



# MECH MINDSET

## About Department

Mechanical Engineering is one of the most diverse and primitive branch of engineering. It remained always in demand and continue to be so in future. Hence it is evergreen branch. Mechanical Engineering finds application in all fields of technology, the need of mechanical engineers has increased exponentially over the decades. It involves design, manufacturing, maintenance of machines and mechanical systems. Besides this, Mechanical Engineering touches virtually every aspect of modern life and Mechanical Engineers has tremendous scope in automobile, Aerospace, Steel Industries, Power sector, Biotechnology, Manufacturing plants, petroleum, Marine Industry and Cement Industry etc. Opportunities exist worldwide for Mechanical Engineers and pay package is highly attractive.



## Vision

Aspire to provide quality and excellent education to enhance the skills and ability of students to meet the present and future technological challenges, emphasizing eco-friendly practices, effective communication, and entrepreneurial abilities.

## Mission

To nurture students of high moral and ethical values, having technical and communication skills through modern teaching methods, preparing them for global competition while also fostering industry partnerships, entrepreneurship, and encouraging active engagement in academic pursuits.

## PROGRAM EDUCATIONAL OBJECTIVES

**\*Technical Competence:** Graduates will have a strong foundation in mechanical engineering principles, enabling them to analyze, design, and innovate mechanical systems effectively.

**\*Ethical Values and Communication Skills:** Graduates will uphold high moral and ethical standards, communicate effectively, and collaborate with diverse stakeholders.

**\*Global Competitiveness and Entrepreneurial Abilities:** Graduates will be well-prepared for global challenges, equipped with entrepreneurial skills, and ready to contribute to industry and society.

## PROGRAM SPECIFIC OUTCOMES (PSO)

\* Conceptualize, develop, analyze and optimize the mechanical system Components utilizing mechanical fundamentals and modern tools.

\* Understand and apply standard practices and strategies to plan and manage various industrial activities with professional codes of ethics.

## Department Activities

Discover the latest strides in mechanical engineering excellence as we delve into the vibrant tapestry of departmental activities. From innovative projects to collaborative initiatives, witness the dynamic pulse of our engineering community.

### Expert Lecture on “Awareness Session on GATE Examination-2024”

The Mechanical Engineering Department organised an expert session on the GATE Examination to prepare students for the exam. The session included a talk on the exam, job opportunities, and interview tips. Students were informed about the industry requirements and given guidance on excelling in the exam. Overall, the session was informative and beneficial for students interested in pursuing the GATE exam and excelling in their engineering careers. A small aptitude exam was conducted online to motivate students, with the top 3 rankers were awarded, and their details are as follows:

Faculty coordinator: Mr. Bhagyadeep B. Kalal (Asst. Prof. Mechanical Engineering. Dept.)



### Internship seminar

The Mechanical Engineering Department hosted an expert session on Internships on January 17, 2024. The session aimed to address student questions and concerns about internships. Speakers provided insights on the program's objectives, duration, and benefits. Students were encouraged to ask questions and seek clarification on internship details and career growth opportunities. The session motivated students to start their internships in May 2024 and equipped them with knowledge and skills for success. Overall, the session was a success in preparing students for future career opportunities in mechanical engineering.

Speakers of the Seminar:

Mr. Tushar Thakar (HOD MECHANICAL)

Mr. Mosam Pandya (Internship Coordinator/TPO)

Faculty Coordinator's:

Mr. Vivek Parikh (Asst. Prof. Mechanical Engineering. Dept.)

Mr. Hemang Dhamelia (Asst. Prof. Mechanical Engineering. Dept.)



## Research & Review Paper Seminar

We're thrilled about the success of our workshop on "How to write a Research Paper?" led by Dr. Akhil Khajuria. Attendees gained insights into paper structuring, journal selection, peer review, and promotion. Dr. Khajuria's expertise empowered participants, including faculty and B.E. 6th semester students in mechanical engineering. Grateful for their active engagement.



## AutoCad workshop

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## Solidworks workshop

The Mechanical Engineering Department organised an expert session on the GATE Examination to prepare students for the exam. The session included a talk on the exam, job opportunities, and interview tips. Students were informed about the industry requirements and given guidance on excelling in the exam. Overall, the session was informative and beneficial for students interested in pursuing the GATE exam and excelling in their engineering careers. A small aptitude exam was conducted online to motivate students, with the top 3 rankers were awarded, and their details are as follows:

- Rank 1: LJU ME sem 5 Sharma Preet
- Rank 2: LJU ME sem 5 Aman Shah



# Industrial Visits

Embark on a journey beyond the classroom as we delve into our latest industrial visits, offering firsthand insights into cutting-edge practices and technologies shaping the mechanical engineering landscape. Join us as we explore real-world applications, forge industry connections, and enrich our understanding of the field through immersive experiences.

