Medi-Caps University, Indore
Mechanical Engineering Department

Robot Training
Robot Programming and Hands–on Practice (80 Hrs.)

The aim of this training is to acquaint the participants with the basic concept of programming of the CNC Machine. This training provides an opportunity to learn Operation of Industrial CNC Machining including safety instruction.

The aim of this training is to acquaint the participants with the basic concept of programming of the KUKA Robot System. This training provide opportunity to learn Operation of Industrial Robot including safety instruction.

Course Learning Objectives (CLO):

The students are able to get knowledge and hands-on experience about

1. The safety and precautions.
2. The operating of the robot.
3. The different coordinate system of the robot.
4. The different motions of the robot.
5. The programming of the robot

Course Outcomes (CO):

The students are able to

1. Understand the importance of robot in production.
2. Understand the functionality of robot.
3. Apply the knowledge of safety measure taken while working with robot.
4. Create a path program by on-line programming method

Course Outline

S.no	Date	Day	Time	Topic	Taken By
1	13-06-2022	Monday	8.30 - 12.30	Introduction – Robot and its application, Overview of the industrial robot, Overview of the KUKA Robot System (KSS), Safety Instruction	Prof. Pradeep Kumar Mehta / Prof. Neeraj Yadav
2	14-06-2022	Tuesday	8.30 - 12.30	Mastering of Robot, Coordinate systems	Prof. Pradeep Kumar Mehta / Prof. Neeraj Yadav
3	15-06-2022	Wednesday	8.30 - 12.30	Coordinate systems, Method of Tool calibration	Prof. Pradeep Kumar Mehta / Prof. Neeraj Yadav

4	16-06-2022	Thursday	8.30 - 12.30	Method of Tool calibration, Tool payload and Base calibration	Prof. Pradeep Kumar Mehta / Prof. Neeraj Yadav
5	17-06-2022	Friday	8.30 - 12.30	Method of Tool calibration, Tool payload and Base calibration	Prof. Pradeep Kumar Mehta / Prof. Neeraj Yadav
6	20-06-2022	Monday	8.30 - 12.30	Use of Teach pendant/ Smart-pad for creating and archiving of programme, Motion programming	Prof. Pradeep Kumar Mehta / Prof. Neeraj Yadav
7	21-06-2022	Tuesday	8.30 - 12.30	Motion programming	Prof. Pradeep Kumar Mehta / Prof. Neeraj Yadav
8	22-06-2022	Wednesday	8.30 - 12.30	Motion programming	Prof. Pradeep Kumar Mehta / Prof. Neeraj Yadav
9	23-06-2022	Thursday	8.30 - 12.30	Motion programming	Prof. Pradeep Kumar Mehta / Prof. Neeraj Yadav
10	24-06-2022	Friday	8.30 - 12.30	Motion programming, Insert, delete and manipulation points	Prof. Pradeep Kumar Mehta / Prof. Neeraj Yadav
11	27-06-2022	Monday	8.30 - 12.30	Insert, delete and manipulation points,	Prof. Pradeep Kumar Mehta / Prof. Neeraj Yadav
12	28-06-2022	Tuesday	8.30 - 12.30	Use of technology package (Gripper Tech/ Arc Tech)	Prof. Pradeep Kumar Mehta / Prof. Neeraj Yadav
13	29-06-2022	Wednesday	8.30 - 12.30	Use of technology package (Gripper Tech/ Arc Tech)	Prof. Pradeep Kumar Mehta / Prof. Neeraj Yadav

14	30-06-2022	Thursday	8.30 - 12.30	Use of technology package (Gripper Tech/ Arc Tech)	Prof. Pradeep Kumar Mehta / Prof. Neeraj Yadav
15	01-07-2022	Friday	8.30 - 12.30	Use of technology package (Gripper Tech/ Arc Tech)	Prof. Pradeep Kumar Mehta / Prof. Neeraj Yadav
16	04-07-2022	Monday	8.30 - 12.30	Use of technology package (Gripper Tech/ Arc Tech), Introduction to expert level and programming with logic	Prof. Pradeep Kumar Mehta / Prof. Neeraj Yadav
17	05-07-2022	Tuesday	8.30 - 12.30	Introduction to expert level and programming with logic	Prof. Pradeep Kumar Mehta / Prof. Neeraj Yadav
18	06-07-2022	Wednesday	8.30 - 12.30	Introduction to expert level and programming with logic	Prof. Pradeep Kumar Mehta / Prof. Neeraj Yadav
19	07-07-2022	Thursday	8.30 - 12.30	Introduction to expert level and programming with logic	Prof. Pradeep Kumar Mehta / Prof. Neeraj Yadav
20	08-07-2022	Friday	8.30 - 12.30	Q & A session, Training Test and Feedback session	Prof. Pradeep Kumar Mehta / Prof. Neeraj Yadav

Course Name: Robot Programming and Hands–on Practice Course
Duration: 80 Hours
Days: Monday to Friday
Time: 8:30 AM to 12:30 PM
Proposed Fee: Rs 3000 per participant
Maximum Number of Seats: 30

Following members will be involved in the Summer Internship Program:

Prof. Neeraj Yadav
Prof. Pradeep Kumar Mehta