsar Bangalore Chandigarh Chennai Faridabad Gurgaon  
Hyderabad Jaipur Jalandhar Jamshedpur Jodhpur Kolkatta Ludhiana Mathura Mumbai Nasik  
New Delhi Noida Pune Rishikesh Sanganer Shrinagar Surat Vrindavan Vyara Yamunanagar



**INTERNSHIP CERTIFICATE**

**TO WHOM SO EVER IT MAY CONCERN**

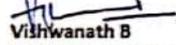
This is to certify that KILARI NIKHIL, USN 1KG14MBA11 student of K.S School of Engineering and Management, Bangalore, VTU University has successfully completed his internship training the project titled "A STUDY ON CONTRIBUTION OF PERSONAL SELLING ON SALES VOLUME" at EUREKA FORBES LTD- Security System Division Euro Vigil Bangalore from 14-12-2015 to 17-02-2016.

He has exhibited a high level of enthusiasm and commitment in his work.

On completion of the project, he has submitted a written report of the above studies.

We wish him all the best for his future Endeavour's.

Thanks & Regards,

  
Vishwanath B

Regional Sales Head

Euro vigil-Electronic Security System Division

Bangalore-560060

M-9945699050

**EUREKA FORBES LTD**

Plot 5, 2nd Floor, Jayaramnagar,

Indiranagar, Bangalore, Karnataka

India. Phone: 080-30251600/602

Fax: 080-30251619/1550

Website: <http://www.eurekaforbes.com>

**Bangalore Office :** No. 42, P-3/C, Haralukunte, Muneshwara Layout, Kudlu, Bangalore - 560 068. Ph.: 080-30251600/602, Fax: 080-30251619/1550

**Eureka Forbes Limited.**  
**Corporate Office :**  
B1/B2, 701, Marathon Innova,  
Marathon NextGen,  
Off Ganpatrao Kadam Marg,  
Lower Parel, Mumbai : 400 013, India.

**Phone :**  
022 - 30449700  
022 - 30449888  
**Fax :**  
022 - 30449701

**Mailing Address :**  
P.O. Box 936  
G.P.O., Mumbai - 400 001, India.  
**Website :** <http://www.eurekaforbes.com>

**Regd. Office :**  
7, Chakraborty Road (South)  
Kolkata - 700 025.  
**Phone :** 033 - 2474 9342



Hindustan Unilever Limited

HR/Certificate/2016-08

Date: 16-02-2016

**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that **Mr. M. Sunil Dath (USN : 1KG14MBA14)** student of K S School of Engineering and Management has successfully finished his Internship Project in our HINDUSTAN UNILEVER LIMITED.

Name of the Project: "Analysis of Supply Chain Management of Hindustan Unilever Limited".

Duration of the internship Project: From: 09-12-2015 to 16-02-2016.

We wish him all the success in his future endeavours.

For Hindustan Unilever Limited

Authorized Signatory

**HINDUSTAN UNILEVER LIMITED**

64 Main Road, Whitefield, Bangalore, Karnataka, India Tel : +91-22-39830000 Fax: +91-22-28249438  
Email: lever.care@unilever.com



**RML**  
Management Consultants

*Right Choice  
Mind Set  
Legal Friend*

Date: 20<sup>th</sup> Feb 2016

Subject: Study completion

This is to inform that Ms. Nidhi Kumari, Student Ref USN no. 1KG14MBA18 Final year MBA student from K.S.S.E.M College Bangalore. Has conducted & completed her Project study from 8<sup>th</sup> Dec 2015 to 16<sup>th</sup> Feb 2016 in our firm on Topic Recruitment Process.

The final report on the said topic yet to be submitted to us.

For RML Management Consultants

K.V.   
Chief Consultant

---

**Placements**

**Training & Development**

**Legal Services**

# 585, 'VENKATESHA', 16th Main, 10th Cross, Padmanabhanagar, Bangalore - 560 070.  
Tel : 080-2679 1687, E-mail : kvsathya@rmlconsultants.com Website : www.rmlconsultants.com

---



## FLORET CONSULTING

# 361, Ground Floor, 7th Cross  
Jayanagar I Block, Bangalore- 560 011

+91-80-2656 5727

info@floretconsulting.com

www.floretconsulting.com

17<sup>th</sup> Feb, 2016

### To Whom So Ever It May Concern

This is to certify that Ms. Priyanka Rani (USN No: 1KG14MBA21), a student of KS School of Engineering & Management, Bangalore has successfully completed her Internship in our organization from 7<sup>th</sup> December 2015 till 17<sup>th</sup> February 2016.

During her tenure as an Intern with Floret Consulting, she has worked on project titled "Impact of Social Media in Recruitments" and have also worked on Sourcing / Profiling through Social Media.

During her Internship duration with us, we found her as sincere, hardworking and a dedicated professional.

We wish her all the very best for her future endeavors.

For Floret Consulting



Shilpi Sarkar

HR Executive



## IMAGE LABELS PVT. LTD.

No. 10, Vejarahalli, Off Kanakapura Road, Bangalore - 560 052.  
Phone : 080 - 2842 5555 / 2608 7000, Fax : 080 - 2842 5678, E-mail : admin@imagelabels.in, www.imagelabels.in



Date: 17-02-2016

### CERTIFICATE

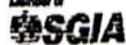
This is to certify that Ms. Rakshitla .T.M (Reg No 1KG14MBA22), student of K. S. School of Engineering & Management, No.15, Mallasandra, Off Kanakapura Road, Bangalore-62 has successfully completed her internship on "A STUDY ON MEASURE OF QUALITY OF WORKLIFE OF EMPLOYEES AT IMAGE LABELS PRIVATE LIMITED", BANGALORE, for a period of 10 weeks from 14/12/15 to 17/2/2016.

We wish all the best for her future endeavors.

For Image Labels Pvt. Ltd.,

  
(K.JAYAKUMAR)

General Manager - HR

Member of  




(ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಸ್ವಾಮ್ಯಕ್ಕೀಡಲ್ಲದ)  
(A Karnataka Government Undertaking)  
ISO-9001-2008 Company

KAVIKA/PA/2015-2016/

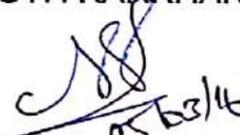
Date: 05-03-2016

## CERTIFICATE

This is to certify that **Mr. R NARESH KUMAR.,USN1KG14MBA23**  
Student of IV Semester M.B.A (**Master of Business Administration**)  
Studying at K.S School of Engineering and Management Bangalore-  
560062 has undergone Internship Training in the area of '**A Study**  
**On Employee Satisfaction**' in our Organization for a period of Two  
month from 19-12-2015 to 19-2-2016.

We wish him all success in his future endeavour.

for KARNATAKA VIDYUTH KARKHANE LIMITED

  
(N.S. SURESHNATH)  
DEPUTYMANAGER-QUALITY CONTROL  
PERSONNEL & ADMINISTRATION-I/c

ಕಾರ್ಖಾನೆ ಮತ್ತು ಆವಳಿತ ಕಛೇರಿ : ಕರ್ನಾಟಕ ವಿದ್ಯುತ್ ಕಾರ್ಖಾನೆ ನಿಯಮಿತ, ಅಂಚೆ ಪೆಟ್ಟಿಗೆ ಸಂಖ್ಯೆ 2610, ಮೈಸೂರು ರಸ್ತೆ, ಬೆಂಗಳೂರು - 560 026.  
FACTORY & REGISTERED OFFICE : KARNATAKA VIDYUTH KARKHANE LIMITED, POST BOX NO. 2610, MYSORE ROAD, BANGALORE - 560 026.

ದೂರವಾಣಿ : } 26748274, 26743331,  
Telephones : } 26742337, 26752934  
26987200

ಫ್ಯಾಕ್ಸ್ : }  
Fax : } 080-26744291

ಈ-ಮೇಲ್ : }  
e-mail : } md@kavika.co.in

ಬೆಂಗಳೂರು ನಗರ, ಬೆಂಗಳೂರು ಗ್ರಾಮಾಂತರ ಹಾಗೂ ರಾಮನಗರ

**Bamul**

ಬೆಂಗಳೂರು ನಗರ, ಬೆಂಗಳೂರು ಗ್ರಾಮಾಂತರ ಹಾಗೂ ರಾಮನಗರ  
ಜಿಲ್ಲಾ ಸಹಕಾರಿ ಹಾಲು ಉತ್ಪಾದಕ ಸಂಘಗಳ ಒಕ್ಕೂಟ ಸಂಘವು, ಬೆಂಗಳೂರು-29

Bengaluru Urban, Bengaluru Rural & Ramanagara  
District Co-operative Milk Producers' Societies Union Ltd., Bengaluru-29



No.Bamul/Admn-01/Cert/2015-16

Date: 24.02.2016

**CERTIFICATE**

*This is to Certify that Mr. Sathish R, M.B.A. Student of K.S.School of Engineering & Management has successfully completed the Project on "A Study on Brand Awareness" from Date: 09.12.2015 to 14.02.2016 at Bengaluru Urban, Bengaluru Rural and Ramanagara District Co-Operative Milk Producer's Societies Union Ltd., Bengaluru- 560029.*

  
General Manager(admn)  
Bengaluru Co-op Milk Union Ltd.,

ಬೆಂಗಳೂರು ನಗರ, ಬೆಂಗಳೂರು ಗ್ರಾಮಾಂತರ ಹಾಗೂ ರಾಮನಗರ-560 029

BENGALURU DAIRY Dr. M.H. Mangappa Road, Bengaluru 560 029

ಬೆಂಗಳೂರು ನಗರ : 080-25539123, ಗ್ರಾಮಾಂತರ : 080-26096287, ಫ್ಯಾಕ್ಸ್ : 080-25536597

Phone : Customer Care : 080-25539123, Security Office : 080-26096287 Fax : 080-25536597

Email : bamulkmf@yahoo.co.in Website : bamulnandini.coop



## TO WHOM IT MAY CONCERN

This is to certify that **MR. THOKALA RAKESH (1KG14MBA28)** from **K S SCHOOL OF ENGINEERING & MANAGEMENT COLLEGE**, Bangalore has successfully completed an internship and project titled "**A STUDY ON CUSTOMER SATISFACTION AT SAVOURY SEASHELL RESIDENCY, BENGALURU**" in partial fulfillment of the requirement for the award of him MBA degree from Visvesvaraya Technological University. The period of the project was from 14<sup>th</sup> December 2015 to 17<sup>th</sup> February 2016.

During the above period, performance and conduct of **MR.THOKALA RAKESH (1KG14MBA28)** has been good and satisfactory.

We wish him all the best for his future endeavors.

ANJALI



Place: Bengaluru  
Date: 17/Feb/2016

**CERTIFICATE**

This is to certify that **Mr VINAY.V USN: 1KG14MBA30** a student of MBA studying at **K.S SCHOOL OF ENGINEERING & MANAGEMENT** Bangalore has undergone the internship and has completed project titled as **"A STUDY ON ANALYSIS OF INVESTMENT OPTIONS"** at **BMA Wealth Creators Ltd (Jayanagar Bangalore Branch)** from a period of **14<sup>th</sup> December 2015** to **14th February 2016** in our company under the guidance of **Mr. RASHMI RANJAN PADHI**.

We wish to express our appreciation for his excellent work done and wish him all the success in her new endeavour.

**Place: Bangalore**

**External Guide**

**Date: 25-Feb-2016**

**RASHMI RANJAN PADHI**

  
  
**(Unit Head-Karnataka)**

**Corporate Office:**

Vishwakarma II  
29/5A, Dr. Ambedkar Sarani, Topsia Road,  
Kolkata - 700046  
PH : 033-400110099

**Regd. Office:**

14/1, Paul Mansion, 1st Floor, 6, Bishop Lefroy Road, Kolkata 700020

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560062



**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project work entitled **A Comparative Study between Cost and Materials for Green Building and Conventional Building** is a bonafide work carried out by*

Mukesh B R	1KG13CV409
Naveen P	1KG13CV410
Raghu C M	1KG13CV413

*in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Name and Signature of  
Internal Guide I

M.T. Shreyas .

Name and Signature of  
Internal Guide II

Head of the  
Department

Principal/  
Director

**Principal/ Director**

**K.S. School of Engineering & Management**  
Bangalore-560 062

University Examiners:

Name and Signature of Examiner-1

Lakshminikanth. S.

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



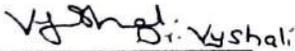
**Department of Civil Engineering**

## *Certificate*

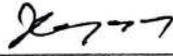
*This is to certify that the project work entitled **Urban Planning and Land Reuse of Tumakuru Town** is a bonafide work carried out by*

<b>Sunil K R</b>	<b>1KG12CV044</b>
<b>Vivekananda B</b>	<b>1KG12CV053</b>
<b>Lavakumar G R</b>	<b>1KG13CV406</b>
<b>Shivaprasad B S</b>	<b>1KG13CV415</b>

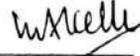
*in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Dr. Vysali

Name and Signature of  
Internal Guide-1



Name and Signature of  
Internal Guide-2



Head of the  
Department

Professor & Head  
Dept. of Civil Engineering  
K.S. Group of Institutions

K.S. School of Engineering & Management  
Bangalore-560 062

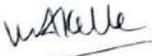


Principal

Principal / Director

K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:



Dr. Vyayalath A Kelle

Name and Signature of Examiner-1



Lakshminanth S.

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project work entitled **Analysis and Design of Department of Aeronautical Engineering Building Located at Chikkaballapur Using ETABS Software** is a bonafide work carried out by*

<b>Abhishek Gowda B</b>	<b>1KG12CV001</b>
<b>Hindu Priya K</b>	<b>1KG12CV010</b>
<b>Meghan Gowda J S</b>	<b>1KG12CV021</b>

*in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Rachana*

**Mrs.Rachana**  
Project Guide

*Anjan Kumar M.U*

**Mr.Anjan Kumar M.U**  
Project Co-Guide

*Vijayalakshmi Akella*

**Dr.Vijayalakshmi Akella**  
Head of the Department

*S.N.Sridhara*

**Dr.S.N.Sridhara**

**Principal/Director**

**Professor & Head K.S. School of Engineering & Management**  
Dept. of Civil Engineering  
K.S. Group of Institutions

**Bangalore-560 062**

**K.S. School of Engineering & Management**  
Bangalore-560 062.

University Examiners:

*Vijayalakshmi Akella*

Name and Signature of Examiner-1

*Lakshminanth. S.*

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Civil Engineering**

## Certificate

This is to certify that the project work entitled **Experimental Studies on Bearing Capacity of Skirted Footing on C- $\Phi$  Soil** is a bonafide work carried out by

Kiran V	1KG12CV016
Mrudula N Gowda	1KG12CV023
Nandish S V	1KG12CV026

in partial fulfilment for the award of **Bachelor of Engineering in civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

ARIFAL VIJAY

Name and Signature of  
Internal Guide

Head of the  
Department  
Professor & Head

Dept. of Civil Engineering  
K.S. Group of Institutions

K.S. School of Engineering & Management  
Bangalore-560062.

Principal/  
Director

Principal / Director  
K.S. School of Engineering & Management  
Bangalore-560062

University Examiners:

Dr. Vijayashankar Akelle

Name and Signature of Examiner-1

Lakshmi K. S.

Name and Signature of Examiner-2

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



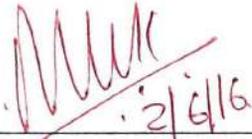
## Department of Civil Engineering

# Certificate

This is to certify that the project work entitled *Effect of super-plasticizers on geopolymer concrete* is a bonfire work carried out by

**Kiran Kumar M U** 1KG12CV015  
**Mallikarjuna S K** 1KG13CV407  
**Ravikumar Handral** 1KG13CV414

in partial fulfilment for the award of *Bachelor of Engineering in Civil Engineering* of *Visvesvaraya Technological University, Belagavi*, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

  
2/6/16

Name and Signature of  
Internal Guide-1



Head of the Department  
Professor & Head

Dept. of Civil Engineering  
K.S. Group of Institutions

K.S. School of Engineering & Management  
Bangalore-560 062.

