

ECE6217

Neural Network and Hardware Implementation

Lab 1

TA: You Zhou
08/29/2022

About this course...

Theory of neural network and their models.

Representation of neural cells;

Memristor and phase change (PCM) materials;

General concept of the multilayer of the neural networks;

Deep neural networks (DNN);

Spiking neural networks.

Prerequisites: ECE 4140 or ECE 6240; and knowledge of analog circuits design. (Fall, Every Year)

About the lab

Simulating the Neural Network using Cadence

Fall Semester 2022

From GW Calendar 12:45 p.m. – 3:15 p.m. Monday

Classes Begin	Monday, August 29
Labor Day (no classes)	Monday, September 5
Fall Break (no classes)	Monday, October 24 - Tuesday, October 25
Thanksgiving Break (no classes)	Wednesday, November 23 - Saturday, November 26
Last Day of Classes	Monday, December 12
Reading/Make-Up Day	Tuesday, December 13
Final Examinations	Wednesday, December 14 - Thursday, December 22
Fall Degree Conferral	Friday, January 6, 2023

About the instructor...

Mona Zaghloul



Title: Professor and Fellow of IEEE
Office: SEH 5500 | Office hours: R:
2:00 – 3:00 pm; By
appointment
Phone: 202-994-3772
Email: zaghloul@gwu.edu
Website: [The Institute for MEMS &
VLSI Technology](#)

For graduate students

Digital VLSI design ECE6240

Analog VLSI design ECE6218

RF VLSI design ECE6216

Neural Network and Hardware

Implementation ECE6217

Introduction to MEMS ECE6215 etc.

VLSI: Very Large-Scale Integration

MEMS: Micro-electromechanical systems

About the TA...

You Zhou

Ph. D student, advisor: Mona Zaghloul

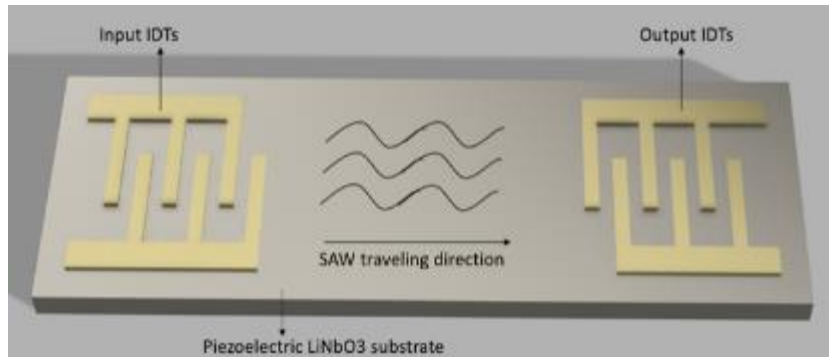
Email: yzhou57@gwu.edu

Office hour: 3:15 p.m. – 6:00 p.m. Monday; by appointment

Location: SEH 5th floor, Institute of VLSI and MEMS

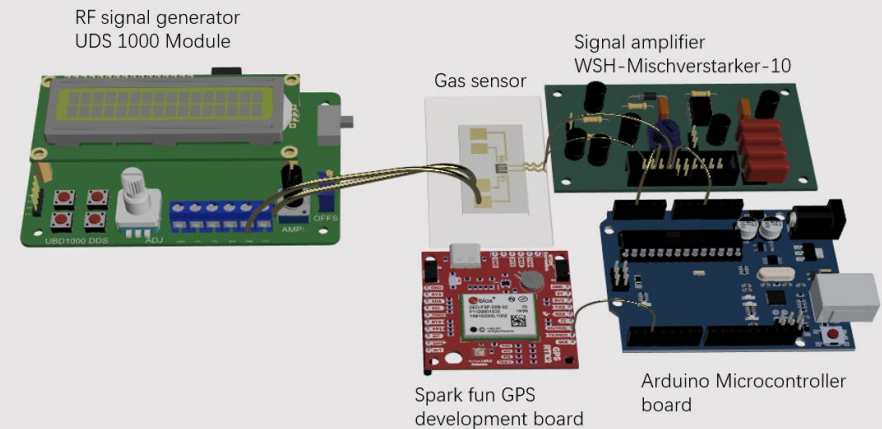
About my research

Surface Acoustic Wave(SAW) Device

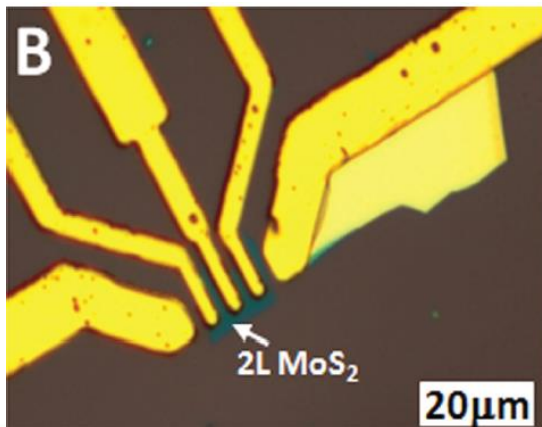


Gas sensing system

Prototype of the 2D MoS_2 - SAW gas sensing system



Two-dimensional (2D) Material



About your background...

Name:

Major and focus area:

Research area:

Research advisor:

Have you ever studied ECE6240 or ECE6218?

If yes, please briefly introduce your final project

Thank you

Enjoy the rest of this week.