

LORDS INSTITUTE OF ENGINEERING & TECHNOLOGY

(Autonomous)

Approved by AICTE | Affiliated to OU | Estd.2002



Accredited with 'A' grade by NAAC



Accredited by NBA

Survey No.32, HimayathSagar, RR Dist, Hyderabad 500091



DEPARTMENT OF
Mechanical Engineering

IJET STUDENT CHAPTER
Institution of
MECHANICAL
ENGINEERS

Presents

Mechronicle

MECHANICAL SEMESTER NEWS LETTER

Technical Article

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A robot that finds lost items

Innovative 3D-Printing Technology Creates Glass Microstructures With Rays of Light

UNIVERSITY OF CALIFORNIA - BERKELEY
DECEMBER 22, 2022

Researchers at the University of California, Berkeley have developed a new way to 3D-print glass microstructures that is faster and produces objects with higher optical quality, design flexibility, and strength, according to a new study published in the journal *Science*.



Figure: Researchers at UC Berkeley have developed a new way to 3D-print glass microstructures, including these 3D printed glass lattices, which are displayed in front of a U.S. penny for scale. Credit: Photo by Joseph Toombs/UC Berkeley

Working with scientists from the Albert Ludwig University of Freiburg in Germany, the researchers extended the capabilities of a 3D-printing process they **developed three years ago** — computed axial lithography (CAL) — to print much finer features and to print in glass. They dubbed this new system “micro-CAL.” Glass is often the preferred material for creating complicated microscopic objects, including lenses in compact, high-quality cameras used in smart phones and endoscopes, as well as micro fluidic devices used to analyze or process minute amounts of liquid. However, present manufacturing methods can be slow, expensive, and limited in their ability to meet the industry’s increasing demands.

College Vision:

Lords Institute of Engineering and Technology strives for excellence in professional education through quality, innovation and teamwork and aims to emerge as a premier institute in the state and across the nation.

College Mission:

1. To impart quality professional education that meets the needs of present and emerging technological world.
2. To strive for student achievement and success, preparing them for life, career and leadership.
3. To provide a scholarly and vibrant learning environment that enables faculty, staff and students to achieve personal and professional growth.
4. To contribute to advancement of knowledge, in both fundamental and applied areas of engineering and technology.
5. To forge mutually beneficial relationships with government organizations, industries, society and the alumni.

Department Vision:

To impart high standards of quality education which enhance students' career efficaciously, to become a holistic well-qualified engineer who are competent, innovative, entrepreneurial and research oriented to meet the standards of new millennium.

Department Mission:

DM1: An integrated educational approach that blends knowledge of engineering fundamentals, technical skills, practical knowledge and research.

DM2: To enrich undergraduate experience of distinctive academic curriculum through interaction with major stake holders, hands-on learning, team work, management and multi-disciplinary skill set.

DM3: To make students aware of professional responsibilities, ethics, global demands, sustainable solutions, environmental, technological challenges and the needs of lifelong learning.

DM4: To prepare students in developing solutions of global standards through research and innovation, design and development of demand-based projects, entrepreneurial skills and employability capabilities.

Program Educational Objectives (PEOs)

The educational objectives of the Mechanical Engineering program are designed to produce competent engineers who are ready to contribute effectively to the advancement of Mechanical Engineering causes and to accommodate the needs of the profession. The Mechanical Engineering department is dedicated to graduating Mechanical Engineers who

PEO1: To establish themselves as successful professionals with strong fundamental knowledge in basic and engineering sciences to find suitable solutions of technological and real-life challenges using innovative tools.

PEO2: To enhance technical competency and problems solving skills through state of art facilities for adequate solutions to technical problems.

PEO3: Acquire high skill-set by continuous training, multi-disciplinary activities, team work, effective communications, Information Technology tools usage and ethics so that students shall acquire good job opportunities and also will help in their higher education.

PEO4: Giving consultancy services to industrial, Societal challenges and promoting department-industry interactions, by enhancing technical, managerial, environmental responsibilities and lifelong learning with sustainable development.

Program Specific Outcomes (PSOs)

PSO1: Professional Skills: An ability to understand the basic concepts in mechanical Engineering and to apply them to various areas, like production, thermal, designing etc., in the design and implementation of complex systems.

PSO2: Problem-Solving Skills: An ability to solve complex Mechanical Engineering problems, using latest hardware and software tools, along with analytical skills to arrive cost effective and appropriate solutions.

Program Outcomes (POs)

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.

