Project Summary

Problem of threat detection
- Available sensing mmodalities
- Unexploited RF - pervasive rf
- No interpretive framework
- model received power as a random process, with underlying hidden state to be estimated

Overview

Employ passive rf sensnsors in different comm bands
- Interpret received power: kriging weighted by transmitting location
- Map of received power is random process
- Underlying state machine reveals threat [1]

Intellectual Merit

Unused dataset
- Reflects information traffic
- optical dlow as information flow, governed by state
- will give a new interpretive mathematical framework for unused dataset

Broader Impacts

Improved safety
- Anonymous

Project Description

Broader Impacts

Results From Prior NSF Support

Intellectual Merit

Broader Impacts

References Cited

[1] Stephan Sigg, Markus Scholz, Shuyu Shi, Yusheng Ji, and Michael Beigl. Rf-sensing of activities from non-cooperative subjects in device-free recognition systems using ambient and local signals. *IEEE Transactions on Mobile Computing*, 13(4):907–920, 2014.

Biographical Sketch: Your Name

(a) Professional Preparation

(b) Appointments

(c) Products

(d) Synergistic Activities

Data Management Plan

Collaborators and Other Affiliations Information

Collaborators and Co-Editors

Graduate Advisors and Postdoctoral Sponsors

Thesis Advisor and Postgraduate Scholar Sponsor