



SRINIVAS UNIVERSITY

COLLEGE OF ENGINEERING & TECHNOLOGY

Main Campus: Srinivas Nagar, Mukka, Surathkal, Mangalore, - 574 146, INDIA
(Private University Established by Karnataka Govt. ACT No.42 of 2013. Recognized by UGC, New Delhi & Member of Association of Indian Universities, New Delhi); Administrative Office: GHS Road, Mangaluru-575001
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DEPARTMENT OF MECHANICAL ENGINEERING

About Course:

B.Tech. in Mechanical Engineering programme nurtures and develops students as young global Engineers. The programme lays emphasis on preparing students to become competent global business leaders and entrepreneurs by building their capabilities, knowledge, skills and attitude. B.Tech. in Mechanical engineering is a Four-year graduate programme. The goal of B.Tech. programme is to enable students to become technically competent entrepreneurs in the vast technological sector and to prepare students to become responsible and contributing members of the community.

Duration: 4 Years / 8 Semesters.

Eligibility: Pass in 10 + 2 / 12th Standard with 45% marks (40% in case of candidate belonging to SC/ST category).

Lateral Entry: The candidates, who have successfully completed 3 year diploma in Engineering, are eligible to apply for lateral entry into 2nd year of B.Tech. Courses. Candidates will be admitted to second year of the programme only after appearing the Srinivas University selection process for engineering programme.

Courses Offered:

B.Tech. Mechanical Engineering

B.Tech. Robotics, Artificial Intelligence & Machine Learning

M.Tech. Robotics & Automation

M.Tech. Computer Integrated Manufacturing

M.Tech. Thermal Power Engineering

Ph.D.

PDF Engineering & Technology

D.Sc. Engineering & Technology

Vision and Mission:

Vision:

To become a leading learning centre in Mechanical Engineering by providing students the necessary knowledge and professional skills for innovations, research and development and capability for serving industry and research establishments with a strong concern for societal needs and environment.

Mission:

- Provide students the knowledge that builds within them, a strong foundation in the basic principles of mechanical engineering, problem solving abilities, analytical skills, soft skills and communication skills for their overall development.
- Develop talented and committed human resource with an aptitude for creativity, team-spirit, entrepreneurship abilities, for lifelong growth in their professional careers.
- Impart quality education to students to meet the needs of profession and society, and to promote high standards of professional ethics, transparency and accountability.

Special Features of the Programme:

- Industry oriented syllabus with special focus on experimental learning.
- Opportunity to learn other works by TECHNOTRONICS LAB managed by Mechanical Department.
- Placement support and research oriented projects for every student.

- Focus on smart skill development & training on competitive exams.
- Have a new system of syllabus configuration where student has to study 5 theories, 1 Practical + Theory, and 2 labs in each semester.
- Earn while Learn Opportunity in Software/Hardware/Production/Design/Quality maintenance by company delegates.

Program Educational Objectives:

- To prepare students to meet the industrial requirements at global level competitiveness.
- To develop the students analytical skills to enable them to understand real world problems and formulate solutions.
- To impart basic education to students in the areas of Design Engineering, Manufacturing Engineering and Thermal Sciences that will enable them to take up higher studies in these areas.
- To allow students to work in teams through group project works and thus help them achieve interpersonal and communication skills.
- To inculcate the habit of lifelong learning, adherence to ethics in profession, concern for environmental and regard for good professional practices.

Career Opportunities:

The Mechanical Engineers find vast job opportunities in almost all the companies in all the fields starting from Automobile, Aerospace, Chemical, FMCG, Manufacturing, Production, and Service based Industries, Software Companies, Educational sector, Government departments like Ministry of Defence, Public Work Departments, Ministry of Transportation etc. Every industry needs the support of Mechanical Engineers for its working and success.

