SOLAR POWERED INDOOR AIR PURIFIER

Project Work submitted to

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

in partial fulfillment of the requirements
for the award of degree of

BACHELOR OF ENGINEERING
in
ELECTRICAL AND ELECTRONICS ENGINEERING

Submitted by

DHANUSH R	**1KG18EE002**
DIVYA M	**1KG18EE004**
KEERTHANA M	**1KG18EE007**

Under the Guidance of

Dr Arun Kumar M
Associate & Head
Dept of Electrical & Electronics
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, Bengaluru-560109

2021-2022

K.S. SCHOOL OF ENGINEERING AND MANAGEMENT
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

This is to certify that the project work entitled **Solar Powered Indoor Air Purifier** is a bonafide work carried out by

DHANUSH R	**1KG18EE002**
DIVYA M	**1KG18EE004**
KEERTHANA M	**1KG18EE007**

in partial fulfillment for the award of **Bachelor of Engineering** in **Electrical and Electronics Engineering** of **Visvesvaraya Technological University, Belagavi,** during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18EEP83)** prescribed for the degree.

Internal Guide	**Head of the Department**	**Principal**
Dr Arun Kumar M Associate & Head Dept. of EEE	**Dr Arun Kumar M** Associate & Head Dept. of EEE	**Dr. K. Rama Narasimha** KSSEM Principal/Director

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Dr. K. RAMA NARASIMHA
Principal/Director
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Bengaluru - 560 109

Examiners

25/7/22

Name and Signature of Examiner-1

25/7/2022

Name and Signature of Examiner-2

K.S. SCHOOL OF ENGINEERING AND MANAGEMENT
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

DECLARATION

We

DHANUSH R	**1KG18EE002**
DIVYA M	**1KG18EE004**
KEERTHANA M	**1KG18EE007**

the students of **BE VIII Semester (Electrical and Electronics Engineering)** declare that the project entitled **"Solar Powered Indoor Air Purifier"** is carried out by us as a partial fulfillment of academic requirement of degree under **Visvesvaraya Technological University.** The content in the report are original and are free from plagiarism and other academic dishonesty and are not submitted to any other University either partially or wholly for the award of any other degree.

NAME	USN	Signature
DHANUSH R	**1KG18EE002**	Dhanush R
DIVYA M	**1KG18EE004**	Divya M
KEERTHANA M	**1KG18EE007**	Keerthana M

Date: 31/07/2022
Place: Bengaluru

Design and Development of Power Generation Model using Power Humps

Project Work submitted to

KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

in partial fulfillment of the requirements
for the award of degree of

BACHELOR OF ENGINEERING
in
ELECTRICAL AND ELECTRONICS ENGINEERING

Submitted by

Nikitha P	**1KG18EE009**
Sai Darshan G	**1KG18EE011**
Varshini K	**1KG18EE013**

Under the Guidance of
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Associate Professor
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2021-2022

K.S. SCHOOL OF ENGINEERING AND MANAGEMENT
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

This is to certify that the project work entitled **Design and Development of Power Generation Model using Power Humps** is a bonafide work carried out by

Nikitha P	**1KG18EE009**
Sai Darshan G	**1KG18EE011**
Varshini K	**1KG18EE013**

in partial fulfillment for the award of **Bachelor of Engineering** in **Electrical and Electronics Engineering** of **Visvesvaraya Technological University, Belagavi,** during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18EEP83)** prescribed for the degree.

Guide	Head of the Department	Principal/Director
Mrs. Manjula B G Associate Professor Dept. of EEE	**Dr. Arun Kumar. M** Associate Professor & Head of the Department Dept. of EEE	**Dr. K. Rama Narasimha** KSSEM

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K.S School of Engineering and Management
Bengaluru-560 109

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

K.S. SCHOOL OF ENGINEERING AND MANAGEMENT
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

DECLARATION

We

Nikitha P	**1KG18EE009**
Sai Darshan G	**1KG18EE011**
Varshini K	**IKG18EE013**

the students of **BE VIII Semester (Electrical and Electronics Engineering)** declare that the project entitled **"Design and Development of Power Generation Model using Power Humps"** is carried out by us as a partial fulfillment of academic requirement of degree under **Visvesvaraya Technological University.** The content in the report are original and are free from plagiarism and other academic dishonesty and are not submitted to any other University either partially or wholly for the award of any other degree.

