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K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

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DEPARTMENT OF MECHANICAL ENGINEERING

Report on Two-day's Workshop on 'Creativity & Innovation for Engineers' (CIE-2022) on 10th & 11th October 2022

Type of activity: Workshop for Faculty & Students

Date/duration of activity: 10/10/2022 & 11/10/2022

Venue: Aryabatta Seminar Hall

Number of participants: 30+ 69

Facilitator/Resource Person: Pavan Kumar Arasappa

pavankumar@connect.hku.hk

www.linkedin.com/in/pavankumar1011

1 Overview:

Creativity is neither innate nor limited to those considered talented. Research shows that scarcity and desperation often lead to innovation that can surprise us. We look at several innovations around us day to day. A street vendor who uses a plastic bottle with holes as a sprinkler for the flower he sells, a friend who used his mobile phone as a paperweight, and a consumer electronics company that removed the headphone jack and caused ripples in an industry have one thing in common. They did something with the resources in hand or the environment in which they were used. They were examples of creativity "Inside the Box". The street vendor didn't need a sprinkler; he just needed to keep the flowers fresh. The friend didn't need a paperweight; they just needed to keep the papers from flying. They merely worked within a closed world defined by constraints.

If a creative idea surpasses contemplation and finds practical application in real life, its innovation. What we call in India as JUGAAD is an approach to problem-solving with limited resources in an innovative way. It is just a subset of creative problem-solving inside the box. The thinking way or methodology behind Jugaad and other creativity templates can be easily learnt and that's the purpose of this workshop.

2 Target Group

Faculty Members from various departments, 7th Sem Students from Mechanical & Civil Engineering

3 WORKSHOP OBJECTIVES:

To teach participants several systematic creative problem-solving methodologies that are backed by scientific research and complement the tools acquired in engineering. This workshop will focus on new product ideation.

The workshop offers participants the opportunity to learn how to solve problems, identify opportunities, and generate those elusive ideas that potentially generate benefits.

4 WORKSHOP OUTLINE

(Each session is 3 hours of interactive learning with classroom exercises)

Day 1 : Introduction to the principle of closed world and templates

Defining creative solutions. Fixedness, its advantages and disadvantages. Conventional approaches to the study of creativity. Value of creativity in engineering. Difference between creativity, innovation and Jugaad. Defining the closed world. Templates that can be applied to think creatively. How to manipulate components inside the box. Subtraction (with replacement) and multiplication template.

Day 2 : Division, Attribute Dependency, Task-unification, and Contradiction

Concept, precautions, examples, and exercises for each template. Well-defined problems for participants to work on. Contradiction and its application. Learning and applying attribute dependency template in a classroom exercise. Discussion about final-year projects



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No.15, Mallasandra, Off. Kanakapura Road, Bengaluru-560109,
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Department of Mechanical Engineering

organising
Two day workshop
on

Creativity & Innovation for Engineers



Resource Person:

Mr. Pavan Kumar Arasappa

Management Consultant (Intern) , MLC Asia Pacific Limited
&
Alumni of KSSEM - Mech

Date:

10th & 11th October, 2022

Venue:

Aryabhata seminar hall

Patrons:

Dr. Balaji. B

Prof. & HOD

Mechanical Engineering

Dr. K. Rama Narasimha

Principal/Director

KSSEM

Dr. K. V. A. Balaji

CEO

KSGI



K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU-560109
DEPARTMENT OF MECHANICAL ENGINEERING

Two-day's Workshop on 'Creativity & Innovation for Engineers'

Day 1-10th October 2022

| | |
|---------|---|
| 9.00am | Welcome Guest and Invocation song |
| 9.05am | Welcome Address & Workshop Overview -Dr. Balaji B, Prof & Head, ME Dept. |
| 9.10am | Lighting the Lamp |
| 9.15am | Address by our CEO –Dr. K V A Balaji |
| 9.20am | Address by our Principal/ Director –Dr. K Ramanarasimha |
| 9.25am | Resource Person introduction- Ms. Rajalakshmi,7 th Sem ME |
| 9.25am | Address by Resource Person-Mr. Pavan Kumar A |
| 9.30am | Vote of Thanks –Dr. P N Jyothi, Prof. ME Dept. |
| 9.35am | Session-1 Begins |
| 11.30am | Tea Break |
| 11.40am | Session-1 Resumes |
| 12.30pm | Session-1 Ends |

Day 2-11th October 2022

| | |
|---------|--|
| 9.00am | Session-2 Begins |
| 11.30am | Tea Break |
| 11.40am | Session-2 Resumes |
| 12.15pm | Session-2 Ends |
| 12.20pm | Valedictory & Certificate Distribution |



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Certificate of Participation

This is to certify that

Dr. P N JYOTHI,

Department of Mechanical Engineering

has participated in two days workshop on "Creativity and Innovation for Engineers" organized by the Department of Mechanical Engineering, KSSEM from 10/10/2022 to 11/10/2022.