## Industrial Visit – Indogerman Tool room (6th and 7th December 2023)

A training session aimed to provide hands-on experience with modern manufacturing machines. 55 out of 83 students attended the session, which included a visit to Indogerman Tool Room. This visit gave students valuable insights into the tooling industry, showcasing precision, advanced technology, and continuous improvement. The knowledge gained will benefit students in their academic and professional development in manufacturing and tool engineering.

**Faculty :** Mr. Milan D. Trivedi (Asst. Prof. Mechanical Engg. Dept.)



## Industrial Visit – RBD Engineers Pvt. Ltd. (12th October 2023)

The training session aimed to give students practical experience with various machines related to Manufacturing Technology. 35 out of 44 students attended and learned about plant layouts, manufacturing processes, assembly lines, Flexible Manufacturing Systems, and 5S. The session provided valuable insight into industrial operations. Students gained a better understanding of how products are manufactured in a real-world setting.

**Faculty :**

- 1.Mr. Bhagyadeep B. Kalal (Asst. Prof. Mechanical Engg. Dept.)
- 2.Mr. Vivek V. Parikh (Asst. Prof. Mechanical Engg. Dept.)
- 3.Mr. Shail N. Shah (Asst. Prof. Mechanical Engg. Dept.)

**Industrial Visit –  
PUNE (CHAKAN/RANJANGAON M.I.D.C.)  
(29th May to 31st May 2023 )**

A group of 41 students and 3 faculty members visited Mechanical and Automobile Industries in Pune. They visited Sany Heavy Industry, Bosch Chassis, Fiat India Pvt. Ltd., and JBM Group. They toured fabrication units, assembly lines, Industry 4.0 concepts, and robotic welding shops. The visit helped students understand practical aspects of machines, assembly shops, and mechanical components. The General Manager of JBM Group offered internship support. The experience allowed students to connect theoretical knowledge with practical applications.

**Faculty :**

1. Mr. Tushar Thakar (HOD Mechanical Dept.)
2. Mr. Pravin Zinzala (Asst. Prof. Mechanical Engg. Dept.)
3. Mr. Rajat Dave (Asst. Prof. Mechanical Engg. Dept.)



# Student Achievement:

Acknowledge the remarkable accomplishments of our mechanical engineering students, excelling in exams like GATE and pioneering research. Their success reflects dedication and our department's supportive environment. Join us in honoring their contributions.

## Review on Process Parameters of Laser Cutting Machine

**Student Name:**

- ① P Pavana,
- ② C Elsona,
- ③ M Rahula,
- ④ S Preeta

**Faculty Name:**

- ① Prof. Vivek Parikh,
- ② Prof. Mihir Mistry

**Publication Name:** IJIRT

**Volume:** Volume 10

**Issue:** Issue 11

**Date:** April 2024

## A Review on Micro-Channel Heat Exchanger and its Optimization

**Student Name:**

- ① Smit Brahmkshatriya,
- ② Yatharth Purenia,
- ③ Aryan Butani,
- ④ Sachin Yadav

**Faculty Name:**

- ① Prof. Hemang Dhamelia
- ② Dr. Prexa Parikh

**Publication Name:** IJREAM

**Volume:** Volume 10

**Issue:** Issue 11

**Date:** April 2024

## Review on design optimization in shell and tube type heat exchanger

**Editor Name:**

- ① P Pavana,
- ② C Elsona,
- ③ M Rahula,
- ④ S Preeta

**Faculty Name:**

- ① Mr. Hemang R.Dhameliya,
- ② Mr. Pravin zinzala

**Publication Name:** IRJET

**Volume:** Volume 11

**Issue:** Issue 03

**Date:** Mar 2024

# GATE Toppers

MECHANICAL DEPARTMENT SEM-6



**AIR -1186**

## MAURYA RAHULKUMAR RAJENDRAKUMAR

“

At LJ University, I found invaluable support for my academic journey. Lectures and study materials helped me grasp complex theories, and faculty guidance shaped my future. With their support, I achieved a GATE score of 51.67 and secured an All India Rank of 1186 in Mechanical GATE 2024.

”



**AKSHAT SHUKLA**  
AIR -12006



**MAHIR MANSURI**  
AIR -12006



**PATEL PAVAN**  
AIR -18402



**GANGANI VISHAL**  
AIR -16361



**SAHIL NAKRANI**  
AIR -19866



**SMIT BRAHMKSHATRIYA**  
AIR -21573

## Faculty Achievement:

Commend the outstanding achievements of our esteemed faculty members as we highlight their dedication, expertise, and contributions to the field of mechanical engineering. From groundbreaking research publications, patents to prestigious awards and honors, join us in celebrating the excellence and leadership exemplified by our faculty members, inspiring both students and peers alike.



