

FACULTY MENTOR

Kuzum, Duygu

PROJECT TITLE

Deep Neural Nets for Biophysical Modeling of Brain Networks

PROJECT DESCRIPTION

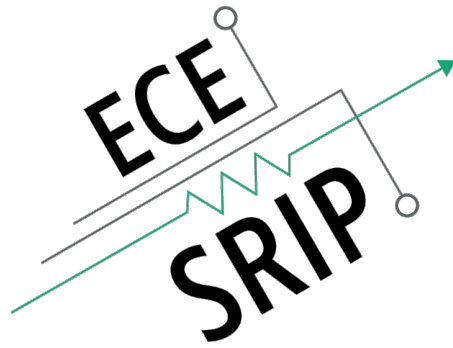
We develop new neural network algorithms based on advances in deep neural nets to model and simulate real brain circuits.

INTERNS NEEDED

2 MS and 1 BS students

PREREQUISITES

Knowledge on signal processing and neural nets. Students from SIP and ISRC tracks would be a good fit for this project.



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PROJECT TITLE

Neuromorphic systems for unsupervised learning

PROJECT DESCRIPTION

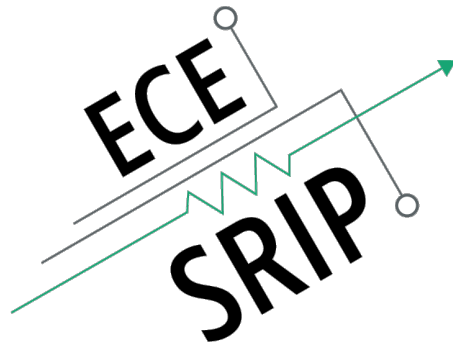
We develop memristor based neuromorphic arrays to implement unsupervised learning in the hardware to improve energy efficiency towards autonomous systems with can learn on their own using.

INTERNS NEEDED

2 MS and 1 BS students

PREREQUISITES

Some background in devices and neural networks. Students from SIP, ISRC and EDM tracks would be a good fit for this project.



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PROJECT TITLE

Implatable Neurodevices for Probing Brain Circuits

PROJECT DESCRIPTION

Students will be involved in implantable probe design, characterization and neural data analysis.

INTERNS NEEDED

2 MS and 1 BS students

PREREQUISITES

Students will be involved in implantable probe design, characterization and neural data analysis. Students from SIP, ISRC and MDS tracks would be a good fit for this project.