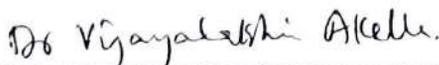


Principal/ Director  
Principal/ Director

K.S. School of Engineering & Management  
Bangalore-560 062

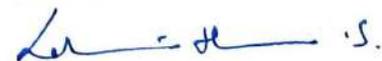
University Examiners:





Name and Signature of Examiner-1





Name and Signature of Examinee

**K.S. School of Engineering and Management**

No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Civil Engineering**

**Certificate**

*This is to certify that the project work entitled **Design of Bridge with Deck Slab and Post-Tensioned girders** is a bonafide work carried out by*

Karthik T D	1KG12CV012
Karuna C M	1KG12CV013
Pooja C N	1KG12CV030
Pooja R	1KG12CV031

*in partial fulfilment for the award of **Batchelor of Engineering in Civil Engineering** of **Visvesvaraya Technological University, Belgaum**, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

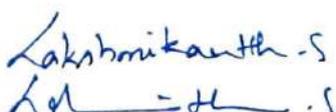
  
2/6/16  
Name and Signature of Internal Guide

  
Head of the Department  
Professor & Head  
Dept. of Civil Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

  
Principal / Director  
Principal / Director  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

  
Name and Signature of Examiner-1

  
Lakshmi Kantth - S  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Civil Engineering**

## Certificate

*This is to certify that the project work entitled **Dynamic Analysis of Multi Storied Building with Pile Foundation Considering Soil Structure Interaction** is a bonafide work carried out by*

**Malashree M N**

**IKG14CSE08**

*in partial fulfilment for the award of **Master of Technology in structural Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Atkelle*

Name and Signature of  
Internal guide

*Atkelle*

Professor & Head  
Dept. of Civil Engineering  
Head of Group Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

*[Signature]*

Principal/Director  
Principal / Director

K.S. School of Engineering & Management  
Bangalore-560 062.

Bangalore-560 062

University Examiners:

*Atkelle*

*Vijayalakshmi Atkelle*  
Name and Signature of Examiner-1

*Manjunatha L*  
*L. Nataraj*

Name and Signature of Examiner-2



**Department of Civil Engineering**

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062

*Certificate*

*This is to certify that the project work entitled **A Comparative Study of Timber Concrete Hybrid Structures with Regular RCC Structure and Timber Structure** is a bonafide work carried out by*

**SHUBHADA.R**

**1KG14CSE19**

*in partial fulfilment for the award of **Master of Technology in Structural Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Name and Signature of  
Internal guide

Name and Signature of Head  
of the Department  
**Professor & Head**

Dept. of Civil Engineering  
K.S. Group of Institutions  
**K.S. School of Engineering & Management**  
Bangalore-560 062.

Name and Signature of  
Principal/Director

**Principal / Director**  
**K.S School of Engineering & Management**  
**Bangalore-560 062**

University Examiners:

Name and Signature of Examiner-1

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project work entitled "A Study on Performance of High-Rise Buildings of Different Structural Systems for Lateral Loads" is a bonafide work carried out by*

**Sachin G S                      1KG14CSE15**

*in partial fulfilment for the award of Master of Technology in Structural Engineering of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

**SUSHMA.M**

*Sushma.M*

Name and Signature of  
Internal Guide

*W. Kelle*

Head of the Department  
Professor & Head

Dept. of Civil Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560062

*[Signature]*

Principal / Director

**Principal / Director**  
**K.S. School of Engineering & Management**  
**Bangalore-560062**

University Examiners:

\_\_\_\_\_  
Name and Signature of Examiner-1

\_\_\_\_\_  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560062



**KSSEM**

**Department of Civil Engineering**

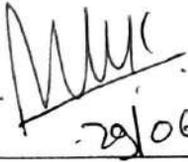
## *Certificate*

*This is to certify that the project work entitled "SIZE EFFECT OF STEEL FIBER REINFORCED CONCRETE BEAMS" is a bonafide work carried out by*

**ARUN KUMAR K**

**1KG14CSE02**

*in partial fulfilment for the award of "Master of Technology in Structural Engineering" of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
29/06/2016

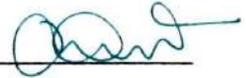
Name and Signature of  
Internal Guide

**Mr. Verrendra Kumar M**  
Associate Professor  
Dept. of Civil Engg.  
KSSEM, Bengaluru



Professor & Head  
Head of the Department  
Dept. of Civil Engineering  
K.S. Group of Institutions

K.S. School of Engineering & Management  
**Dr. Vijayalakshmi Akella**  
Bangalore-560062  
Professor and Head  
Dept. of Civil Engg.  
KSSEM, Bengaluru



Principal/ Director  
**Principal / Director**

K.S. School of Engineering & Management  
**Dr. S. Narasimha**  
Bangalore-560062  
Principal  
KSSEM, Bengaluru

University Examiners:

\_\_\_\_\_  
Name and Signature of Examiner-1

\_\_\_\_\_  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Civil Engineering**

## Certificate

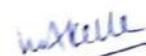
*This is to certify that the project work entitled "A Study on Seismic Response of an Asymmetrical Structure with Change in Angle of Incidence and Design of Raft Foundation" is a bonafide work carried out by*

**Amruth.K**

**1KG14CSE01**

*in partial fulfillment for the award of **Master Of Technology** of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this project report satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Name and Signature internal guide  
Professor & Head  
Dept. of Civil Engineering  
K.S. School of Engineering & Management  
Bangalore-560062

  
Name and Signature of head of the department  
Professor & Head  
Dept. of Civil Engineering  
K.S. School of Engineering & Management  
Bangalore-560062

  
Name and Signature of Principal and Director  
Principal / Director  
K.S. School of Engineering & Management  
Bangalore-560062

University Examiners:

Name and Signature of Examiner-1

Name and Signature of Examiner-2



**Department of Computer Science & Engineering**

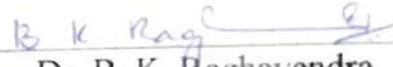
# Certificate

*This is to certify that the project work entitled **Development of a Mobile Voice Screening Application using Noise-Aware Methodology** is a bonafide work carried out by*

Shahista A.R.	IKG12CS092
Shravanthi M	IKG12CS095
Swathi B Shetty	IKG12CS108
Varsha T.G.	IKG12CS114

*in partial fulfilment for the award of **Bachelor of Engineering in Computer Science & Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2015-16. It is certified that all the suggestions indicated during the project work have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Mrs. Veena R.S.  
Associate Professor  
Internal Guide

  
Dr. B. K. Raghavendra  
Professor and Head  
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Professor & HoD, Dept. of CSE  
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Principal/ Director  
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University Examiners:

  
Dr. B. K. Raghavendra  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



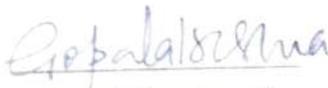
Department of Computer Science Engineering

## Certificate

This is to certify that the project work entitled *Implementation of Cloud Based Application for Medical Information Exchange using 3DES* is a bonafide work carried out by

Gouthami H	IKG12CS035
Nidhishree V	IKG12CS068
Savitha S	IKG12CS090
Shruti Rajan	IKG12CS097

in partial fulfilment for the award of **Bachelor of Engineering in Computer Science Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.



Name and Signature of  
Internal Guide

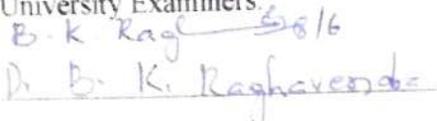


**Dr. H. B. Raghavendra**  
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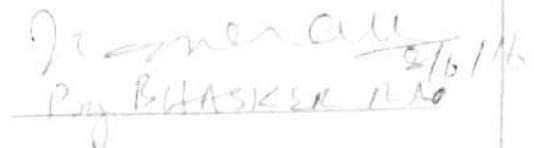


**Principal/Director**  
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University Examiners:

  
Dr. B. K. Raghavendra

Name and Signature of Examiner-1

  
Prof. BHASKER Rao

Name and Signature of Examiner-2



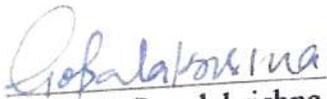
## Department of Computer Science Engineering

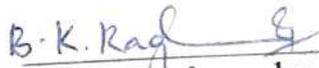
# Certificate

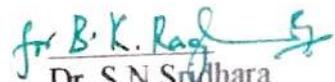
*This is to certify that the project work entitled Development of security System for ATM Based on Biometric Approach is a bonafide work carried out by*

Charishma Yadav.L	1KG12CS023
E.Haritha	1KG12CS029
Haripriya.k	1KG12CS036
Deepu.N	1KG13CS400

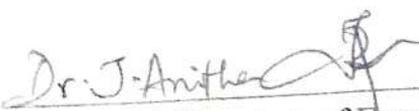
*in partial fulfilment for the award of Bachelor of Engineering in Computer Science Engineering of Visvesvaraya Technological University, Belagavi, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Dr. M T Gopalakrishna  
Prof & Internal Guide

  
Dr. B K Raghavendra  
~~Dr. B K Raghavendra~~  
Professor & HoD, Dept.of CSE  
K S School of Engineering & Management  
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Principal/Director  
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University Examiners:

  
Name and Signature of Examiner-1

  
Dr. B. K. Raghavendra  
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**K.S. School of Engineering and Management**  
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**Department of Computer Science and Engineering**

## Certificate

*This is to certify that the project work entitled **Implementation of Fast Transmission on Remote Network using Voice Authentication** is a bonafide work carried out by*

<b>Akshaya B G</b>	<b>1KG12CS008</b>
<b>M B Keerthana</b>	<b>1KG12CS052</b>
<b>Namratha C</b>	<b>1KG12CS065</b>

*in partial fulfilment for the award of **Bachelor of Engineering in Computer Science and Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
**Mr. Santosh Kumar J**

Assistant Professor  
Department of CS&E

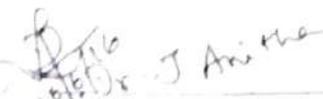
  
**Dr. B. K. Raghavendra**

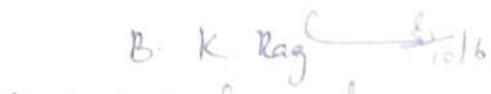
Professor and Head  
Professor & HoD, Dept of CSE  
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**Dr. S. Sridhar**

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Name and Signature of Examiner-2

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No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**Department of Computer Science and Engineering**

## Certificate

This is to certify that the project work entitled "**Development of a Framework to Secure Sensitive Data Sharing on a Big Data Platform**" is a bonafide work carried out by

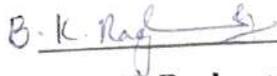
**Archana. R**  
**Kavya Shree. M. C**

**1KG12CS014**  
**1KG12CS043**

in partial fulfilment for the award of **Bachelor of Engineering in Computer Science and Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.



**Mrs. Amitha. S**  
Assistant Professor  
Internal Guide

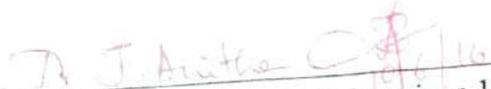


**Dr. B. K. Raghavendra**  
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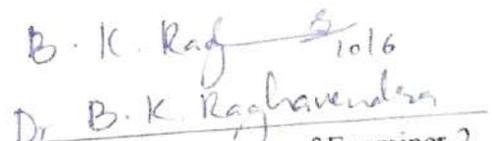


**Dr. S. N. Sridhara**  
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University Examiners:



Name and Signature of Examiner-1



Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
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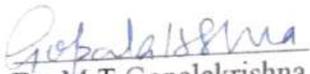
**Department of Computer Science and Engineering**

## Certificate

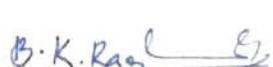
This is to certify that the project work entitled **Development of Secure Authentication for Online Payment System based on Visual Secret Key Sharing and Steganography** is a bonafide work carried out by

Aishwarya C V	IKG12CS004
Akshata A Raikar	IKG12CS007
Harshitha B M	IKG12CS039

in partial fulfilment for the award of **Bachelor of Engineering in Computer Science and Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

  
Dr. M T Gopalakrishna  
Prof & Internal Guide

  
Mrs. Shruthi U  
Asst Prof & Internal Guide

  
Dr. B K Raghavendra  
Prof & HOD CSE

**Dr. B.K.Raghavendra**

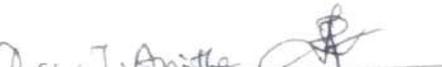
Professor & HoD, Dept of CSE

K S School of Engineering & Management

Bengaluru-560109

  
Dr. S N Sridhara  
Principal/Director

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

**K S SCHOOL OF ENGINEERING AND MANAGEMENT**

#15, Mallasandra, off Kanakpura Road, Bengaluru-560109

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**



2015-2016

**CERTIFICATE**

Certified that the project work entitled "IMPLEMENTATION OF SECURE DATA ACCESS CONTROL METHOD USING ABE AND PRE FOR P2P CLOUD STORAGE" carried out by Mr. ABNISH SINGH B, USN IKG14SCS01, a bonafide student of K.S. SCHOOL OF ENGINEERING & MANAGEMENT, BENGALURU in partial fulfillment for the award of Master of Technology in COMPUTER SCIENCE AND ENGINEERING, of the Visvesvaraya Technological University, Belagavi during the year 2015-2016. It is certified that all corrections/suggestions indicated have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of the Project work prescribed for the M.Tech degree.

*Dr. B K Raghavendra*  
Dr. B K Raghavendra  
(Internal guide)  
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Dept. of CSE,  
KSSEM, Bengaluru

*Dr. B K Raghavendra*  
Dr. B K Raghavendra  
Professor & Head,  
Dept. of CSE,  
KSSEM, Bengaluru

*S.N. Sridhara*  
Dr. S.N Sridhara  
Principal/Director  
KSSEM, Bengaluru  
Principal / Director  
K.S. School of Engineering & Management  
Bangalore-560 062

Name of the Examiner

External viva

Signature with Date:

- 1.
- 2.

# Implementation of Java Based Image Processing Tool for Image Enhancement

*A Project Work submitted to*



*Visvesvaraya Technological University  
In partial fulfilment of the requirements  
For the award of degree of*

**Bachelor of Engineering  
In  
Electronics and Communication Engineering**

*Submitted by*

B.Dileep Kumar	1KG12EC012
Pramod B	1KG12EC069
Santosh Mahato	1KG12EC088
Vijay D	1KG12EC110

*Under the Guidance of*

**Mr.Sanjay Baburao Nayak**  
Associate Professor,  
Department of ECE,  
KSSEM, Bangalore

**Mrs. Arpitha Beerala**  
Assistant Professor  
Department of ECE  
KSSEM, Bangalore



**KSSEM**

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2015-16

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**Department of Electronics and Communication Engineering**

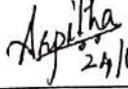
## Certificate

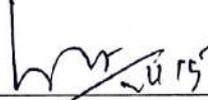
*This is to certify that the project work entitled **Implementation of Java Based Image Processing Tool for Image Enhancement** is a bonafide work carried out by*

B.Dileep Kumar	1KG12EC012
Pramod B	1KG12EC069
Santosh Mahato	1KG12EC088
Vijay D	1KG12EC110

*in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

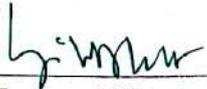
  
**Mr. Sanjay Baburao Nayak**  
Associate Professor  
Department of ECE  
KSSEM, Bangalore

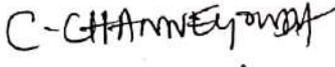
  
24/05/2016  
**Mrs. Arpitha Beerala**  
Assistant Professor  
Department of ECE  
KSSEM, Bangalore

  
**Dr. Girish V. Attimarad**  
HOD of ECE  
KSSEM, Bangalore  
Dept. of Electronics & Communication Engineering  
K.S. Group of Institutions  
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Bangalore-560062.

  
**Dr. S.N. Sridhara**  
Principal of  
KSSEM, Bangalore  
**Principal / Director**  
K.S. School of Engineering & Management  
Bangalore-560062

University Examiners:

  
Name and Signature of Examiner-1

  
2/6/16  
Name and Signature of Examiner-2

# Monitoring and Controlling of Power Grid Using GSM Modem

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

Kavya K M	1KG12EE014
Kiran Kumar R	1KG12EE015
Namratha Patil	1KG12EE020

*Under the Guidance of*  
**Mrs. PRATHIKSHA**  
Assistant Professor  
Department of Electrical and Electronics Engineering  
KSSEM, Bangalore



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K.S. SCHOOL OF ENGINEERING AND MANAGEMENT

Department of Electrical and Electronics Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062  
2015-16

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



Department of Electrical and Electronics Engineering

## Certificate

This is to certify that the project work entitled **Monitoring and Controlling of Power Grid using GSM Modems** is a bonafide work carried out by

Kavya K M	1KG11EE014
Kiran Kumar R	1KG12EE015
Namratha Patil	1KG12EE020

in partial fulfilment for the award of **Batchelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

(PRATHIKSHA)

*Pratiksha* 7/06/16

Name and Signature of  
Internal Guide

*B. R. N* 11/6/16

Head of the Dept.

