



The Project

Harnessing Interference in Wireless Networks: Building

Sponsor: Nazer

Duration: Spring, Summer & Fall 2015

AY hrs/week:

SUM hrs/week: Spring & Fall: 4-8 hours per week, Summer: 40 hours per week

Job Description

Current wireless communications strategies are severely limited by interference. That is, as more users are added to a network, the data rate available to each user sharply decreases. While this might seem like a fundamental limitation, several recently developed techniques have shown that interference can in fact be harnessed to achieve higher data rates.

The goal of this project is to begin prototyping these next-generation techniques on the Wireless Open-Access Research Platform (WARP, <http://warp.rice.edu>). We will have access to 2 WARP radio boards at BU, which can be programmed using Matlab and Simulink as well as C.

Qualifications

- Programming skills in Matlab and Simulink.
- Coursework in signals and systems (401) and probability (381)
- Knowledge of C and digital communications is a plus