



# GLOBAL ACADEMY OF TECHNOLOGY DEPARTMENT OF MECHANICAL ENGINEERING

## NEWSLETTER

FEB 2023-JULY 2023



### NEWS

Featuring department news, achievements, events, research, and student contributions – all in one place.

### PUBLICATIONS AND VALUE ADDED PROGRAMS

Highlights of research publications and value added programs that mark the innovative spirit of our department.

### STUDENT CULTURAL ACTIVITIES

A celebration of student spirit – showcasing cultural events, talents, stories, and memories from our vibrant campus life."

**Highlights of our industrial visit:** learning, exploration, and hands-on exposure.

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# GLOBAL ACADEMY OF TECHNOLOGY

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## INSTITUTE VISION

Become a premier institution imparting quality education in engineering and management to meet the changing needs of society.

## INSTITUTE MISSION

- M1: Create environment conducive for continuous learning through quality teaching and learning processes supported by modern infrastructure.
- M2: Promote Research and Innovation through collaboration with industries.
- M3: Inculcate ethical values and environmental consciousness through holistic education programs

## DEPARTMENT VISION

Become one of the leading providers of education in mechanical engineering with emphasis on research, development and innovation for the benefit of society.

## DEPARTMENT MISSION

- M1: Impart quality technical education in the field of mechanical engineering through excellent teaching-learning process, modern infrastructure and computing tools.
- M2: Prepare students for successful careers by providing placements and encouraging research, development and innovation through industry-institute interaction.
- M3: Instill professional ethics and environmental consciousness amongst students through inclusive development programs.

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# GLOBAL ACADEMY OF TECHNOLOGY

## DEPARTMENT OF MECHANICAL ENGINEERING

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### PROGRAM EDUCATIONAL OBJECTIVES (PEOs) of the DEPARTMENT

PEO of Graduate students in Mechanical Engineering aims to have:

- **PEO1:** Engineering competence, critical thinking, creativity, and ethical inclusivity in professional practice.
- **PEO2:** Continuous intellectual growth through advanced education, professional development, independent inquiry, and experiential learning.
- **PEO3:** Leadership and teamwork excellence throughout professional careers.

### PROGRAM SPECIFIC OUTCOMES (PSOs) of the DEPARTMENT

After successful completion of Mechanical Engineering Program, the graduates will be able to:

- **PSO1:** Specify, design, and analyze machine elements using CAD/CAE software.
- **PSO2:** Evaluate thermal performance of Heating, Ventilation & Air-Conditioning systems, electronic systems, Solar Roof Top Photo-Voltaic systems using experimental approach or /and CFD tools and design these systems for better performance.
- **PSO3:** Develop composite materials, manufacturing processes and products in an efficient, safe and cost-effective manner.

# PROGRAM OUTCOMES

## **Engineering Graduates will be able to:**

**PO1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

**PO2. Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

**PO3. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

**PO4. Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

**PO5. Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

**PO6. The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

**PO7. Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

**PO8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

**PO9. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**PO10. Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

**PO11. Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

**PO12. Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

# INDUSTRIAL VISIT

Students visited the Central Manufacturing Technology Institute (CMTI) to gain exposure to Manufacturing Processes, Measurement & Metrology, and Material Science.

About the organization: CMTI, Bengaluru, is an autonomous R&D institute under the Ministry of Heavy Industries, Government of India, specializing in manufacturing technology, precision engineering, and metrology.

The visit to the Supa Hydroelectric Power Project provided practical understanding of Fluid Machinery and hydroelectric power generation.

About the project: Supa is one of Karnataka's major hydroelectric power stations, contributing to renewable energy generation through efficient utilization of water resources and turbine systems.

Students visited Veera Vahana Udyog Ltd to study applications of Automobile Engineering and Manufacturing Processes in an industrial setup.

About the company: Veera Vahana Udyog Ltd is an automobile manufacturing unit involved in the production and assembly of automotive components, following industry-standard manufacturing and quality control practices.

Semester	Industry Visited	Date of Visit	Subject Mapping
IV Sem	CMTI	15/06/2023	Manufacturing Process, Measurement and Metrology, Material science
VI Sem	Hydroelectric Power Project SUPA	18/02/2023	Fluid machinery
VI Sem	Veera vahana Udyog Ltd	15/02/2023	Automobile Engineering, manufacturing Process

## MOOC COURSE

SL NO	Student Name	USN	Course Registered
1	Shashank K	1GA21ME419	An online course on Arduino
2	Shashank K	1GA21ME419	An online course on Robotics

# PROGRAMS ORGANIZED

Sl.No	Name of the Professional Societies/Bodies, Chapters, Clubs	Name of the Event	Date of Event
2	Indian Society of Heating, Refrigerating & Air conditioning Engineers (ISHRAE)	Guest lecture on "Basics of Refrigeration"	10/2/2023
3	Indian Society of Heating, Refrigerating & Air conditioning Engineers (ISHRAE)	Industrial visit to Sattva Spectrum, Kaikondrahalli	17/05/2023
4	Indian Society of Heating, Refrigerating & Air conditioning Engineers (ISHRAE)	A guest lecture on "HVAC Pump Head Calculation"	4/7/2023