Dept. of Electrical Engineering  
K.S. Group of Institutions

K.S. School of Engineering & Management  
Bangalore-560062.

*[Signature]*

Principal/

Director

**Principal / Director**

**K.S. School of Engineering & Management  
Bangalore-560062**

University Examiners:

*D. B. R. NATARAJAN*

*B. R. N*

Name and Signature of Examiner-1

*Ruma Sinha*

*Rle*  
13/6/16

Name and Signature of Examiner-2

# Design and Development of Speed Control Unit for Three Phase Brushless DC Motor

*A Project Work submitted to*



*Visvesvaraya Technological University*

*in partial fulfilment of the requirements*

*for the award of degree of*

**Bachelor of Engineering**

in

**Electrical and Electronics Engineering**

*Submitted by*

<b>Rakshith</b>	<b>1KG11EE018</b>
<b>Mamatha K</b>	<b>1KG12EE019</b>
<b>Nirikshith B.R</b>	<b>1KG12EE023</b>
<b>Vaishnavi K</b>	<b>1KG12EE033</b>

*Under the Guidance of*

**Mrs. Raja Vidya**

Assistant Professor

Department of Electrical and Electronics Engineering

KSSEM, Bangalore



Department of Electrical and Electronics Engineering

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**2015-16**

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



Department of Electrical and Electronics Engineering

## Certificate

This is to certify that the project work entitled "*Design and Development of Speed Control Unit for three Phase Brushless DC Motor*" is a bonafide work carried out by

Rakshith	1KG11EE018
Mamatha K	1KG12EE019
Nirikshith B.R	1KG12EE023
Vaishnavi K	1KG12EE033

in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

*Raja Vidya*  
RAJA VIDYA

Name and Signature  
of Internal Guide

*B.R. Nataraj*  
B.R. Nataraj 11/6/2016

Head of the  
Professor & Head  
Department  
Dept. of Electrical & Electronics Engineering  
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K.S. School of Engineering & Management  
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[Signature]

Principal/Director  
Principdl/Director  
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Bangalore-560 062

University Examiners:

*Dr. B. R. Nataraj*

B. R. Nataraj

Name and Signature of Examiner-1

*Ruma Sinha*

*[Signature]*  
13/6/16

Name and Signature of Examiner-2

# Design and Development of Short Circuit Fault Locator for an Underground Cable System

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

<b>Akshaye Monnappa</b>	<b>1KG12EE001</b>
<b>G Rekha</b>	<b>1KG12EE009</b>
<b>T Phani Kumar</b>	<b>1KG12EE032</b>
<b>Yathish Kumar H.J</b>	<b>1KG12EE402</b>

*Under the Guidance of*  
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**Department of Electrical and Electronics Engineering**

## Certificate

*This is to certify that the project work entitled **Design and Development of Short Circuit Fault Locator for an Underground Cable System** is a bonafide work carried out by*

Akshaye Monnappa	1KG12EE001
G Rekha	1KG12EE009
T Phani Kumar	1KG12EE032
Yathish Kumar H.J	1KG12EE402

*in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2015-2016. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Ramyashree, H.P.*  
*H.P. Ramyashree 07/6/16*  
Name and Signature of  
Internal Guide

*B. R. Narayana* 11/6/2016  
Head of the  
Professor & Head  
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Principal/  
Director  
Principal/Director  
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Bangalore-560062

University Examiners:

*Dr. B. R. Natarajan*

*B. R. Narayana*

Name and Signature of Examiner-1

*Ruma Sinha* 13/6/16

Name and Signature of Examiner-2

# Design and Implementation of Wireless Power Transfer Charging System on Miniature Model

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

<b>Mohammad Azeem</b>	<b>1KG10EE015</b>
<b>Deepak T. R</b>	<b>1KG12EE007</b>
<b>Pratiksha Bhushan</b>	<b>1KG12EE026</b>
<b>Swathi G. N</b>	<b>1KG12EE031</b>

*Under the Guidance of*

**Ms. Gousia Sultana**

Assistant Professor

Department of Electrical and Electronics Engineering  
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**KSSEM**  
Kannada School of Engineering and Management

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No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062

**2015-16**

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Electrical and Electronics Engineering**

## Certificate

*This is to certify that the project work entitled **Design and Implementation of Wireless Power Transfer Charging System on Miniature Model** is a bonafide work carried out by*

Mohammad Azeem	1KG10EE015
Deepak T. R	1KG12EE007
Pratiksha Bhushan	1KG12EE026
Swathi G. N	1KG12EE031

*in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

(GOUSIA SULTANA)

*Gousia Sultana*  
7/6/16

Name and Signature  
of Internal Guide

*B. R. Natarajan* 11/6/2016

Head of the  
Department

Dept. of Electrical & Electronics Engineering  
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Bangalore-560 062.

Principal/Director

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Bangalore-560 062

University Examiners:

*D. B. R. Natarajan*

*B. R. Natarajan*

Name and Signature of Examiner-1

*Ruma Sinha*

*Ruma Sinha*  
13/6/16

Name and Signature of Examiner-2

# Design and Experimental Analysis of a DC Microgrid Model based on Multisource System

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

<b>Sandeep R</b>	<b>1KG10EE027</b>
<b>Boyapati Harish</b>	<b>1KG12EE005</b>
<b>Pushpalatha S</b>	<b>1KG12EE027</b>
<b>Vunnam Neeharika</b>	<b>1KG12EE034</b>

*Under the Guidance of*

**Mrs. Prabha N**

Assistant Professor

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K.S. School of Engineering and Management

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2015-16

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



Department of Electrical and Electronics Engineering

## Certificate

This is to certify that the project work entitled *Design and Experimental Analysis of a DC Microgrid model based on a Multisource system* is a bonafide work carried out by

Sandeep R	1KG10EE027
Boyapati Harish	1KG12EE005
Pushpalatha S	1KG12EE027
Vunnam Neeharika	1KG12EE034

in partial fulfilment for the award of *Bachelor of Engineering in Electrical and Electronics Engineering* of *Visvesvaraya Technological University, Belgaum*, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

(Prabha.N)

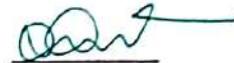
Prabha.N  
10/6/16

Name and Signature of  
Internal Guide

B. R. Natarajan  
11/6/2016

Head of the  
Department

Dept. of Electrical and Electronics Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560062.

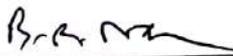


Principal/  
Director

K.S. School of Engineering & Management  
Bangalore-560062

University Examiners:

Dr. B. R. Natarajan



Name and Signature of Examiner-1

Ruma Sinha  
13/6/16

Name and Signature of Examiner-2

# Design of a Transformer-less Inverter for Non-Isolated Micro-inverter Applications Using High Efficiency MOSFET's

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

Sathish B	1KG11EE012
Kavya D N	1KG12EE013
Naveen V	1KG12EE022
Vathsav Naidu B S	1KG13EE401

*Under the Guidance of*

**Mr. HARIPRASAD Y**

Assistant Professor

Department of Electrical and Electronics Engineering  
KSSEM, Bangalore



**KSSEM**

Department of Electrical and Electronics Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062

2015-16

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Electrical and Electronics Engineering**

## Certificate

*This is to certify that the project work entitled **Design of a Transformer-less Inverter for Non-Isolated Micro-inverter Applications Using High Efficiency MOSFET's** is a bonafide work carried out by*

Sathish B	1KG11EE012
Kavya D N	1KG12EE013
Naveen V	1KG12EE022
Vathsav Naidu B S	1KG13EE401

*in partial fulfilment for the award of **Batchelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2015-2016. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Hariprasad Y*  
*(10/6/16)*  
Name and Signature of  
Internal Guide

*B.R. Natarajan* 11/6/2016  
Head of the  
Department  
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*[Signature]*  
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Director  
Principal / Director  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

*Dr. B.R. NATARAJAN*

*B.R. Natarajan*

Name and Signature of Examiner-1

*Ruma Anha*

*[Signature]*  
13/6/16

Name and Signature of Examiner-2

# Design and Implementation of Automatic Street Light Control System Using Light Dependent Resistor

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

Karthik A	1KG11EE006
A Pavan Kumar	1KG12EE002
Gouthami C	1KG12EE011
Santosh C	1KG12EE035

*Under the Guidance of*

**Mrs. RAMYA K.R**  
Assistant Professor  
Department of Electrical and Electronics Engineering  
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**2015-16**

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Electrical and Electronics Engineering**

## Certificate

*This is to certify that the project work entitled **Design and Implementation of Automatic Street Light Control System Using Light Dependent Resistor** is a bonafide work carried out by*

Karthik A	1KG11EE006
A Pavan Kumar	1KG12EE002
Gouthami C	1KG12EE011
Santosh C	1KG12EE035

*in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

(RAMYA K.R.)  
Name and Signature of  
Internal Guide

11/6/2016  
Head of the  
Department  
Dept. of Electrical & Electronics Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

Principal/  
Director  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

Dr. B. B. NATARAJAN  
Name and Signature of Examiner-1

13/6/2016  
Ruma Sinha  
Name and Signature of Examiner-2

# Design and Development of a Capacitive Power Transfer for Contactless Charging of low Power Devices

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering**

**in**

**Electrical and Electronics Engineering**

*Submitted by*

<b>Bhuvaneshwari S</b>	<b>1KG12EE004</b>
<b>Dakshayani S</b>	<b>1KG12EE006</b>
<b>Rakshak B R</b>	<b>1KG12EE029</b>

*Under the Guidance of*

**Mrs Manjula B G**

Assistant Professor

Department of Electrical and Electronics Engineering

KSSEM, Bangalore



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No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062

**2015-16**

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



## Department of Electrical and Electronics Engineering

### Certificate

This is to certify that the project work entitled *Design and Development of Capacitive Power Transfer for Contactless Charging of Low Power Devices* is a bonafide work carried out by

Bhuvaneshwari S	1KG12EE004
Dakshayani S	1KG12EE006
Rakshak B R	1KG12EE029

in partial fulfilment for the award of **Batchelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

Mangla B R 01/06/16 B.R. na  
Name and Signature of Internal Guide

Head of the Department

[Signature]  
Principal/ Director

11/6/2016  
Dept. of Electrical & Electronics Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560062  
Principal/ Director  
K.S. School of Engineering & Management  
Bangalore-560062

University Examiners:

Dr. B. R. Natarajan B.R. na  
Name and Signature of Examiner-1

Ruma Sinha 13/6/2016  
Name and Signature of Examiner-2

# Design and Development of Power Factor Detector for Three Phase Load

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

<b>Eesha</b>	<b>1KG12EE008</b>
<b>H.N. Chandrashekar Gouda</b>	<b>1KG12EE012</b>
<b>Maddirala Sreenath Reddy</b>	<b>1KG12EE017</b>
<b>M. Nandini</b>	<b>1KG12EE021</b>

*Under the Guidance of*  
**Dr. B.R. Natarajan**  
Professor and Head  
Department of Electrical and Electronics Engineering  
KSSEM, Bangalore



**KSSEM**  
Kannada School of Engineering and Management

Department of Electrical and Electronics Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062  
**2015-16**

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



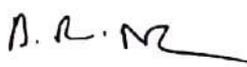
**Department of Electrical and Electronics Engineering**

## *Certificate*

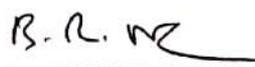
*This is to certify that the project work entitled **Design and Development of Power Factor Detector for Three Phase Load** is a bonafide work carried out by*

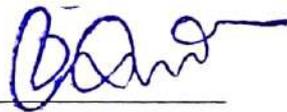
Eesha	IKG12EE008
H.N. Chandrashekar Gouda	IKG12EE012
Maddirala Sreenath Reddy	IKG12EE017
M. Nandini	IKG12EE021

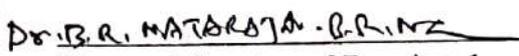
*in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

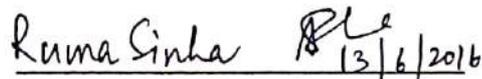
  
Name and Signature of  
Internal Guide

University Examiners:

  
Head of the Department  
Dept. of Electrical and Electronics Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560062.

  
Principal/  
Director  
Principal, Director  
K.S. School of Engineering & Management  
Bangalore-560062

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2  
13/6/2016

# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



## Department of Mechanical Engineering

### Certificate

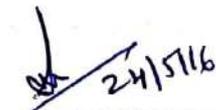
*This is to certify that the project work entitled **Design and development of an aquatic weed cutter model** is a bonafide work carried out by*

NIKHIL.R	1KG12ME034
SHASHI SHEKAR.T.C	1KG12ME044
VINYAS.P.V.KUDDANNAYA	1KG12ME052
MUTTARAJU.N	1KG13ME410

*in partial fulfillment for the award of **Bachelor of Engineering in Mechanical Engineering** of **Visvesvaraya Technological University, Belgaum**, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Name and Signature of Guide

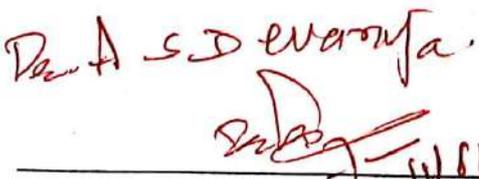
  
Name and Signature of Co-Guide

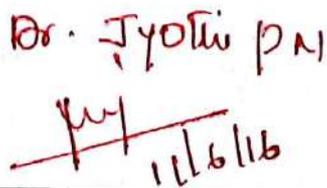
  
Head of the Department

  
Principal/Director

Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, Off Kanakapura Road, Bengaluru-560109



**Department of Mechanical Engineering**

*Certificate*

*This is to certify that the project work entitled **DESIGN AND FABRICATION OF MULTI PURPOSED SWIMMING ROBOT** is a bonafide work carried out by*

Arjun B N	1KG12ME401
Bharath R N	1KG13ME403
Kumar N V	1KG13ME406
Mithun Kumar C	1KG13ME409

*in partial fulfilment for the award of **Batchelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Name and Signature of Guide

**[BHARATH KUMAR M]**

Name and Signature of Co-Guide

Head of the Department  
Professor & Head

Dept. of Mechanical Engineering  
K.S. Group of Institutions

K.S. School of Engineering & Management  
Bangalore-560 062.

Principal/  
Director

University Examiners:

Name and Signature of Examiner-1

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
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**KSSEM**

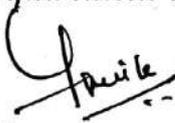
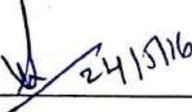
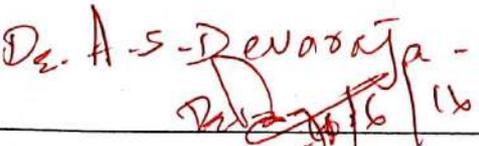
**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled **Design and Fabrication of Automatic Feed Pneumatic Power Sheet Metal Cutting Machine** is a bonafide work carried out by*

Chandan M.	1KG12ME010
Gurudutt R.	1KG12ME017
Praveen M.	1KG12ME036
Sanjay kumar S.	1KG12ME042

*in partial fulfillment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

 [YUVARAJ NAIR]	 [BHARATH KUMAR M]	 24/5/16	
Name and Signature of Internal Guide	Name and Signature of Internal Guide	Head of the Department	Principal/ Director
University Examiners:		Professor & Head Dept. of Mechanical Engineering K.S. Group of Institutions K.S. School of Engineering & Management Bangalore-560062	<b>K.S. School of Engineering &amp; Management</b> Bangalore-560 062
 Dr. A. S. Revanaja - 24/5/16		 24/5/16	
Name and Signature of Examiner-1		Name and Signature of Examiner-2	

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560062



**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled Experimental Investigation on Mechanical Properties of Friction Stir Welded AA 5052 and AA 6061 is a bonafide work carried out by*

Lokesh K N	1KG12ME026
MerbinVinesh V	1KG13ME408
Pushpak S	1KG13ME414
Vivek K	1KG12ME053

*in partial fulfilment for the award of Batchelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2013-14. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Name and Signature of  
Guide

Head of the Department  
Professor & Head  
Dept. of Mechanical Engineering  
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Principal/ Director  
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University Examiners:

*Dr. A. S. Devanuja*

*Dr. Jyoti P M*  
*11/6/16*

Name and Signature of Examiner-1

Name and Signature of Examiner-2



Department of Mechanical Engineering

Certificate

This is to certify that the project work entitled Fabrication and Characterization of Jute and Carbon Fiber Reinforced Epoxy Based Hybrid Composites is a bonafide work carried out by

ABHINAB BARUAH 1KG12ME002
GANESH SINGH 1KG12ME016
RAKESH MOHAN 1KG12ME039
HARSHA L 1KG11ME018

in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

Dr. Jyothi P N [Signature]

Name and Signature of Internal Guide

[Signature] 24/5/16

Head of the Department Professor & Head Dept. of Mechanical Engineering K.S. Group of Institutions K.S. School of Engineering & Management Bangalore-560 062.

