New Course for Spring 2019

EEL 5934 Automotive Safety and Security

This course provides a comprehensive introduction to robustness requirements in automotive systems, including functional safety, security, and reliability. The course covers design trends in electronic and software elements of robustness in autonomous, cooperation and trade-offs among safety, security, and reliability requirements. Students learn cutting-edge research in the area, and additionally has hands-on experience with architecture and validation of robustness using a cutting-edge driving simulator.

Key Features of the Course:

- First-ever course providing comprehensive view of automotive robustness and practical issues in safety / security assurance
- Includes robustness challenges both post-deployment (e.g., hacking a car) and during design and manufacturing (e.g., supply-chain security)
- Includes hands-on understanding of cutting-edge research results using realistic automotive functionality emulation
- Provides comprehensive treatment of electro-mechanical, electronic, and software aspects of automotive robustness.

Automotive Driving simulator RDS1000 used for teaching automotive safety and security