

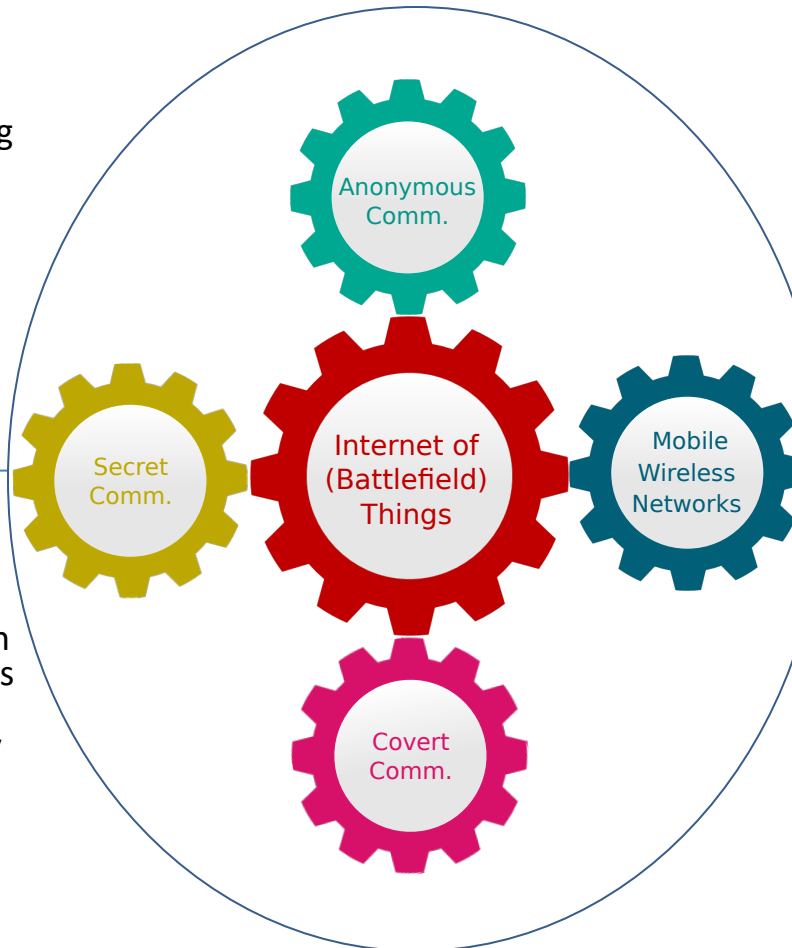
# Covert/Secret and Efficient Message Transfer in (Mobile) Multi-Agent Environments

## Challenge:

- Investigate how opportunistic message transfer and overhearing in an Internet-of-Things (IoT) environment can lead to security against malicious adversaries, with limited increase in required energy and bandwidth resources.

## Solution:

- Novel covert, secure, and efficient communication scheme between mobile nodes, which has the main feature that any data transfer is only performed over short distances, reducing exposure to adversarial actions.



## Scientific Impact:

- The project offers technical solutions which are not present in previous studies of opportunistic networking, such as exploiting overhearing opportunities and establishing covert communication via data storage and retrieval in mobile environments.

## Broader Impact:

- Opportunistic, multi-agent use of IoT devices offers a new paradigm in distributed networking and computing, and can be used address challenges in several emerging applications (e.g., disaster mitigation, vehicle communication).
- A female Ph.D. student is employed on the project.