



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 Robotics, Artificial Intelligence & Machine Learning 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 Robotics, Artificial Intelligence & Machine Learning 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.Sc. (Engg.) By Research

Ph.D.

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 TECHNOLOGICAL 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 M.Sc.(Engg.) By Research, and Ph.D. Degrees. The department offers UG program namely, B.Tech. (Mechanical Engineering), and B.Tech. (Robotics, Artificial Intelligence & Machine Learning). 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	HOLOSUIT ESEP Practical Electronics Design - I	5	HOLOSUIT ESEP Practical Electronics Design - II

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 (EL)	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 and Integral Transform	1	Probability Theory and Statistical Methods
2	Material Science	2	Fluid Mechanics
3	Computer Aided Machine Drawing	3	Kinematics of Mechanics & Simulations
4	HOLOSUIT Sub - Introduction to Robot Programming	4	HOLOSUIT Sub - Sensors & Actuators
5	HOLOSUIT Lab - Robot Programming Lab	5	HOLOSUIT Lab - Virtual Lab – Sensors & Actuators
6	Material Testing Lab	6	Machine Shop
7	Foundry Lab	7	Mechanical Measurement & Metrology Lab
8	HOLOSUIT ESEP Printed Circuit Board Designing	8	HOLOSUIT ESEP - 3D Design
9	HOLOSUIT ESEP - Mobile Application Development	9	HOLOSUIT ESEP - Circuit Design Competition
10	Co-curricular Activities/ Sports (ESEP)	10	Co-curricular Activities/ Sports (ESEP)
SEMESTER 5		SEMSTER 6	
Sl. No.	Subject	Sl. No.	Subject
1	Machine Learning	1	Finite Element Analysis
2	Control Engineering	2	Basics of Robotics
3	Core-Elective	3	Core-Elective
4	HOLOSUIT Sub Robotics Navigation	4	HOLOSUIT Sub Robotics Vision based Manipulation
5	Mechatronics Lab	5	Finite Element Analysis Lab
6	HOLOSUIT Lab - Robotics Navigation Lab	6	HOLOSUIT Lab - Holosuit based Robotic AI Manipulation Lab
7	Lab on Core Elective	7	Lab /Project on Core Elective
8	HOLOSUIT ESEP - 3D Printing	8	HOLOSUIT ESEP - Codeathon
9	HOLOSUIT ESEP - Workshop on building Practical Robots	9	HOLOSUIT ESEP - Robotics Challenge
10	Co-curricular Activities/ Sports (ESEP)	10	Co-curricular Activities/ Sports (ESEP)

Sl. No.	Core Elective- 5 th Semester	Sl. No.	Core Elective- 6 th Semester
1	Computer Integrated Manufacturing	1	Hydraulics and Pneumatics
2	Operating Systems	2	Python Application Programming
3	Elective Sub	3	Elective Sub

SEMESTER 7		SEMESTER 8	
Sl. No.	Subject	Sl. No.	Subject
1	Artificial Intelligence	1	Project based Internship with applied Patent in Robotics & AI with HoloSuit
2	Operations Research		
3	Core/Elective/Soft		
4	HOLOSUIT Sub - Autonomous Robotics		
5	HOLOSUIT Lab - Autonomous Robotics Lab		
6	Lab on Core Elective		
7	Project Phase-I - HoloSuit		
8	HOLOSUIT ESEP - Workshop on Assistive technology		
9	HOLOSUIT ESEP - Workshop on Product Development Life Cycle	2	Technical Seminar
10	Co-curricular Activities/ Sports (ESEP)	3	Patent Filing

Sl No	Core Elective- 7th Semester
1	Design of Machine Elements
2	Internet of Things
3	Elective Sub – HoloSuit



College of Engineering & Technology

CREATING INNOVATORS



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Educating the Next Generation