551: The Principles of Signals and Wireless Communication for Embedded Systems

Project 2 Due: 10 December 2018

Lecturer: Kasım Sinan Yıldırım

Indoor Localization

You are going to implement a wireless localization system using your smart-phone.

Steps

You are going to employ the following steps:

- Using your smart-phone, Record received signal strengths (RSS) from WIFI access points for for each room in a building.
- Create a radio map and store it in your smart-phone.
 - Clean data using the filtering techniques
- Sense the environment and apply Bayesian localization algorithm.
- Stop when you reach a steady-state.

Deliverables

Your source code together with:

Your RSS map

Source code (MATLAB, or any other language)

A report explaining a sample scenario and its error graphs at each step of the algorithm.