FOUNDER AND CHAIRMAN'S MESSAGE:

The pride of every student and staff would be in his/her college. A College may reach heights of glory but without materials like a college newsletter, the outside world may not know of it. The essential purpose of our college newsletter is to inform, engage, inspire and entertain a diverse readership-including alumni, parents, students, faculty, staff and other friends of the college-by telling powerful stories that present a compelling, timely and honest portrait of the college and its extended family. I am happy that there is a dedicated team of staff and students who have brought out the Newsletter of Mechanical Engineering Department of our college.



SECRETARY 'S MESSAGE:

Engineers play the most vital role in nation building. They create new inventions using best engineering technologies to make human life more comfortable, secure and productive. We need enormous number of engineers to write next story of success. We have identified the needs of modern engineering and technology education for modern age students, with a vision and mission accompanying transparency, accountability and accessibility which keeps us abreast and also ahead of our competitors. At the outset, I send my greetings to the Editorial Board of Mechanical Engineering Department, for working on the newsletter. This newsletter should be a good source of guidance for faculty and coming batches of students in choosing activities of their choice in their future for building their careers. I appreciate the efforts of the Editorial team who have done an excellent job in compiling activities over the year and disseminate them through this Newsletter as well as on the college website.

VICE CHAIRMAN'S MESSAGE:

Lords Institute of Engineering and Technology, (Autonomous) was established to impart academic excellence by providing a conducive environment for the overall personality development of young technocrats. Spanning more than a decade, the college is covering many milestones year after year incorporating all modern mechanisms of technological research and application. Within this span of time, it has emerged as one of the leading Engineering colleges. LIET renders perfection in academics and dynamic environment to motivate everyone –the management, faculty and students to deliver their best. Our objective is to create a class of qualified, innovative and dynamic professionals for the Engineering sector, for self-employment and for academic & research institutions of socio-economic importance.



DIRECTOR'S MESSAGE:

Greetings and a very warm welcome, our college work diligently to realize its mission of providing the best learning, teaching and research opportunities to students and academicians alike, it continues to supply students with the basics of modern knowledge and high values. The research activities of our faculty lead an extraordinary enrichment of students which is realized at both the graduation and Masters levels. Our students enjoy learning the rigors of new discoveries and acquire skills of inquiry, evaluation, and communication that provide a foundation for their Ext phases of their careers and lives.



PRINCIPAL'S MESSAGE:

Our college has grown abundantly in the recent past. It continues to sustain its growth. People reading this newsletter will realize the tremendous changes that are happening in the campus. The newsletter is presenting a glimpse of the growth of the institution on many fronts. The highly qualified and dedicated members of the staff have always stood shoulder to shoulder with the management and has carried out their duties with high level of commitment. This newsletter has recorded achievements such as conferences attended by staffmembers and students, competitions won by the hugely talented students, innovative projects carried out by students with the guidance of faculties, among others.



Let's give our best and make this institution a modern sanctuary of learning through our diligence, devotion and dedication. I congratulate all the contributors and the editorial board for bringing out such a beautiful newsletter.

VICE-PRINCIPAL'S MESSAGE:

It gives me immense joy to learn that our college has its deep roots in the field of education in the city of Hyderabad. I feel proud and privileged to be the part of this Magnificent Institution. At this juncture, I gratefully acknowledge the yeomen service rendered by the Visionary Predecessors, dedicated teachers and ever supporting parents who have worked selflessly and tirelessly to bring this newsletter of Mechanical Engineering department. I am pleased to acknowledge that our college lays its stress not just on academic excellence but also on "character formation with academic excellence".



CHIEF EDITOR'S MESSAGE:

It gives me great pleasure to bring you the Newsletter of the Odd Semester of A.Y 2022-23. This issue offers a panoramic view of the academic, professional and cultural activities of the college. The name and fame of an institute depends on the caliber and achievements of the students and teachers. I would like to place on record my gratitude and heartfelt thanks to all those who have contributed to make this effort a success. I profusely thank the management for giving support and encouragement and a free hand in this endeavor. The editorial team thanks all its patrons for their support for the newsletter. On thatnote, I wish you all 'Bonne lecture'. I welcome suggestions from all our readers who wish to see their ideas incorporated in the subsequent issues. Please feel free to provide your feedback and send pertinent information with photos for inclusion in our forthcoming issues of newsletter.

MEGSO 2K22

MEGSO, Mechanical Engineering Graduate Students Ordinate, one of the earliest technical students Association at **LORDS INSTITUTE OF ENGINEERING AND TECHNOLOGY**, was founded in 2009, The association was given official status by the department of Mechanical Engineering (LIET).

