

Intermediate Robotics & AI

Hands-on Projects

- 1. Smart Home Security System KEYPAD Based Authentication
 - Create a secure home entry system using a keypad and microcontroller.
 - Learn about authentication mechanisms and security protocols.
- 2. Smart Dustbin Project
- Design and build an automated dustbin that opens and closes using sensors.
 - Understand sensor integration and waste management solutions.
- 3. Smart Street Lighting System
- Develop a street lighting system that responds to environmental conditions.
 - Explore concepts in automation and energy efficiency.
- 4. Smart Fire Extinguisher BOT
 - Construct a robot capable of detecting and extinguishing small fires.
 - Learn about robotics, fire detection sensors, and safety systems.
- 5. Breathalyzer Project Alcohol Detection and Alert System
- Create an alcohol detection system that can alert in case of high alcohol levels.
 - Study sensor technology and public safety applications.
- 6. Line Following CAR Beginner
 - Build a simple robot car that follows a designated path using sensors.
 - Delve into basic robotics, sensor alignment, and motor control.
- 7. Automatic Hand Sanitizer Dispenser

Ph no: 9831295671/8902638428 Email Id: techhubsolutions.edu@gmail.com

- Develop a touchless hand sanitizer dispenser.
- Understand the importance of hygiene and the use of IR sensors.
- 8. Obstacle Avoiding BOT
 - Create a robot that can navigate around obstacles autonomously.
 - Learn about obstacle detection and avoidance algorithms.
- 9. Digital Input Based Light Activation Project
 - Design a lighting system activated by digital inputs.
 - Explore digital electronics and input-output systems.
- 10. Melody Tone Generation Project Based on the Alert Level
 - Generate different tones based on alert levels in various scenarios.
 - Study sound generation and alert systems.

Online Simulation Based Projects

- 1. Tinker CAD Based Smart 3D Designing Project
 - Utilize Tinker CAD to create smart 3D designs.
 - Learn the basics of 3D modelling and design thinking.
- 2. Tinker CAD Based Simulation Projects for Electronics
 - Simulate electronic circuits using Tinker CAD.
- Gain a practical understanding of electronic components and their functions.
- 3. Basics of Electronics Based Wireless Electricity Projects
 - Explore wireless electricity concepts through basic electronic projects.
- Understand the principles of wireless energy transfer and its applications.

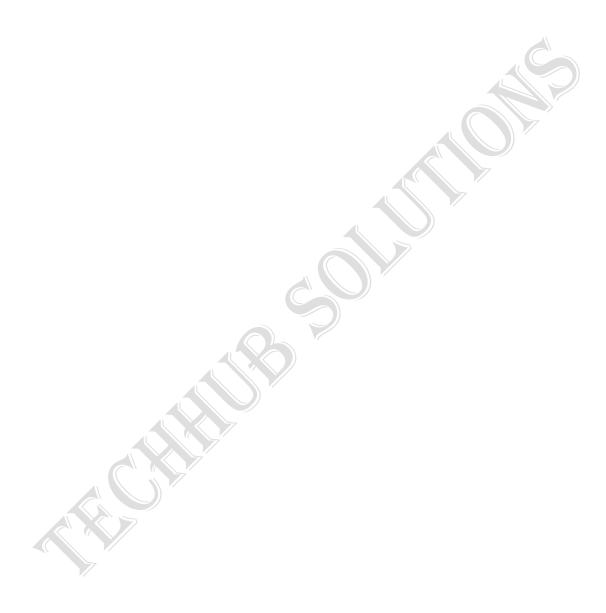
Course Benefits

- Interactive Learning: Engaging and interactive sessions to make learning fun and effective.
- Real-World Applications: Practical projects that relate to real-world problems and solutions.

Ph no: 9831295671/8902638428 Email Id: techhubsolutions.edu@gmail.com

 Skill Development: Enhance problem-solving, analytical, and technical skills.

- Mentorship: Access to experienced mentors for guidance and support.



Ph no: 9831295671/8902638428 Email Id: techhubsolutions.edu@gmail.com