# HEDIYEH SAVARI

Github Portfolio Website LinkedIn Email Address
Tehran, Tehran, Iran

Phone Number: (+98)9370763755

## **EDUCATION**

University of Tehran

Sep. 2018 - Jul. 2022

Master's Degree, Microelectromechanical Systems (MEMS)

GPA: 4/4 (18.19/20)

Iran University of Science and Technology

Bachelor's Degree, Electrical and Electronics Engineering

Sep. 2013 - Sep. 2018

GPA: 3/4 (15.02/20)

National Organization for Development of Exceptional Talents

Sep. 2009 - Sep. 2013

High School Diploma, Mathematics

GPA: 4/4 (19.66/20)

#### **PROJECTS**

Design and Fabrication of a Multifunctional Flexible Strain and Pressure Sensor based on Conductive Nanocomposites

Master's Thesis, University of Tehran

Feb. 2021 - Jul. 2022

Supervisor: Alireza Nikfarjam

Design and Fabrication of Superconducting, Stable, and Low-Cost Electrodes on Flexible Substrates

Supervisor: Alireza Nikfarjam, University of Tehran May. 2021 - Sep. 2021

Synthesis of Ultra-Thin, Long Silver Nanowires (AgNWs) for the Fabrication of Flexible, Transparent, and Conductive Electrodes

Supervisor: Alireza Nikfarjam, University of Tehran Feb. 2019 - Feb. 2020

Design and Fabrication of a Nickel-Based Micro-Heater

Supervisor: Alireza Nikfarjam, University of Tehran

May 2019 - Jul. 2019

Investigating the Structure, Properties, and Behavior Prediction of GaAs Semiconductor Lasers with 808 nm Radiation Wavelength and Bandwidth Less than 5 nm

Undergraduate's Thesis, Iran University of Science and Technology May. 2018 - Sep. 2018

Supervisor: Vahid Reza Yazdanpanah

## RESEARCH INTERESTS

Flexible/Wearable/Multifunction Sensors Disease Diagnosis Flexible/Wearable/Stretchable Electronics Nanoelectronics Transparent/Printed Electronics Nanotechnology MEMS/NEMS Lab-on-a-Chip Technology Smart Materials/Textile Optimization Sensor Fabrication Machine Learning Electronic Skin Artificial Intelligence **Human-Machine Interactions** Soft Robotics Health Monitoring Remote Sensing and Image Processing

#### **PUBLICATION**

**H.Savari, A.Nikfarjam -** "Design and Fabrication of a Multifunctional Flexible Strain and Pressure Sensor based on Conductive Nanocomposites," 2023.

\*\*under preparation\*\*

#### **EXPERIENCE**

## Teaching Assistant at Advanced Micro and Nano Device Lab

Feb. 2021 - Sep. 2022

Lecturer: Alireza Nikfarjam, University of Tehran

Teaching new students the fundamentals of working in the cleanroom environment and instructing them in various fabrication techniques

#### **SKILLS**

## Laboratory Skills

Research and Development (R&D), Device Fabrication, Microfabrication, Nanomaterial Synthesis, DC and RF Sputtering, Chemical Vapor Deposition (CVD), Physical Vapor Deposition (PVD), Spin Coating, Doctor Blade Coating, Mask Design, Photolithography, Lift-off Process, Wet and Dry Etching

## **Characterization Skills**

Scanning Electron Microscopy (SEM), Transmission Electron Microscopy (TEM), X-ray Diffraction (XRD), Scanning Tunneling Microscopy (STM), UV/Vis Spectroscopy, FTIR Spectroscopy, Raman Spectroscopy, Compound Light Microscopic Analysis

#### Software Skills

COMSOL Multiphysics, Silvaco, CorelDRAW, Photoshop, Premiere, Microsoft Office

## **Programming Languages and Frameworks**

Python, Matlab, C++, HTML, CSS, JavaScript, Wolfram Mathematica, LaTeX

#### LANGUAGE SKILLS

English (Advanced and Fluent), TOEFL iBT: Overall score: 98

10th Sep., 2023

(Reading: 24, Listening: 27, Speaking: 23, Writing: 24)

Persian (Native), Arabic (Upper intermediate), German (Beginner)

#### **ACTIVITIES**

- Deputy Head and the Documentary Writer of the Student Scientific Association of Electrical Engineering

Iran University of Science and Technology

2016-2017

- Honorary Member of the Student Scientific Association of Electrical Engineering
Iran University of Science and Technology 2015-2016

- Honorary Member of the Cultural Office of the Faculty of Electrical Engineering

Iran University of Science and Technology

2014-2015

## HONORS AND AWARDS

- Ranked 2nd in the M.Sc. cohort of 2018, Microelectromechanical Systems (MEMS) Program

University of Tehran
- Tuition Fee Waiver Scholarship, Graduate Program

by the time of graduation

Sep. 2018 - Jul. 2022

University of Tehran

- Tuition Fee Waiver Scholarship, Undergraduate Program

Sep. 2013 - Sep. 2018

Iran University of Science and Technology

- Ranked 1445th among 250,000 participants in the Iranian Nation-wide University Entrance Exam Known as Konkour for B.Sc degree in Engineering Sep. 2013
- Admitted to attend NODET (National Organization for Development of Exceptional Talents) by taking the NODET exam

  Sep. 2009

#### LICENSES AND CERTIFICATIONS

- Recent Advances in Freeform Electronics, (offered by Yonsei University)

Coursera, Credential ID QCVZFHCKBF37

Issued May 2023

- Programming for Everybody (Getting Started with Python), (offered by University of Michigan)

Coursera, Credential ID GWSLB43EDL8A

Issued Mar 2023

#### SELECTED COURSES

Modern Physics, 18/20

Sensors and Micromachine, 19/20

Nano-materials Characterization Methods, 18.5/20

Nanobiotechnology, 18.3/20

Theory and Technology of Semiconductors, 19.25/20

Nanotechnology, 18.25/20

Special Topics in Micro- and Nano- electromechanical Systems, 18/20

#### **HOBBIES**

Chess, Hiking, Swimming, Fitness, Traveling

#### REFERENCES

## Alireza Nikfarjam

Email Address: a.nikfarjam@ut.ac.ir

Title: Associate Professor at University of Tehran, Tehran, Tehran, Iran

#### Aliakbar Jalali

Email Address: drjalali@gmail.com

Titles:

Adjunct Professor at University of Maryland Baltimore County, Catonsville, Maryland, United States

Adjunct Professor at West Virginia University, Morgantown, West Virginia, United States

Professor at Iran University of Science and Technology, Tehran, Tehran, Iran

## Vahid Reza Yazdanpanah

Email Address: Vahpap@yahoo.com

Title: R&D Scientist and Process Engineer at Santa Rosa, California, United States

Former Assistant Professor at Iran University of Science and Technology

## Hassan Hajghassem

Email Address: hajghassem@ut.ac.ir

Title: Associate Professor at University of Tehran, Tehran, Tehran, Iran

## Javad Koohsorkhi

Email Address: koohsorkhi@ut.ac.ir

Title: Associate Professor at University of Tehran, Tehran, Tehran, Iran

#### Reza Askari Moghadam

Email Address: r.askari@ut.ac.ir

Title: Researcher at Université Paris-Est Créteil (UPEC), Créteil, Île-de-France, France

Former Associate Professor at University of Tehran, Tehran, Tehran, Iran