

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

Insup Lee and James Weimer

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

Department of Computer and Information Science

School of Engineering and Applied Science

University of Pennsylvania

*February 3, 2017*

# Today's Class

- **Assign next week's homework/reading**
- **Assign tool demos**
  - see course website -> projects -> tool demo assignments
  - demos begin Feb 24!!!!
- Attack Steps (Chapter 5): Thejas (finish)
- “Physical-Cyber” Attacks (Chapter 7): Sangdon
- **Break**
- *A survey on wireless Security: Technical Challenges, Recent Advances, and Future Trends. Zou et al., Proceedings of IEEE, May 2016.*
  - presenter: Konstantinos Gatis
- Bluetooth: With Low Energy comes Low Security. M. Ryan, Workshop on Offensive Technologies, 2013.
  - presenter: Kamenee Arumugam

# Assignments

- Reading / Presentations
  - Practical attacks against WEP and WPA. M. Beck and E. Tews, Aircrack-ng, 2008.
    - presenter: Dagaen Golomb
  - Security threats to automotive CAN networks - Practical examples and selected short-term countermeasures. T. Hoppe, S. Kiltz, and J Dittmann. Reliability Engineering and System Safety, 2011.
  - Zigbee Exploited: The good, the bad, and the ugly. T. Zillner, Blackhat 2015.
- Tool demo: assignment is posted under projects page
  - **see course website -> projects -> tool demo assignments**
  - **demos begin Feb 24!!!!**