Unique Features:

The Department has been recognized as Research and Development Centre by Srinivas University for carrying out Research activities leading to Ph.D. Degrees. The department offers UG program namely, B.Tech. (Mechanical Engineering), and B.Tech. (Robotics, Artificial Intelligence & Machine Learning) in addition to the PG programmes M.Tech. Robotics & Automation, M.Tech. Computer Integrated Manufacturing, and M.Tech. Thermal Power Engineering. At present, the department has Ph.D. scholars working on Nanomaterials, Composites, Alternative fuels etc.

Being a private university, we have a feasibility to form our own syllabus. Thus we have approached several industrialists and have framed the syllabus according to the industry requirements and also have introduced 5+1+2 system in each semester where students have made to study 5 theories, one hybrid subject which is a mixture of theoretical and practical application and two labs.

The students of the department will undergo internship in various reputed organizations all over the country. Students participate in various national and international level competitions regularly. The department possesses the state of the art research facilities to support our academic programs and research. Several projects of the students have been funded by the Government of Karnataka. The students of our department work in interdisciplinary projects and have won laurels at National level.

The department has a distinguished record in both teaching and research. The faculty members have excellent academic credentials and are highly regarded. They have publications at national and international levels. Several faculty members serve on the editorial boards of national and international journals, review technical articles for journals on a regular basis and organize conferences and workshops.

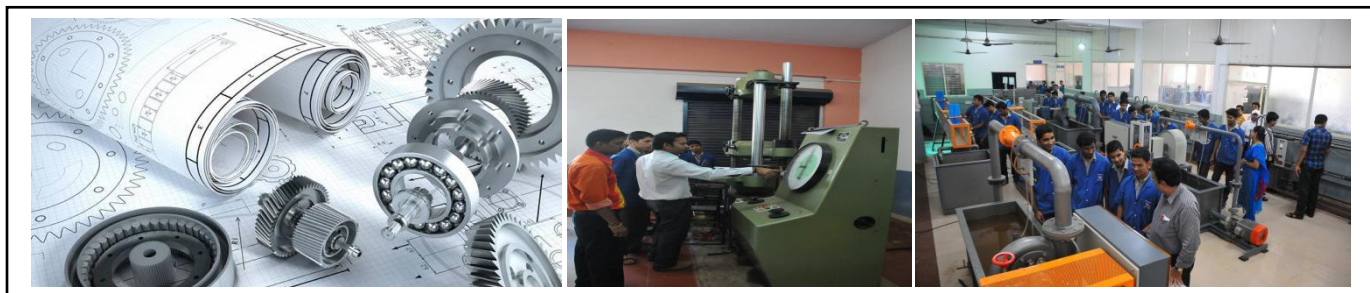
Course Structure:

	SEMESTER 1		SEMESTER 2
Sl. No.	Subject	Sl. No	Subject
1	Engineering Physics of Materials (S)	1	Engineering Chemistry of Materials (S)
2	Computer Software Concept & Programming (T)	2	Information Communication & Computation Technology (T)
3	Elements of Electrical & Electronics (E)	3	Elements of Mechanical & Civil Engineering (E)
4	Quantitative Techniques in Engineering I/II (M)	4	Quantitative Techniques in Engineering I/II (M)

