Robotics with Mitsubishi's RV-4FRL Arm

Course Overview

Arm Robotics Mastery with RV-4FRL. Master arm manipulation and unleash the full potential of the RV-4FRL robot. Explore principles and applications of arm robotics. Hands-on experience in simulations, tackling real-world challenges. Expert instructors provide personalized guidance for task excellence, automation design, and optimization. Revolutionize industries like manufacturing, logistics, healthcare, and research.

Prerequisites

- Participants should have knowledge of coordinates, number systems (Binary, Hex, BCD), and basics of Electronics & Pneumatic.
- Basic Pneumatics application

Objective

Comprehensive understanding of arm robotics principles and practical experience with RV-4FRL robots. Learn automation process design and optimization using RV-4FRL's advanced capabilities. Apply arm robotics in manufacturing, logistics, healthcare, and research. Enhance capabilities and seize promising career opportunities in the growing field of arm robotics.

Target Group

- Engineering students specializing in automation and mechatronics.
- Engineers and technicians involved in system integration projects, aiming to incorporate arm robotics solutions
- Individuals involved in service, commissioning, engineering, and maintenance roles.

Content

- Introduction to Mitsubishi Robot Series & Hardware, Settings of basic parameter & origin, Device Configuration, Control Power, Wiring of User Control (CNUSR), and External I/O, Operation Panel & T/B.

- Robot Operation: Jog Operation, Hand Operation, Joints, Cartesian, Tool Jog Operation, Robot Hand Opening & Closing.

- Backup Procedure: Program, Parameter, and Origin Backup Procedure, Maintenance Forecast Check & Backup Procedure.

- RT Toolbox3 function: User-defined area, Free Plant limit, Interrupt function, Home Position, User error creation.

- Robot Programming Using Teach Pendant: Basic Operation of T/B, Programming & Position teaching, Program Editing, Confirming Registered Position Data Operation, Automatic Operation.

- Robot Programming: Constants, Variables, Common Variables, Program Instructions, Command Functions.

- Robot Application Programming: Pick & Place, Pallet Operation

Duration

- 15 Hours