

CIS 700/002 : Special Topics : Security of Embedded Systems, Cyber-Physical Systems, and Internet-of-Things

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CIS 700/002: Security of EMBS/CPS/IoT

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Today's Class

- Final week of tool demos.
- Nikito2
 - Swathi
- Maltego
 - Sangdon
- **BREAK**
- Social engineer toolkit
 - Thejas
 - Nikheel
- SQLmap
 - Hung

Final Project

- Use tools and insight to assess the security of a commercial device
 - What information is made available?
 - How could this information be exploited?
 - How can these vulnerabilities be patched.
- Choose your device – email Jim/Insup to coordinate hardware
 - Owlet baby monitor
 - Constant glucometer
 - Smart home automation devices
 - “dealer’s choice”: (almost) any EMBS/CPS/IoT device
- Description on course website (under projects)
 - April 7th: Mid-term
 - April 28th : Final Demo

Next Week

- Cyber-Physical Attacks on Sensors/Actuators/Algorithms
- Unmanned Aircraft Capture and Control via GPS Spoofing
 - Nikheel
- Cocaine Noodles: Exploiting the Gap between Human and Machine Speech Recognition
 - Swathi
- WALNUT: Waging Doubt on the Integrity of MEMS Accelerometers with Acoustic Injection Attacks
 - Thejas