PES UNIVERSITY

100 Feet Ring Road, BSK 3rd Stage, Bangalore – 560085

Department of Computer Science & Engineering

Course Title: Mobile and Autonomous Robots (UE21CS343BB7)

Semester: 6th **Credits: 4** **Course Type: Elective**

Mini Projects (2024-25)

1. Teleoperated Robotic Arm
2. Autonomous Indoor Navigation for Drone
3. Voice-Controlled Robotic Arm
4. Gesture-Controlled Robotic Arm
5. Drone-based 3D Mapping
6. Line tracking along with obstacle detection and avoidance
7. Drone-based Fire Detection
8. Autonomous Indoor Navigation Robot
9. Remote Surveillance Robot
10. Warehouse Inventory Management Robot
11. Search and Rescue Drone
12. Robotics Arm for Precision Tasks
13. Environmental Monitoring Robot
14. Autonomous Garbage Collection Robot
16. Autonomous Delivery Robot
17. Space Exploration Rover
18. ROS Tic-Tac-Toe Game
19. Solar Panel monitoring Drone
20. Teleoperation with Haptic Feedback using IMU sensors
21. Vision-Guided Pick and Place for real world objects
22. Real-Time Object Detection and Tracking
23. Autonomous Navigation in GPS-Denied Environments

24 Recognize traffic signs from images for Autonomous vehicles

25. Stair Climbing Robot
26. Radar and ROS Powered Indoor Home Mapping and Positioning Robot
27. Hector Slam Mapping and Indoor Positioning ROBOT
28. Maze-Solving Robot
29. Autonomous Stair Climbing
30. Quadruped Balancing on Uneven Surfaces
31. Self-Balancing Two-Wheeled Robot
32. Swarm Coordination of Ground Robots
33. Autonomous Delivery Wheeled Robot
34. Autonomous Drone Landing on a Moving Platform
35. Aerial Object Tracking and Following
36. Gesture-Controlled Mobile Robot