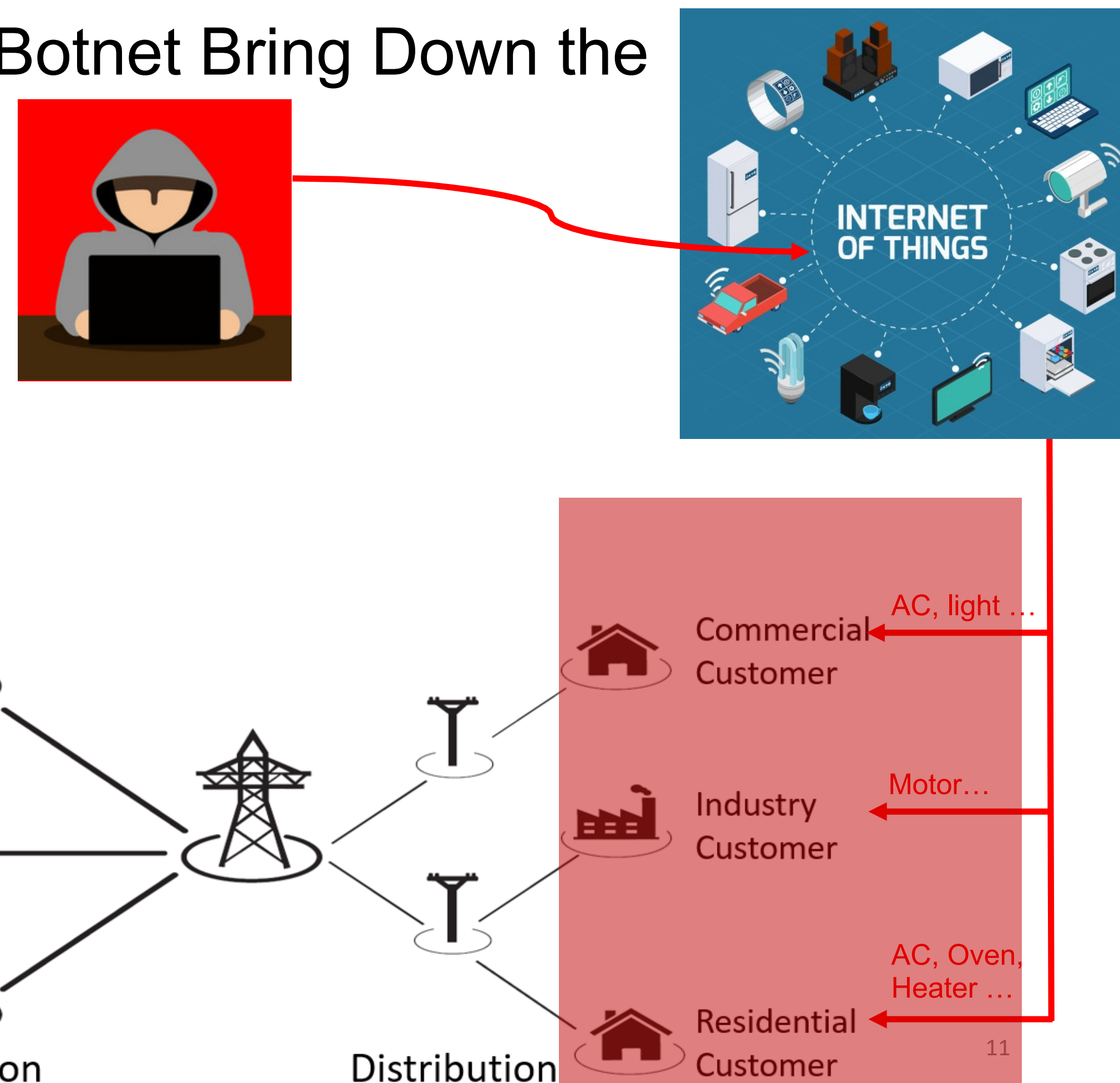


CAREER: Practical Control Engineering Principles to Improve the Security and Privacy of Cyber-Physical Systems

