

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.

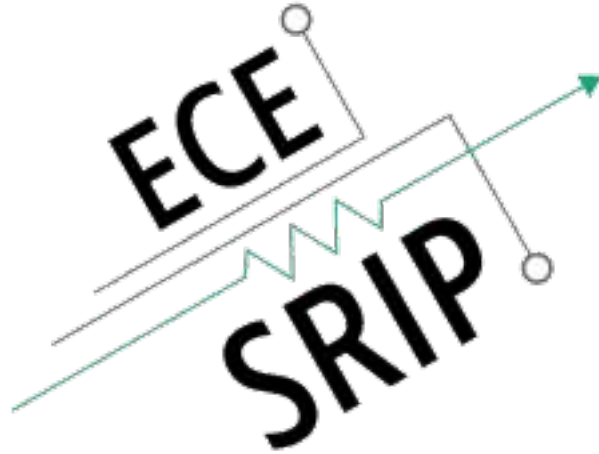
INTERNS NEEDED

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.

INTERNS NEEDED

2 MS

PREREQUISITES

Required Qualifications:

1. Has taken basic ML and DSP courses