

# Establishing trust in cyber-physical computing

- **Scenario:** Dynamic networks of cyber-physical devices to allow opportunistic and participatory sensing applications (SARANA)
  - Allow a device to ship code to other devices for execution
  - Economic incentives may be involved for performing computation
- **Question:** How to bootstrap trust in such settings?
- **Answer:** Trusted computing: Cryptographic hardware (TPMs) on devices allow trust establishment.
- **Problem:** Existing trusted computing protocols are not designed for resource-constrained cyber-physical settings.
  - Interactive in nature, require storage to check/verify integrity measurements.
- **Our project:** We are investigating the energy impact of trusted computing protocols and are devising new ones suited for cyber-physical settings