Cyber Attack Methods

A hands-on training course on
cyber-physical system security

Weapon Systems Cybersecurity
MTSi MODERN TECHNOLOGY SOLUTIONS, INC. ®
Offensive/Defensive Engineering

> target_audience

- ▷ Cyber-physical system engineers
- ▷ Software developers
- ▷ System security engineers

> *Anyone who wants a **tangible appreciation** for the ways an adversary may attack their cyber-physical system, and to gain an innate sense of how to **make cyber-physical systems more secure.***

> course_objectives

- ▷ Provide an **understanding of methods that an attacker may use** to exploit cyber-physical systems
- ▷ **Foster an attacker mindset**, enabling participants to think like bad actors, walk through attack methods related to historic exploits, and **apply that knowledge to making their systems more secure**

> approach

- ▷ Live virtual or in-person options
- ▷ Attack a **representative cyber-physical system**
- ▷ **Hands-on** – guide students through an attacker's approach to achieving a mission impact
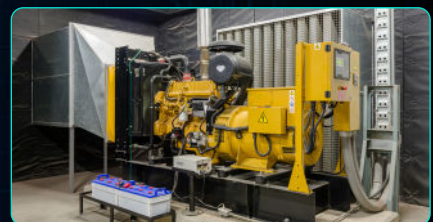
> topics

- ▷ Attacker Mindset & Cyber Attack Frameworks
- ▷ Access Points, Protocols, & Buses
- ▷ Attacker Tools
- ▷ Recovering Firmware
- ▷ Identifying Vulnerabilities – Buffer Overflows, Poor Input Validation, Interface Abuse
- ▷ Writing Exploits
- ▷ Test vs. Production System Considerations
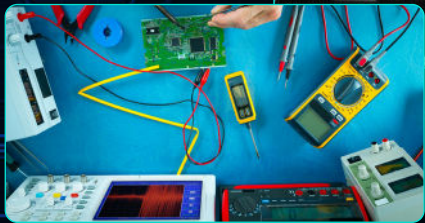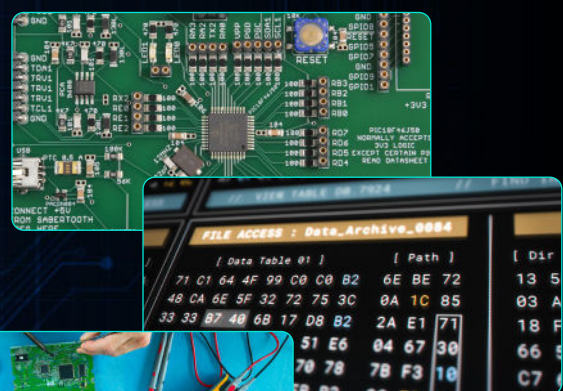
Modern Technology Solutions, Inc.
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Course Delivery & Fee Structure

This hands-on training course is offered ina multi-day or a seminar format.

> **Multi-Day Course:** *Targeted at programmers and systems engineers.* Heavily hands-on, students run a provided virtual machine and execute attacker TTPs.

> **Seminar:** *Targeted at leadership and program managers.* Higher level overview of concepts and attacker TTPs with limited hands-on demonstrations.

	> multi_day_course	> seminar
Duration	▷ 4-1/2 days (16 hours)	▷ 1/2 day (4 hours)
Target Audience	▷ Programmers, systems engineers	▷ Leadership, program managers, testers
Delivery and Immersion	▷ Primarily hands-on with limited slides/ briefing of concepts	▷ High level overview of concepts with limited hands-on demos
Prerequisites	▷ Some familiarity with programming, operating on the command line to get the most out of the class	▷ None
Equipment Requirements	▷ Modern PC capable of running Oracle VirtualBox or VMWare Workstation with at least 8GB of RAM and 20GB disk space	▷ None

> pricing

Virtual (via Teams/Zoom)	▷ $18,796.92	▷ $5,510.00
In-Person	▷ $32,655.35	▷ $15,167.76
Class Capacity	▷ Up to 10 students *Additional students may be added for a fee*	▷ Up to 10 students *Additional students may be added for a fee*

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