NITTTR BHOPAL

CoE-14/2024-2025
Welding using Industrial Robot
03-03-2025 to 07-03-2025
NITTTR Bhopal

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Rationale

Welding is one of the important manufacturing processes which is used extensively in industries for manufacturing various mechanical components, auto components and other works like boilers, heat exchangers, economizers, trusses etc. And in today's competitive world, the industry requires competent technical manpower to get the job done efficiently. The heavy, medium and automobile production industries have greatly benefited due to technological advancement. In this regard, the use of robots has become an essential part of the manufacturing system to speed up production and gain greater control over operations.

In view of the above, it has been decided to organize a one week training program on Welding using Robots for teachers of technical institutions. This training program has been designed to explore the many aspects of welding, welding metallurgy, robotic systems, types of robots and their application in manufacturing industries. This training program also covers the latest trends in line with IR4.0 as well as key core technologies in welding technology

Programme Outcomes

Understand the Manufacturing Sector and its subsectors.
Identify various challenges in manufacturing industry,
Describe the joining processes used in manufacturing industry,
Describe the welding processes used in heavy & automobile industries,
Comprehend the industrial robots and their applications
Comprehend the Layout and robot placement
Use Robot studio software in a given situation
Develop Robotic Programming in a given situation

Programme Content

Manufacturing Sector and its subsectors, Challenges in manufacturing sector, joining processes welding processes used in heavy & automobile industries, Introduction to Robot studio software, Industrial Robotics and its applications , Programming of Welding Robot using Flex Pendant, latest developments in welding technology.

Target Group

Faculty of Mechanical Engineering and allied disciplines

Coordinator & Co-Faculty

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