The inauguration ceremony was held on 8th of December 10am in the main seminar hall 4th floor in the grace presence of vice chairman Mr. Syed Tauseef Ahmed, Joint Secretary Mr. C.A Syed Tanveer Ahmed, Secretary Ms. Rizwana Begum (Lords Institute Of Engineering & Technolgy), Principal Dr. C.V Narasimhulu, Dean 1st year Dr. J Sasi Kiran along with HoDs, Dr. Syed Azam Pasha Quadri, Dr. T.K. Sheikh Shavali, Dr. K. Nagi Reddy, Dr. K. Sashidhar, Dr. Syed Nawazish Mehdi, and Dr. Anwarullah along with convenor and co-convenor MEGSO.



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Department of Mechanical Engineering
Presents
MEGSO 2K22
Date: 08th & 09th December, 2022

<p><u>Convener</u> Dr. Syed Azam Pasha Quadri <small>(Vice Principal, HoD, Dept. of Mechanical Engineering)</small></p> <p>Mr. Ramavath Suman <small>(Associate. HoD , Asst. Professor, Dept. of Mechanical Engineering)</small></p>	<p><u>Co-convenor</u> Mohd. Khalid Ahmed <small>(Asst. Professor)</small></p> <p>Mohd. Asif Kattamani <small>(Asst. Professor)</small></p>
<p>President: Syed Shujauddin <small>(Ph: -91 9390183302)</small></p>	<p>Gen. Secretary: Mohd. Mahboob <small>(Ph: -91 91 10 181 127)</small></p>

విద్యార్థులు మెకానిక్ ఇంజనీరింగ్ లో రాణించాలి

● మోగిపో కస్టోమర్ రమావత్ సుమన్

వచనంగా - గండిపేట్

విద్యార్థులు మెకానిక్ ఇంజనీరింగ్ లో రాణించాలని మోగిపో కస్టోమర్ రమావత్ సుమన్ అన్నారు. శనివారం గండిపేట్ మండలం ఇంజనీరింగ్ కాలేజీలో విద్యార్థులకు మెకానిక్ ఇంజనీరింగ్ లో రాణించాలి అనే అంశంపై సీడీఎస్ జనరల్ కార్యక్రమం నిర్వహించారు. ఈ కార్యక్రమానికి కస్టోమర్ సుమన్ అతిథిగా హాజరయ్యారు. ఈ సందర్భంగా వారు మాట్లాడుతూ మెకానిక్ లో విద్యార్థులు రాణించే విధంగా కృషి చేయాలన్నారు. విద్యార్థులు యాంత్రిక సాధనలో ముందుకొస్తారు. విద్యార్థులను వివిధ రంగాల్లో ప్రోత్సహించాలన్నారు. కార్యక్రమం చివరికి యాజమాన్యవారికి ప్రత్యేక కృతజ్ఞతలు తెలిపారు. ఈ కార్యక్రమంలో కార్యదర్శి రిజ్వానా బేగం, ప్రిన్సిపాల్ వర్మిలు, డైరీ ప్రిన్సిపాల్ ఆజం పాషా కాద్రి, జాయింట్ కార్యదర్శి నయ్యర్ జస్వీత్ ఆహ్లాద్, ఉపాధ్యక్షులు, విద్యార్థులు, తదితరులు పాల్గొన్నారు.



The award ceremony was held on 9th of December 3:00 am in the main seminar hall 4th floor in the grace presence of vice chairman Mr. Syed Tauseef Ahmed, Joint Secretary Mr. C.A Syed Tanveer Ahmed, Secretary Ms. Rizwana Begum (Lords Institute Of Engineering & Technolgy), Principal Dr. C.V Narasimhulu, Dean 1st year Dr. J Sasi Kiran along with convenor Dr. Syed Azam Pasha Quadri (Then, HOD and professor mechanical department), Mr. Ramavath suman (then asst. HOD, Professor Mechanical Department), Co-convenor Mr. Khalid Ahmed (Asst. Professor mechanical engineering), and Mr. Mohd Asif Kattamani (Asst. Professor mechanical engineering) MEGSO volunteers and participants.

HOD Interaction with Students

A Meeting is conducted on **24-12-2022** by Head of the department Mr. R Suman with students to take a note on grievances in the presence of **Assistant and Associate Professors, Lords Institute of Engineering and Technology (Autonomous)**.



Inspection by Principal Sir

A Sudden inspection was done by Principal in various laboratories for cross checking the smooth conduct of labs and taken grievances on **04-01-2023**. He verified Attendance registers, Log registers, stock registers, Lab manual, Equipment's, lab batches etc.