5	ESEP	5	ESEP
6	Principles of Environmental Studies (ESEP)	6	Constitution & Professional Ethics (ESEP)
7	Lab on Engineering Physics of Materials (EL)	7	Lab on Engineering Chemistry of Materials (EL)
8	Electrical & Electronics Lab	8	Computer Aided Engineering Drawing Lab (EL)
9	Lab on Computer Programming (EL)	9	Lab on Spreadsheet Programming (EL)
10	Kannada/ Co-curricular Activities/Sports (ESEP)	10	Kannada/ Co-curricular Activities/Sports (ESEP)
SEMESTER 3		SEMESTER 4	
Sl. No.	Subject	Sl. No.	Subject
1	Numerical Techniques & Integral Transform	1	Probability Theory & Statistical Method
2	Thermodynamics - Basics	2	Thermodynamics -Applications
3	Engineering Mechanics	3	Fluid Mechanics
4	Manufacturing Process	4	Advanced Manufacturing Process
5	Material Testing Lab	5	Measurements and Metrology Lab
6	Foundry and Sand Testing Lab	6	Machine Shop
7	Computer Aided Machine Drawing	7	Simulation of Kinematic Mechanism
8	Mechanical Behaviour of Materials	8	Mechatronics
9	ESEP-Xlanz	9	ESEP-Xlanz
10	Co-curricular Activities/ Sports	10	Co-curricular Activities/ Sports
SEMESTER 5		SEMESTER 6	
Sl. No.	Subject	Sl. No.	Subject
1	Design of Machine Elements I	1	Design of Machine Elements II
2	Turbomachines	2	Heat & Mass Transfer
3	Core Elective-1	3	Core Elective-2
4	Optional / Soft Elective	4	Open Elective -1
5	Fluid Machinery Lab	5	Heat Transfer Lab
6	Energy Conversions Lab	6	CIM & Automation Lab
7	Finite Element Analysis- I	7	Advanced Finite Element Analysis
8	ESEP – IPR in ME	8	ESEP – Patent Analysis
9	ESEP-Xlanz	9	ESEP-Xlanz
10	Co-curricular Activities/ Sports (ESEP)	10	Co-curricular Activities/ Sports (ESEP)
Sl. No	Core Elective- 1	Sl.No	Core Elective- 2
1	Dynamics of Machines	1	Robotics
2	Mechanics of Composite Materials	2	Automation Engineering
3	Kinematics of Machines	3	Computer Integrated Manufacturing
4	Continuum Mechanics	4	Measurement And Metrology
5	Experimental Mechanics	5	Automobile Engineering
Sl. No	Optional/Soft Elective	Sl.No	Open Elective - 1
1	Management & Economics	1	Total Quality Management
2	Energy Engineering	2	Micro Electromechanical Systems
3	Product Life Cycle Management	3	Cryptography and Network Security
4	Theory of Plasticity	4	Python Application Programming
5	Organizational Behaviour	5	Occupation Health and safety in construction industry
		6	Air Pollution Control
		7	Web 2.0
		8	Designing Embedded Systems

SEMESTER 7		SEMESTER 8	
Sl No	Subject	Sl. No.	Subject
1	Control Engineering	1	Seminar
2	Core Elective –3	2	Internship
3	Core Elective – 4	3	Project (With Patent Application)
4	Open Elective - 2		
5	MAT Lab		
6	Design & Experimental Stress Lab		
7	Project Phase I		
8	ESEP – Mini Project		
9	ESEP-Xlanz		
10	Co-curricular Activities/ Sports	4	ESEP–ABC Skill Trainer (optional)

Sl.No	Core Elective- 3	Sl.No	Core Elective- 4
1	Material Science and Metallurgy	1	Hydraulics & Pneumatics
2	Mechanical Vibrations	2	Refrigeration and Air Conditioning
3	Modelling and Simulation	3	Non Traditional Machining
4	Computation Fluid Dynamics	4	Combustion Engineering
5	Computer Application in Design	5	Advanced Heat Transfer
6	Mechatronics System Design	6	Steam and Gas Turbine
7	Design for Manufacturing	7	Applied Power Plant Cycle
8	Advanced Machine Design	8	Theory of IC Engines
9	Dynamics and Mechanism design	9	Alternate Fuel for IC Engines
10	Experimental Stress Analysis	10	Engine Flow & Combustion
Open Elective -2			
1	Nano Technology	7	Research Methodology
2	Operational Research	8	Environment impact Assessment
3	Quality Control	9	Introduction to smart city
4	Artificial Intelligence	10	Social and Web Analytics
5	Virtual Reality	11	Information Security
6	Telecommunication Management	12	Software testing



College of Engineering & Technology

CREATING INNOVATORS



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Educating the Next Generation

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