## DETAILS OF RESEARCH PAPERS PER TEACHER IN CARE JOURNALS NOTIFIED ON UGC WEBSITE DURING THE YEAR

SINO	Department of the Author(s)	Name of the Journal	Month and Year of publication	ISSN
7	PoornaChandra, Ravikumar V, R. Kiran	" Tool Life in Turning of Hybrid Composites: Taguchi Analysis"	Jul 23, 2025	2063-5346

## VALUE ADDED PROGRAMS

This activity familiarized students with 3D CAD modelling and 3D printing techniques, demonstrating the transformation of digital designs into physical prototypes. It highlighted the importance of additive manufacturing in rapid prototyping, product development, and modern engineering applications.

SI NO	Title of the Event	From	To	No Of Days	No of students
1	Modelling and 3D Printing	17-07-2023	29-07-2023	10	18

## STUDENTS PARTICIPATION IN PROFESSIONAL EVENTS

Sl.No	Name of the student	Name of the Event	Date of Event	Name of Award
1	Ulhas N.	Lead college of Management	8/3/2023	Participated
2	Nitish P. Bharadwaj	PESU, Bengaluru-21st ISME International conference on Advances in Mechanical Engineering	15/07/2023	Paper presented
3	Chiranjeevi.V	Certificate of Internship completion	6/6/2023	Internship completed
4	H.Ajay	Certificate of Internship completion	6/6/2023	Internship completed
5	Shashank.H	Workshop/Hands on training on "Modelling & 3D Printing"	17/07/2023	Participated
6	Shashank.H	Symposium IIT Mumbai- Course on Arduino	10/4/2023	Certified

7	Shrinidhi Vinod Torgal	RVITM, Bengaluru-Project Exhibition" Protatva 2023"	27/04/2023	Project exhibited
8	Trinesh B.G.	RVITM, Bengaluru-Project Exhibition " Protatva 2023"	27/04/2023	Project exhibited
9	Nitish P. Bharadwaj	RVITM, Bengaluru-Project Exhibition " Protatva 2023"	27/04/2023	Project exhibited
10	Yoganand Gowda B.K	RVITM, Bengaluru-Project Exhibition " Protatva 2023"	27/04/2023	Project exhibited
23	Shashank.H	Symposium IIT Mumbai-Course on Robotics	10/5/2023	Certified
24	Gagan K	CADMEISTEI Technologie - Mastercam Course	11/4/2023	Certified
25	Kusuma.B	Appreciation for serving and winning laurels for NCC Directoratei and Goa	4/2/2023	Winners
26	Dhanik Gowda.R	Joint Initiative between NSDC and BOSCH-Automotive After sales and services course under Project PRIDE	9/2/2023	Course completed
27	B.K.Mohan kumar	RVITM, Bengaluru-Project Exhibition" Protatva 2023"	27/04/2023	Project exhibited
28	Koushik.J.N	RVITM, Bengaluru-Project Exhibition" Protatva 2023"	27/04/2023	Project exhibited
29	Pavan Kumar.B	RVITM, Bengaluru-Project Exhibition" Protatva 2023"	27/04/2023	Project exhibited
30	L.Manoj	RVITM, Bengaluru-Project Exhibition " Protatva 2023"		

# Karnataka State Council for Science and Technology (KSCST) funded projects

Project Dip Pure (Portable Potable Water Purifier) got selected for State Level Seminar and Exhibition held at Alva's Institute of Engineering and Technology, Moodubidire on 11th and 12th of Aug 2023. The above project is done by final year students Mr. Sumanth N, Mr. Abhishek Kadam M, Mr. Hemanth D, Mr. K Basavaraja under the guidance of Dr. Shreekala N, Associate Professor.

Sl. No.	Project Title	Name of Guide	Name of the students	Amount
1	Solar-Powered Portable Multi-Grain Winnowing Machine	Dr. Bharat Vinjamuri	Mr. Kashyap S Mr. Harish Basavaraj Kamplikoppa Mr. Chikkamare Gowda S Mr. M Chandan	Rs. 5000/-
2	Development Of an Eco-Friendly Portable Water Purifier	Dr. Ravi Kumar D V	Mr. Deepak V N Mr. Dev Raj Chapagain Mr. Chandan Krishna R Mr. Amir Ali Khan	Rs. 5000/-
3	Dip Pure (Portable Potable Water Purifier)	Dr. Shreekala N	Mr. Sumanth N Mr. Abhishek Kadam M Mr. Hemanth D Mr. K Basavaraja	Rs. 5000/-

## Name of the Editor :

Dr. Shreekala N

Saahil S Pawar (1GA20ME025) (VI)

## Student Member :

Rohith S (1GA20ME024)

Swarup Santhosh M (1GA20ME030) (VI)