[Signature]

Principal/ Director K.S. School of Engineering & Management Bangalore-560 062

University Examiners:

Dr. A. S. Dewaraja [Signature] 11/6/16

Scanned with CamScanner Name and Signature of Examiner-1

Dr. Jyothi P N [Signature] 11/6/16

Name and Signature of Examiner-2





**Department of Mechanical Engineering**

**Certificate**

*This is to certify that the project work entitled "Effect of burner design on the Performance of LPG stove" is a bonafide work carried out by*

K R Jayanth	1KG11ME020
Pratham Chendla	1KG11ME038
Guruprasad N R	1KG12ME018
Kowshik S	1KG12ME023

*in partial fulfillment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*(Signature)*

Name and Signature of  
Internal Guide

*(Signature)* 09/06/16

Head of the  
Department

*(Signature)*

Principal/  
Director

Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560062.

University Examiners:

*(Signature)* 11/6/16

Name and Signature of Examiner-1

Principal / Director  
K.S. School of Engineering & Management  
Bangalore-560062

*(Signature)* 11/6/16

Name and Signature of Examiner-2



**Department of Mechanical Engineering**

*Certificate*

*This is to certify that the project work entitled **Experimental Evaluation Process Parametric Using Different Tool Rake Angles in Turning Operations with Gingelly Oil as Cutting Fluid** is a bonafide work carried out by*

**RAGHAVENDRA .Y .R**  
**ARJUN .S .GALGALI**  
**DARSHANA .S**  
**YESHWANTH .T**

**1KG12ME037**  
**1KG13ME400**  
**1KG13ME404**  
**1KG13ME421**

*in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Alam Redhika* 26/5/16  
Name and Signature of Internal Guide

*[Signature]* 26/5/16  
Head of the Department  
Professor & Head

*[Signature]*  
Principal/ Director

Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
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**Principal / Director**  
**K.S. School of Engineering & Management**  
**Bangalore-560 062**

University Examiners:

*Dr. A.S. Devanuja*  
*[Signature]* 11/6/16

Name and Signature of Examiner-1

*Dr. P.N. Jyothu*  
*[Signature]* 11/6/16

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled Design and Fabrication of Automated Manual Gear Transmission In Motor Bike is a bonafide work carried out by*

<b>CHETHAN J</b>	<b>1KG12ME012</b>
<b>DARSHAN NAIK</b>	<b>1KG12ME014</b>
<b>LAKSHMI KESARI</b>	<b>1KG12ME024</b>
<b>MAHANTHESH S</b>	<b>1KG12ME028</b>

*in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Akash dep/09/06/16*  
Akash dep. B.N.  
Name and Signature of Internal Guide

*[Signature]*  
[Signature]  
Head of the Department  
Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

*[Signature]*  
[Signature]  
Principal/Director  
**Principal/Director**  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

*B.A.S. - [Signature]*  
[Signature]  
Name and Signature of Examiner-1

*Mr. Jyoti P N*  
*[Signature]*  
[Signature]  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Mechanical Engineering**

## Certificate

This is to certify that the project work entitled *Experimental Studies on Cutting Parameters during Drilling Operation of Mild Steel Using Eco-Friendly Vegetable Oil as Cutting Fluid* is a bonafide work carried out by

M Susmitha

1KG11ME054

Sharan P

1KG12ME043

in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2013-14. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

Dr. Jyoti P N  
24/5/16

Name and Signature of Internal Guide

24/5/16

Head of the Department  
Professor & Head

Principal / Director

Dept. of Mechanical Engineering **Principal / Director**

K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

Dr. A. S. Reddy  
24/5/16

Name and Signature of Examiner-1

Dr. Jyoti P N  
24/5/16

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled **Design and fabrication of three wheeled power tiller for agricultural and transportation purpose using Suzuki fiero engine** is a bonafide work carried out by*

Abhilash S	1KG12ME001
Chandan S T	1KG12ME011
Ravikiran P	1KG12ME040
Arjun S S B	1KG13ME401

*in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Name and Signature of  
Internal Guide

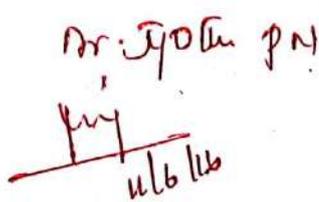
  
Name and Signature of  
Internal Co- Guide

  
Head of the  
Department  
Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062

  
Principal/  
Director  
Principal/ Director  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2



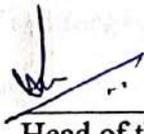
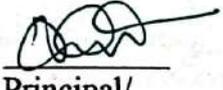
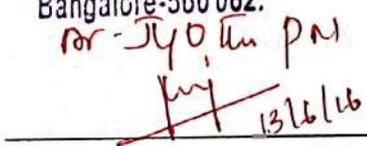
**Department of Mechanical Engineering**

*Certificate*

*This is to certify that the project work entitled **Design and Fabrication of Mechanical Fixture for Friction Stir welding Process** is a bonafide work carried out by*

Nara Sai Kiran Chowdary	1KG12ME032
Mohan Kumar N	1KG11ME055
Manuholu Sai Kiran	1KG12ME030
Durgaprasad G	1KG12ME404

*in partial fulfilment for the award of **Batchelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

 [ <u>GUVARAJA NAIK</u> ] Name and Signature of Guide	 [ <u>SHARATH KUMAR M</u> ] Name and Signature of Co-Guide	 Head of the Department Professor & Head Dept. of Mechanical Engineering K.S. Group of Institutions K.S. School of Engineering & Management Bangalore-560 062	 Principal/ Director/ Director K.S. School of Engineering & Management Bangalore-560 062
University Examiners:  Name and Signature of Examiner-1	 Name and Signature of Examiner-2		



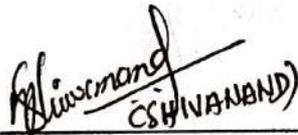
**Department of Mechanical Engineering**

*Certificate*

*This is to certify that the project work entitled "An Experimental Investigation on Mechanical Properties of Hybrid Hemp/Glass Fibre Composites" is a bonafide work carried out by*

Manohar K                      1KG13ME407  
Sunitha G                      1KG13ME418

*in partial fulfillment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
CSIVANAND

Name and Signature of the  
Internal Guide



Head of the Department  
Professor & Head

Dept. of Mechanical Engineering

K.S. Group of Institutions

K.S. School of Engineering & Management

Bangalore-560 062.



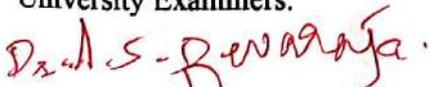
Principal/ Director

Principal/ Director

K.S. School of Engineering & Management

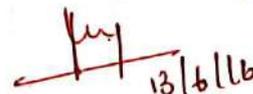
Bangalore-560 062

University Examiners:



Name and Signature of Examiner-1





Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109



**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled **FABRICATION OF AN ECONOMICAL MANUAL MILKING MACHINE** carried out by*

<b>Pavan Kumar R</b>	<b>1KG10ME035</b>
<b>Rahul R</b>	<b>1KG10ME039</b>
<b>Sridhar Rao K</b>	<b>1KG10ME047</b>
<b>Vinay R Y</b>	<b>1KG10ME057</b>

*in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.*

Name and Signature of  
Internal Guide

(Saumiya Abraham)  
Name and Signature of Co-  
Guide

Head of the  
Department

Principal/  
Director

**Principal / Director**

**K.S. School of Engineering & Management**  
Bangalore-560 062

University Examiners:

Dr. A. S. Devaraja  
Name and Signature of Examiner-1

Dr. Jyoti P N  
12/6/16  
Name and Signature of Examiner-2



**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**KSSEM**  
K.S. SCHOOL OF ENGINEERING AND MANAGEMENT

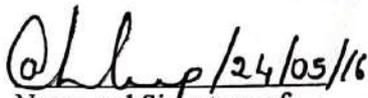
**Department of Mechanical Engineering**

## Certificate

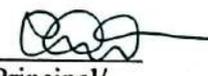
*This is to certify that the project work entitled Optimization of Reinforcement speed for Aluminium Metal Matrix Composite For Marine Applications a bonafide work carried out by*

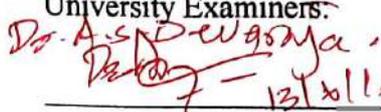
Deekshith kumar.B.S	1KG12ME015
Hari Prasad.D	1KG12ME019
Harish.R	1KG12ME020
Vinay Varshan.T	1KG12ME051

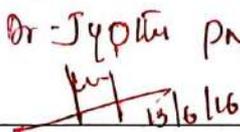
*in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Name and Signature of Guide

  
Head of the Department  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

  
Principal/  
Director  
Principal/ Director  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:  
  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

**K S School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**KSSEM**

**Department of Mechanical Engineering**

## *Certificate*

*This is to certify that the project work entitled "Re-Design and Fabrication Of Portable Rod Bending Machine For Civil Construction Sites" is a bonafide work carried out by*

**CHETHAN Y**

**1KG12ME013**

**KIRAN M**

**1KG12ME022**

**MANOJ M.R**

**1KG12ME029**

**SALMAN KHAN**

**1KG12ME415**

*In partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Internal Guide

Head of the Department  
Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions

K.S. School of Engineering & Management  
Bangalore-560 062.

Principal / Director  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

*Dr. A.S. Devaraja*

Name and Signature of Examiner-1

*Dr. Jyoti P N*

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru -560109



**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled "Design and fabrication of Pot Erosion Testing Machine" is a bonafide work carried out by*

<b>Akshay G</b>	<b>1KG12ME004</b>
<b>Thyagaraj Naik V</b>	<b>1KG12ME049</b>
<b>Pradeep H K</b>	<b>1KG13ME413</b>

*in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Santosh Kumar K.T.  
Name and Signature of  
Guide

Head of the  
department  
Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

Principal/  
Director  
Principal / Director  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

Dr. A.S. Devaluja.  
13/6/16  
Name and Signature of Examiner-1

Mr. Jyoti P.M.  
13/6/16  
Name and Signature of Examiner-2





**Department of Mechanical Engineering**

*Certificate*

*This is to certify that the project work entitled **FRICTION STIR WELDING OF DISSIMILAR EUTECTIC ALUMINUM SILICON ALLOYS BY USING VERTICAL MILLING MACHINE** is a bonafide work carried out by*

<b>T. Naveen Kumar</b>	<b>1KG12ME048</b>
<b>P.M. Vamshi Krishna</b>	<b>1KG12ME050</b>
<b>Yenuganti Sreekar</b>	<b>1KG12ME054</b>

*in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Name and Signature of Guide

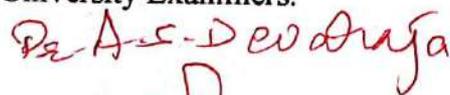
  
Name and Signature of Co-Guide

  
Head of the Department  
Professor & Head

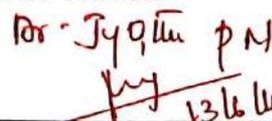
  
Principal/  
Director

**Principal / Director**  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

University Examiners:



Name and Signature of Examiner-1



Name and Signature of Examiner-2



**Department of Mechanical Engineering**

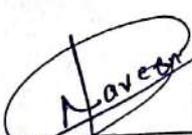
*Certificate*

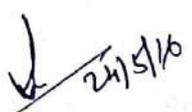
*This is to certify that the project work entitled "Design and Fabrication of closed loop water tunnel for experimental and numerical investigation of flow dynamics over submerged bodies" is a bonafide work carried out by*

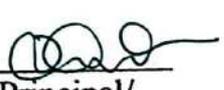
BHARATH G	1KG12ME006
BHARATH KUMAR K	1KG12ME007
BHARATHESHWARA REDDY K	1KG12ME008
NARESH	1KG12ME033

*in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Saumiya Abraham  
Name and Signature of  
Internal Guide

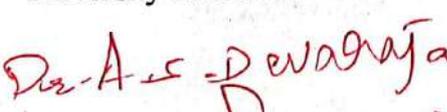
  
Nareesh 24/05/16  
Name and Signature of Co-  
Guide

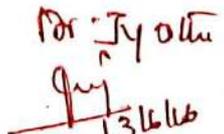
  
24/5/16  
Head of the  
Department

  
Principal/  
Director

Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.  
Principal/Director  
School of Engineering & Mana  
Bangalore-560 062

University Examiners:

  
Dr. A. S. Devaraja  
13/6/16  
Name and Signature of Examiner-1

  
13/6/16  
Name and Signature of Examiner-2



Reliance Securities Limited  
11<sup>th</sup> Floor, R-Tech IT Park  
Western Express Highway  
Goregoan (East)  
Mumbai - 400 063

Tel: +91 223320 1212  
Fax: +91 223320 1555  
www.rsec.com

## To whom it may concern

This is to certify that Mr. ABHISHEK K R (1KG14MBA01) from K S SCHOOL OF ENGINEERING & MANAGEMENT COLLEGE, Bangalore has successfully completed an internship and project titled " A STUDY ON PORTFLIO MANAGEMENT" at Reliance Securities Ltd." in partial fulfillment of the requirement for the award of him MBA degree from Visvesvaraya Technological University. The period of the project was from 14<sup>th</sup> December 2015 to 17<sup>th</sup> Feb 2016.

During the above period, performance and conduct of. ABHISHEK K R (1KG14MBA01) has been good and satisfactory.

We wish him all the best for his future endeavors.

Place: Bangalore

Date: 17/Feb/2016

SUHAIL AHMED



Registered office:  
11th Floor, R-Tech IT Park Western Express Highway Goregoan (East), Mumbai - 400 063.

CCOM/HR/PRJT/34/2016  
March 3, 2016

**CERTIFICATE**

This is to certify that Mr. Ankepalli Harikrishna (Reg. No: 1KG14MBA02), from KS School Of Engineering and Management, No15, Mallasandra, Kanakapura Road, Bangalore has completed his Project in Finance titled "STUDY ON COMMODITY FUTURES MARKET MCX" at our Institution Celebrus Commodities Limited, Bangalore, under the guidance of Mr. Krishna Bhat, Regional Manager. It is made sure that his original work has not been submitted anywhere in any form. The project work was carried during 14<sup>th</sup> December 2015 to 17<sup>th</sup> February 2016.

Yours truly,

For Celebrus Commodities Limited



Ancy PA  
Assistant Manager-HR



Seal of the organization

## INTERNSHIP CERTIFICATE

### TO WHOM SO EVER IT MAY CONCERN

This is to certify that **HEMA.R.C** (Reg no. 1KG14MBA07) student of K.S School of Engineering and Management , Bangalore, VTU University has successfully completed her internship training the project titled "**DERIVATIVES IN FUTURE AND OPTIONS** " at LKP securities Ltd, Bangalore from 14-12-2015 to 17-02-2016.

She has exhibited a high level of enthusiasm and commitment in her work. On completion of the project, she has submitted a written report of the above studies.

We wish her all the best for her future Endeavour's.



