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INGENIUM

Volume 4, Issue 3, January – March, 2023

Department Newsletter

Department of Mechanical Engineering



A. J. Institute of Engineering and Technology

(A unit of Laxmi Memorial Education Trust ®)

NH-66, Kottara Chowki, Mangaluru - 575006

Approved by AICTE, New Delhi, Affiliated to Visveswaraya Technological University, Belgaum

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DEPARTMENT NEWSLETTER

Message from Editor's Desk:

Welcome to the third volume, fourth issue of Newsletter from the Department of Mechanical Engineering. This newsletter is a digital way for us to communicate with our students, faculty members, alumni and industrial partners. It aims to showcase the glimpse of the departmental activities and achievements. It enlightens the readers about the latest happenings in the department, focusing about different activities like placement, industry-academia, club activities, student and faculty achievements.

Chief Patron:

Mr. Prashanth Shetty

(Vice President, Laxmi Memorial Education Trust)

Patron:

Dr. Shantharama Rai C

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Dr. Rajesh Rai P

(Head, Department of Mechanical Engineering
A. J. Institute of Engineering and Technology)

Editorial Committee:

Dr. Sreejith B K

Mr. Harold J D'Souza

Mr. Prasad B G

Mr. Sudheer Kini K

Mr. Harshith Shetty

HOD's Message



Welcome to the third issue of the Mechanical Engineering Department Newsletter - 'IGENIUM' in its volume 4 series. It is about looking back and summing up every prestigious moment in the department. This newsletter is a bridge for us to communicate with our students, faculty members, alumni and industrial partners. It aims to showcase their achievements by which make them proud and self-motivated. We take the readers for a voyage of the latest incidence and happenings in the department. Any feedback will be greatly appreciated for the improvement of the next issue of the Newsletter.

Dr. Rajesh Rai P

Head, Department of Mechanical Engineering
A. J. Institute of Engineering and Technology

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VISION

To create globally competent and self-reliant mechanical engineers adaptive to an interdisciplinary environment contributing to society through development, authority and entrepreneurship.

MISSION

- To offer high-quality graduate programme in the fields of Mechanical Engineering with value education to the students and make them responsive to societal needs.
- To nurture the students with a global outlook for a sustainable future with high moral and ethical values.
- To strengthen collaboration with industries academia and research organizations to enrich learning environment, thus enhance research and entrepreneurship culture.
- To create awareness about the need of interdisciplinary applications through alumni industry-institution interactions.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO1: Prepare graduates with mathematical, scientific and engineering skills to design and develop energy efficient systems for sustainable development.

PEO2: Excel graduates with high level of technical competency combined with research and complex problem solving ability to generate innovative solutions in Mechanical and multi-disciplinary areas.

PEO3: Equip students with modern tools, technology and advanced software's for deliberating engineering solutions.

PEO4: Inculcate graduates with strong foundation in academic excellence, soft skills, leadership qualities, professional ethics, and social concerns and understand the need for lifelong learning for a successful professional career

PROGRAM OUTCOMES (POs)

- 1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 2. 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.
- 3. 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.
- 4. 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.
- 5. Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- 6. 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.
- 7. 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.
- 8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- 9. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- 10. 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.

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11. 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.

12. 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.

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1: Apply the knowledge of modern engineering tools to design and Analyse the products and processes related to mechanical engineering system.

PSO2: Develop technical and interpersonal skills pertinent to mechanical and allied engineering for careers in industry, academia and government organisations.

RESEARCH

Domain Name	Domain Co-coordinator	Domain Members
MANUFACTURING	Dr. Rajesh Rai P	Mr. Prashanth D A Mr. Nithin Shet, Mr. Prasad B G
THERMAL	Dr. Vighnesha Nayak	Dr. Sreejith B K, Mr. Prakhyath,
DESIGN	Dr. Sunil Kumar S	Mr. Sudheer Kini, Mr. Harold J D'Souza Mr. Sudesha Shetty M

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MECHANICAL FACULTY (TEACHING AND NON TEACHING)



Sitting Row (L to R): Mr. Prasad B G, Mr. Sudesha Shetty M, Dr. Sreejith B.K, Dr. Sunil Kumar S, Dr. Antony P.J (Vice-Principal), Mr. Prashanth Shetty (Vice President, LMET), Dr. Shantharama Rai. C (Principal), Dr. Rajesh Rai P (HOD-ME), Mr. Prashanth D.A, Dr. Vighnesha Nayak, Mr. Harold Joyson D Souza.

