MCE 501 Introduction to Robotics (2 Units)

Department of Mechanical Engineering

Covenant University
1. MCE501
1.1. MCE 501 Introduction to Robotics (2 Units)

This course provides an overview of robot mechanisms, dynamics, and intelligent controls. Topics include planar and spatial kinematics, and motion planning; mechanism design for manipulators and mobile robots, multi-rigid-body dynamics, 3D graphic simulation; control design, actuators, and sensors; wireless networking, task modeling, human-machine interface, and embedded software. Weekly laboratories provide experience with servo drives, real-time control, and embedded software. Students will design and fabricate working robotic systems in a group-based term project.