

Tayebe Azimi

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EDUCATION

M.Sc. In Biomedical Engineering

[23 Sep 2018 – 14 Mar 2021]

The University of Isfahan, Isfahan, Iran (**Ranked among the top 10 comprehensive universities of Iran** [Ranking University of Isfahan](#))

Thesis: Cardiovascular risk assessment and Covid-19 mortality risk assessment using machine-learning methods

Supervisors: Dr. Hamid Reza Marateb and Prof. Marjan Mansourian

Advisors: Prof. Nizal Sarrafzadegan and Prof. Miquel Angel Mañanas

GPA: 17.04 out of 20 [85.02% | 3.65/4]

B.S. in Biomedical Engineering

[23 Sep 2011 – 14 Sep 2015]

Hamedan University of Technology, Hamedan, Iran

Thesis: Designing and manufacturing an audio and video drug warning device for Alzheimer's patients

Supervisor: Dr. Rasool Baghbani

GPA: 16.10 out of 20 [80.5%]

RESEARCH INTERESTS

Medical Statistics, Machine Learning, Data Mining, System Identification, Pattern Recognition, Image and Signal Processing, Computer Game

Honors and Awards

- **Funded** by the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska Curie grant agreement No 712949 (TECNIOspring PLUS), from the Agency for Business Competitiveness of the Government of Catalonia, and also the Machine Learning department of Isfahan Cardiovascular research center for the master's thesis
- **Received full scholarship** from University of Isfahan (tuition waiver)
- **Received full scholarship** from Hamedan University of Technology (tuition waiver)

PUBLICATIONS

[1] "Epileptic seizure prediction and onset zone localization using intracranial and scalp electroencephalographic and magnetoencephalographic signals" Hamid Reza Marateb, Carolina Migliorelli, Alejandro Bachiller, **Tayebe Azimi**, Farzad Ziaie Nezhad, Marjan Mansourian, Joan Francesc Alonso, Javier Aparicio, Maria Victoria San Antonio-Arce, Sergio Romero and Miguel Ángel Mañanas

<https://iopscience.iop.org/chapter/978-0-7503-3279-8/bk978-0-7503-3279-8ch4.pdf>

Modelling and Analysis of Active Biopotential Signals in Healthcare, vol. 1, pp. 4-1, 2020

[2] A 10-year study of risk assessment for cardiovascular diseases based on machine learning methods in Eastern Mediterranean Region

Under Preparation

[3] A one-year mortality risk assessment of COVID -19 based on machine learning methods in the Eastern Mediterranean region

Under Preparation

CONFERENCES

International Conference on Computer Games; Challenges and Opportunities [2019 – 2021]

Executive team member of international Conference on Computer Games; Challenges and Opportunities for two consecutive years.

<https://cgco2021.ui.ac.ir/fa/>

ACADEMIC EXPERIENCES

Epileptic seizure prediction 2020

collaboration with the BIOSignal Analysis for Rehabilitation and Therapy Research Group (BIOART) of the Universitat Politècnica de Catalunya, Spain in writing one chapter of a book

Risk assessment using machine learning methods (GMDH, Logic regression, Random Survival Forest, Cox, Cause-specific Cox proportional hazard regression) [2019 - 2021]

Programming an audio and video drug warning device for Alzheimer's patients [2015 – 2015]

TEACHING EXPERIENCES

Instrumentation Lab 2019-2020

Teaching assistant, Department of Biomedical Engineering
University of Isfahan

Electronic Circuits 2 2013-2014

Teaching assistant, Department of Biomedical engineering
Hamedan University of Technology

COMPUTER SKILLS

Programming Languages: MATLAB, Python, R

Packages: GMDH, Logic Regression, Random Survival Forest, Logistic Regression, H2O, Cause-specific Cox proportional hazard regression

LANGUAGE SKILLS

Mother tongue(s): Persian (Native)
Turkish (Native)

Other language(s): English
IELTS: overall: 6.5

OTHER EXPERIENCES

- Reducing False Arrhythmia Alarms in the ICU monitors using Matlab
- ECG noise reduction techniques
- ECG feature extraction
- Video pseudo coloring (CNN)
- Texture detection using image processing techniques

WORK EXPERIENCE

Biomedical engineering expert

Jan 2016 – Nov 2017

Shiraz university of medical sciences, Shiraz, Iran

Internship: Biomedical engineering expert

Aguste 2014

Shiraz university of medical sciences, Shiraz, Iran

REFERENCES

1. Dr. Hamid Reza Marateb

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University of Isfahan

Department of Biomedical Engineering

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2. Prof. Marjan Mansourian

Professor

Isfahan University of Medical Sciences

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3. Dr. Javad Rasti

Assistant Professor

University of Isfahan

Department of Biomedical Engineering

Founder and General Secretary of International Conference on Computer Games; Challenges and Opportunities (CGCO), University of Isfahan, IRAN

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4. Dr. Rasool Baghbani

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