

Cyber-Physical Systems (CPS) Seminar Series

Title: Security and Privacy of Tomorrow's Connected Vehicles

Speaker: Mr. Mert Dieter Pese, University of Michigan at Ann Arbor

Abstract: Modern connected and autonomous vehicles (CAVs) are equipped with an increasing number of Electronic Control Units (ECUs) that produce large amounts of data. The data is exchanged between ECUs via an in-vehicle network. Furthermore, CAVs do not only have physical interfaces, but also increased data connectivity to the Internet via their Telematic Control Units (TCUs) which make them accessible remotely just like mobile phones. As a result, an increasing number of attack vectors make vehicles an attractive target for hackers. Automotive cyber-security research is a relatively novel field which tries to respond to constantly rising threats with countermeasures. In this talk, we will give a primer on cyber-security in the automotive domain as well as discuss privacy concerns of the big data generated by cars.

Biography: Mert D. Pesé is a Ph.D. student at the University of Michigan. He works under Professor Kang Shin as part of the Real Time Computing Lab (RTCL). He earned two B.S. degrees in Electrical Engineering and Computer Science respectively, and an M.S. in Electrical Engineering from the Technical University of Munich (TUM), both with highest distinctions. His research interests primarily include the security and privacy of vehicles. He worked on Automotive Ethernet Security and Intrusion Detection Systems during positions at Audi and UMTRI. Currently, he focuses on privacy attacks and defenses of vehicular data to protect drivers' personal information.



Date: Monday, April 22, 2019

Time: 3:30-4:45AM

Location: North Classroom 2002