Standing Row (L to R): Mr. Chandrakantha K, Mr. Ajay D Souza, Mr. Sudheer Kini K, Mr. Prakhyath, Mr. Nithin Shet, Mr. Sudhakar, Mr. Janardhana

WORKSHOPS/WEBINAR/ EVENTS FOR STUDENTS

Industrial visit to JV Springs Baikampady, Mangaluru

18 Students of 5th Semester along with 2 faculty members visited JV Springs Baikampady, Mangaluru on 23-01-2023 at 2.00 PM. JV Springs deals with Manufacturing and sale of Automobile leaf springs and assembling. It was very informative and useful for the students to get more exposure about entrepreneurship skills.



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Industrial visit to Deccan Plast Industries, Konaje

18 Students of 5th Semester along with 2 faculty members visited Deccan Plast Industries, Konaje on 23-01-2023 at 11.00 AM. Deccan Plast Industries has an advanced “State of the art” factory in Mangaluru, constructed in the standards matching any MNC factory having latest injection moulding machines and moulds and other equipment, is powered by latest technology complemented by in-house R & D and product development. It was very informative and useful for the students to get more exposure about injection moulding.



Workshop on Air-Conditioning and Refrigeration

Department of Mechanical Engineering has organized workshop on Air-conditioning and Refrigeration for 2nd year Mechanical Engineering students on 17-02-2023 at 2PM in Machine shop Laboratory.



STUDENT PROJECTS

Sl. No.	Batch No	USN	Student Name	Guide Name	Project Title
1	B1	4JK19ME012	DHANUSH M S	Mr. Sudheer Kini	RF Controlled Beach Cleaning Machine
2		4JK19ME047	SIBIN K SAJI		
3		4JK19ME031	NIKHIL		
4		4JK19ME014	GOUTHAM SHETTY		
5	B2	4JK19ME004	AKHILA V P	Dr. Rajesh Rai	Design and fabrication of river waste cleaning machine
6		4JK19ME009	ASHWANTH P V		
7		4JK19ME006	AMAL RAJ K		
8		4JK19ME010	BINEESH VARGHESE		
9	B3	4JK19ME015	HARSH SRIVASTAVA	Mr. Nithin Shet	Extraction of hydrogen gas from wood
10		4JK19ME017	J ABHISHEK		
11		4JK19ME007	ANVESH C N		
12		4JK19ME039	SAMBHRAM R CHOWTA		
13	B4	4JK19ME051	VIKAS	Mr. Prashanth D A	Mechanical Forklift
14		4JK19ME040	SAMRUTH N		
15		4JK19ME021	K MOHAMMED AFTHAB		
16	B5	4JK19ME036	RISHI JOSHI	Dr. Vighnesha Nayak	An Experimental Investigation on Engine Performance, Combustion and Emission Study for a Single Cylinder CI Engine with Cardanol Biodiesel and CuO Nanoparticle
17		4JK18ME012	BHARATH P (YO)		
18		4JK19ME042	SATVIK POOJARI		
19		4JK19ME029	MUHAMMED MUNAVVAR C P		
20	B6	4JK19ME045	SHARVARI	Dr. Sreejith	Design And Analysis Of Solar Powered Electric Vehicle
21		4JK18ME037	SHEIKH NIZAM (YO)		
22		4JK19ME019	JESWIN BIJU		
23		4JK19ME032	NITHIN P		
24	B7	4JK19ME044	SHAMATH B ACHAR	Mr. Prakhyath	Pyrolysis Unit (Conversation Of Waste Plastic To Useful Fuel)
25		4JK19ME011	CHETHAN B K		
26		4JK19ME048	SUMANTH N		
27		4JK19ME005	ALFAZ IBRAHIM		