**Dr. Prexa H Parikh**  
I/C Director LJIET  
Ph.D., M.E., B.E

**A Review on Micro-Channel Heat Exchanger and its Optimization**  
**International Journal for Research in Engineering**  
**Application & Management (IJREAM)**

*Date: March, 2024*

### Patents

Solar Powdered Vending Cart

*Year 2023*

Electrical kick scooter with double sliding mechanism

*Year 2024*



**Dr. Akhil Khajuria**  
Assistant Professor  
Post Doc, Ph.D, M.Tech, B.Tech

**The influence of CMT-MAG and MAG welding-processes on microstructure and mechanical behaviour of C-Mn E410 structural-steels**

*Date: 20 January, 2024*

**Prof. Shail N. Shah**  
Assistant Professor  
Ph.D. (Pursuing), MTech, B.E



**Effects of Liquid Line and Condenser Parameters on the Performance of Water-Based Loop Heat Pipe**  
**Futuristic Advancements in Materials, Manufacturing and Thermal Sciences**

*Date: 21 January, 2024*

# MECH TOPPERS

SEM 1	 <b>Nimesh Lalitkumar</b> 7.79	 <b>Patel Saurav</b> 7.74	 <b>Rajput Aryan</b> 7.37
	 <b>Nayan Harsiyani</b> 8.05	 <b>Patel Saurav</b> 8.84	 <b>Nimesh Lalitkumar</b> 8.89
	SEM 3	 <b>Maurya Rajendrakumar</b> 9.5	 <b>Bhayani Sandipkumar</b> 9.32
 <b>Saini Vishvajeet</b> 8.96		 <b>Maurya Rajendrakumar</b> 9.4	 <b>Bhayani Sandipkumar</b> 9.44
SEM 6		 <b>Ranpariya Abhaykumar</b> 9.53	 <b>Sav Dipakkumar</b> 9.52
	 <b>Avdhiba Jadeja</b> 9.41	 <b>Ranpariya Abhaykumar</b> 9.42	 <b>Sav Dipakkumar</b> 9.45
	SEM 7		

# LJ innovation village



## The LJ Innovation Village Event

The LJ Innovation Village event spans two days, with activities taking place on March 1st from 11 am to 4 pm and March 2nd from 9 am to 4 pm. This event serves as a valuable opportunity for students to showcase their innovative ideas and projects, fostering collaboration and learning within the innovation community.

## Introduction to LJ Innovation Village

LJ Innovation Village serves as a platform for showcasing innovative projects, products, and start-ups developed by forward-thinking individuals. This platform offers innovators the opportunity to connect with students, faculty members, industry experts, and potential investors

## Empowering Student Innovation

By participating in LJ Innovation Village, students are able to unleash their hidden creativity, enhance their skills, and improve their overall performance by focusing on innovation. This event, held annually since 2013, aims to nurture the talents of young individuals. Students pursuing degrees or diplomas in engineering have presented hundreds of projects over the years, resulting from identifying social issues, brainstorming innovative solutions, and developing relevant projects. Each project undergoes careful monitoring and evaluation by a panel of industry experts.

## Cultural Events

Celebrate our mechanical engineering department's diversity with cultural events, fostering inclusivity and understanding. Festivals, workshops, and connections unite students and faculty, embracing unique backgrounds for a vibrant community experience.



### Carpe diem 24

SHAH AMAN DEVANG

Mechanical department SEM-6 student

“After joining Carpe diem, the sports organiser organisation at LJ University, I was able to enhance my leadership skills and improve my ability as a team player. Being a part of this group has provided me with valuable opportunities to develop and grow in both areas.”



### LUMINA

CHAUHAN HARSHRAJSINH JAYDEEPSINH

Mechanical department SEM-6 student

“After joining LUMINA, the cultural festival of LJ University, I was able to enhance my skills as an event organiser and collaborate effectively as a team player. This experience has allowed me to further develop my abilities in coordinating and executing successful events, while also fostering strong teamwork and communication skills.”

# Editorial Board



**Prof. Parth Sinroza**  
LFA Faculty Coordinator



**Prof. Mihir Mistry**  
Faculty Coordinator



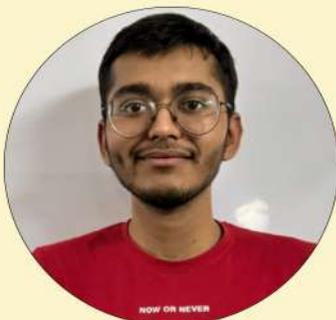
**Tarang Sachaniya**  
Sem-6 Computer Department



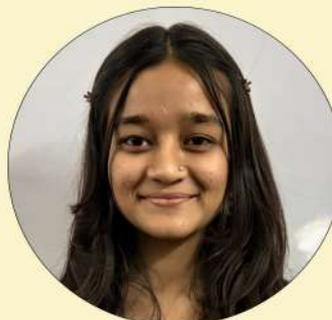
**Aman Shah**  
Sem-6 Mechanical Department



**Bhavya Patel**  
Sem-6 Computer Department



**Keyush Prajapati**  
Sem-6 Computer Department



**Shehnaz Zazwala**  
Sem-6 Computer Department



**Jivantika Ghadvi**  
Sem-6 Mechanical Department