



Atefeh Ahmadi

**Master of Biomedical Engineering
- Bioelectric**

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Web of Science ResearcherID:

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Birth: 29/2/1996

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Loop Page:

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Publons Page:

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Scopus Page:

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Educational Background

- **Ph.D. of Biomedical Engineering majoring in Bioelectric**

Amirkabir University of Technology (Tehran Polytechnic)
2021-Present
Supervisor: Dr. Sajad Jafari
GPA: 19.81

- **Master of Biomedical Engineering majoring in Bioelectric**

Amirkabir University of Technology (Tehran Polytechnic)
2018-2021
Thesis Topic: Simulated Brain Tumor Resection Using Reinforcement Learning Agents
Supervisor: Dr. Hamed Azarnoush
GPA: 19.41

- **Bachelor of Biomedical Engineering majoring in Bioelectric**

Amirkabir University of Technology (Tehran Polytechnic)
2014-2018
Thesis Topic: Design and Analysis of Simple Chaotic Systems with Extreme Multi-stability
Supervisor: Dr. Sajad Jafari
GPA: 18.21

- **Diploma**

Farzanegan 1 High School, Tehran (National Organization for Development of Exceptional Talents)
2014-2018
GPA: 19.83

Teaching Experiences

- **Teaching Assistant of Chaos and its applications in Engineering Course**

Faculty of Biomedical Engineering Amirkabir University of Technology
(Tehran Polytechnic)

Lecturer: Dr. Sajad Jafari and Dr. Fahimeh Nazarimehr

Collaboration Time: The first semester of the academic year 2022-2023

- **Electrical Circuits Laboratory Instructor**

Faculty of Biomedical Engineering Amirkabir University of Technology
(Tehran Polytechnic)

Collaboration Time: The second semester of the academic year 2021-2022

- **Teaching Assistant of Biostatistics and Probability Course**

Faculty of Biomedical Engineering Amirkabir University of Technology
(Tehran Polytechnic)

Lecturer: Dr. Mehrdad Saviz

Collaboration Time: The second semester of the academic year 2020-2021

- **Teaching Assistant of Image Processing Course**

Faculty of Biomedical Engineering Amirkabir University of Technology
(Tehran Polytechnic)

Lecturer: Dr. Hamed Azarnoush

Collaboration Time: The first semester of the academic year 2020-2021

- **Teaching Assistant of Bioelectrical Phenomena Course**

Faculty of Biomedical Engineering Amirkabir University of Technology
(Tehran Polytechnic)

Lecturer: Dr. Mehrdad Saviz

Collaboration Time: The second semester of the academic year 2019-2020

Foreign Languages

Title	Listening Level	Speaking Level	Writing Level	Reading Level
English	★★★★☆	★★★★☆	★★★★☆	★★★★☆

MSRT Test: 82/100

Courses and Certificates

- **Photoshop Software**

Student Scientific Association of Amirkabir University of Biomedical Engineering (Tehran Polytechnic)

2019
20 hours

- **Implementation of Deep Neural Networks with PyTorch**

Student Scientific Association of Amirkabir University of Biomedical Engineering (Tehran Polytechnic)
2019
32 hours

- **Python Software**

Student Scientific Association of Amirkabir University of Biomedical Engineering (Tehran Polytechnic)
2018
30 hours

- **Latex Software**

Student Scientific Association of Amirkabir University of Biomedical Engineering (Tehran Polytechnic)
2018
16 hours

- **Advanced MATLAB Software**

Student Scientific Association of Amirkabir University of Biomedical Engineering (Tehran Polytechnic)
2018
40 hours

- **Workshop on Safety Instructions for Electromagnetic Radiation and Health Hazards**

The 24th National Conference and the 2nd International Conference on Biomedical Engineering of Iran
2017
3 hours

- **MATLAB Software**

Student Scientific Association of the Faculty of Chemical Engineering, Amirkabir University of Technology (Tehran Polytechnic)
2014
70 hours

Events

- **20th Iran Health International Exhibition**

2017

- **Amirkabir University of Technology Biomedical Engineering Market Idea Event (Tehran Polytechnic)**

2014

- **21st Iranian Conference on Biomedical Engineering Amirkabir University of Technology (Tehran Polytechnic)**

2014

Skills

- **Programming Languages:**

C	★★★★☆	Python	★★★★☆
Mathematica	★★★★☆	Pytorch	★★★★☆
MATLAB	★★★★☆	Tensorflow	★★★★☆

- **Professional Softwares:**

Atmel Studio	★★☆☆☆	LTSPICE	★★★★☆
Code Vision	★★★★☆	Orcad	★★★★☆
MATLAB	★★★★☆	MATLAB Simulink	★★★★☆
Altium Designer	★★☆☆☆	MATLAB GUI	★★★★☆
Labview	★★☆☆☆	Spyder	★★★★☆
Proteus	★★★★☆	Google Colab	★★★★☆

- **Other Softwares:**

Microsoft Office	★★★★☆	Latex	★★★★☆
Photoshop	★★★★☆	Beamer	★★★★☆

Papers

- **Expanding the duopoly Stackelberg game with marginal costs into a multipoly game with lowering the burden of mathematical calculations: a numerical analysis**

Chaos, Solitons & Fractals
2022

- **Oyster oscillator: a novel mega-stable nonlinear chaotic system**

The European Physical Journal Special Topics
2022

- **Extreme multi-stability analysis of a novel 5D chaotic system with hidden attractors, line equilibrium, permutation entropy and its secure communication scheme**

The European Physical Journal Special Topics
2020

- **A novel 5D chaotic system with extreme multi-stability and a line of equilibrium and its engineering applications: circuit design and FPGA implementation**

Iranian Journal of Science and Technology, Transactions of Electrical Engineering
2020

- **Coexisting infinitely many attractors in a new chaotic system with a curve of equilibria: Its extreme multi-stability and Kolmogorov – Sinai entropy computation**

Advances in Mechanical Engineering
2019

- **A new hidden chaotic attractor with extreme multi-stability**

AEU-International Journal of Electronics and Communications
2018

- **Extreme multi-stability: When imperfection changes quality**

Chaos, Solitons & Fractals
2018

Book Chapters

- **Recent Advances in Chaotic Systems and Synchronization From Theory to Real World Applications**

Academic Press
2019

Journal Referee

- **Applied Mathematical Modelling**
- **Computational Intelligence and Neuroscience**
- **International Journal of Bifurcation and Chaos**
- **International Journal of Electronics and Communications**
- **The European Physical Journal Special Topics**

Achievements

- **Distinguished Ph.D. degree student, Faculty of Biomedical Engineering, Amirkabir University of Technology (Tehran Polytechnic) - Achieving the first rank among seven students**

- **Selected for the award to provide facilities to the top graduates of universities to continue their studies in Ph.D. (Martyr Ahadi Award of the National Elite Foundation) in 1400**
- **Rank 4 in the semi-centralized entrance exam for Ph.D. in 2021**
- **Rank 3 in the semi-centralized entrance exam for Ph.D. in 2020**
- **Selected for the award to support the scientific and cultural activities of the country's talented students (Martyr Vezvaei Award of the National Elite Foundation) in the years 2018-2022**
- **Distinguished Master's degree student, Faculty of Biomedical Engineering, Amirkabir University of Technology (Tehran Polytechnic) - Achieving the first rank among 28 students**
- **Rank 102 on the foreign language entrance exam in 2014**

Volunteer Experiences

- **A volunteer member of the Iranian Red Crescent Youth Organization**