

III Year II Semester

L T P C

17ME651

0 0 3 2

Skill Course Lab – I

Objectives:

To make the students learn:

1. CNC part programming skills for turning applications.
2. Skills to use the CNC lathe for producing the desired products with tight tolerances.
3. Functions and components of 6Axis robot.
4. To operate the robot using teach pendant and program.

List of Experiments:

CNC Lathe Operations

1. Facing Cycle & Turning Cycle
2. Step Turning
3. Taper Turning & Circular Interpolation
4. Threading & Grooving
5. Drilling and & Circular Interpolation
6. Internal Turning Threading & Internal Turning Threading Industrial Robot Programming
7. Robot Programming 1
8. Robot Programming 2

Outcomes: After the completion of the course the student will be able to:

1. CO1 Create a programming for the given part drawing and operate the CNC lathe to produce the products.
2. CO2 Apply the concepts in NC technology for turning operations to solve complex industrial problems.
3. CO3 Design the different types of critical programs in a group to execute the projects related to CIM.
4. CO4 Understand the basic terminology, operations and functions of robotics.
5. CO5 Use robot for solving complex industrial problem