



SNS COLLEGE OF TECHNOLOGY

Coimbatore-35

An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with
'A++' Grade

Approved by AICTE, New Delhi & Affiliated to Anna University,
Chennai



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

19ECT213- IoT SYSTEM ARCHITECTURE

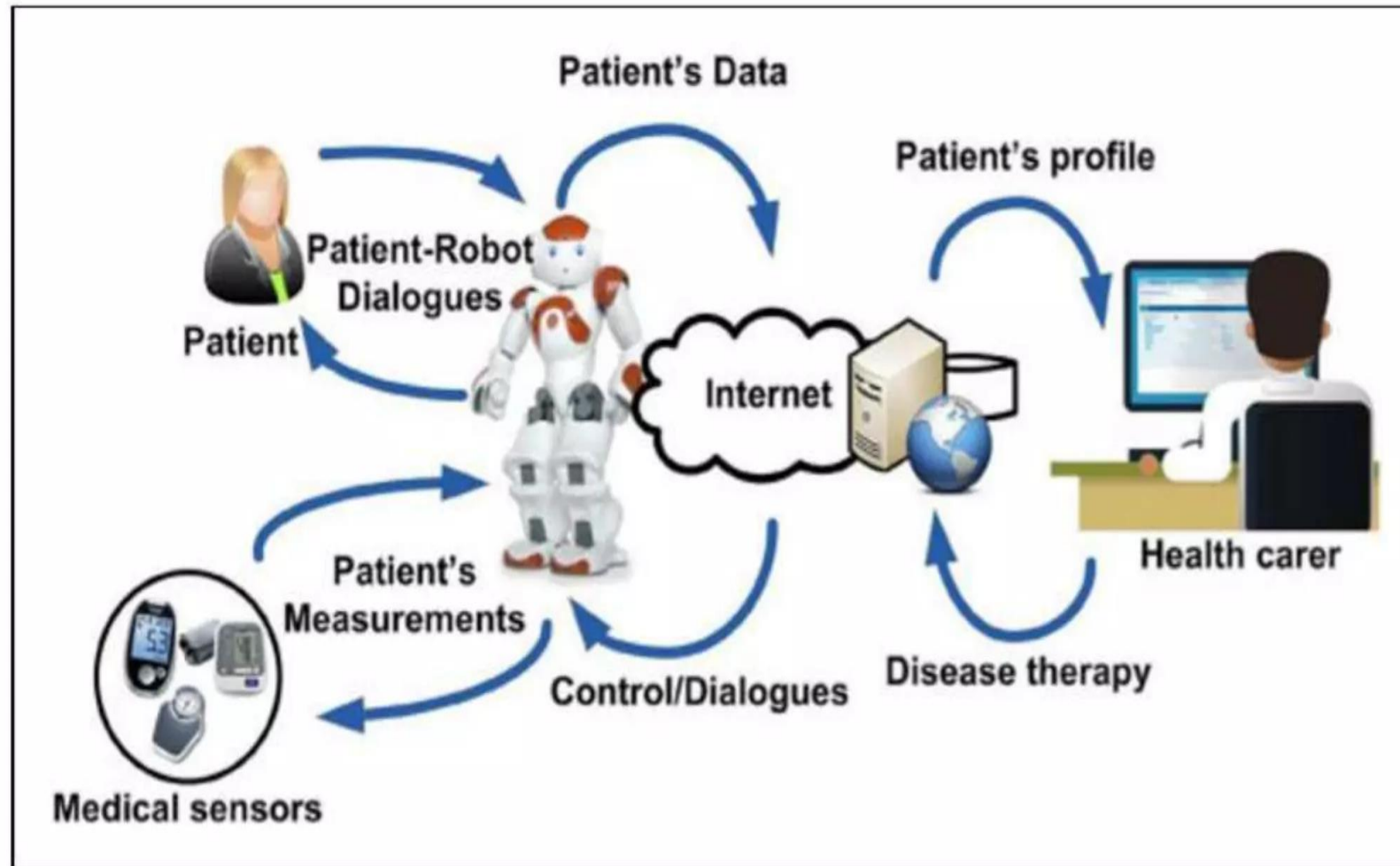
II ECE / IV SEMESTER

UNIT 5 – IOT APPLICATIONS

TOPIC –Applications of IoT in robotics



IoRT Applications





IoRT Applications



Application Type	Description
Systems Maintenance	Reduction in device and system failures
Manufacturing	Completely autonomous manufacturing with high precision accuracy and best quality.
Automation	Complete automation control for areas like Logistics, eCommerce and Warehouses.
Home Automation	Performing home activities and assisting in home security and doing personal tasks like education of kids, surveillance and day to day normal interactions.
