SNS COLLEGE OF ENGINEERING

Kurumbapalayam(Po), Coimbatore – 641 107
Accredited by NAAC-UGC with 'A' Grade
Approved by AICTE, Recognized by UGC & Affiliated to Anna University, Chennai

Department of Information Technology

Course Name – Internet of Things

III Year / V Semester

Unit 5- AI IN INTERNET OF THINGS

Collaborative Robots

1..Collaborative Robots

Collaborative robots can be deployed in a wide range of environments and bring many different benefits when compared to traditional industrial robots. Typically, a robot user chooses a collaborative robot when they need to prioritize safety, flexibility, low cost deployment, and fast ROI.

Safety

Collaborative robots are designed to minimize the risk of accidents and injuries in the workplace. For applications that require robot and human input, a collaborative robot is equipped with sensors to avoid collisions, force limitations, smooth designs, overcurrent protections, and passive compliance in the event of unplanned contact. Improved safety boosts productivity and reduces operating costs for robot users – two almost immediate benefits collaborative robots deliver.

Flexibility

Collaborative robots can be easily programmed, even by workers with no knowledge of robot programming. In some instances, the robot can be shown how to complete a task by physically moving the robot arm to the correct places. This allows for collaborative robots to automate several different tasks with quick changeover times. This flexibility lowers the initial cost of automation and directly contributes to ROI and productivity.

Low Cost Deployment

The ease of programming a collaborative robot reduces the time and resources required for integration, which lowers the automation investment. Collaborative robots come equipped with safety features and don’t require fences or other industrial safety equipment, which further lowers costs while reducing integration time. The low cost of deploying a collaborative robot, at least in comparison to industrial robots, makes them far more accessible to a wider customer base.