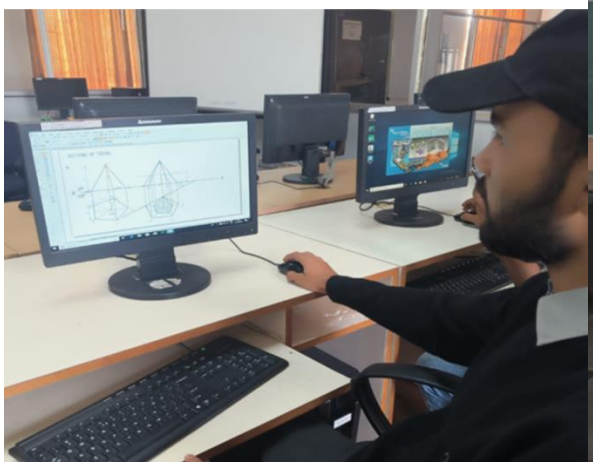
ABOUT DEPARTMENT

The Department of Mechanical Engineering at Jnanavikas Institute of Technology, Bidadi was established in 2012 with an intake of 60 students. Since its inception, the department has been committed to academic excellence, driven by a team of highly qualified, dedicated, and competent faculty members engaged in teaching, research, and overall student development. Students here gain the unique opportunity to explore the exciting field of mechanical engineering under expert guidance.

The department is equipped with state-of-the-art laboratories meeting university norms, providing students with essential hands-on training. These laboratories also serve as research hubs where faculty and students collaborate to produce quality publications and innovative solutions.

To enhance software proficiency, the department's computer centre houses licensed software packages such as Solid Edge V19, ANSYS V18.0, Edge CAM v18 R2, along with open-source tools like Fluid SIM and Fluid Power. Faculty members actively apply for funded projects from prestigious national agencies including KSCST, DST, AR&DB, and VGST, contributing to a vibrant research environment.

The department has signed Memorandums of Understanding (MoUs) with leading industries, training establishments, and research institutes to foster technology transfer, internships, and project collaborations. Some of our key partners include Toyota Technical Training Institute, Toyota Kirloskar Motor, Bosch India.



MOU WITH TOYOTA KIRLOSKAR MOTOR PVT LTD.

- Japanese language classes for toyota employees in JVIT campus.
- We are conducting Computer Based Tests (CBT) for the students undergoing training under Pradhan Mantri Kaushal Vikas Yojana (PMKVY) in JVIT Campus.
- Conducting trade practice exams for the students who are undergoing training in the following trades:
  - Mechatronics
  - Assembly
  - Welding
  - Painting
- Under the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) in Toyota Technical Training Institute (T.T.T.I.), TKM.
- Technical assistance for our mechanical students in the form of Project works, Internships and guest lectures.

VISION

- Department of mechanical engineering is committed to prepare graduates, post graduates and research scholars by providing them the best outcome based teaching-learning experience and scholarship enriched with professional ethics.

MISSION

- Prepare globally acceptable graduates, post graduates and research scholars for their lifelong learning in Mechanical Engineering, Maintenance Engineering and Engineering Management.
- Develop a futuristic perspective in Research towards Science, Mechanical Engineering, Maintenance Engineering and Engineering Management.
- Establish collaborations with Industrial and Research organizations to form strategic and meaningful partnerships.

LAB FACILITIES

Name of the Laboratory	Name of the Important Equipment
BASIC MATERIALS TESTING LABORATORY	• Universal Testing Machine • Tension Test • Compression Test • Bending Test • Shear Test • Impact Testing Machine • Charpy Test • Izod Test • Torsion Testing Machine • Hardness Testing Machines • Brinell Hardness Testing Machine • Rockwell Hardness Testing Machine • Vickers Hardness Testing Machine
DESIGN LABORATORY	• Journal Bearing Test Rig • Static and Dynamic Balancing of Rotating masses • Hartnell Governor • Critical speed of rotating shaft • Spring- Mass Damper system • Torsional Viscous Damper • Photo Elastic Test setup • Gyroscopic Test setup (Demo)
ENERGY CONVERSION ENGINEERING LABORATORY	• Abel Pensky – Flash and Fire Apparatus • Pensky Martin – Flash and Fire Apparatus • Cloud and Pour Point Apparatus • Saybolt Viscometer • Redwood Viscometer • Digital Type Electronic Weighing Machine • Steam Engine Model • Model of 4-S engine • Model of 2-S engine • Model of Lancashire Boiler • Model of Babcock Wilcox Boiler • Boy's Gas Calorimeter • Bomb Calorimeter
HEAT AND MASS TRANSFER LABORATORY	• Thermal Conductivity of a Metal Rod Test Setup • Thermal Conductivity of a Liquid Test Setup • Thermal Conductivity of Composite Wall Test Setup

	• Thermal Conductivity of Insulating Material Test Setup • Effectiveness of Metallic Fin Test Setup • Natural Convection of Heat Over Vertical Tube Test Setup • Forced Convection of Heat Through A Pipe Test Setup • Critical Heat Flux Test Setup • Emissivity of Surface Test Set Up • Stefan Boltzman Constant Test Setup • Parallel Flow and Counter Flow Heat Exchanger Test Set Up • Vapour Compression Refrigeration Test Rig • Air – Conditioning Test Rig
MACHINE SHOP LABORATORY	• Engine Lathes • Drilling Machines • Milling Machines • Shaping Machines • Planning Machine • Grinding Machines
METROLOGY & MEASUREMENTS LABORATORY	• Toolmaker Microscope • Autocollimator • Lathe Tool Dynamometer • Tally surf/mechanical Comparator • Profile Projector