Medical Assistance	Medical Surgeries, Elderly people assistance
Entertainment	Live interactions at public places like Cinemas, Shopping malls, museums and amusement parts.
Military	Battlefield monitoring, Drone Attacks, underwater monitoring and autonomous surveillance



IoRT Applications



Applications Of The Internet Of Robotic Things

Some Of The Applications Of The Internet Of Robotic Things Are:-

The Internet Of Robotic Things Are Considered As An Ideal Choice For Industries. Since Industries Deal Largely With Heavy Duty Work,Robots Can Do This Job Easily.

Robots Can Do The Inspection Of Different Products. They Can Check Its Quality And Can Easily Detect Whether The Product Is Damaged Or Not More Effectively Than Humans.

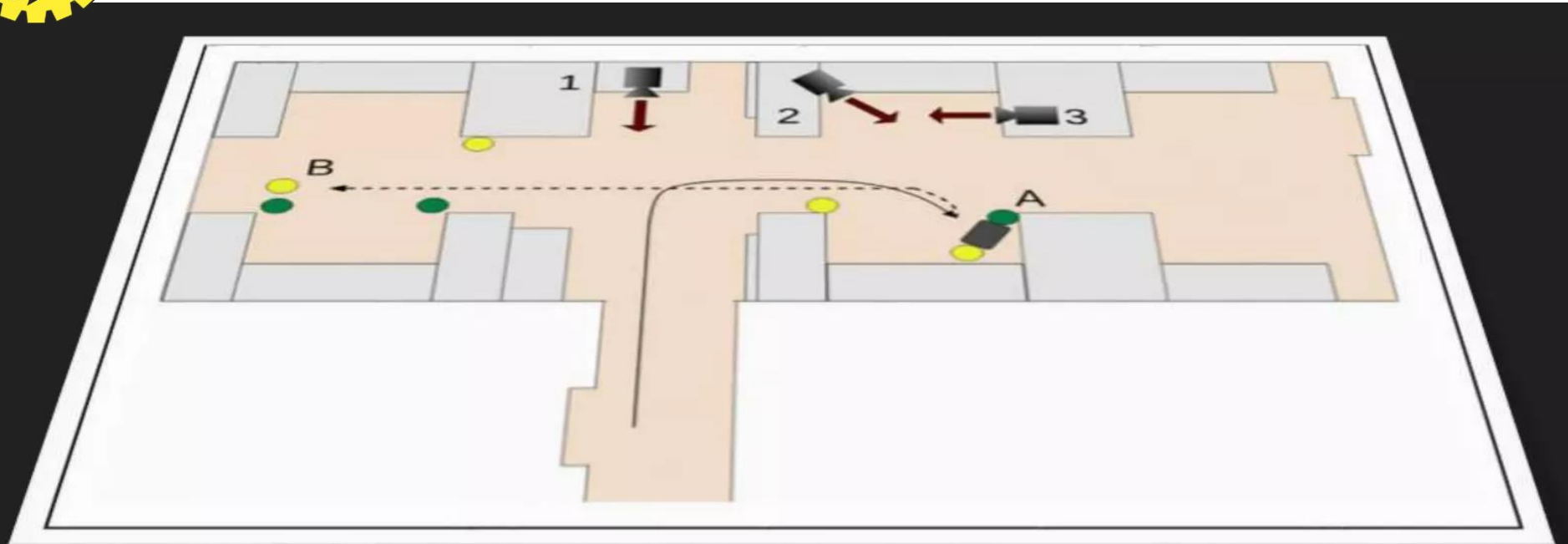
In Malls,Airports And Hospitals, Robots Can Be Used To Check The Availability Of Parking And Can Guide The Customers To Proper Places To Park Their Vehicles.