No 572, 11th Main, 5th Block, Near Post office, Jayanagar, Bangalore 560041

### LKP Securities Ltd

Member NSE Sebi Regn. No INB / INF 230720030 / MAPIN ID 1000000331  
Regd Off. / WDM - 404, Embassy Centre, Nariman Point, Mumbai - 400 021 022-6635 1234. Fax 022-6635 1249

Shantha Complex, 11nd Floor, 18-20, Lady Curzon Road, Infantry Road Cross, Bangalore - 560 001  
Tel : +91 80 3074 1400 Fax +91 80 3074 1516 Website: www.lkpsec.com

Agra Ahmedabad Ahmednagar Aligarh Amritsar Bangalore Chandigarh Chennai Faridabad Gurgaon  
Hyderabad Jaipur Jalandhar Jamshedpur Jodhpur Kolkatta Ludhiana Mathura Mumbai Nasik  
New Delhi Noida Pune Rishikesh Sanganer Shrinagar Surat Vrindavan Vyara Yamunanagar



**INTERNSHIP CERTIFICATE**

**TO WHOM SO EVER IT MAY CONCERN**

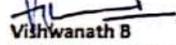
This is to certify that KILARI NIKHIL, USN 1KG14MBA11 student of K.S School of Engineering and Management, Bangalore, VTU University has successfully completed his internship training the project titled "A STUDY ON CONTRIBUTION OF PERSONAL SELLING ON SALES VOLUME" at EUREKA FORBES LTD- Security System Division Euro Vigil Bangalore from 14-12-2015 to 17-02-2016.

He has exhibited a high level of enthusiasm and commitment in his work.

On completion of the project, he has submitted a written report of the above studies.

We wish him all the best for his future Endeavour's.

Thanks & Regards,

  
Vishwanath B

Regional Sales Head

Euro vigil-Electronic Security System Division

Bangalore-560060

M-9945699050

**EUREKA FORBES LTD**

Plot 5, 6th Cross, Jayashramnagar,

Indiranagar, Bangalore, 560025

Phone: 080-30251600/602

Fax: 080-30251619/1550

**Bangalore Office :** No. 42, P-3/C, Haralukunte, Muneshwara Layout, Kudlu, Bangalore - 560 068. Ph.: 080-30251600/602, Fax: 080-30251619/1550

**Eureka Forbes Limited.**  
**Corporate Office :**  
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Marathon NextGen,  
Off Ganpatrao Kadam Marg,  
Lower Parel, Mumbai : 400 013, India.

**Phone :**  
022 - 30449700  
022 - 30449888  
**Fax :**  
022 - 30449701

**Mailing Address :**  
P.O. Box 936  
G.P.O., Mumbai - 400 001, India.  
Website : <http://www.eurekaforbes.com>

**Regd. Office :**  
7, Chakraberia Road (South)  
Kolkata - 700 025.  
**Phone :** 033 - 2474 9342



Hindustan Unilever Limited

HR/Certificate/2016-08

Date: 16-02-2016

**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that **Mr. M. Sunil Dath (USN : 1KG14MBA14)** student of K S School of Engineering and Management has successfully finished his Internship Project in our HINDUSTAN UNILEVER LIMITED.

Name of the Project: "Analysis of Supply Chain Management of Hindustan Unilever Limited".

Duration of the internship Project: From: 09-12-2015 to 16-02-2016.

We wish him all the success in his future endeavours.

For Hindustan Unilever Limited

Authorized Signatory

**HINDUSTAN UNILEVER LIMITED**

64 Main Road, Whitefield, Bangalore, Karnataka, India Tel : +91-22-39830000 Fax: +91-22-28249438  
Email: lever.care@unilever.com



**RML**  
Management Consultants

*Right Choice  
Mind Set  
Legal Friend*

Date: 20<sup>th</sup> Feb 2016

Subject: Study completion

This is to inform that Ms. Nidhi Kumari, Student Ref USN no. 1KG14MBA18 Final year MBA student from K.S.S.E.M College Bangalore. Has conducted & completed her Project study from 8<sup>th</sup> Dec 2015 to 16<sup>th</sup> Feb 2016 in our firm on Topic Recruitment Process.

The final report on the said topic yet to be submitted to us.

For RML Management Consultants

K.V.   
Chief Consultant

---

**Placements**

**Training & Development**

**Legal Services**

# 585, 'VENKATESHA', 16th Main, 10th Cross, Padmanabhanagar, Bangalore - 560 070.  
Tel : 080-2679 1687, E-mail : kvsathya@rmlconsultants.com Website : www.rmlconsultants.com

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## FLORET CONSULTING

# 361, Ground Floor, 7th Cross  
Jayanagar I Block, Bangalore- 560 011

+91-80-2656 5727

info@floretconsulting.com

www.floretconsulting.com

17<sup>th</sup> Feb, 2016

### To Whom So Ever It May Concern

This is to certify that Ms. Priyanka Rani (USN No: 1KG14MBA21), a student of KS School of Engineering & Management, Bangalore has successfully completed her Internship in our organization from 7<sup>th</sup> December 2015 till 17<sup>th</sup> February 2016.

During her tenure as an Intern with Floret Consulting, she has worked on project titled "Impact of Social Media in Recruitments" and have also worked on Sourcing / Profiling through Social Media.

During her Internship duration with us, we found her as sincere, hardworking and a dedicated professional.

We wish her all the very best for her future endeavors.

For Floret Consulting



Shilpi Sarkar

HR Executive



## IMAGE LABELS PVT. LTD.

No. 10, Vejarahalli, Off Kanakapura Road, Bangalore - 560 052.  
Phone : 080 - 2842 5555 / 2608 7000, Fax : 080 - 2842 5678, E-mail : admin@imagelabels.in, www.imagelabels.in



Date: 17-02-2016

### CERTIFICATE

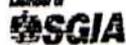
This is to certify that Ms. Rakshitla .T.M (Reg No 1KG14MBA22), student of K. S. School of Engineering & Management, No.15, Mallasandra, Off Kanakapura Road, Bangalore-62 has successfully completed her internship on "A STUDY ON MEASURE OF QUALITY OF WORKLIFE OF EMPLOYEES AT IMAGE LABELS PRIVATE LIMITED", BANGALORE, for a period of 10 weeks from 14/12/15 to 17/2/2016.

We wish all the best for her future endeavors.

For Image Labels Pvt. Ltd.,

  
(K.JAYAKUMAR)

General Manager - HR

Member of  




(ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಸ್ವಾಮ್ಯಕ್ಕೀಡಲ್ಲದ)  
(A Karnataka Government Undertaking)  
ISO-9001-2008 Company

KAVIKA/PA/2015-2016/

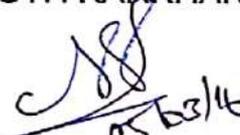
Date: 05-03-2016

## CERTIFICATE

This is to certify that **Mr. R NARESH KUMAR.,USN1KG14MBA23**  
Student of IV Semester M.B.A (**Master of Business Administration**)  
Studying at K.S School of Engineering and Management Bangalore-  
560062 has undergone Internship Training in the area of '**A Study**  
**On Employee Satisfaction**' in our Organization for a period of Two  
month from 19-12-2015 to 19-2-2016.

We wish him all success in his future endeavour.

for KARNATAKA VIDYUTH KARKHANE LIMITED

  
(N.S. SURESHNATH)  
DEPUTYMANAGER-QUALITY CONTROL  
PERSONNEL & ADMINISTRATION-I/c

---

ಕಾರ್ಖಾನೆ ಮತ್ತು ಆವಳಿತ ಕಛೇರಿ : ಕರ್ನಾಟಕ ವಿದ್ಯುತ್ ಕಾರ್ಖಾನೆ ನಿಯಮಿತ, ಅಂಚೆ ಪೆಟ್ಟಿಗೆ ಸಂಖ್ಯೆ 2610, ಮೈಸೂರು ರಸ್ತೆ, ಬೆಂಗಳೂರು - 560 026.  
FACTORY & REGISTERED OFFICE : KARNATAKA VIDYUTH KARKHANE LIMITED, POST BOX NO. 2610, MYSORE ROAD, BANGALORE - 560 026.

ದೂರವಾಣಿ : } 26748274, 26743331,  
Telephones : } 26742337, 26752934  
26987200

ಫ್ಯಾಕ್ಸ್ : }  
Fax : } 080-26744291

ಈ-ಮೇಲ್ : }  
e-mail : } md@kavika.co.in

ಬೆಂಗಳೂರು ನಗರ, ಬೆಂಗಳೂರು ಗ್ರಾಮಾಂತರ ಹಾಗೂ ರಾಮನಗರ

**Bamul**

ಬೆಂಗಳೂರು ನಗರ, ಬೆಂಗಳೂರು ಗ್ರಾಮಾಂತರ ಹಾಗೂ ರಾಮನಗರ  
ಜಿಲ್ಲಾ ಸಹಕಾರಿ ಹಾಲು ಉತ್ಪಾದಕ ಸಂಘಗಳ ಒಕ್ಕೂಟ ಸಂಘವು, ಬೆಂಗಳೂರು-29

Bengaluru Urban, Bengaluru Rural & Ramanagara  
District Co-operative Milk Producers' Societies Union Ltd., Bengaluru-29



No.Bamul/Admn-01/Cert/2015-16

Date: 24.02.2016

**CERTIFICATE**

*This is to Certify that Mr. Sathish R, M.B.A. Student of K.S.School of Engineering & Management has successfully completed the Project on "A Study on Brand Awareness" from Date: 09.12.2015 to 14.02.2016 at Bengaluru Urban, Bengaluru Rural and Ramanagara District Co-Operative Milk Producer's Societies Union Ltd., Bengaluru- 560029.*

  
General Manager(admn)  
Bengaluru Co-op Milk Union Ltd.,

ಬೆಂಗಳೂರು ಜಿಲ್ಲಾ ಸಹಕಾರಿ ಹಾಲು ಉತ್ಪಾದಕ ಸಂಘಗಳ ಒಕ್ಕೂಟ ಸಂಘವು, ಬೆಂಗಳೂರು-560 029

BENGALURU DAIRY Dr. M.H. Mangappa Road, Bengaluru 560 029

ಉಪಯುಕ್ತ ಕೆಲಸ : 080-25539123, ಸುರಕ್ಷಾ ಕಛೇರಿ : 080-26096287, ಫ್ಯಾಕ್ಸ್ : 080-25536597

Phone : Customer Care : 080-25539123, Security Office : 080-26096287 Fax : 080-25536597

Email : bamulkmf@yahoo.co.in Website : bamulnandini.coop



## TO WHOM IT MAY CONCERN

This is to certify that **MR. THOKALA RAKESH (1KG14MBA28)** from **K S SCHOOL OF ENGINEERING & MANAGEMENT COLLEGE, Bangalore** has successfully completed an internship and project titled **"A STUDY ON CUSTOMER SATISFACTION AT SAVOURY SEASHELL RESIDENCY, BENGALURU"** in partial fulfillment of the requirement for the award of him MBA degree from Visvesvaraya Technological University. The period of the project was from 14<sup>th</sup> December 2015 to 17<sup>th</sup> February 2016.

During the above period, performance and conduct of **MR.THOKALA RAKESH (1KG14MBA28)** has been good and satisfactory.

We wish him all the best for his future endeavors.

ANJALI



Place: Bengaluru  
Date: 17/Feb/2016

**CERTIFICATE**

This is to certify that Mr VINAY.V USN: 1KG14MBA30 a student of MBA studying at K.S SCHOOL OF ENGINEERING & MANAGEMENT Bangalore has undergone the internship and has completed project titled as "A STUDY ON ANALYSIS OF INVESTMENT OPTIONS" at BMA Wealth Creators Ltd (Jayanagar Bangalore Branch) from a period of 14<sup>th</sup> December 2015 to 14<sup>th</sup> February 2016 in our company under the guidance of Mr. RASHMI RANJAN PADHI.

We wish to express our appreciation for his excellent work done and wish him all the success in her new endeavour.

**Place: Bangalore**

**External Guide**

**Date: 25-Feb-2016**

**RASHMI RANJAN PADHI**

  
(Unit Head-Karnataka)



Corporate Office:

Vishwakarma II  
29/5A, Dr. Ambedkar Sarani, Topsia Road,  
Kolkata - 700046  
PH : 033-400110099

**Regd. Office:**  
14/1, Paul Mansion, 1st Floor, 6, Bishop Lefroy Road, Kolkata 700020

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project work entitled **Groundwater Exploration Using Electrical Resistivity Meter** is a bonafide work carried out by*

<b>Shruthi P Reddy</b>	<b>1KG11CV034</b>
<b>Soundarya V</b>	<b>1KG11CV035</b>
<b>Pani Raj Patil</b>	<b>1KG12CV410</b>
<b>Ravi Kumar S</b>	<b>1KG12CV415</b>

*in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Dr Vyshal. Vyshal.  
Name and Signature of  
Internal Guide 1

Veena.T. Vitigalla.  
Name and Signature of  
Internal Guide 2

W.Kelle  
Head of the  
Department

W.Kelle  
Principal/  
Director

University Examiners  
Name and Signature of Examiner-1

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



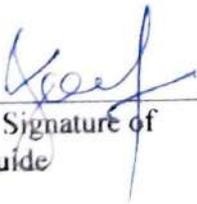
**Department of Civil Engineering**

## *Certificate*

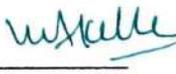
*This is to certify that the project work entitled **Strenght Aspects Of Glass Fibre Retnforced Concrete** is a bonafide work carried out by*

<b>Madamanchi Surendranadh</b>	<b>1KG11CV013</b>
<b>Niraj Pradhan</b>	<b>1KG11CV019</b>
<b>Rakesh Choudhary G.C.</b>	<b>1KG11CV028</b>
<b>Uttam V.B.</b>	<b>1KG10CV042</b>

*in partial fulfilment for the award of **Batchelor of Engineertng in Cívil Engineertng** of **Visvesvaraya Technological University, Belgaum**, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Name and Signature of  
Internal Guide

  
Head of the Department  
Professor & Head  
Dept. of Civil Engineering  
K.S. Group of Institutions

  
Principal/ Director  
Principal / Director  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners: K.S. School of Engineering & Management  
Bangalore-560 062.

\_\_\_\_\_  
Name and Signature of Examiner-1

\_\_\_\_\_  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Civil Engineering**

## Certificate

*This is to certify that the project work entitled **Experimental Studies on Bearing Capacity of T-shaped Footing on Granular Soils** a bonafide work carried out by*

Rabin Adhikari	1KG10CV027
Joshua F. Njau	1KG11CV011
Rohit Patra	1KG11CV030
Devarish G. Gowda	1KG12CV403

*in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of **Visvesvaraya Technological University, Belgaum**, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

**AREKAL VIJAY**

Name and Signature of  
Internal Guide

Head of the Department  
Professor & Head  
Dept. of Civil Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

Principal/ Director  
Principal / Director  
**K.S. School of Engineering & Management**  
**Bangalore-560 062**

University Examiners:

\_\_\_\_\_  
Name and Signature of Examiner-1

\_\_\_\_\_  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project work entitled **Experimental Study on Hybrid fibre Reinforced Concrete with the Addition of Polymer (SBR)** is a bonafide work carried out by*

Deepak . B. N	1KG11CV404
Nagaraj . P	1KG12CV408
Nandini . S	1KG11CV018
Vignesh . W	1KG12CV419

*in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Name and Signature of  
Internal Guide

Professor in Charge

Dept. of Civil Engineering  
K.S. Group of Institutions

K.S. School of Engineering & Management  
Bangalore-560 062.

Principal/ Director

Principal, Director

K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

\_\_\_\_\_  
Name and Signature of Examiner-1

\_\_\_\_\_  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project work entitled **Development of fibre reinforced light weight concrete** is a bonafide work carried out by*

<b>Chetan.P</b>	<b>1KG11CV402</b>
<b>Sunetra.K.R</b>	<b>1KG11CV037</b>
<b>Vinaya Shree.S</b>	<b>1KG12CV420</b>
<b>Vinod Kumar.K</b>	<b>1KG11CV043</b>

*in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*A Ananthgopal yarahha*  
\_\_\_\_\_  
Name and Signature of  
Internal Guide

\_\_\_\_\_  
Name and Signature of  
Industrial Guide

*W.Kelle* *W.Kelle*  
\_\_\_\_\_  
Head of the  
Department  
Professor & Head  
Dept. of Civil Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management,  
Bangalore-560 062.