Program Coordinator
Dr. P N Jyothi

Head of the Department
Dr. B. Balaji

Principal / Director
Dr. K. Rama Narasimha



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Certificate of Participation

This is to certify that

Mr. Umesh Kumar Singh ,

Department of Civil Engineering

has participated in two days workshop on "Creativity and Innovation for Engineers" organized by the Department of Mechanical Engineering, KSSEM from 10/10/2022 to 11/10/2022.

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Certificate of Participation

This is to certify that

Mrs. Rupa Chatterjee Das ,

Department of Master of Business Administration

has participated in two days workshop on "Creativity and Innovation for Engineers" organized by the Department of Mechanical Engineering, KSSEM from 10/10/2022 to 11/10/2022.

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Certificate of Participation

This is to certify that

Ms RAJALAKSHMI VEERESH ,

Department of Mechanical Engineering

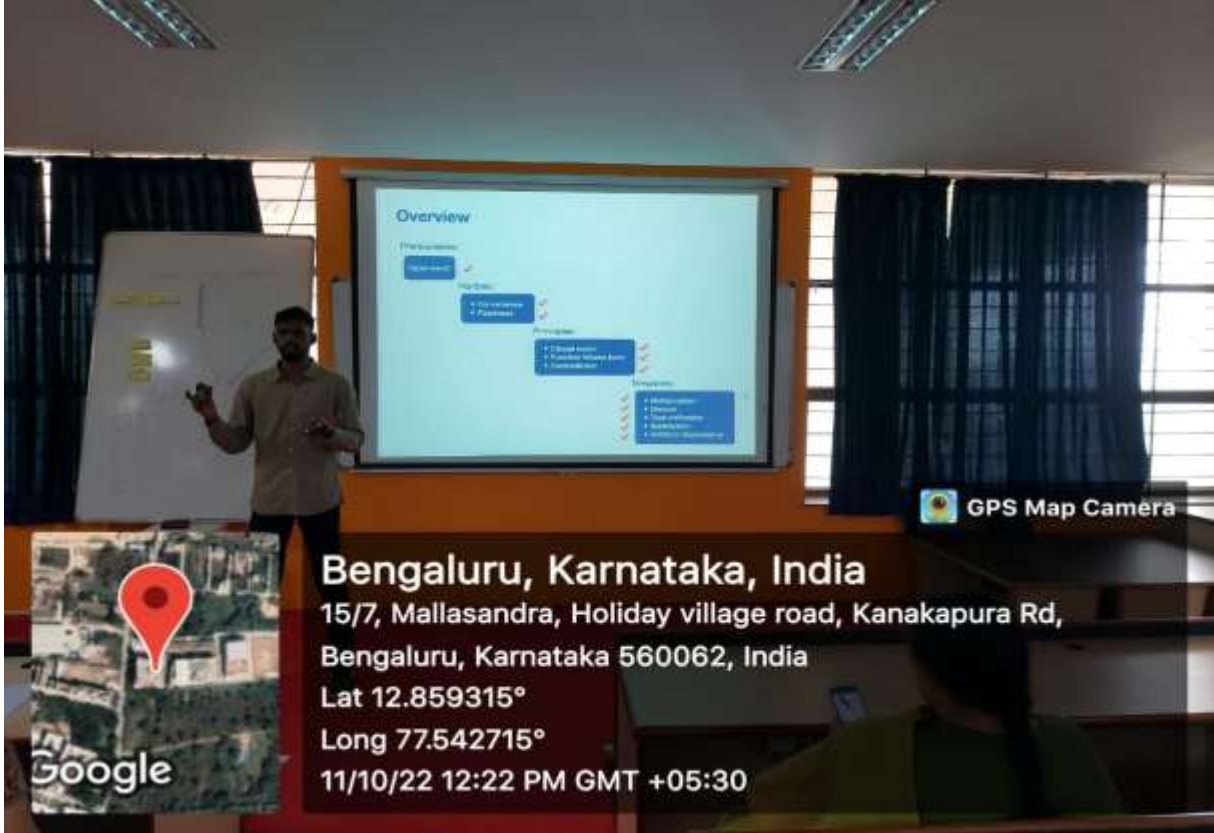
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Program Coordinator
Dr. P N Jyothi

