Koneru Lakshmaiah Education Foundation
(Category -1, Deemed to be University estd. u/s. 3 of the UGC Act, 1956)
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Department of Mechanical Engineering

M.Tech – Robotics and Mechatronics

Program Educational Objectives (PEOs):

1. Critical Thinking - Analyze complex Robotics and Mechatronics systems critically; apply independent judgment for synthesizing Robotics intellectual and creative advances for conducting research in a wider theoretical, practical and policy context.

2. Understanding the Human Activity Assistive Technology (HAAT) model. Understanding of the Assistive Robotic Manipulators (ARM) Justify the use of robots in rehabilitation. Discuss the current international safety standards for robotic assistive technologies

3. Ability to investigate develops and carries out designing and implementation of Human Machine Interface, Brain Machine Interface and Robotics.

4. Robotics Programming skill set to modern simulation tools - Create, select, learn and apply appropriate techniques, resources, including prediction and modeling.

5. Problem Solving - Think laterally and originally, conceptualize and solve robotics and engineering problems, evaluate a wide range of potential solutions for those problems and arrive at feasible, optimal solutions after considering public health and safety, cultural, societal and environmental factors in the core areas of expertise.

6. Capacity to design and develop a industry based robotic and Mechantronics systems, ability to enriching Robotics System Engineering and Artificial Intelligence based operational research.

Program Outcomes (POs):

1. Students should be able to develop and implement the solution of real life problems using Robotics and Mechatronics technologies.

2. In-depth knowledge of one or more robotics platforms and their applications, including industrial robots, service robots, and mobile robots.

3. Advanced knowledge of a broad range of Sensors and actuators commonly used in the development and Robotics and Mechatronic systems.

4. Able to learn how to design, develop, and implement robotics and mechatronics systems, including hardware, software, and control algorithms.

5. Knowledge of fundamental design issues relevant to Robotics, and an understanding of how to formulate and analyze design solutions in various engineering contexts.

6. Working knowledge on different types of sensors and actuators used in robotics and mechatronics systems, as well as their integration and calibration.

7. Knowledge of basic research and development principles and practices relevant to mainstream engineering industry.

Head of the Department

Head, Department of Mechanical Engine
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