

FACULTY MENTOR

Peter Gerstoft

PROJECT TITLE

MIMO Array Channel Sounder and Beamformer

PROJECT DESCRIPTION

Description: To develop machine learning approaches for array processing based on a physical array currently consisting of 24 antennas installed on the SIO pier operating at 1-6 GHz . The student will get hands on experience on whole spectrum of a wireless system such as design of algorithms, bring up of hardware, conducting real life experiments, creating python based software framework etc.

This project will be partially remote and partially in person.

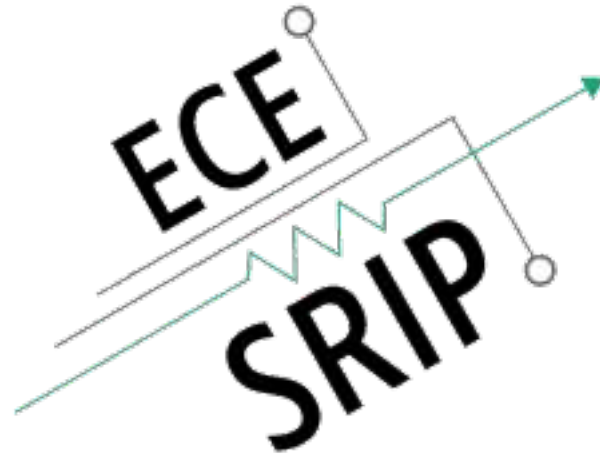
INTERNS NEEDED

2 MS

PREREQUISITES

Required Qualifications:

1. Taken a form of wireless communications course



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PROJECT TITLE

Acoustic room characterization and speaker tracking with google voice.

PROJECT DESCRIPTION

Description: We have 4 google voice antennas each with 8 microphones in a circular array, they upload the received signal to a server. We will like to do DSP and machine learning on the received signals. We are interested in using the received noise signal to characterize the room and track speakers.

This project will be partially remote and partially in person.

INTERNS NEEDED

2 MS

PREREQUISITES

Required Qualifications:

1. Has taken basic ML and DSP courses