NAME	USN	Signature
Nikitha P	**1KG18EE009**	
Sai Darshan G	**1KG18EE011**	
Varshini K	**IKG18EE013**	

Date: 30-06-2022
Place: Bengaluru

DESIGN AND DEVELOPMENT OF IOT SURVEILLANCE SYSTEM

Project Work submitted to

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

in partial fulfillment of the requirements for the award of degree of

BACHELOR OF ENGINEERING

in

ELECTRICAL AND ELECTRONICS ENGINEERING

Submitted by

JAYAWANTH B	**1KG18EE005**
SUSHMA UDUPA K S	**1KG18EE012**

Under the Guidance of

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K.S. School of Engineering and Management
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2021-2022

K.S. SCHOOL OF ENGINEERING AND MANAGEMENT DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

This is to certify that the project work entitled **DESIGN AND DEVELOPMENT OF IOT SURVEILLANCE SYSTEM** is a bonafide work carried out by

1KG18EE005 JAYAWANTH B
1KG18EE012 SUSHMA UDUPA K S

in partial fulfillment for the award of **Bachelor of Engineering** in **Electrical and Electronics Engineering** of **Visvesvaraya Technological University, Belagavi,** during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Final year Project (18EEP83)** prescribed for the degree.

Internal Guide	Head of the Department	Principal
Mrs. Hemapriya M Assistant professor Dept. of EEE	**Dr. Arun Kumar M** Head of the Department Dept. of EEE	**Dr. K. Rama Narasimha** KSSEM

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Examiners:

Name and Signature of Examiner-1

25/7/22

Name and Signature of Examiner-2

25/7/2022

K.S. SCHOOL OF ENGINEERING AND MANAGEMENT DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

DECLARATION

We,

JAYAWANTH B 1KG18EE005
SUSHMA UDUPA K S 1KG18EE012

the students of **BE VIII Semester (Electrical and Electronics Engineering)** declare that the project entitled **DESIGN AND DEVELOPMENT OF IOT SURVEILLANCE SYSTEM** is carried out by us as a partial fulfillment of academic requirement of degree under **Visvesvaraya Technological University.** The content in the report are original and are free from plagiarism and other academic dishonesty and are not submitted to any other University either partially or wholly for the award of any other degree.

NAME	USN	Signature
JAYAWANTH B	1KG18EE005	
SUSHMA UDUPA KS	1KG18EE012	

Date: 30-06-2022
Place : Bengaluru

DESIGN AND DEVELOPMENT OF SUBSTATION MONITORING AND CONTROL SYSTEM USING IoT

Project Work submitted to

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

in partial fulfillment of the requirements
for the award of degree of

BACHELOR OF ENGINEERING
in
ELECTRICAL AND ELECTRONICS ENGINEERING

Submitted by

ARJUN A	**1KG17EE002**
DHEENA P	**1KG18EE003**
SAGAR K	**1KG18EE010**

Under the Guidance of

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2021-2022

K.S. SCHOOL OF ENGINEERING AND MANAGEMENT
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

This is to certify that the project work entitled **DESIGN AND DEVELOPMENT OF SUBSTATION MONITORING AND CONTROL SYSTEM USING IoT** is a bonafide work carried out by

ARJUN A	**1KG17EE002**
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SAGAR K	**1KG18EE010**

in partial fulfillment for the award of **Bachelor of Engineering** in **Electrical and Electronics Engineering** of **Visvesvaraya Technological University, Belagavi,** during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Final year Project (18EEP83)** prescribed for the degree.

Guide	Head of the Department	Principal / Director
Mrs. Manjula B G Associate Professor Department of EEE	**Dr. Arun Kumar M** Associate Professor & Head of the Department Department of EEE	**Dr. K. Rama Narasimha** KSSEM

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Associate Professor
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Bengaluru-560 109

Examiners

Name and Signature of Examiner-1

25/7/2022

Name and Signature of Examiner-2

K.S. SCHOOL OF ENGINEERING AND MANAGEMENT
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

DECLARATION

We

ARJUN A	**1KG17EE002**
DHEENA P	**1KG18EE003**
SAGAR K	**1KG18EE010**

the students of **BE VIII Semester (Electrical and Electronics Engineering)** declare that the project entitled **DESIGN AND DEVELOPMENT OF SUBSTATION MONITORING AND CONTROL SYSTEM USING IoT** is carried out by us as a partial fulfillment of academic requirement of degree under **Visvesvaraya Technological University.** The content in the report is original and are free from plagiarism and other academic dishonesty and are not submitted to any other University either partially or wholly for the award of any other degree.

