

# SHIVAJI UNIVERSITY, KOLHAPUR DEPARTMENT OF TECHNOLOGY





# About the Program - B. Tech. (Mechanical Engineering)

The Department offers B. Tech. degree in Mechanical Engineering with 60 intake and M. Tech. degree in Energy Technology Program with 18 intake. The Program covers major areas of Mechanical and Energy engineering like Thermal Engineering, Manufacturing Engineering, 3D printing, Heat Transfer, Internal Combustion Engines, Refrigeration and Air Conditioning, Automobile Engineering, Solar Engineering along with latest technologies like Internet of Things, Artificial Intelligence, and Machine Learning. Students are exposed to programming languages such as C, C++ to make them comfortable in IT sectors. Curriculum audit courses such as Performing Arts, Foreign Language (Russian), Soft skills, Professional Ethics and Financial Management which promote overall development of students. The department has experienced and expert faculties in different areas like Machine Design, Heat Transfer, Manufacturing Engineering and CAD/CAM. Faculty members of the department are engaged in the research work financially supported by TEQIP-II and TEQIP-III grant, University Grant Commission (UGC) and Department of Science & Technology (DST) in their relevant areas.

# **Programs Offered**

B. Tech.	M. Tech.	Ph. D.
Mechanical Engineering	Energy Technology	
Intake - 60	Intake – 18	

# **Highlights of the Curriculum**

The Mechanical engineering program (B. Tech.) focuses on teaching, community services, and research. The program is so organized that meets the need to provide the graduating engineers with the appropriate background to meet the challenges and extraordinary demands of a fast-growing country. The mission of the program is to provide quality education, research, and community services that cover a broad spectrum of mechanical engineering areas.

- Practical learning is integrated into the curriculum through B. Tech. projects that provides an opportunity to students for summer internship with industry to solve engineering and scientific problems.
- Courses on communication, business and other social sciences, and technical subjects, are designed to groom students with well-rounded perspectives and the ability and flexibility to work in various sectors.
- Project and research-based learning classes by using audio-visual aids.
- Strong Mentor-Mentee Process. There is a one-to-one interaction between students and teachers.
- More emphasis on practical learning, so fully equipped and working labs are provided.

# **Employment Opportunities**

On the successful completion of the program, job opportunities are available for B. Tech. Mechanical Engineering graduates in Government as well as the Private sector. Graduates may look at the following profiles.

- Manufacturing Engineer
- Automation engineer.
- Research and development engineer.
- Process design
- Product design

- Maintenance Engineer
- Production Engineer
- Mechatronics
- Quality control manager
- Robotics and automation

- Powertrain engineer.
- Instrumentation engineer.
- Engineering consultancies
- Armed forces
- Biomedical equipment

- Aerospace engineer
- Energy utilities
- Government/PSU/IES
- Marine Industries
- CAD C.A.M. C.A.E.

## **Thrust Areas**

<b>Employment Related</b>	R & D Related
Mechatronics	Heat Transfer
<ul> <li>Robotics and automation</li> </ul>	Energy Engineering
<ul> <li>CAD / CAM and 3 D Printing</li> </ul>	<ul> <li>Manufacturing Engineering</li> </ul>
<ul> <li>Advanced Manufacturing Processes</li> </ul>	<ul> <li>Composite Materials</li> </ul>
Tool Design	<ul> <li>Design Engineering</li> </ul>
Quality Assurance	
• R & D Engineer	

# Laboratory Facilities

- The program has established sophisticated computerized laboratories not only to suit curriculum requirements but also to serve research needs such as CAD/CAM, Advanced I.C. Engines, Heat Transfer, Mechanics of Solids, Fluid Mechanics and Hydraulic Machinery, Workshop, Kinematics and Dynamics, Machine Tools.
- Solid Modeling Software: AutoCAD, Solid Works.
- Simulation and Analysis: ANSYS
- Exclusive and High performance computing lab for R&D Activities.

Sr. No	Name of Laboratory	Investments	
1	Internal Combustion Engines	0.25 Crore	
2	Refrigeration And Air Conditioning	0.06 Crore	
3	Machine Shop	0.45 Crore	
4	Fluid &Turbo Machines, Fluid Mechanics	0.05 Crore	
5	3D Printer	0.06 Crore	
6	Measurement And Instrumentation	0.05 Crore	
	Total Investment	0.92 Crore	

