

Curriculum for Robotics Course

Introduction

Robotics is a subject that attempts to have machines replicate the actions of humans; most commonly in the manufacturing domain. At its basic level, that of manipulation, robotics is not a new science, rather it is an amalgam of engineering and science disciplines from "classical" fields such as: mathematics, kinematics, kinetics, electric circuit theory, electronics, communications, control, and computing. At its highest level of abstraction; the level of synthesizing human reasoning and behaviour, robotics deals with the intelligent connection of perception to action. This introductory course is valuable for students who wish to learn about robotics through a study of industrial robot systems analysis and design. This course is suited to students from engineering and science backgrounds that wish to broaden their knowledge through working on a subject that integrates multi-disciplinary technologies.

Course Description

- Using Robotic Prototyping kits components like., blocks, sensors, motors, and wheel gears, students build their own robots. While gaining hands-on experience in engineering and computer programming principles, students work independently and in teams, applying their problem-solving skills to program robotic systems that respond to feedback from the environment.
- This course encourages young engineers to apply their Imagination, creative to engineering real-time applications through practical environment.
- Future of Robotics to take research programs and industrial & innovation consultation career in Robotics / mechatronics field.
- Work in local and/or international organisations demonstrating an understanding of global engineering issues
- Apply robotics and mechatronics engineering technical expertise to industry-related fields
- Work autonomously and in teams within organisations or as a consultant
- Apply ethical standards, principles of design for sustainable development, and environmental consideration to conceptualizing and implementing industry-related projects

Lab Facility:

- SiMS – krypton Kits.
- Robo-C / Python and JAVA software compilers
- Iconic representation programming software
- ARM 7 / 9 micro controller with touch pad panel


PRINCIPAL
SIET, TUMKUR.



SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY

Sira Road, Tumkur - 572 106, Karnataka, India.

Phone: 0816 - 2212629 | Principal: 0816 - 2212627, 9686114899 | Telefax: 0816 - 2212628

SHRIDEVI
EDUCATION

Email: info@shrideviengineering.org, principal@shrideviengineering.org | Website: www.shrideviengineering.org

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ESTD: 2002




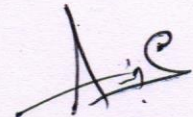
Assessment: Students should obtain

Min 80% of attendance

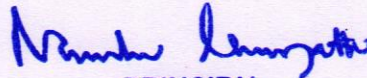
Min 80% Participation in practice session

Quiz


Coordinator


HOD

HOD
Dept of E&C
SIET, Tumkur-6


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