Some Of The Jobs In The World Are Quite Life-Threatening Jobs. Robots Can Take These Jobs Instead Because They Have The Ability To Respond To Any Difficult Situation As Soon As Possible.

Robots Can Also Do Intensive Labour Work. They Can Help In The Unloading Of Heavy Equipment At Construction Sites Or In Manufacturing Plants As Well. Robots Can Also Ensure That The Work Is Done Effectively In An Optimized Way With Important Precautions And Safety Measures.



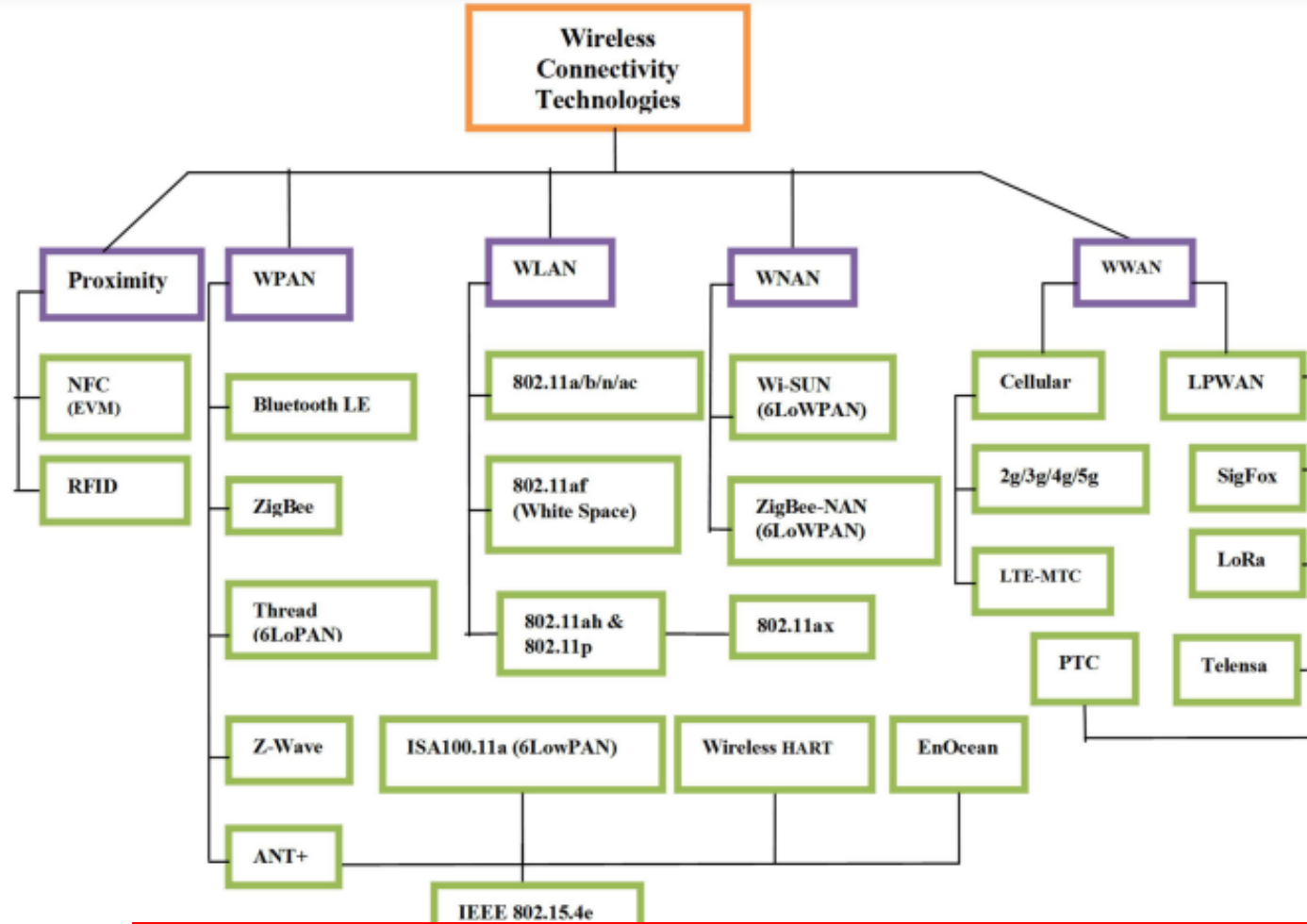
IoRT Applications