Parent Teacher meet 2K22

Parent-Teachers Meeting for III Semester and V Semester students held on 17-12-2023, at Head of the Department chamber, LIET (A) from 9 30 AM Onwards.

The **main objective** of the meeting is to **create a common platform, where Faculties and parents** come together to discuss student's performance and devise ways to enrich the **teaching learning process**.

The meeting has started with welcoming parents. **Mentors shared their mentees performance** in all aspects including their performance in **III, V semester, also students' attendance, Internal Marks , OU recent results, CRT for Placements (planning for next semester), Any indiscipline, College / department development activities, Strengths of your department/ College, etc.**



Parents became aware of the institute's rules and regulations, **methodologies of teaching & learning** for the overall welfare of students. Parents were encouraged to appreciate student's participation in all academic activities.

The PTM came to an end with the **conclusion** that the **progress and development of the students depend on the joint efforts of parents and teachers.**

Department Events

DATE	NAME OF THE EVENT	RESOURCE PERSON
17/12/2022	Parent Teacher Meet	Department of Mechanical Engineering
08/12/2022-09/12/2022	MEGSO 2K22	Department of Mechanical Engineering
16/11/2022	One Day Workshop on AutoCAD and Solidworks	Mrs. Jessica and Mr. Swaroop
01/11/2022	One Day Workshop on MEP & Opportunities	Mr Liyaqath Shaik, Project manager at Success HVAC solutions, and Alumni of LIET(A)
26/10/2022	Competition on Speak out for Engineering 2022 Under IMechE Student Chapter	



LORDS INSTITUTE OF ENGINEERING AND TECHNOLOGY
(Autonomous)

ONE DAY WORKSHOP
On

AutoCAD and Solidworks

Organized by
Department of Mechanical Engineering
In Collaboration with
Canter CADD India Pvt. Ltd, Hyderabad
on
16-11-2022
Mrs. Jessica & Mr. Swaroop
Resource Persons from Canter CADD

Dr. Syed Azam Pasha Quadri
CoE, LIET (A), Vice Principal & HoD MECH

Mr. R. Suman
Associate HOD MECH

Mr. Mohammed Asif Kattimani
Assistant Professor, MECH



Faculty Achievements

Patents Publications

No	Name of Inventor	Title of Invention	Application Number	Publication date	National / International
1.	1.Mr. Md. Misbahuddin	Laser Welded Corrugated Core Sandwich Panel For Structural Application	202241075223	13/01/2023	National
2.	1. Mr. Md. Misbahuddin 2. Mr. Ramavath Suman	Composite Corrugated Core Structure for Aircraft Wings	202341000225	06/01/2023	National

NPTEL Certifications

National Programme on Technology Enhanced Learning (NPTEL) is a project of **MHRD** initiated by seven **Indian Institutes of Technology (Bombay, Delhi, Kanpur, Kharagpur, Madras, Guwahati and Roorkee)** along with the Indian Institute of Science, Bangalore in 2003, to provide quality education to anyone interested in learning from the **IITs**. The main goal was to create web and video courses in all major branches of engineering and physical sciences at the undergraduate and postgraduate levels and management courses at the postgraduate level. **Mr.Khalid and Mr. Md Misbahuddin** got 98 % in in NPTEL Online Certification of **“Engineering Drawing and Computer Graphics”** Course.



Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)



This certificate is awarded to
MOHD KHALID AHMED
for successfully completing the course



Engineering Drawing and Computer Graphics

with a consolidated score of **98** %

Online Assignments	24.06/25	Proctored Exam	73.47/75
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Total number of candidates certified in this course: **126**

Jul-Oct 2022
(12 week course)

Prof. Debjani Chakraborty
Coordinator, NPTEL
IIT Kharagpur



Indian Institute of Technology Kharagpur



Roll No: NPTEL22ME105553692498

To validate the certificate



No. of credits recommended: 3 or 4



Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)



This certificate is awarded to
MD MISBAHUDDIN
for successfully completing the course



Engineering Drawing and Computer Graphics

with a consolidated score of **93** %

Online Assignments	24.38/25	Proctored Exam	68.88/75
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Total number of candidates certified in this course: **126**

Jul-Oct 2022
(12 week course)

Prof. Debjani Chakraborty
Coordinator, NPTEL
IIT Kharagpur



Indian Institute of Technology Kharagpur



Roll No: NPTEL22ME105553692660

To validate the certificate



No. of credits recommended: 3 or 4

