

Telecoms & Tech Academy



Live Virtual
Classroom

CERTIFIED INTERNET OF THINGS SECURITY PRACTITIONER (CIOTP™)

Live Virtual Classroom | 3 Days

In partnership with:

CERTNEXUS



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CERTIFIED IoT SECURITY PRACTITIONER PROGRAMME SUMMARY

The Internet of Things (IoT) enables data to be collected and analyzed on a massive scale, enabling well-informed decisions to be made quickly. However, the deluge of data handled by IoT systems is often acquired, processed, and presented using new technologies that are rapidly evolving and in some cases being rushed to market, creating new concerns for data privacy and cybersecurity.

Securing IoT systems can be a complicated proposition, involving hazards that many IT workers have never had to deal with. Solutions may involve resource-constrained IoT devices and technologies from many different vendors. IoT devices may be installed in vulnerable locations, and new network devices and protocols add complexity to the overall network architecture.

This course presents an approach for managing the security and data privacy of IoT throughout the entire lifecycle. Through a combination of hands-on activities and case studies, you will learn how to identify and remediate vulnerabilities that undermine IoT security, as well as strategies for managing risk, securing data throughout its entire lifecycle, protecting data privacy, ensuring that IoT resources can be accessed only by authorized users, managing risks related to device firmware and software, and protecting IoT devices from direct physical and network access.

Target Student:

This course is designed for IoT practitioners who are looking to improve their skills and knowledge of IoT security and privacy. This course is also designed for students who are seeking the CertNexus Certified Internet of Things Security Practitioner (CIoTSP) certification and who want to prepare for Exam ITS-110.

Prerequisites:

To ensure your success in this course you should have a fundamental understanding of IoT ecosystems, which you can obtain by taking the following CertNexus course: Certified Internet of Things (IoT) Practitioner (Exam ITP-110)

CERTIFIED IoT SECURITY PRACTITIONER PROGRAMME AGENDA

- **Lesson 1: Managing IoT Risks**
 - Topic A: Map the IoT Attack Surface
 - Topic B: Build in Security by Design
- **Lesson 2: Securing Web and Cloud Interfaces**
 - Topic A: Identify Threats to IoT Web and Cloud Interfaces
 - Topic B: Prevent Injection Flaws
 - Topic C: Prevent Session Management Flaws
 - Topic D: Prevent Cross-Site Scripting Flaws
 - Topic E: Prevent Cross-Site Request Forgery Flaws
 - Topic F: Prevent Unvalidated Redirects and Forwards
- **Lesson 3: Securing Data**
 - Topic A: Use Cryptography Appropriately
 - Topic B: Protect Data in Motion
 - Topic C: Protect Data at Rest
 - Topic D: Protect Data in Use
- **Lesson 4: Controlling Access to IoT Resources**
 - Topic A: Identify the Need to Protect IoT Resources
 - Topic B: Implement Secure Authentication
 - Topic C: Implement Secure Authorization
 - Topic D: Implement Security Monitoring on IoT Systems
- **Lesson 5: Securing IoT Networks**
 - Topic A: Ensure the Security of IP Networks
 - Topic B: Ensure the Security of Wireless Networks
 - Topic C: Ensure the Security of Mobile Networks
 - Topic D: Ensure the Security of IoT Edge Networks
- **Lesson 6: Ensuring Privacy**
 - Topic A: Improve Data Collection to Reduce Privacy Concerns
 - Topic B: Protect Sensitive Data
 - Topic C: Dispose of Sensitive Data
- **Lesson 7: Managing Software and Firmware Risks**
 - Topic A: Manage General Software Risks
 - Topic B: Manage Risks Related to Software Installation and Configuration
 - Topic C: Manage Risks Related to Software Patches and Updates
 - Topic D: Manage Risks Related to IoT Device Operating Systems and Firmware
- **Lesson 8: Promoting Physical Security**
 - Topic A: Protect Local Memory and Storage
 - Topic B: Prevent Physical Port Access

LIVE VIRTUAL CLASSROOM

ENGAGING INSTRUCTOR-LED TRAINING

All our training programmes are deliverable as engaging online learning courses via our live Virtual Classroom platform.

Our cutting-edge instructor-led online virtual classroom solutions offer an engaging and enjoyable experience that replicates our face-to-face training experience to deliver knowledge and develop the competencies you need to succeed.

Our programmes are designed to ensure an optimal training experience - focusing on practical application of the concepts and topics covered.

We deliver the same market leading programmes online so you can benefit from the flexibility to take the training at a location of your choice without the need to travel!

Why Choose a Virtual Classroom?

Enjoy the same classroom learning experience online

- Benefit from the same quality training programmes at a location of your choice.
- Minimise downtime with highly impactful training
- Cost effective training that saves on travel expenses and time.
- Experience an intimate class setting
- Interact with your course tutor and fellow students throughout the course including group exercises, file sharing and live Q&A's.
- Review the training material after the course
- All sessions are recorded so you can review the material anytime.



BESPOKE TRAINING SOLUTIONS

Flexible and cost-effective way to upskill teams and develop key competencies across your business

Telecoms & Tech Academy is the leading training partner to the TMT industry, having trained more than 30,000 professionals and 500 businesses globally. We were borne out of the telecoms industry and understand the challenges the sector has been facing.

Our training portfolio continues to evolve to help address new and emerging skills gaps telecoms & tech businesses are facing. To provide you with leading-edge knowledge, our learning is influenced by our partners including Omdia. Whether you'd like to utilise our existing programmes or create a completely customised solution, we've got you covered.

Flexible delivery methods



FACE-TO-FACE:

We'll hand pick a leading practitioner to create and deliver a technical or commercially focussed programme, at your location – wherever that may be globally



DIGITAL:

We develop specialised online learning programmes using our virtual learning platform so your teams can learn anytime, anywhere – both on-demand or through online live classes



BLENDED:

A mix of online and face-to-face - your business taps into our leading online learning experience and gets valuable face-time with leading practitioners

"The trainer was very experienced. The Material that was provided was great and we recieved some excellent recommendation on how to handle specific situations." MTN, South Africa

BROUGHT TO YOU BY THE EXPERTS

Telecoms & Tech Academy

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CERTNEXUS®

CertNexus is the global purveyor of vendor neutral, emerging technology certifications and micro-credentials for IT, business, and security professionals. CertNexus' exams meet the most rigorous development standards possible, which outline a global framework for developing personnel certification programs to narrow the widening skills gap.

CertNexus partners with highly knowledgeable and talented industry experts to ensure the integrity and quality of each exam, with all exams following a rigorous development process.