Distributed cameras assist the robot in locating a charging station in an environment. The charging station was placed between a green and yellow visual marker (location A). Visual markers of the same colours were placed elsewhere in the environment to simulate distractors. Visual processing is performed on-demand on the camera nodes to inform the robot that the charging station is at location A and not at the distracting location B

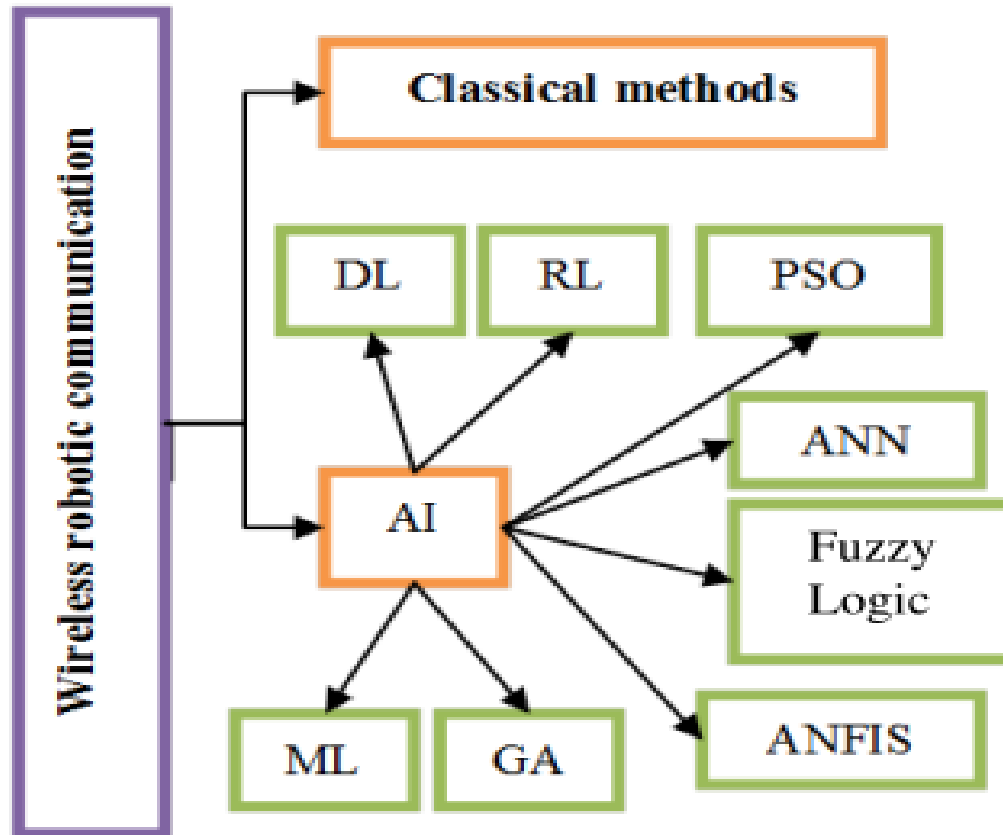


Wireless technologies used for data exchange in IoT.





Wireless communication for robots using AI.





Robot and AI Data Exchange in different areas.