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28	B8	4JK19ME013	ESHANK JALAN	Mr. Harold D'Souza	Design and fabrication of solar powered vehicle
29		4JK18ME005	AKARSH		
30		4JK19ME002	ABHILASH A S		
31		4JK19ME022	K P CHARAN KUMAR		
32	B9	4JK19ME052	VIKAS R SHETTY	Mr. Prasad B G	Cyclic Variation and Combustion Analysis of Single Cylinder CI Engine with Cardanol Biodiesel and CuO Nanoparticle
33		4JK20ME400	SHREYANK S		
34		4JK19ME023	MANEESH N K		
35		4JK19ME050	TRIVIKRAMA		
36	B10	4JK19ME027	MONISH AHMAD BAKHTIYAR	Dr. Sunil Kumar S	"Electric Airboat - A Low Cost And Modified Water Vehicle To Control Water Pollution"
37		4JK20ME401	SREERAG K P		
38		4JK19ME026	MOHAMMED ZAHID HUSSAIN		
39		4JK19ME016	INAYATH MOHAMMED		
40	B11	4JK19ME054	ZENON JEREMIAH	Mr. Prashanth D A	Wear Studies On Nylon 66 – Sic Pmc'S
41		4JK18ME017	ELDRIN PEREIRA		
42		4JK19ME037	RONAK REON RAJ DAVID		
43		4JK19ME020	JOYSON D SOUZA		
44	B12	4JK19ME001	ABDUL BASITH	Mr. Sudheer Kini	Investigation On Performance Enhancement Of Photovoltaic thermoelectric Integrated System
45		4JK19ME038	SAJUN V N		
46		4JK19ME003	AKASH MOHANAN		
47		4JK19ME033	PRAJWAL SHETTY		
48	B13	4JK19ME046	SHETTY BHAVITH MADHAVA	Mr. Sudhesh Shetty	An Experimental Investigation On Performance And Emission Characteristics Of Single Cylinder Biogas-Diesel Dual Fuel Engine
49		4JK18ME024	MUHAMMAD SAHIL ARSHAD		
50		4JK19ME049	SUSHAN S KUMAR		
51		4JK19ME028	MUHAD MUSTHAFA		
52	B14	4JK19ME034	PRAJWAL SURESH	Mr. Prakhyath	Electric Vehicle Charging Station Using Hybrid Power System
53		4JK19ME018	JAGATH S SHETTY		
54		4JK19ME041	SARTHAK SHETTY		

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55	4JK19ME030	MUHD NIHAD SHAKIR HUSSAIN		
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INTERNSHIPS

S. No	USN	STUDENT NAME	COMPANY NAME
1	4JK19ME001	ABDULBASITHA	HINDUSTAN HUME PIPE INDUSTRIES, BRAHMAVARA
2	4JK19ME002	ABHILASH A S	GTTC ,MANGALORE
3	4JK19ME003	AKASH MOHANAN	GTTC ,MANGALORE
4	4JK19ME004	AKHILA V P	GTTC BAIKAMPADY
5	4JK19ME005	ALFAZ IBRAHIM	KSRTC MANGALORE
6	4JK19ME006	AMAL RAJ K	INVENTERON TECNOLOIES AND BUSINESS SOLUTIONS LLP
7	4JK19ME007	ANVESH C N	NEW MANGALORE PORT AUTHORITY,PANAMBUR MANGALORE
8	4JK19ME009	ASHWANTH P V	KELTRON COMPONENT COMPLEX LTD
9	4JK19ME010	BINEESH VARGHESE	INVENTERON TECNOLOIES AND BUSINESS SOLUTIONS LLP
10	4JK19ME011	CHETHAN B K	SYNGENE INTERNATIONAL LTD,MANGALORE
11	4JK19ME012	DHANUSH M S	NEW MANGALORE PORT AUTHORITY,PANAMBUR MANGALORE
12	4JK19ME013	ESHANK JALAN	IAEC (CULCUTTA)PVT LTD
13	4JK19ME014	GOUTHAM SHETTY	SPECTRUM INDUSTRIES ,BAIKAMPADY
14	4JK19ME015	HARSH SRIVASTAVA	TATA STEEL LONG PRODUCTS JAMSHEDPUR
15	4JK19ME016	INAYATH MOHAMMED	MANGALORE PIPE INDUSTRIES
16	4JK19ME017	J ABHISHEK	MCF LTD
17	4JK19ME018	JAGATH S SHETTY	BASF INDIA LTD
18	4JK19ME019	JESWIN BIJU	STEEL & INDUSTRIAL FORGINGS LTD
19	4JK19ME020	JOYSON D SOUZA	GTTC BAIKAMPADY

