MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

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IOT DEVICE SECURITY IN THE HEALTHCARE INDUSTRY

"Secure the Future of Connected Care with Robust IoT Device Protection Strategies."

Schedule

Venue	Fees
In-House	ASK FOR THE QUOTATION

► **Available delivery methods:** In-House Training

Introduction

As the healthcare industry rapidly embraces IoT technologies, security vulnerabilities in connected medical devices are becoming a top concern. This course focuses on identifying, mitigating, and managing the cybersecurity risks associated with IoT devices used in hospitals, clinics, and remote care environments. Participants will gain comprehensive knowledge of regulatory compliance, threat landscapes, secure device design, network protection strategies, and incident response tailored for the healthcare ecosystem.

Objectives

By the end of this course, participants will be able to:

- Understand the unique cybersecurity threats to healthcare IoT devices
- Identify and assess vulnerabilities in device hardware, software, and communication layers
- Implement robust device authentication, encryption, and access control mechanisms
- Align with healthcare security standards and regulatory frameworks
- Develop incident response plans and risk mitigation strategies specific to medical IoT

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Why Attend

In healthcare, security is not optional—it's critical. This course equips healthcare professionals and IT security leaders with the skills needed to protect patient safety, data privacy, and institutional reputation through secure IoT adoption.

Target Audience

- Healthcare Cybersecurity Officers and IT Managers
- Biomedical Engineers and IoT Device Technicians
- Hospital Administrators and Compliance Officers
- Clinical IT and Infrastructure Architects
- Device Manufacturers and IoT Product Developers

Individual Benefits

- Develop practical skills to evaluate and secure medical IoT ecosystems
- Understand threat modeling and regulatory implications in healthcare environments
- Improve readiness for cybersecurity audits and penetration testing
- Enhance professional value in roles related to digital health and connected care

Organizational Benefits

- Protect patient data and ensure clinical device uptime
- Minimize cybersecurity risks and regulatory penalties
- Build trust with stakeholders through proactive IoT governance
- Strengthen resilience against ransomware, device hijacking, and insider threats

Instructional Methodology

- Real-world case studies of healthcare cyber breaches
- Hands-on labs for configuring secure IoT settings
- Risk assessment simulations and penetration testing tools
- Group discussions on policy creation and incident response

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Course Outline

DETAILED 5-DAY COURSE OUTLINE (CUSTOMIZABLE)

Training Hours: 7:30 AM – 3:30 PM

Daily Format: 3–4 Learning Modules | Coffee Breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Foundations of IoT Security in Healthcare

Module 1: Overview of IoT in Clinical Settings and Attack Surface (07:30 – 09:30)

Module 2: Understanding Medical Device Cyber Threats (09:45 – 11:15)

Module 3: Case Studies: High-Profile IoT Security Breaches (11:30 – 01:00)

Module 4: Security Frameworks: NIST, ISO/IEC 80001, FDA Guidelines (02:00 – 03:30)

Day 2: Threat Detection and Risk Assessment

Module 1: Vulnerability Identification & Threat Modeling (07:30 – 09:30)

Module 2: Risk Scoring and Device Classification Methodologies (09:45 – 11:15)

Module 3: Secure Device Lifecycle Management (11:30 – 01:00)

Module 4: Lab: Simulating Common Threats on a Medical IoT Network (02:00 – 03:30)

Day 3: Secure IoT Architecture & Implementation

Module 1: Designing Security into Hardware and Firmware (07:30 – 09:30)

Module 2: Encryption, Key Management, and Secure Boot Protocols (09:45 – 11:15)

Module 3: Device Identity, Authentication, and Access Control (11:30 – 01:00)

Module 4: Hands-on Session: Securing IoT Endpoints and Network Nodes (02:00 – 03:30)

Day 4: Regulatory Compliance and Privacy

Module 1: HIPAA, GDPR, and Regional Data Protection Rules (07:30 – 09:30)

Module 2: Legal Implications of IoT Device Vulnerabilities (09:45 – 11:15)

Module 3: Privacy-Enhancing Technologies and Best Practices (11:30 – 01:00)

Module 4: Workshop: Building a Healthcare IoT Compliance Checklist (02:00 – 03:30)

Day 5: Incident Response and Security Management

Module 1: IoT Security Monitoring Tools and Logging Practices (07:30 – 09:30)

Module 2: Cyber Incident Detection, Response, and Containment (09:45 – 11:15)

Module 3: Recovery Planning and Post-Incident Forensics (11:30 – 01:00)

Module 4: Final Assessment, Project Presentations & Certification (02:00 – 03:30)

Certification

Participants will receive a **Certificate in IoT Device Security for Healthcare** after successful completion of the training and final project evaluation. This credential validates proficiency in securing connected medical devices against evolving cyber threats.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

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