# VARIABLE COPMRESION RATIO WELL EQUIPPED WORKSHOP





CNC - PMF-200, Pacemaker Solutions

# 3-D PRINTER

# **Program Strengths**

- University Department with Academic Flexibility.
- Supported by Technical Education Quality Improvement Programme T.E.Q.I.P. phase –II funded (2013-17) and T.E.Q.I.P. phase –III funded (2017-21)
- Prof. (Dr.) A. B. Kolekar.: Shivaji University approved Ph.D. guide.
- Seven faculty members are pursuing Ph.D. from different universities.
- Well Established Laboratories with modern equipment.
- Highly qualified, experienced, and dedicated faculty members.
- More than 1 Crore Research projects funded by U.G.C., A.I.C.T.E., Shivaji University and DPDC Kolhapur.
- More than 135 research publications in reputed journals and conferences by students and faculty.
- Student-centric activities
- MoUs with -
  - Indo German Tool Room (IGTR), Aurangabad.
  - Hupari Chandi Hastkala Udyog Vikas Foundation.
  - Var Foundry, A-11/2 MIDC, Shiroli, Kolhapur-416122.
  - Sham Fabricators, Shivaji Udyam Nagar, Kolhapur.
  - Tejas International Pvt. Ltd. MIDC, Shiroli, Kolhapur.
  - Veloce Techinsights Pvt. Ltd., 502, Emerald Corner Kolhapur- 416008.
  - Sunmill Technologies, A/P-Pulachi Shiroli, Kolhapur.







BOSCH REXROTH, Bangalore : One Week residential training on Hydraulics and



Final Year Students Attended E-summit At IIT-Bombay

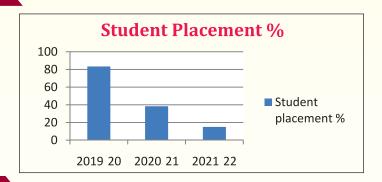


Industrial Visit To Goa State Co-operative Milk Dairy

# Students Placements (2021-2022)



## **Placement Statistics**



# **Our recruiters**

- · Amazon India Ltd. Pune
- Tube Craft Industries Ltd. Kolhapur
- Riddhi Casting Pvt. Ltd. Kolhapur
- Star India Ltd. Pune
- Minda Corporation Ltd. Pune
- Bharat Forge Ltd. Pune
- Z.F. Steering India Ltd Pune
- Goyal Iron and Steel Ltd. Nagpur
- BOSCH CHASIS PVT. L.T.D. Pune.
- Achieve Hydraulics & Pneumatics Pvt. Ltd. Pune
- Renata Precision Components Pvt. Ltd. Bhosari Pune •
- DeshpandeAutotech Pvt. Ltd. Kolhapur
- Shri. Bhavani Industries Pune
- Songchuan Automotive Parts India PVT. L.T.D. Pune.
- R K Industry, Belgavi.

- Laxmi Agni Components and Forging Ltd. A.bad.
- Akar Tools Ltd. Aurangabad
- Whirlpool India Ltd. Pune
- A.D.V.I.C. Hightech Pvt. Ltd. Pune
- Mahabal Metals Ltd. Miraj
- Cristal Industrial Syndicate Pvt. Ltd. Mumbai
- Pari Robotics and Automation India Ltd.
- Bosch India Ltd. Pune
- Sawant Industries. M.I.D.C. GokulShirgaon
- Aakashganga Construction machines Pvt. Ltd. Satara
- Shri. Krishna Tech. Mech. Pvt. Ltd. Pune
- Bharat Forge Ltd. Baramati
- Dhoot Transmission PVT. Ltd. Pune
- VeloceTechinsights, Kolhapur.
- Z.F. Steering Gear India Limited Pune.

# **Contact Details**

Prof. (Dr.) A. B. Kolekar. Coordinator (B. Tech.) Mechanical Engineering Mob No. 9423041945		<b>Mr. P. A. Prabhu.</b> (Assistant Professor) Coordinator M. Tech. (Energy Technology) Mob No. 7588272008		
Coordinator T & 1	<b>Mr. S. B. Kale.</b> (Assistant Professor)  Coordinator T & P  Mob No. 9860234349		<b>Dr. M. M. Wagh.</b> (Assistant Professor) M. Tech. (Energy Technology) Mob No. 9423981785	
<b>Mr. N. P. Raut</b>	<b>Mr. H. C. Pandit</b>		<b>Mr. G. R. Shinde</b>	
(Assistant Professor)	(Assistant Professor)		(Assistant Professor)	
Mob No. 9421612589	Mob No. 9860839117		Mob No. 9834733255	
Mr. M. N. Vhatkar	<b>Mr. S. B. Porlekar</b>		<b>Mr. M. N. Jadhav</b>	
(Assistant Professor)	(Assistant Professor)		(Assistant Professor)	
Mob No. 9766437835	Mob No. 8856003174		Mob No. 9404411717	