*Principal/ Director*  
\_\_\_\_\_  
Principal/ Director  
K.S. School of Engineering & Management,  
Bangalore-560 062

University Examiners:

*W.Kelle* *9/6/15*  
\_\_\_\_\_  
Name and Signature of Examiner-1

*P.L. Indira* *9/6/15*  
\_\_\_\_\_  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project work entitled **RE DESIGN OF TRAFFIC SIGNAL AT BANASHANKARI JUNCTION** is a work carried out by*

Rajshekar M	IKG11CV026
Rohith R	IKG11CV031
Rohith S	IKG11CV032
Vishwas S	IKG11CV044

*in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of **Visvesvaraya Technological University, Belgaum**, during the year 2014-2015. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

\_\_\_\_\_  
Name and Signature of  
Internal Guide

\_\_\_\_\_  
Head of the  
Department

\_\_\_\_\_  
Principal/  
Director

University Examiners:

\_\_\_\_\_  
Name and Signature of Examiner-1

\_\_\_\_\_  
Name and Signature of Examiner-2

K.S. School of Engineering and Management  
No. 15, 5th Main Rd, 67 Kanakapura Road, Bangalore - 560062



Department of Computer Science and Engineering

## Certificate

This is to certify that the project work entitled "Magikids using C# and LTP2 Digging Technique with Client Server Communication" is a bonafide work carried out by

Hehan S	1907110118
Keerthana V	1907110119
Sriyaha S	1907110146
Srijay P	1907110354

in partial fulfillment for the award of Bachelor of Engineering in Computer Science and Engineering of Karnataka Technological University, Durgam, during the year 2019-20. It is certified that all the suggestions indicated in the internal assessment have been incorporated in this report and the thesis satisfies the academic requirement in respect of project work prescribed for the degree.

  
Mr. Upadithy Channarayana  
Assistant Professor,  
Internal Circle

  
Dr. B.K. Jagdishwara  
Professor and Head,  
Department of CSE  
HOD

  
Dr. Ch. Neelima  
Associate Professor  
KSSM  
Principal, Director

University Examiners:  
Prof. of Computer Science & Engineering  
Prof. of Engineering Management  
BANGALORE 2020

K.S. School of Engineering & Management  
Bangalore-560062

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

# K.S.SCHOOL OF ENGINEERING & MANAGEMENT

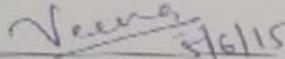
#15, Mallasandra, off Kanakpura Road, Bengaluru-560062

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

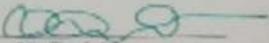


## CERTIFICATE

This is to certify that the project work on "DEVELOPMENT OF FRAMEWORK TO PROVIDE DATA SECURITY FOR NoSQL DATA IN CLOUD" carried out by Ms. ANKITA D. PAI, bearing the USN 1KG13SCS01, a bonafide student of K. S. SCHOOL OF ENGINEERING AND MANAGEMENT, Bengaluru in partial fulfillment for the award of the degree of Master of Technology in Computer Science and Engineering of the Visvesvaraya Technological University, Belagavi during the year 2014-2015. It is certified that all corrections/ suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

  
Mrs. Veena R. S  
Associate Professor  
Department of CSE  
KSSEM, Bengaluru

  
Dr. B. K Raghavendra  
Professor & Head,  
Department of CSE  
KSSEM, Bengaluru  
Dept. of Computer Science & Engineering  
K.S. School of Engineering & Management  
Bangalore-560062,  
External Viva

  
Dr. S. N Sridhara  
Principal/Director  
KSSEM  
Principal/ Director  
K.S. School of Engineering & Management  
Bangalore-560062

Name of the Examiners

Signature & Date

1. \_\_\_\_\_

2. \_\_\_\_\_



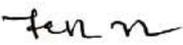
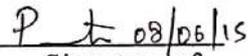
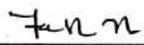
**Department of Electronics and Communication**

*Certificate*

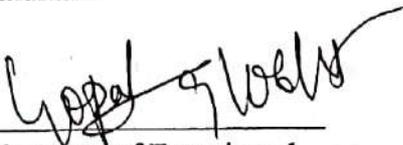
*This is to certify that the project work entitled is a bona fide work carried out by*

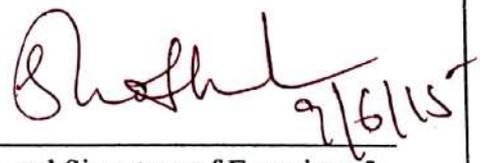
<b>Diwesh Jaiswal.A</b>	<b>1KG10EC016</b>
<b>Guruprasad.S</b>	<b>1KG11EC023</b>
<b>Karthik.D</b>	<b>1KG11EC028</b>
<b>Rohitha.H.V</b>	<b>1KG11EC063</b>

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belagavi, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

	 P to 08/06/15		
Signature of Internal Guide	Signature of Co-Guide	Head of the Department	Principal/ Director
<b>Dr.Fathima Jabeen</b> Professor & Head, Department of E.C.E	<b>Mr.Puneeth.S</b> Assistant-professor, Department of E.C.E	<b>Dr.Fathima Jabeen</b> Department of E.C.E	<b>Dr.S.N.Sridhara</b> K.S.S.E.M
		Professor & Head, Dept. of Electronics & Communication Engineering K.S. Group of Institutions	<b>Principal / Director</b> K.S. School of Engineering & Management Bangalore-560 062
		<b>K.S. School of Engineering &amp; Management</b> Bangalore-560 062.	

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2



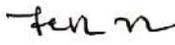
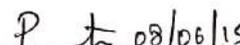
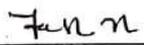
**Department of Electronics and Communication**

*Certificate*

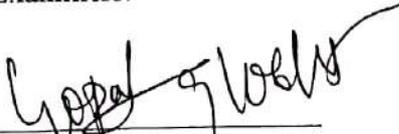
*This is to certify that the project work entitled is a bona fide work carried out by*

<b>Diwesh Jaiswal.A</b>	<b>1KG10EC016</b>
<b>Guruprasad.S</b>	<b>1KG11EC023</b>
<b>Karthik.D</b>	<b>1KG11EC028</b>
<b>Rohitha.H.V</b>	<b>1KG11EC063</b>

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belagavi, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

			
Signature of Internal Guide	Signature of Co-Guide	Head of the Department	Principal/ Director
<b>Dr.Fathima Jabeen</b> Professor & Head, Department of E.C.E	<b>Mr.Puneeth.S</b> Assistant-professor, Department of E.C.E	<b>Dr.Fathima Jabeen</b> Department of E.C.E	<b>Dr.S.N.Sridhara</b> K.S.S.E.M
		<b>Professor &amp; Head,</b> Dept. of Electronics & Communication Engineering K.S. Group of Institutions	<b>Principal / Director</b> K.S. School of Engineering & Management Bangalore-560 062
		<b>K.S. School of Engineering &amp; Management</b> Bangalore-560 062.	

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum-590018



*A Project Work Report on*

**"Automatic Traffic Signal Control and the Patient Data Transmission  
for Emergency Service Vehicle using ARM controller"**

*Submitted in partial fulfilment of the requirements  
For the award of degree of*

**Bachelor of Engineering**

**In**

**Electronics and Communication Engineering**

**By**

<b>Rangadhama.J</b>	<b>1KG11EC058</b>
<b>Sushma.D</b>	<b>1KG11EC075</b>
<b>Pavithra.V</b>	<b>1KG11EC405</b>
<b>Umesh Yadav.R</b>	<b>1KG12EC409</b>

*Under the Guidance of*

**Guide:**

**Mrs. Gunasheela .T .J**  
Assistant Professor,  
Department of ECE, KSSEM  
Bangalore.

**Co-Guide:**

**Dr. Karthik .P**  
Associate Professor,  
Department of ECE, KSSEM  
Bangalore.



**KSSEM**

Department of Electronics and Communication Engineering  
**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062  
2014-15



KSSEM

Department of Electronics and Communication Engineering  
**Certificate**

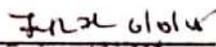
*This is to certify that the project work entitled "Automatic Traffic Signal Control and the Patient Data Transmission for Emergency Service Vehicle using ARM controller" is a bonafide work carried out by*

Rangadhama.J	1KG11EC058
Sushma.D	1KG11EC075
Pavithra.V	1KG11EC405
Umesh Yadav.R	1KG12EC409

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirements in respect of project work prescribed for the degree.*

  
Signature of Guide  
Mrs. Gunasheela T.J  
Assistant Professor,  
Department of ECE,  
KSSEM

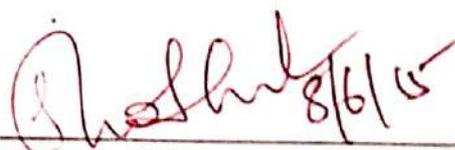
  
Signature of Co-Guide  
Dr. Karthik J.  
Associate Professor,  
Department of ECE,  
KSSEM

  
Professor, Head of  
Department  
Dr. Fathima Jabeen  
Department of ECE,  
KSSEM

  
Principal/Director  
Dr. S.N. Sridhara  
KSSEM  
Bangalore-560 082

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

# Microcontroller Based Voice Controlled MP3 Player

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electronics and communication Engineering**

*Submitted by*

Vinodh Kumar.B	1KG10EC010
Manoj Raja .E	1KG10EC017
Yoganand.E	1KG11EC017
Udaya Kiran.R	1KG11EC412

*Under the Guidance of*

**GUIDE:**

Mrs SHANTHALA.G.M  
Asst. professor  
Department of ECE

**CO-GUIDE:**

Mr MANU.D.K  
Asst.professor  
Department of ECE



**KSSEM**  
K.S. School of Engineering and Management

Department of Electronics and communication Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062  
**2014-15**



Department of Electronics and Communication Engineering

Certificate

This is to certify that the project work entitled microcontroller based voice controlled mp3 player is a bonafide work carried out by

Vinodh Kumar.B - 1KG10EC010  
Manoj Raja .E - 1KG10EC017  
Yoganand.E - 1KG11EC017  
Udaya Kiran.R - 1KG11EC412

in partial fulfilment for the award of Bachelor of Engineering in Electronics and communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

*[Signature]*  
8/6/15

Guide  
**Mrs. Shanthala G.M**  
Asst. Professor  
Dept. OF ECE  
KSSEM

*[Signature]*  
8/6/15

Co-Guide  
**Mr. Manu.D.K**  
Asst. Professor  
Dept. OF ECE  
KSSEM

*[Signature]*

Head of the Dept.  
**Dr. Fathima jabeen**  
Dept. OF ECE,  
KSSEM  
Professor & Head

*[Signature]*

Principal/ Director  
**Dr. S.N. Sridhara**  
KSSEM  
Principal / Director

Dept. of Electronics & Communication Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560062

*[Signature]*  
9/08/15

Name and Signature of Examiner-1

*[Signature]*  
9/6/15

Name and Signature of Examiner-2

# **A Wireless Based Patient Monitoring System Using Android Technology**

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electronics and Communication Engineering**

*Submitted by*

<b>B.Sneha</b>	<b>1KG11EC006</b>
<b>Bhavana.V</b>	<b>1KG11EC008</b>
<b>Brunda.S</b>	<b>1KG11EC009</b>
<b>Murali.T.S</b>	<b>1KG11EC036</b>

*Under the Guidance of*

**Puneeth.S**  
Assistant Professor  
Department of ECE  
KSSEM, Bangalore

**Ravikiran.B.A**  
Assistant Professor  
Department of ECE  
KSSEM, Bangalore



**KSSEM**  
K.S. SCHOOL OF ENGINEERING AND MANAGEMENT

Department of Electronics and Communication Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560062

2014-15

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560062



**Department of Electronics and Communication Engineering**

## Certificate

*This is to certify that the project work entitled A Wireless Based Patient Monitoring System Using Android Technology is a bonafide work carried out by*

<b>B.Sneha</b>	<b>1KG11EC006</b>
<b>Bhavana.V</b>	<b>1KG11EC008</b>
<b>Brunda.S</b>	<b>1KG11EC009</b>
<b>Murali.T.S</b>	<b>1KG11EC036</b>

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belagavi, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

P 10/6/15  
Signature of Guide  
**Mr.Puneeth.S**  
Assistant Professor  
Department of ECE,  
KSSEM

BANU  
Signature of Co-Guide  
**Mr.Ravikiran.B.A**  
Assistant Professor  
Department of ECE,  
KSSEM

FATHIMA  
Professor, Head of  
Department  
**Dr.Fathima Jabeen**  
Department of ECE,  
KSSEM

W.S.KELLE  
Principal/Director  
**Dr.S.N.Sridhara**  
KSSEM

**Principal / Director**  
**K.S. School of Engineering & Management**  
**Bangalore-560 062**  
Dept. of Electronics & Communication Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

University Examiners:

C. P. S. 10/6/15  
Name and Signature of Examiner-1

B. S. S. 10/6/15  
Name and Signature of Examiner-2

# Design and Implementation of Helmet to Track the Accident Zone and Recovery using GPS and GSM

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electronics & Communication Engineering**

*Submitted by*

<b>Deepak T.E</b>	<b>1KG11EC014</b>
<b>Shaikh Mubassir Ahmed</b>	<b>1KG11EC065</b>
<b>Yellavarthi Vaishnavi</b>	<b>1KG11EC088</b>

*Under the Guidance of*

**Internal Guide:**  
**Dr. Karthik P**  
Associate Professor  
Department of ECE

**Internal Co-Guide:**  
**Mrs.Sindhu I M**  
Assistant Professor  
Department of ECE



**KSSEM**

Department of Electronics & Communication Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062  
2014-15

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



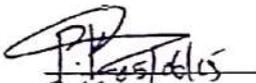
**Department of Electronics & Communication Engineering**

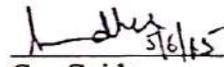
## Certificate

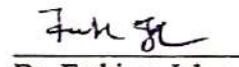
*This is to certify that the project work entitled Design and Implementation of Helmet to Track the Accident Zone and Recovery using GPS and GSM is a bonafide work carried out by*

Deepak T.E	1KG11EC014
Shaikh Mubassir Ahmed	1KG11EC065
Yellavarthi Vaishnavi	1KG11EC088

*of Engineering in Electronics & Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Guide  
Dr. Karthik P  
Associate Professor  
Dept. of ECE  
KSSEM

  
Co- Guide  
Mrs. Sindhu I M  
Assistant Professor  
Dept. of ECE  
KSSEM

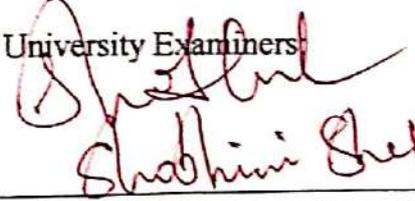
  
Dr. Fathima Jabeen  
Professor & Head  
Dept. of ECE  
KSSEM  
Professor & Head

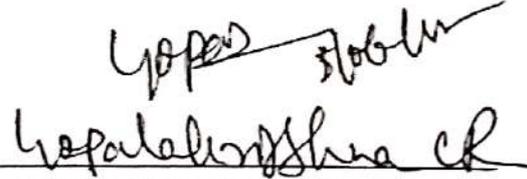
  
Dr. S. N Sridhara  
Principal/ Director  
KSSEM  
Principal Director

Dept. of Electronics & Communication Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560062.

