2024-25 ACADEMIC PROGRAMS

AUTOMOTIVE CYBERSECURITY (CTACYB)

Certificate

This certificate programs is designed to meet the emerging demand for highly skilled automotive cybersecurity professionals. In this certificate program, students are introduced to the skills and strategies needed to test security related to automobile networks and related infrastructure.

Students will work with the various automobile networks (CAN, LIN, Ethernet, and FlexRay) and explore protocols and messages produced by the vehicle that could be vulnerable to attacks. Students will consider risk mitigation technologies including authentication, encryption and firewall technologies.
Learners in this program acquire the following skills: Learn basic networking concepts including V2V, V2I and V2X communication; Understand common security terms and concepts and how they relate to automobiles in both a technical and compliance nature; Understand relevant vehicle technologies including ECU's (Electronic control unit) and basic electrical theory; Read and write basic computer programs and scripts; Develop process and procedures for testing the security of a vehicle's information network; Practice reverse engineering techniques for testing security.

See this program in the catalog Apply

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