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20	4JK19ME021	K MOHAMMED AFTHAB	MUKKA PROTIENS LTD
21	4JK19ME022	K P CHARAN KUMAR	THE CANARA WORKSOPS LIMITED,MAROLI
22	4JK19ME023	MANEESH N K	BASF INDIA LTD
23	4JK19ME026	MOHAMMED ZAHID HUSSAIN	GURUCHARAN INDUSTRIES, BAIKAMPADY
24	4JK19ME027	MONISH AHMAD BAKHTIYAR	GURUCHARAN INDUSTRIES, BAIKAMPADY
25	4JK19ME028	MUHAD MUSTHAFA	KELTRON COMPONENT COMPLEX LTD
26	4JK19ME029	MUHAMMED MUNAVVAR C P	KELTRON COMPONENT COMPLEX LTD
27	4JK19ME030	MUHD NIHAD SHAKIR HUSSAIN	THE CANARA WORKSOPS LIMITED
28	4JK19ME031	NIKHIL	SHAKTI TOOLS, MANGALORE
29	4JK19ME032	NITHIN P	KELTRON COMPONENT COMPLEX LTD
30	4JK19ME033	PRAJWAL SHETTY	GTTC BAIKAMPADY
31	4JK19ME034	PRAJWAL SURESH	STELNA DESIGNS-3D PRINTING &PRODUCT DESIGNING SERVICE
32	4JK19ME036	RISHI JOSHI	JAI AUTO VEHICLES PVT LTD GURGAON
33	4JK19ME037	RONAK REON RAJ DAVID	BEESTONE SOLAR ,BANGALORE
34	4JK19ME038	SAJUN V N	KELTRON COMPONENT COMPLEX LTD
35	4JK19ME039	SAMBHRAM R CHOWTA	MANGALORE CHEMICALS AND FERTILIZERS LTD
36	4JK19ME040	SAMRUTH N	MANGALORE CHEMICALS AND FERTILIZERS LTD
37	4JK19ME041	SARTHAK SHETTY	SYNGENE INTERNATIONAL LTD,MANGALORE
38	4JK19ME042	SATVIK POOJARI	KEYLYNK BANGALORE
39	4JK19ME044	SHAMATH B ACHAR	MANGALORE PIPE INDUSTRIES
40	4JK19ME045	SHARVARI	STELNA DESIGNS

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41	4JK19ME046	SHETTY BHAVITH MADHAVA	HYVA INDIA PVT LTD, MUMBAI
42	4JK19ME047	SIBIN K SAJI	KERALA ELECTRICAL AND ALLIED ENGINEERING CO. LTD., KUNDARA
43	4JK19ME048	SUMANTH N	MANGALORE PIPE INDUSTRIES
44	4JK19ME049	SUSHAN S KUMAR	KAKUNJE SOFTWARE
45	4JK19ME050	TRIVIKRAMA	SPECTRUM INDUSTRIES ,BAIKAMPADY
46	4JK19ME051	VIKAS	SHREE RAJASHREE AERATED WATER PRODUCTS
47	4JK19ME052	VIKAS R SHETTY	HYVA INDIA PVT LTD, MUMBAI
48	4JK19ME054	ZENON JEREMIAH	BEESTONE SOLAR ,BANGALORE
49	4JK18ME017	ELDRIN PEREIRA	BEESTONE SOLAR ,BANGALORE
50	4JK18ME005	AKARSH	BEESTONE SOLAR
51	4JK18ME024	MUHAMMAD SAHIL ARSHAD	GOA WARE POLYNETS, KAPU
52	4JK18ME012	BHARATH P (YEAR OUT)	INDIAN RAILWAY,MANGALURU
53	4JK20ME400	SHREYANK S	BOLAS AGRO PVT LTD
54	4JK20ME401	SREERAG K P	GTTC ,MANGALORE

FDP/WEBINAR/SEMINARS/TRAINING

1. Dr. Sunil Kumar S has participated in, Ministry of Education, Govt. of INDIA sponsored, AICTE Recognized Workshop on "INCULCATING UNIVERSAL HUMAN VALUES IN TECHNICAL EDUCATION" (UHV-I) from 20-02-2023 to 24-02-2023
2. Dr. Sunil Kumar S has participated in, Ministry of Education, Govt. of INDIA sponsored, AICTE Recognized Workshop on "Engineering Materials – Design and Simulation" organized by National Institute of Technical Teachers Training and Research, Chandigarh from 15-02-2023 to 18- 02-2023.

STUDENT OUTREACH PROGRAMS

1. Abishek Kumar Padavu, Akhil Sajeev, Ashik H S, Bhuvan B Shetty, Deepak, Gautham J Puthran, Jiben Jacob, Joel Sibi, Manish, Muhammed Shaz T P, Nuhman. Arun P N, Prashanth Sankappa K, Sandeep K Unnikrishnan, Vikith V Salian, Shivanesh R, U Sagar, Prathik from 3rd year have conducted outreach activity on “Basics of computer and Software” for a period of two weeks (10/2/2023 to 24/2/2023) in D.K.Z.P Higher Primary School, Kodikal, Mangaluru.
2. Akhil Sajeev of 3rd year Mechanical Engineering participated in One week Beach Clean-up Event organized by “Students of Development (SFD)” in collaboration with MCC from 01/01/2023 to 08/01/2023.
3. Gautham J Putran of 3rd year Mechanical Engineering participated in One week Beach Clean-up Event organized by “Students of Development (SFD)” in collaboration with MCC from 01/01/2023 to 08/01/2023.

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