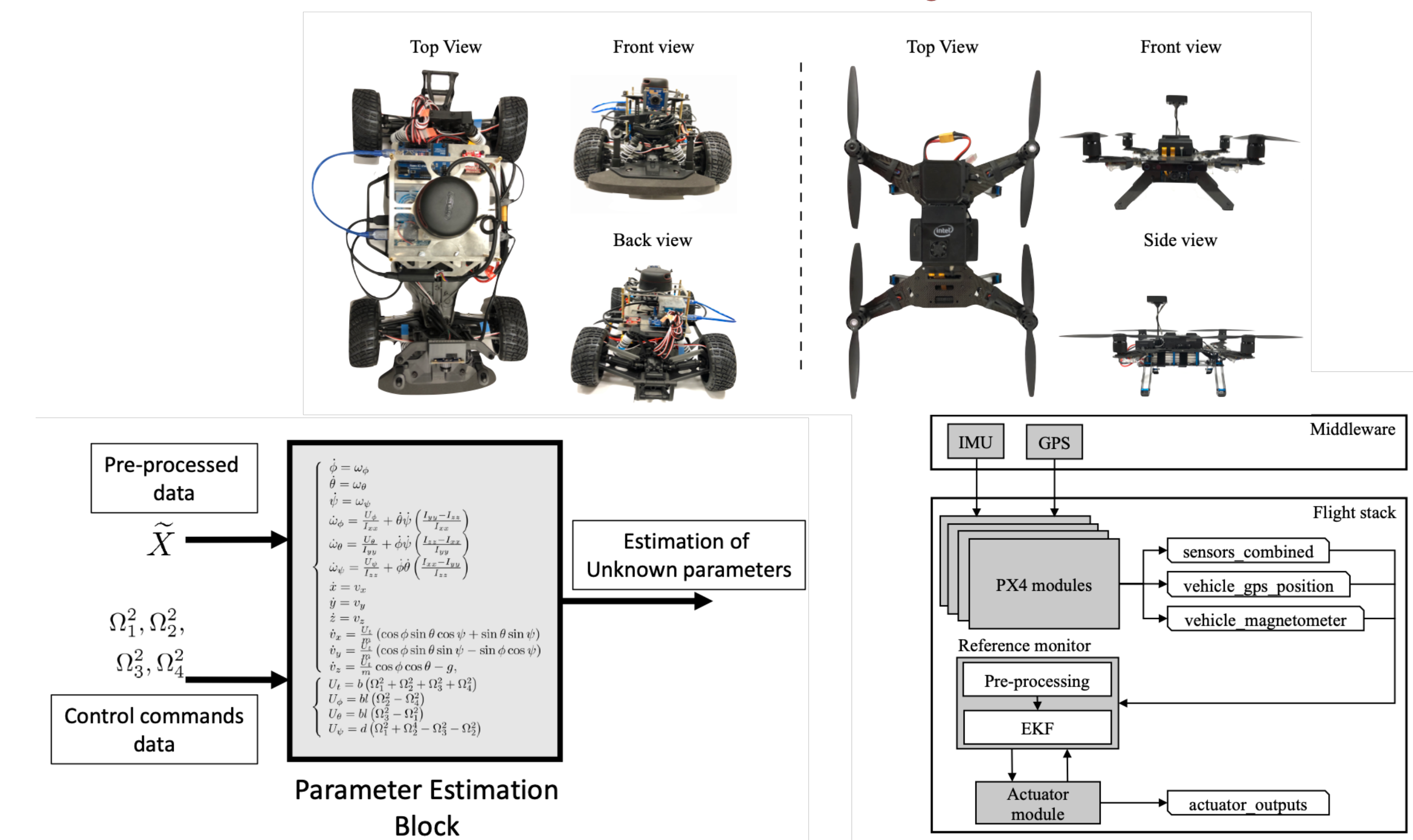
PI: Álvaro A. Cárdenas. University of California, Santa Cruz

Can a High Wattage IoT Botnet Bring Down the Power Grid?

Our paper:
Not as easy as previously thought



SAVIOR: Securing Autonomous Vehicles with Robust Physical Invariants



Recent Publications:

- Not everything is dark and gloomy: Power grid protections against IoT demand attacks. **USENIX Security 2019**
- Adversarial Classification Under Differential Privacy. **NDSS 2020**
- SAVIOR: Securing Autonomous Vehicles with Robust Physical Invariants. **USENIX Security 2020**
- Uncharted Networks: A First Measurement Study of the Bulk Power System. **IMC 2020**
- DARIA: Designing Actuators to Resist Arbitrary Attacks in CPS. **IEEE Euro S&P 2020**
- Real-Time Attack-Recovery for Cyber-Physical Systems Using Linear Approximations. **RTSS 2020**
- MaMIoT: Manipulation of Energy Market Leveraging High Wattage IoT Botnets. **CCS 2021**
- **Broader Impacts:**
 - 100% of supported PhD students come from underrepresented backgrounds in STEM
 - Undergraduate team wins Chancellor's 2021 award for CPS security research at UCSC