## **Module 1: Introduction to robotics**

- ➤ What is a robot?
- ➤ History of robots
- > Components of industrial robots
- ➤ Basic electronics and Digital logics
- ➤ Binary math conversions/ASCII code

## **Module 2: Introduction to Programming Languages**

> C,C++, Python

## **Module 3: Introduction Embedded systems**

- ➤ Input and Output (I/O) devices
- ➤ I/Os and sensors
- > ADC and Wired, Wireless Communication
- > Display interface
- > PWM (For knowledge), Memory programming
- > Microcontroller programming
- Practical class

## **Module 4: Working On Robots**

- > Robotic kit programming
- ➤ Hardware Troubleshooting
- > Practical class
- > Applications for robots
- > Robot maintenance
- > Robotics and safety
- ➤ Robotics and Artificial Intelligence (AI)

