

# HEDIYEH SAVARI

[Github Portfolio](#)  
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## EDUCATION

<b>University of Tehran</b> Master's Degree, Microelectromechanical Systems (MEMS)	<i>Sep. 2018 - Jul. 2022</i> GPA: 4/4 (18.19/20)
<b>Iran University of Science and Technology</b> Bachelor's Degree, Electrical and Electronics Engineering	<i>Sep. 2013 - Sep. 2018</i> GPA: 3/4 (15.02/20)
<b>National Organization for Development of Exceptional Talents</b> High School Diploma, Mathematics	<i>Sep. 2009 - Sep. 2013</i> GPA: 4/4 (19.66/20)

## PROJECTS

<b>Design and Fabrication of a Multifunctional Flexible Strain and Pressure Sensor based on Conductive Nanocomposites</b> Master's Thesis, University of Tehran Supervisor: Alireza Nikfarjam	<i>Feb. 2021 - Jul. 2022</i>
<b>Design and Fabrication of Superconducting, Stable, and Low-Cost Electrodes on Flexible Substrates</b> Supervisor: Alireza Nikfarjam, University of Tehran	<i>May. 2021 - Sep. 2021</i>
<b>Synthesis of Ultra-Thin, Long Silver Nanowires (AgNWs) for the Fabrication of Flexible, Transparent, and Conductive Electrodes</b> Supervisor: Alireza Nikfarjam, University of Tehran	<i>Feb. 2019 - Feb. 2020</i>
<b>Design and Fabrication of a Nickel-Based Micro-Heater</b> Supervisor: Alireza Nikfarjam, University of Tehran	<i>May 2019 - Jul. 2019</i>
<b>Investigating the Structure, Properties, and Behavior Prediction of GaAs Semiconductor Lasers with 808 nm Radiation Wavelength and Bandwidth Less than 5 nm</b> Undergraduate's Thesis, Iran University of Science and Technology Supervisor: Vahid Reza Yazdanpanah	<i>May. 2018 - Sep. 2018</i>

## RESEARCH INTERESTS

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

## PUBLICATION

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

## EXPERIENCE

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**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

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### 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

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**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

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- **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

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- **Ranked 2nd in the M.Sc. cohort of 2018, Microelectromechanical Systems (MEMS) Program**  
University of Tehran *by the time of graduation*
- **Tuition Fee Waiver Scholarship, Graduate Program**  
University of Tehran *Sep. 2018 - Jul. 2022*
- **Tuition Fee Waiver Scholarship, Undergraduate Program**  
Iran University of Science and Technology *Sep. 2013 - Sep. 2018*

- 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

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- **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

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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

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Chess, Hiking, Swimming, Fitness, Traveling

## REFERENCES

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### **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