Head of the Department
Dr. B. Balaji

Principal / Director
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GPS Map Camera



Bengaluru, Karnataka, India
15/7, Mallasandra, Holiday village road, Kanakapura Rd,
Bengaluru, Karnataka 560062, India
Lat 12.859332°
Long 77.542763°
11/10/22 11:28 AM GMT +05:30



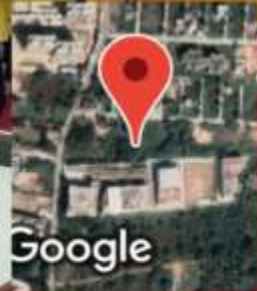
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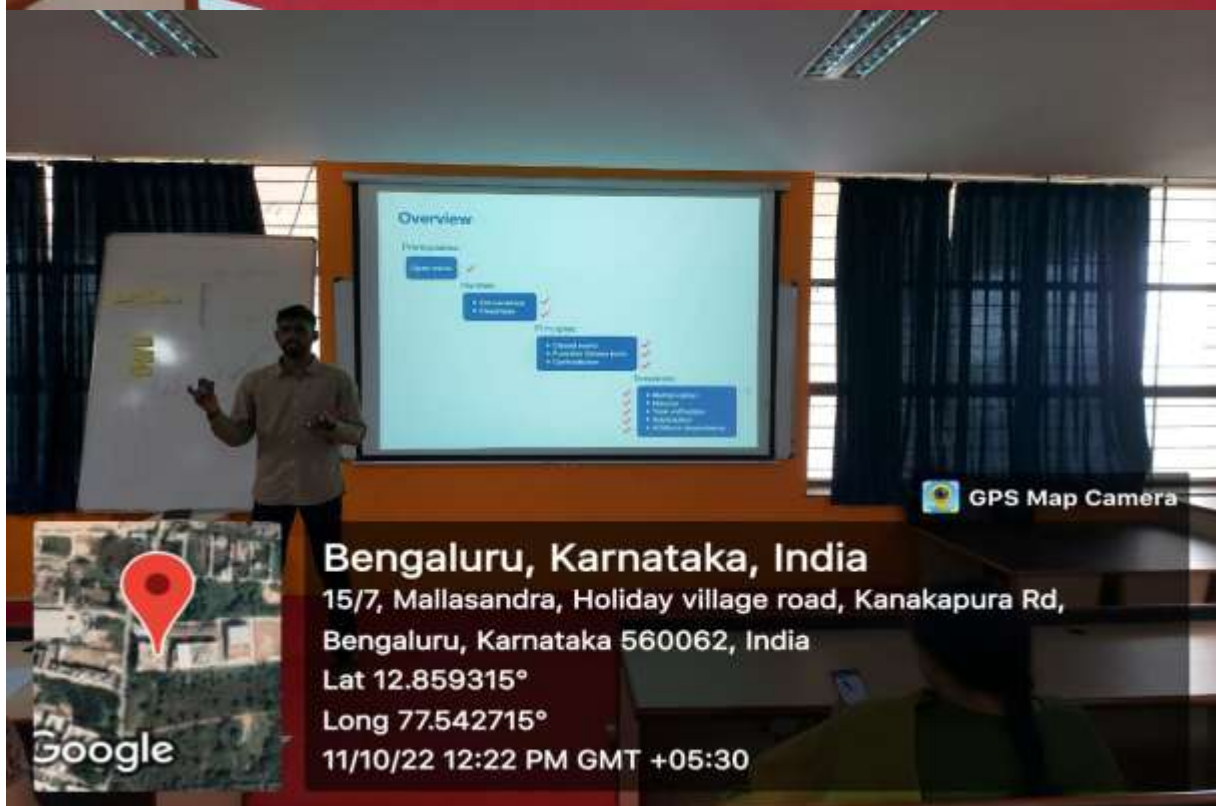
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GPS Map Camera



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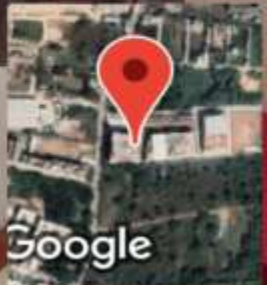
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Program Coordinator

[Dr. Jyoti]



Head of the Department


Professor & Head
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