

IoT Security

Course Overview

The explosive growth of connected IoT devices enables the digitization of industries, but also increases the exposure to security threats. Upon completion students will be able to perform vulnerability and risk assessments, and research and recommend risk mitigation strategies for common security threats in IoT systems.

Benefits

Students seeking a career in the rapidly growing IoT and security domains will learn practical tools for evaluating security vulnerabilities in IoT solutions, perform threat modeling, and use risk management frameworks to recommend threat mitigation measures. These skills are relevant across IoT and other network architectures.

Learning Components

- Conduct end-to-end threat modeling and evaluate security risks within IoT solutions
- Discover and demonstrate a vulnerability using real-world penetration testing tools such as Kali Linux
- Gain hands-on experience with IoT Prototypes using a Raspberry Pi
- Increase awareness of emerging technologies used in the IoT Security space, such as Blockchain



Features

Target Audience: Vocational, 2-year and 4-year College, 4-Year University students

Prerequisites:

- IoT Fundamentals: Connecting Things course
- Networking and security knowledge equivalent of Networking Essentials and Cybersecurity Essentials

Languages: English

Course Delivery: Instructor-led

Estimated Time to Complete: 50 hours