

DEPARTMENT OF MECHANICAL ENGINEERING

MECH @ CONNECT

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LAKSHMI NARAIN COLLEGE OF TECHNOLOGY, BHOPAL

VISION:

To be a premier institute where engineering education and research converge to produce engineers as responsible citizens.

MISSION:

- To improve continually in the teaching-learning process by strengthening infrastructural facilities and faculty credentials.
- To undertake interdisciplinary research and development by engaging the faculty and students in curricular, co-curricular and industry collaborated projects towards problem solving.
- To enhance proportion of skilled based courses beyond curriculum to create more employable graduates.
- To inculcate human values, ethics, patriotism and responsibility in our outgoing engineers by providing conducive environment.

DEPARTMENT OF MECHANICAL ENGINEERING

VISION:

To be recognized in academics and research for producing engineers as responsible citizen who are innovative, choice of employers and able to do further studies & research.

MISSION:

- To provide knowledge and skills of Mechanical Engineering to the students.
- To impart quality education to make students competent mechanical engineer and responsible citizen.
- To provide facilities and Environment conducive to grounding scholars for employability, higher studies and research.
- To prepare its students for Successful career in engineering.

Program Educational Objectives (PEOs)

To make the students able of applying knowledge of mathematics, science and subjects of mechanical engineering in dealing with engineering problems.

To be able to identify and understand real life problems and suitably design and manufacture, feasible and sustainable mechanical devices and systems.

To be able to carry out the research work in the field of Mechanical Engineering.

To be able to use modern tools and techniques for the efficient working and meeting challenges of modern society and industry.



PROGRAM OUTCOMES (POs)

Engineering Graduates will be able to:

- 01 Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 02 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.
- 03 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.
- 04 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.
- 05 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.
- 06 Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- 07 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.
- 08 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.
- 09 Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- 10 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.
- 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 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.

DEPARTMENTAL NEWS

The Department of Mechanical Engineering at Lakshmi Narain College of Technology, Bhopal, in collaboration with CRISP, Bhopal, organized a two-week Faculty Development Program on Additive Manufacturing from July 22 to August 4, 2024. Coordinated by Dr. Hitesh Kumar and Dr. Neeraj Dubey, the FDP enhanced faculty members' knowledge and practical skills in 3D printing and emerging additive manufacturing technologies.

Dr. Kumar, in his address, emphasized the relevance of CNC technology in bridging the gap between academic knowledge and industrial applications, and encouraged faculty members to leverage this opportunity for academic excellence and industry readiness.



INTERNSHIP PROGRAM

The Department of Mechanical Engineering at LNCT, Bhopal concluded a highly enriching one-week internship program designed for our mechanical engineering students. This program seamlessly integrated theoretical knowledge with hands-on practical applications, effectively preparing students to meet the evolving demands of the engineering industry. Participants were exposed to cutting-edge technologies, including drones, CNC machining, electric vehicles, and the Idea Laboratory. In addition to this, various skill development initiatives ensured that students received a comprehensive and holistic learning experience.



FACULTY ACHIEVEMENTS

Patents/Copyrights Published

Dr. Neeraj Dubey, Dr. Shankar Kumar, Dr. M M Sahu, Dr. R G Patil, Prof. Rajeev Singh Chouhan and Prof. Neetu Singh, filed and published a Patent, Application No.202421050320, titled "Composite Broom Stick Comprising Midrib of Cocos Nucifera Leaf Reinforced Polypropylene Plastic", on 26/07/2024.

Research Paper Publication

Dr. Shashi Ranjan Mohan and Dr. Yogesh Dewang have successfully published a research paper titled "Tool Path Planning for Hole Flanging Process Using Single Point Incremental Forming" in the esteemed MATEC Web of Conferences Journal, 2024 edition.

Conferences/FDP's/Workshops/Seminars/STTP's attended

Josy George, Faculty of the Mechanical Engineering Department, participated in a five-day online Faculty Development Program on "The Future of Green Energy: Emerging Trends and Technologies", organized by NIT Aizawl, Mizoram, from August 5-9, 2024. The program focused on the latest advancements in green energy technologies.

Mr. Mukesh Kumar Ahirwar, Faculty of the Mechanical Engineering Department, participated in a 5-day online Short-Term Training Program (STTP) on "Digital Twin", organized by NITRR Bhopal, from September 9-13, 2024. The program enhanced his knowledge of digital twin technology and its engineering applications.

STUDENT ACHIEVEMENTS

Akash Sunmoriya, a 3rd-year Mechanical Engineering student, received the LNCT Sports Achievers Award for his outstanding performance in the National-Level Karate competition at the National Sports Meet, bringing pride to the department and the institution.



Team Terrain Warrior of the SAE Club, Department of Mechanical Engineering, LNCT Bhopal, secured 2nd Position in the Drag Race Category at the Mega ATV Championship - Season 9 (2024) held in Goa, competing among 150 teams.



INTERNSHIP OFFERS

Dewansh Vishwakarma, a 7th-semester Mechanical Engineering student at LNCT Bhopal, was selected for a 2024 internship at Bhabha Atomic Research Centre (BARC), Mumbai.



Abhishek Kumar, a 7th-semester Mechanical Engineering student at LNCT Bhopal, successfully completed a 2024 internship at ISRO's U R Rao Satellite Centre, Bengaluru, in the Structure Group.



NEWS AROUND THE WORLD

First-Ever Image of Black Hole Revealed



CSIR Launched First Indigenous High Temperature Fuel Cell System



Machine learning predicts behavior of biological circuits



SPORTS NEWS

Mr. Abhishek Mohan of the Mechanical Department has participated in various Football tournaments. He recently represented Bhopal at State-level Football tournament held at IES Group of Colleges, Bhopal. The team dominated the whole tournament and managed to win the tournament convincingly. Due to his consistent and brilliant performance, he was selected for RGPV University's National team.

Mr. Satwik Pandey of Mechanical Department has participated in various Cricket tournaments and has achieved laurels for the college. He participated in the following tournaments:-
• IIM-Indore- Runners Up
• All Saints Cup- Winners
• Aisect Cricket league- 2nd Runners Up

ELECTRIC VEHICLE CLUB (AAROH RACING TEAM)

AAROH Racing Team is the official student motorsports team of the Mechanical Engineering Department, dedicated to designing and manufacturing electric Go-Karts and ATVs. The team participates in state and national-level competitions, providing hands-on experience in automobile design, manufacturing, innovation, and teamwork.