K.S. School of Engineering & Management  
Bangalore-560062

University Examiners

  
Shobhini Shetty  
8/6/15  
Name and Signature of Examiner-1

  
Kopalakrishna C R  
Name and Signature of Examiner-2

# Energizing Circuit For Electromechanical Contactors

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

Arshad ulla	1KG11EE001
Tejashwini K	1KG11EE005
Prajwal K T	1KG11EE009

*Under the Guidance of*

**Mr. Hariprasad. Y**  
Asst. Professor  
Department of E&E Engineering  
KSSEM, Bengaluru



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2014-15

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No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560062



**Department of Electrical and Electronics Engineering**

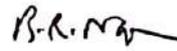
## Certificate

*This is to certify that the project work entitled "Energizing Circuit For Electromechanical Contactors" is a bonafide work carried out by*

<b>Arshad ulla</b>	<b>1KG11EE001</b>
<b>Tejashwini K</b>	<b>1KG11EE005</b>
<b>Prajwal K T</b>	<b>1KG11EE009</b>

*in partial fulfilment for the award of Bachelor of Engineering in electrical and electronics Engineering of Visvesvaraya Technological University, Belagavi, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
(Hariprasad.Y)  
Name and Signature of  
Internal Guide



Head of the  
Department

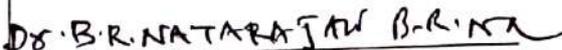
Professor & Head

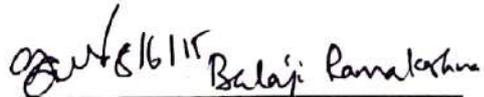
Dept. of Electrical & Electronics Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

  
Principal/  
Director

**Principal / Director**

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

# Ultra-Fast Switching Electronic Circuit Breaker with GSM

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

Roopini.C	1KG11EE010
Vinod Kumar.R	1KG11EE017
Rakesh.R	1KG12EE401

*Under the Guidance of*

**Mr. Satish Kumar D**  
Assistant Professor  
Department of Electrical and Electronics Engineering  
KSSEM, Bangalore



**KSSEM**

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K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062  
2014-15

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Electrical and Electronics Engineering**

## *Certificate*

*This is to certify that the project work entitled **Ultra-Fast Switching Electronic Circuit Breaker with GSM** is a bonafide work carried out by*

Roopini.C	1KG11EE010
Vinod Kumar.R	1KG11EE017
Rakesh.R	1KG12EE401

*in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*D. Satish Kumar*  
D. SATISH KUMAR  
Name and Signature of  
Internal Guide

*B.R.N.R*  
B.R.N.R  
Head of the  
Department  
Professor & Head

*[Signature]*  
Principal/Director

Dept. of Electrical & Electronics Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

**Principal / Director**  
**K.S. School of Engineering & Management**  
Bangalore-560 062

University Examiners:

*Dr. B. R. Natarajan*  
Dr. B. R. Natarajan  
Name and Signature of Examiner-1

*Belaji Ramakrishna*  
Belaji Ramakrishna  
Name and Signature of Examiner-2

# **SOLAR SMART INVERTER**

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
In  
Electrical and Electronics Engineering**

*Submitted by*

**Manedi Bhanu Prasad  
T.S.Harshitha  
Sumesh R.N**

**1KG12EE400  
1KG11EE016  
1KG10EE032**

*Under the Guidance of*

**Mrs.Manjula .B.G**  
Asst.Professor  
Department of Electrical and Electronics Engineering  
KSSEM, Bangalore



**KSSEM**

Department of Electrical and Electronics Engineering  
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2014-15

**K.S.School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Electrical and Electronics Engineering**

## Certificate

*This is to certify that the project work entitled Solar Smart inverter is a bonafide work carried out by*

Manedi Bhanu Prasad	1KG12EE400
T.S.Harshitha	1KG11EE016
Sumesh R.N	1KG10EE032

*in partial fulfilment for the award of Bachelor of Engineering in Electrical and Electronics Engineering of Visvesvaraya Technological University, Belgaum, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Name and Signature of  
Internal Guide

Name and Signature of  
Industrial Guide

Head of the  
Department

Principal/  
Director

Dept. of Electrical & Electronics Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062. Bangalore-560 062

University Examiners:

Name and Signature of Examiner-1

Name and Signature of Examiner-2

# Regulated Power Supply with Digital Control

*A Project Work submitted to*



*Visvesvaraya Technological University  
in partial fulfilment of the requirements  
for the award of degree of*

**Bachelor of Engineering  
in  
Electrical and Electronics Engineering**

*Submitted by*

**Manju Mukesh Reddy.C.S 1KG11EE007  
Swetha Sastry B.G 1KG11EE015**

*Under the Guidance of*

**Mrs. Ramyashree. H.P**  
Assistant Professor  
Department of Electrical and Electronics Engineering  
KSSEM, Bangalore



**KSSEM**  
Kannada School of Engineering and Management

Department of Electrical and Electronics Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062  
2014-15

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Electrical and Electronics Engineering**

## Certificate

*This is to certify that the project work entitled **Regulated Power Supply with Digital Control** is a bonafide work carried out by*

Manju Mukesh Reddy.C.S    1KG11EE007  
Swetha Sastry B.G        1KG11EE015

*in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

RAMYASHREE.H.P.

*H.P. Ramyashree*

Name and Signature of  
Internal Guide

Name and Signature of  
Industrial Guide

*B.R. Na*

Head of the  
Department  
Professor & Head

*B.R. Na*  
Principal/  
Director

Dept. of Electrical & Electronics Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560062.  
Principal / Director  
K.S. School of Engineering & Management  
Bangalore-560062.

University Examiners:

*Dy. B.R. Narayana*  
Name and Signature of Examiner-1

*Balaji Ramakrishna* 8/6/15  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled **Design and Analysis of a Rotary Shaft Seal for Crank Shaft Application** is a bonafide work carried out by*

Mohan kumar aradhya H M	1KG10ME033
Monish H R	1KG10ME035
Rudragouda	1KG10ME042
Vedamurthy G R	1KG10ME050

*in partial fulfilment for the award of **Batchelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2013-14. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Akash deep/06/06/15*  
*Akash deep. B.N.*  
Name and Signature of  
Internal Guide

\_\_\_\_\_  
Name and Signature of  
Industrial Guide

*[Signature]*  
\_\_\_\_\_  
Head of the  
Department

*[Signature]*  
\_\_\_\_\_  
Principal/  
Director

Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

*[Signature]*  
*[Signature]*  
Name and Signature of Examiner-1

*[Signature]*  
*[Signature]*  
Name and Signature of Examiner-2

**K S School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**KSSEM**  
K.S. Group of Institutions

**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled "Automatic Gear Transmission Bicycle" is a bonafide work carried out by*

<b>K R KISHAN</b>	<b>1KG11ME021</b>
<b>KARTHIK S MURTHY</b>	<b>1KG11ME023</b>
<b>PRUTHVI K V</b>	<b>1KG11ME039</b>
<b>SHASHI KIRAN C R</b>	<b>1KG11ME046</b>

*In partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
04/06/15

Internal Guide

  
04/06/15

Head of the Department

Professor & Head

Dept. of Mechanical Engineering

K.S. Group of Institutions

K.S. School of Engineering & Management

Bangalore-560 062.



Principal/ Director

**Principal / Director**

**K.S. School of Engineering & Management**

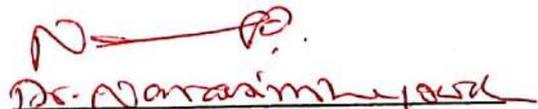
Bangalore-560 062

University Examiners:

Jyothi PN

  
04/06/15

Name and Signature of Examiner-1

  
Dr. Anandamurthy

Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560062



**Department of Mechanical Engineering**

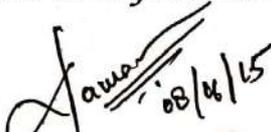
## Certificate

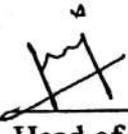
*This is to certify that the project work entitled "Structural Design And Analysis Of Seat Support Of A Microlight Aircraft" is a bonafide work carried out by*

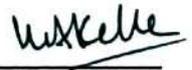
<b>ABHINAV RAJ</b>	<b>1KG11ME001</b>
<b>ABHISHEK K</b>	<b>1KG11ME002</b>
<b>SUHAS B S</b>	<b>1KG11ME048</b>
<b>VINAYAKA K C</b>	<b>1KG11ME053</b>

*in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Santosh Kumar K.J.  
Name and Signature of  
Internal Guide

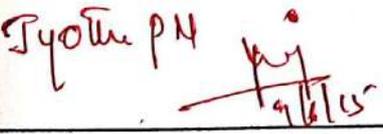
  
NAMAN DUGAR  
Name and Signature of  
Industrial Guide

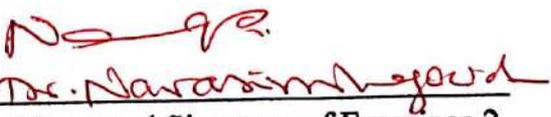
  
Head of the  
Department  
Professor & Head

  
Principal/  
Director  
Principal / Direc

Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560062.  
K.S. School of Engineering & Management  
Bangalore-560062

University Examiners:

  
Examiner-1  
Name and Signature of Examiner-1

  
Examiner-2  
Name and Signature of Examiner-2

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No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



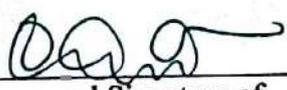
**Department of Mechanical Engineering**

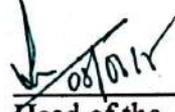
## Certificate

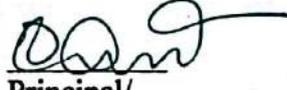
*This is to certify that the project work entitled **Design and Fabrication of a Water Table for Flow Visualisation and Analysis** is a bonafide work carried out by*

Bharath Hemanth	1KG11ME008
Bhargav. V	1KG11ME010
Pavan Kumar. A	1KG11ME037

*In partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of **Visvesvaraya Technological University, Belgaum**, during the year 2013-14. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Name and Signature of  
Internal Guide

  
Head of the  
Department

  
Principal/  
Director

Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

Principal / Director  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

Jyothi PN

Name and Signature of Examiner-1

  
Name and Signature of Examiner-2  
Dr. Narasimha Gowd





**Department of Mechanical Engineering**

*Certificate*

*This is to certify that the project work entitled Investigation of Performance and Behaviour of Cylinder Liner made of Hypereutectic aluminum Silicon alloy with Lining of Copper with varying thickness is a bonafide work carried out by*

Avilash Jha	1KG11ME006
Gnanamurthy D.B	1KG11ME016
Sriranga T.A	1KG10ME047
Vaibhav M.S	1KG10ME049

*in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Jyothi PN*  
\_\_\_\_\_  
Name and Signature of Internal Guide

*[Signature]*  
\_\_\_\_\_  
Head of the Department

*[Signature]*  
\_\_\_\_\_  
Principal/ Director

Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

University Examiners:

*Jyothi PN*  
*[Signature]*  
\_\_\_\_\_  
Name and Signature of Examiner-1

*[Signature]*  
*Dr. Narasimha Gowda*  
\_\_\_\_\_  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled "Investigation of Material properties of Al-5%Si alloy reinforced with Cow dung and Rice husk ash" is a bonafide work carried out by*

Bharath kumar B.S

1KG11ME009

Pavan kumar G

1KG12ME409

*in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
2/6/15  
03/06/15  
Name and Signature of Internal Guide

  
03/06/15  
Head of the Department

  
Principal/ Director

**Professor & Head**  
**Dept. of Mechanical Engineering**  
**K.S. Group of Institutions K.S. School of Engineering & Management**  
**K.S. School of Engineering & Management Bangalore-560 062**  
**Bangalore-560 062.**

University Examiners:

Name and Signature of Examiner-1

  
Dr. Narasimha Gowda  
Name and Signature of Examiner-2



**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled "Fabrication and Experimental Setup for Misalignment of Magnetic Coupling test" is a bonafide work carried out by*

<b>GANESH KUMAR M J V</b>	<b>1KG11ME015</b>
<b>MANJUNATH B J</b>	<b>1KG11ME028</b>
<b>NISHANTH NAG H D</b>	<b>1KG11ME036</b>
<b>PAVAN KUMAR B</b>	<b>1KG12ME410</b>

*in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*YUVARAJA NAIK*  
*Yuvik 090615*  
\_\_\_\_\_  
Name and Signature of Internal Guide

*[Signature]*  
\_\_\_\_\_  
Head of the Department  
Professor & Head

*[Signature]*  
\_\_\_\_\_  
Principal/ Director

**Dept. of Mechanical Engineering**  
**K.S. Group of Institutions**

**Principal / Director**

**K.S. School of Engineering & Management**  
Bangalore-560 062.

**K.S. School of Engineering & Management**  
**Bangalore-560 062**

University Examiners:

*Jyothi P N*  
*[Signature]*  
\_\_\_\_\_  
Name and Signature of Examiner-1

*[Signature]*  
\_\_\_\_\_  
Name and Signature of Examiner-2  
*Dr. Narasimha Murthy*





**Department of Mechanical Engineering**

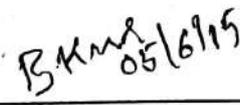
**Certificate**

*This is to certify that the project work entitled **Experimental evaluation of optimal Ethanol-Gasoline blend percentage under variable compression ratios in a Four Stroke Digital Twin Spark Ignition Engine**, is a bonafide work carried out by*

<b>Manjunatha H R</b>	<b>1KG11ME029</b>
<b>Rajesh T S</b>	<b>1KG11ME041</b>
<b>Vinay H K</b>	<b>1KG11ME052</b>

*in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of **Visvesvaraya Technological University, Belgaum**, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
05/06/15  
Name and Signature of  
Internal Guide

  
05/06/15  
Name and Signature of  
Co- Guide

  
Name and Signature of  
Head of the  
Department

  
Name and Signature of  
Principal/  
Director

Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

  
9/6/15  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled **Dual mode system to increase the performance of two wheelers** is a bonafide work carried out by*

Akiff Delvi	1KG11ME003
Bharath D	1KG11ME007
Gourav K	1KG11ME017
Mohammed Hammood Hussain	1KG11ME030

*in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*@chelp/05/06/15*  
*Akash deep B.N*

Name and Signature of  
Internal Guide

*[Signature]*

Head of the  
Department  
Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

*[Signature]*

Principal / Director

Principal / Director  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

*Yothi PN*

*[Signature]*  
17/6/15

Name and Signature of Examiner-1

*[Signature]*

*Dr. Narasimha Gowd*  
Name and Signature of Examiner-2



**KSSEM**

**Department of Mechanical Engineering**

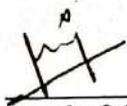
**Certificate**

This is to certify that the project work entitled **“STUDY OF SURFACE FINISH AND CHIP FORMATION DURING TURNING OPERATION OF MILD STEEL USING NON-EDIBLE OIL AS METAL CUTTING FLUID”** is a bonafide work carried out by

<b>ANAJAN R</b>	<b>1KG12ME400</b>
<b>JAGATH J K</b>	<b>1KG12ME405</b>
<b>SAMEER RAJENDRA NAYAK</b>	<b>1KG12ME416</b>
<b>SHIVARAJ G</b>	<b>1KG12ME417</b>

In partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

  
Alam Radhika  
Name and Signature of  
Internal Guide

  
Head of the  
Department  
Professor & Head

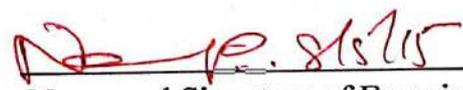
  
Principal/  
Director

Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

**Principal / Director**  
**K.S. School of Engineering & Management**  
**Bangalore-560 062**

University Examiners:

  
Jyothi PN.  
Name and Signature of Examiner-1

  
Dr. Narasimha Rao  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Mechanical Engineering**

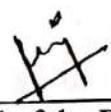
## Certificate

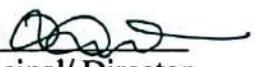
*This is to certify that the project work entitled Fabrication of Multi-Purpose Go-Kart is a bonafide work carried out by*

Harsha V R	1KG11ME019
Likith Sagar B	1KG11ME024
Shashank M S	1KG11ME045
Vijaya Vittala A	1KG11ME051

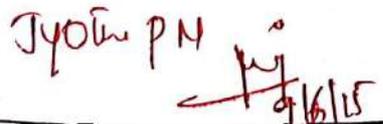
*in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

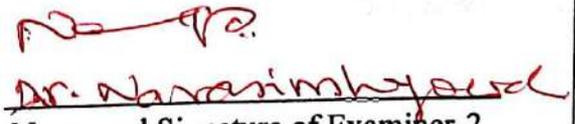
  
Name and Signature of  
Internal Guide

  
Head of the Department  
Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560062.

