Course code: AIDEH

This 5-day Level 1 course is structured and designed to firstly be dynamically updated based on industry evolution and expected levels of competent skills and practical real-world capabilities for building, modifying and designing robotic vehicles, with focus on drones, UAV, UAS, AI/ML, swarming, hardware, software and latest sensors.
No prior knowledge of robotics or UAV's, everything you need to establish your foundational skills for building, modifying, AI robotics, drone flight planning, security, hack, detect forensically and defend.
This is a hands-on practical course, straight to the point, you are guaranteed to leave this class with the skills needed to deal with all types of AI robotics, drones and autonomous vehicles.

We will utilize in this course:A pre-built mobile hardware system such as a Raspberry Pi or a laptop.Live Cloud based remote lab range and electronic interactive content.

Who is the course for

- Cyber Security engineers / analysts
- Network and system administrators
- Drone, &Robotic Engineers &Developers
- Drone Operators
- Digital Forensics Investigators
- Penetration Testers
- Cloud computing personnel
- Cloud project managers
- Operations support looking for career advancement

Course outline

- Introduction to drones and their components
- Basic principles of drone operation and control systems
- Drone communication protocols and vulnerabilities
- Wireless network security and drone data protection
- Drone hardware security and hacking techniques
- Identifying and exploiting drone firmware vulnerabilities
- Physical drone security and tamper-proofing
- Legal and ethical considerations of drone hacking
- Drone hacking case studies and examples
- Best practices for securing drones and protecting against cyberattacks
- Protecting drones from cyber threats using encryption and other technologies
- Drone countermeasures and defense strategies
- Integrating drone security into broader cybersecurity frameworks
- Future trends and developments in drone cybersecurity and hacking
- Drone operating systems and their security risks
- Analyzing drone flight data and telemetry
- Intercepting and decoding drone radio signals
- Authentication and authorization in drone systems
- Securing drone storage and data transfer
- Training drone pilots and operators in cybersecurity best practices
- Ensuring privacy and security in drone-based public services

Note: Optional - bring your own Drone / build one with us