SMRA2402	ROBOT SIMULATION LAB	L	T	P	Credits	Total Marks
		0	0	2	1	50

COURSE OBJECTIVES

- To introduce different types of robotics and demonstrate them to identify different parts and components.
- To write programming for various operations.
- To write programming for Colour Identification.
- To write programming for Shape Identification.
- To write programming for Multi Process.
- To write programming for industrial process like Packaging and Assembly.

LIST OF EXPERIMENTS

1. Determination of maximum and minimum position of links.
2. Verification of transformation (Position and orientation) with respect to gripper and world coordinate system
3. Estimation of accuracy, repeatability and resolution.
4. Robot programming and simulation for pick and place
5. Robot programming and simulation for Colour identification
6. Robot programming and simulation for Shape identification
7. Robot programming and simulation for machining (cutting, welding)
8. Robot programming and simulation for writing practice
9. Robot programming and simulation for any industrial process (Packaging, Assembly)
10. Robot programming and simulation for multi process.

COURSE OUTCOMES

On completion of the course, student will be able to

CO1: To model the different types of robots and calculate work volume for different robots by any robotic simulation software.

CO2: To program and simulate for Pick and Place Operations.

CO3: To program and simulate for Colour identification.

CO4: To program and simulate for Shape Identification.

CO5: To program and simulate for Multi Process.

CO6: To program and simulate for industrial process like Packaging and Assembly.