NAME	USN	Signature
ARJUN A	1KG17EE002	
DHEENA P	1KG18EE003	
SAGAR K	1KG18EE010	

Date: 30/6/2022
Place: Bengaluru

Project Proposal Reference Number: 45S_BE_3323

DESIGN AND DEVELOPMENT OF COST-EFFECTIVE 3D PRINTER

A Project sponsored by

KSCST

KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

INDIAN INSTITUTE OF SCIENCE CAMPUS

BENGALURU -560012

In partial fulfilment

Submitted by

SARVESH M	**1KG16EE025**
ANILKUMAR S	**1KG17EE001**

Under the Guidance of

Mrs. TEJASWINI G V
Assistant Professor
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KSSEM, Bengaluru

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2021-2022

K.S. SCHOOL OF ENGINEERING AND MANAGEMENT
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

This is to certify that the project work entitled **DESIGN AND DEVELOPMENT OF COST-EFFECTIVE 3D PRINTER is** a bona fide work carried out by

SARVESH M	**1KG16EE025**
ANILKUMAR S	**1KG17EE001**

in partial fulfillment for the award of **Bachelor of Engineering** in **Electrical and Electronics Engineering** of **Visvesvaraya Technological University, Belagavi,** during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Final year Project (17EEP85)** prescribed for the degree.

Guide	**Head of the Department**	**Principal / Director**
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Examiners

25/7/2022
Name and Signature of Examiner-1

25/7/2022
Name and Signature of Examiner-2

K.S. SCHOOL OF ENGINEERING AND MANAGEMENT
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

DECLARATION

We

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ANILKUMAR S	**1KG17EE001**

the students of **BE VIII Semester (Electrical and Electronics Engineering)** declare that the project entitled **DESIGN AND DEVELOPMENT OF COST-EFFECTIVE 3D PRINTER** is carried out by us as a partial fulfillment of academic requirement of degree under **Visvesvaraya Technological University.** The content in the report are original and are free from plagiarism and other academic dishonesty and are not submitted to any other University either partially or wholly for the award of any other degree.

NAME	USN	Signature
SARVESH M	1KG16EE025	
ANILKUMAR S	1KG17EE001	S. Anilkumar

Date: 30/6/2022
Place: Bengaluru

HYDROPOWER GENERATION USING MICROTURBINE IN THE PLUMBING SYSTEM OF THE BUILDING

Project Work submitted to

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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

BACHELOR OF ENGINEERING
in
ELECTRICAL AND ELECTRONICS ENGINEERING

Submitted by

DEEPAK A S	**1KG16EE010**
KIRAN KUMAR G	**1KG16EE015**

Under the Guidance of

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2021-2022

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K.S. SCHOOL OF ENGINEERING AND MANAGEMENT
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

This is to certify that the project work entitled **HYDROPOWER GENERATION USING MICROTURBINE IN THE PLUMBING SYSTEM OF THE BUILDING** is a bonafide work carried out by

DEEPAK A S **1KG16EE010**

KIRAN KUMAR G **1KG16EE015**

in partial fulfilment for the award of **Bachelor of Engineering** in **Electrical and Electronics Engineering** of **Visvesvaraya Technological University, Belagavi,** during the year 2021-2022. It is certified that all the suggestions indicated during the internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (15EEP85)** prescribed for the degree.

Internal Guide

Mrs. Tejaswini G V
Assistant professor
Dept. of EEE

Head of the Department

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Associate professor & Head
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Principal

Dr. K. Rama Narasimha
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Dr. K. RAMA NARASIMHA
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Examiners

25/07/2022

Name and Signature of Examiner-1

25/07/2022

Name and Signature of Examiner-2

K.S. SCHOOL OF ENGINEERING AND MANAGEMENT
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

DECLARATION

We,

DEEPAK A S	**1KG16EE010**
KIRAN KUMAR G	**1KG16EE015**

the students of **BE VIII Semester (Electrical and Electronics Engineering)** declare that the project entitled **"Hydropower generation using microturbine in the plumbing system of the building"** is carried out by us as partial fulfillment of academic requirement of degree under **Visvesvaraya Technological University.** The content in the report is original and are free from plagiarism and other academic dishonesty and are not submitted to any other University either partially or wholly for the award of any other degree.

NAME	USN	Signature
DEEPAK A S	1KG16EE010	
KIRAN KUMAR G	1KG16EE015	

Date: 30/6/2022
Place: Bengaluru