  
Principal/ Director  
Principal/ Director  
K.S. School of Engineering & Management  
Bangalore-560062

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



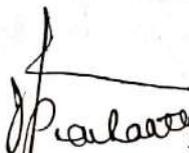
**Department of Mechanical Engineering**

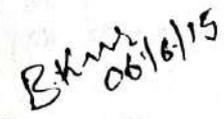
## Certificate

*This is to certify that the project work entitled "Experimental Investigation to Study the Variation In Crank angle diagram with respect to different operating conditions using ethanol gasoline blend", is a bonafide work carried out by*

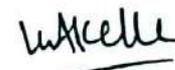
<b>Jithin Ganesh</b>	<b>1KG10ME020</b>
<b>Sharana Basappa Wurli</b>	<b>1KG10ME045</b>
<b>Mohammed Zahid</b>	<b>1KG11ME031</b>
<b>Prakash J</b>	<b>1KG12ME412</b>

*in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

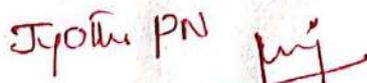
  
Name and Signature of  
Internal Guide

  
Name and Signature of  
Co- Guide

  
Head of the  
Department

  
Principal/  
Director

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2

Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062



Department of Mechanical Engineering

Certificate

This is to certify that the project work entitled *Portable biogas generating unit*, is a bonafide work carried out by

Ranjith kumar N	1KG11ME406
Deepak B N	1KG11ME401
Lakshmikanth R	1KG11ME403
Venkataramana reddy	1KG11ME011

in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

Name and Signature of Internal Guide

Name and Signature of Co-Guide

Head of the Department

Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions

K.S. School of Engineering & Management  
Bangalore-560 062.

Principal/  
Director

Principal / Director  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

Name and Signature of Examiner-1

Name and Signature of Examiner-2

Dr. Narathinhegoud



**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



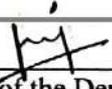
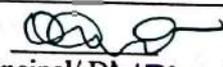
**Department of Mechanical Engineering**

## Certificate

*This is to certify that the project work entitled Design and fabrication of portable suitcase car is a bonafide work carried out by*

Kishore.R	1KG12ME406
Puneeth.N	1KG12ME414
Shivkumar	1KG12ME418
Venkatesh Prasad.P.R	1KG12ME419

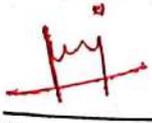
*in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

 Name and Signature of Internal Guide	 Head of the Department	 Principal/Director
--	---	---

Professor & Head  
Dept. of Mechanical Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 062.

K.S School of Engineering & Management  
Bangalore-560 062

University Examiners:

  
Name and Signature of Examiner-1

\_\_\_\_\_  
Name and Signature of Examiner-2



**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Mechanical Engineering**

## Certificate

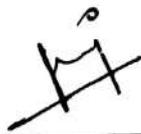
*This is to certify that the project work entitled Automatic Control of Drilling Machine Using GSM Technology is a bonafide work carried out by*

<b>Mr. Mohnesh Anand S</b>	<b>1KG11ME034</b>
<b>Mr. Raghukumar J</b>	<b>1KG11ME040</b>
<b>Mr. Manikantha P</b>	<b>1KG11ME027</b>

*in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belgaum, during the year 2014-15. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*



Signature of Guide



Head of the Department

**Professor & Head**  
**Dept. of Mechanical Engineering**

**K.S. Group of Institutions**  
**K.S. School of Engineering & Management**  
**Bangalore-560062.**



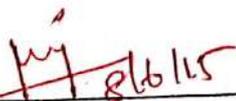
Principal/ Director

**Principal / Director**  
**K.S. School of Engineering & Management**  
**Bangalore-560062**

University Examiners:



Name and Signature of Examiner-1



Name and Signature of Examiner-2

**Dr. Narasimhaiah**



# Hindustan *Coca-Cola* Beverages Private Limited

Plot # 18, Bidadi Industrial Area, Bidadi Hobli, Ramnagar Dist., Bangalore - 562109.

Phone : 080-7287109-87111, Fax : 080-7287104

Ref: HR/PR/06-2015

14<sup>th</sup> February 2015

TO WHOM SOEVER IT MAY CONCERN

This is to certify that, Ms. Hima Bindu .C (Reg No .1KG13MBA07), student of MBA -H R .from K S School of Engineering & Management, She/he has done his/her Academic project training under titled "Employee Engagement" with us, with special reference to HCCBPL, Bidadi. She/he has worked with us for a period of 12 Weeks, starting from 8<sup>th</sup> December, 2014 to 14<sup>th</sup> February, 2015.

During his/her stint with us, his/her conduct is found to be satisfactory. We wish him/her success in all their future endeavors.

For *Hindustan Coca-Cola Beverages Private Limited*  
HINDUSTAN COCA-COLA BEVERAGES PVT LTD

*Harini*

Authorized Signatory

Harini C Krishnappa

Team Leader-HR

*Hindustan Coca-Cola Beverages Private Limited*  
Plot No. 18, Bidadi Industrial Area, Bidadi Hobli  
Ramnagar Dist., Bangalore-562109

Classified - Personal Information

Regd. Office : B-91, Mayapuri Industrial Area, Phase - I, New Delhi - 110 064.



Ref: NOVO/HR/03-2015

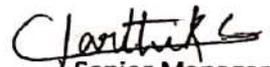
2015, March 9<sup>th</sup>

To whom so ever it may concern

This to certify that Ms. JAHNAVI.K perusing MBA 4th sem, Human Resource at K.S School Of Engineering and Management (enrollment no. 1KG13MBA08) has carried out her "Internship Project" on "A STUDY ON STRESS MANAGEMENT AMONG EMPLOYEES" at NOVO IT CONSULTANTS AND SOLUTIONS PVT.LTD, Bangalore in our organization from 8th December 2014 to 14th February 2015.

During the above, we found her to be a good learner. We wish her all the very best for her future endeavors.

Karthik C

  
Senior Manager



**NOVO IT Consultants & Solutions Pvt. Ltd.**

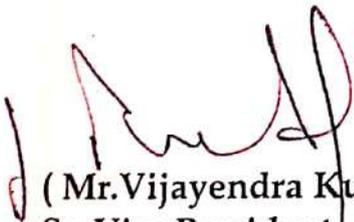
# 143, 1st Floor, 10th 'K' Main, 5th Cross, 1st Block, Jayanagar, Bangalore - 560 011. INDIA.  
Telefax : 91-80-40951060 E-mail: [business@novoitindia.com](mailto:business@novoitindia.com) Web: [www.novoitindia.com](http://www.novoitindia.com)

**CERTIFICATE**

This is to certify that **Ms. Lavanya P**, Master of Business Administration Student (USN : 1KG13MBA11) of K S School of Engineering & Management, Bangalore, has undergone Project work on **“Financial Analysis”** in our Organisation, from 08.12.2014 to 14.02.2015.

We wish her all success in his future endeavors.

For Puravankara Projects Ltd,



( Mr.Vijayendra Kumar P)  
Sr. Vice President, Human Capital & Admin



Dated 10<sup>th</sup> March, 2015

**Date: 23/02/2015**

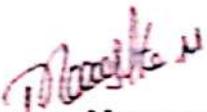
**TO WHOM IT MAY CONCERN**

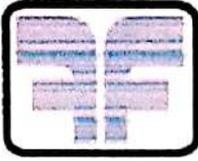
This is to certify that Ms. Mandara.B.U, Studied of MBA, Visvesvaraya Technological University, K.S. School of Engineering & Management Bangalore, She has successfully completed the project "A study on Inventory management" In Siddhartha Enterprises from 8<sup>th</sup> december-2014 to 14<sup>th</sup> February 15.

During the period of her internship programme with us, we are found punctual, hardworking.

We wish you success in her carrier.

**For Siddhartha Enterprises**

  
**Manager- Human Recourses**



# Intime Equities Limited

(Formerly known as Fortune Equity Brokers (India) Limited)

Tel. : +91-80-49155400-499  
Website : www.fortune.co.in

NO. 57, 2ND FLOOR, 'GOLDEN TOWER',  
D V Q ROAD, BASAVANAGUDI,  
BANGALORE - 560 004

DATE: 20.03.2015

## CERTIFICATE

This is to certify that Mr. Manohara K S, Reg. No. 1KG13MBA14, MBA student of, K S School of Engineering and Management, Bangalore. Has successfully completed project work, titled "A Study on Risk and Returns Involved in Various Investment Avenues at Intime Equities Limited, Bangalore", in our Organization for the period of 10 weeks, from 08.12.2014 to 14.02.2015, with respect to MBA curriculum under my guidance and supervision. During this period we found him taking good interest in completing the project.

I wish him all the best in his future endeavors and career.

Yours truly

*Sayeeh*  
Mr. K S Sayeesh,  
Team Leader Operations,  
Intime Group,  
Bangalore



ಭಾರತ್ ಹೆವಿ ಎಲೆಕ್ಟ್ರಿಕಲ್ಸ್ ಲಿಮಿಟೆಡ್  
ಎಲೆಕ್ಟ್ರೋಪೋರ್ಸಲೇನ್ಸ್ ವಿಭಾಗ, ಬೆಂಗಳೂರು - 560 012

ಭಾರತ್ ಹೆವಿ ಇಲೆಕ್ಟ್ರಿಕಲ್ಸ್ ಲಿಮಿಟೆಡ್  
ಇಲೆಕ್ಟ್ರೋಪೋರ್ಸಲೇನ್ಸ್ ಡಿವಿಜನ್, ಬೆಂಗಳೂರು - 560 012



## Bharat Heavy Electricals Limited

(A GOVERNMENT OF INDIA UNDERTAKING)

ELECTROPORCELAINS DIVISION

Prof. C.N.R. Rao Circle, Science Institute Post,  
Malleswaram, BANGALORE - 560 012 INDIA

Website : www.bhelceramics.com

Phone : 080-22182210

Fax : 080-23344231

REF : EPD:3405:020:PRJ:13

DT : 14.02.2015

## CERTIFICATE

CERTIFIED THAT

**Ms. N MANJUSHREE 1KG13MBA15**

Who is pursuing studies for the award of Degree in **MBA** from  
"KS SCHOOL OF ENGINEERING & MANAGEMENT," has completed the Project  
Work on "A STUDY ON QUALITY OF WORK LIFE" in BHEL-EPD, Bangalore from  
08.12.2014 to 27.12.2014.

**Ms. N MANJUSHREE** took another 7 weeks in preparing the Project report.

**Ms. N MANJUSHREE** has submitted the Project Report on the above Project  
Study.

  
(S. KUMARASWAMY)  
MANAGER/ LC & HRD



URS Systems Pvt Ltd  
1<sup>st</sup> Floor, Pine Valley  
Embassy Golf Link Business Park  
Domlur Intermediate Ring Road  
Bangalore - 560071, India  
T: +91 80 41764505  
F: +91 80 41764568

**Date: 27<sup>th</sup> Feb, 2015**

## **To Whom It May Concern**

This is to certify that **Ms. Nang Onka Manpoong** (USN No: IKG13MBA16), MBA(HR), (Session: 2013-2015) of **K. S. Group of Engineering & Management, Bangalore** has undergone 10 weeks internship training on titled "**Recruitment Method**" at **URS Systems Pvt. Ltd., Bangalore** w.e.f. **08<sup>th</sup> Dec, 2014** to **13<sup>th</sup> Feb, 2015**. During the training she has shown tremendous learning Propensity.

We wish her all success in her future endeavors.

For **URS Systems Pvt. Ltd.**

**Sajan Kumar**  
HR Manager



### **Branch Office:**

#43, 1st Floor PMR Tower Bertanagrahara, Hosur Main Rd. Electronic City (PO), Bangalore - 560100  
Ph. No: +91-80-25743022; Web: <http://www.urssystem.com>



ಕರ್ನಾಟಕ ರಾಜ್ಯ ಹಣಕಾಸು ಸಂಸ್ಥೆ  
1951 ರ ರಾಜ್ಯ ಹಣಕಾಸು ಸಂಸ್ಥೆಗಳ ಕಾಯಿದೆಯನ್ವಯ ಸ್ಥಾಪಿತ  
**KARNATAKA STATE FINANCIAL CORPORATION**  
Established under the State Financial Corporations Act, 1951



ಸಂಖ್ಯೆ : ಕ. ರಾ. ಹ. ಸಂ. ಪ್ರ. ಕ. /  
Ref. No. KSFC/H.O./PERS/2014-15/469

ದಿನಾಂಕ  
Date : 16/03/2015

### CERTIFICATE

This is to certify that Ms. Anusha N (1KG13MBA17) Student of Master of Business Administration (MBA), KSSEM College Bangalore has carried out her internship project work in our Organisation under the guidance of Sri. GopalaKrishna Hegde, Manager (F&A)PP, KSFC Head Office Bangalore and submitted report , " A STUDY ON TRAINING PROCEDURES AT KARNATAKA STATE FINANCIAL CORPORATION".

*A. Hegde*  
MANAGER (PERS)  
16/3/2015

BANGALORE  
DATE: 16/03/2015

ಪ್ರಧಾನ ಕಛೇರಿ : ಕೆ.ಎಸ್.ಎಚ್.ಸಿ. ಭವನ, ನಂ. 1/1, ತಿಮ್ಮಯ್ಯ ರಸ್ತೆ, ಕಂಟೋನ್ಮೆಂಟ್ ರೈಲ್ವೆ ನಿಲ್ದಾಣದ ಹತ್ತಿರ, ಬೆಂಗಳೂರು - 560 052.  
ದೂರವಾರ್ತೆ ಸಂಖ್ಯೆ : 22263322 ಕಂಪ್ಯೂಟರ್ ಕಾರ್ಡ್ : 080-22250126 ಇ-ಮೇಲ್ : info@ksfc.in ವೆಬ್‌ಸೈಟ್ : www.ksfc.in  
HEAD OFFICE : KSFC Bhavan, No. 1/1, Thimmaiah Road, Near Cantonment Railway Station Bangalore - 560 052  
Telephone : Gen : 22263322 Telegrams : MYFINCORP, Fax : 080-22250126, E-mail : info@ksfc.in, website: www.ksfc.in



ATL/HRD/2015

6<sup>th</sup> March, 2015

**To Whomsoever it may Concern**

This is to certify that Ms.Poornima M S pursuing M.B.A IV<sup>th</sup> Sem, Human Resource at K.S School of Engineering and Management (enrollment no. 1KG13MBA18) has carried out her "Internship Project" on "A study on Employees Health & Safety Measures" at Avasarala Technologies Limited in our organization from 8<sup>th</sup> December, 2014 to 14<sup>th</sup> February, 2015.

During the above period, we found her to be a good learner.

We wish her all the very best for her future endeavors.

For Avasarala Technologies Ltd.,

  
Kiran Kumar D - 6/3/15  
Deputy Manager – HR & Admin





**Date: 30<sup>th</sup> March 2015**

**Ref: HL/HR/JIG/PW/2014-15**

**TO WHOM SO EVER IT MAY CONCERN**

This is to certify that **Mr. Puneeth J C** (USN No- 1KG13MBA19) M.B.A student of K.S. School of Engineering and Management., No.15, Mallasandra, off Kanakapura Road, Bangalore – 560 062, has successfully completed his Project training with us **from 8<sup>th</sup> December 2014 to 14<sup>th</sup> February 2015** as a part of Curriculum activities.

During his Project training, he was very punctual and obedient in his Project training also highly enthusiastic and committed to carry out his Project training as per the needs of the curriculum activities.

His character and conduct was good during his stay with us.

We wish all the best for his future endeavor.

**For HIKAL LIMITED**

*S Ananda*  
30/3/2015

**S ANANDA**

**Head – HR & Admin.**



**HIKAL LTD.**

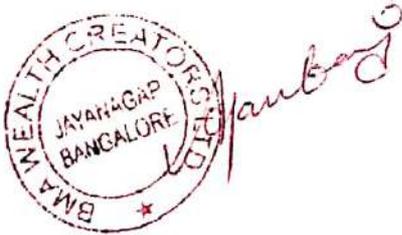
16/02/2015

**CERTIFICATE**

This is to certify that **Mr. SALEEM AHMED KHAN (1KG13MBA21)**, MBA student of "Kammavari Sangam School of Engineering & Management" has successfully completed the project Title "**A Study On Investment Analysis & Portfolio Management**", from 8<sup>th</sup> Dec 2014 to 14<sup>th</sup> Feb 2015.

His code of conduct was good during the tenure with us and we wish him all the very best in his future Endeavour.

For **BMA WEALTH CREATORS LTD.**



**AMIT PANKAJ**  
(Centre Manager)

48, 1st Floor, 9th, "A" Main Indira Nagar,  
First Stage, Bangalore - 560 038  
[www.wealth-creators.in](http://www.wealth-creators.in)

Regd. Office:  
14/1, Paul Mansion, 1st Floor, 6, Bishop Lefroy Road, Kollata-700 020  
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