Connected and Autonomous Vehicles: Cyber Security
8.5 Hour Course

Course Introduction

As new and emerging technologies alter the transport industry, there has been a rise in the demand for Connected and Autonomous Vehicles. This has placed cyber security at the top of the agenda. It is essential to understand the challenges involved as the world becomes more connected.

This course provides a broad introduction to cyber security issues for Connected and Autonomous Vehicles (CAVs).

The course highlights the cyber security challenges and opportunities from a technical, people, process, regulatory and governance perspective.

Key Learning Outcomes

- Understand the cyber challenges for the Connected and Autonomous Vehicles and ITS industries, in particular the realisation that cyber security is a safety issue.
- Understand the vulnerabilities and threats for Connected and Autonomous Vehicles and ITS, including the supply chain.
- Identify and interpret the legal and regulatory frameworks applicable to CAV cyber.
- Know how to start developing / reviewing a cyber security strategy, including governance model.
- Understand the areas of cyber security that the Connected and Autonomous Vehicle industry needs to continue to develop if they are to meet expectations of public safety and build public confidence.
Expert multidisciplinary e-courses
for engineers at all career stages

Course Units

- Unit 1: Introduction to Cybersecurity
- Unit 2: Introduction to Cybersecurity for Connected and Autonomous Vehicles
- Unit 3: Cybersecurity in Connected and Autonomous Vehicles
- Unit 4: Internet of Things (IoT) Security
- Unit 5: Security in Mobile/Vehicle Communication
- Unit 6: Connected and Autonomous Vehicles Cyber Legal and Policy Frameworks
- Unit 7: Building Cyber Defences
- Unit 8: On-going Cyber Challenges for Connected and Autonomous Vehicles
- Unit 9: Final Assessment

About the IET Academy

The IET Academy is an e-learning solution to meet the needs of companies training and development objectives, courses are tailored for engineers at all career levels providing a unique and engaging learning experience through a mix of rich media and interactive course content. Allowing learners to learn at their own convenient pace, monitor their progress and set up personalised dashboards to track their development as they learn.

The Institution of Engineering and Technology offers topics covering a broad range of technical and professional areas from power systems and mobile communications to management and leadership, all provided in partnership with expert academics and industry organisations.

Trusted content

Course content at the IET Academy is created by expert academic and industry organisations, who are all leaders in their field, ensuring learners develop the highly specialist skills they need to thrive within their business.

In depth-learning

The IET Academy courses range up to 30 hours in full courses and can be studied in whole or bite-size units allowing companies and individuals to invest in the most suitable training programmes for them.

Course pre-requisites

Knowledge of Connected and Autonomous Vehicles and ITS would be advantageous for learners.

Who should learn?

This course will benefit managers, professionals and non-information technology engineers within the automotive industry who want to gain a better understanding of cybersecurity for their role. It will also help senior management and those at the executive level who would like to understand the basic concepts, security strategy, governance and compliance. Students entering the automotive cyber industry can also benefit from this course.

Other engineering courses

- An Introduction to the Connected and Autonomous Vehicles Landscape
- Connected and Autonomous Vehicles: Sensors and Sensor Fusion
- Connected and Autonomous Vehicles: Connectivity
- Connected and Autonomous Vehicles: Computer Vision and AI
- Connected and Autonomous Vehicles: Human Factors

How to purchase

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By providing access to high quality engineering information, the IET helps engineers, technicians and technologists around the globe fuel innovation, gain competitive advantage and make better informed decisions so that they are well placed to solve the engineering challenges of the 21st century. The IET is an authoritative and trusted source of Essential Engineering Intelligence®

The Institution of Engineering and Technology (IET) is working to engineer a better world. We inspire, inform and influence the global engineering community, supporting technology innovation to meet the needs of society.

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