

# PANIPAT INSTITUTE OF ENGINEERING & TECHNOLOGY

## Department of Mechanical Engineering

Faculty Name: - Mr. Abhishek Sharma Subject Name: -INDUSTRIAL ROBOTICS

Year/Semester: 4th /7th

Subject Code: -MEP-409A

### LESSON PLAN

1	L1	Automation and robotics	03-09-2021
2	L2	Automation and robotics	06-09-2021
3	L3	Robotics in science fiction	07-09-2021
4	L4	Brief history of robotics	10-09-2021
5	L5	Robotics market and the future prospectus	13-09-2021
6	L6	Robot anatomy	14-09-2021
7	L7	Work volume	17-09-2021
8	L8	Robot drives systems	20-09-2021
9	L9	Control systems	21-09-2021
10	L10	Precession of movement	24-09-2021
11	L11	End effectors	27-09-2021
12	L12	Robot application	28-09-2021
13	L13	Type of sensors in robotics	01-10-2021
14	L14	External sensors	04-10-2021
15	L15	Force and torque sensors	05-10-2021
16	L16	Proximity sensors	08-10-2021
17	L17	Range sensors	11-10-2021
18	L18	Machine vision sensors	18-10-2021
19	L19	Velocity sensors	19-10-2021
20	L20	Tactile sensor	22-10-2021
21	L21	Proximately and range sensors	29-10-2021
22	L22	Use of sensor in robotics	08-11-2021
23	L23	Types of end effectors	09-11-2021
24	L24	Characteristics of end-of-arm tooling	10-11-2021
25	L25	Elements of end-of-arm tooling	15-11-2021
26	L26	Elements of end-of-arm tooling	16-11-2021
27	L27	General consideration in robot material handling	22-11-2021
28	L28	Material transfer applications	23-11-2021
29	L29	Machine loading and unloading	29-11-2021
30	L30	Tool selection of gripper	30-12-2021
31	L31	Gripping mechanism	03-12-2021
32	L32	Types of gripper	06-12-2021
33	L33	Mechanical gripper	07-12-2021
34	L34	Vacuum grippers	10-12-2021
35	L35	Magnetic grippers	21-12-2021
36	L36	Robot cell layouts	24-12-2021
37	L37	Multiple robots and machine interface	27-12-2021
38	L38	Considerations in work cell design	28-12-2021
39	L39	Work cell control	31-12-2021
40	L40	Interlocks	10-01-2022
41	L41	Work cell controller	11-01-2022
42	L42	Introduction to manipulator kinematics	14-01-2022
43	L43	Manipulator path control	17-01-2022
44	L44	Robot dynamics	18-01-2022

Abhishek Sharma

(COURSE INCHARGE)