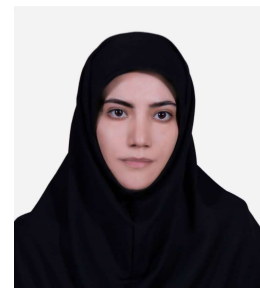# Curriculum Vitae

Parisa Ghaderi Daneshmand

Email: daneshmand.eng@gmail.com

Birthplace: Hamedan/IRAN

Education

❖ **Ph.D. in Biomedical Engineering, Bioelectric. (Sep.2016 - Mar.2021)**
Isfahan University of Medical Sciences, Isfahan, Iran.
Thesis: Reconstruction of Optical Coherence Tomography (OCT) Images by Energy Based Modeling
Supervisors: Dr. Alireza Mehridehnavi, Dr. Hossein Rabbani

❖ **M.Sc. in Biomedical Engineering**, **Bioelectric. (Sep.2009 - Sep.2011)**
Khajeh Nasir Toosi University of Technology, Tehran, Iran.
Thesis: Three-Dimensional Hybrid BEM/FEM Method in Image Reconstruction of Electrical Impedance Tomography (EIT) Systems for Medical Applications
Supervisor: Dr. Reza Jafari
Advisor: Dr. Manouchehr Soleimani

❖ **B.Sc. in Biomedical Engineering**, **Bioelectric. (Sep.2004- Sep.2008)**
University of Isfahan, Isfahan, Iran.
Thesis: ECG Parameters Detection in Holter Monitor by Means of MATLAB Software
Supervisor: Dr. Mohammadreza Yazdchi

Research Interest

❖ Image Processing
- Image Reconstruction methods, Super-resolution methods, Noise reduction methods, Compressive Sensing methods
❖ Time-frequency Analysis
❖ Modeling

- ❖ Inverse Problem
- ❖ Numerical Methods

Teaching Experiences

Teaching:

- ❖ "Electrical Circuit I", *Hamedan University of Technology*, Hamedan, Iran, 2011-2016.
- ❖ "Electrical Circuit II", *Hamedan University of Technology*, Hamedan, Iran, 2011-2016.
- ❖ "Logic Circuit", *Hamedan University of Technology*, Hamedan, Iran, 2011-2016.
- ❖ "Signal & System", *Hamedan University of Technology*, Hamedan, Iran, 2011-2016.
- ❖ "Protection of Medical Equipment", *Hamedan University of Technology*, Hamedan, Iran, 2011-2016.
- ❖ "Hospital Equipment and Systems", *Hamedan University of Technology,* Hamedan, Iran, 2011-2016.
- ❖ "Introduction to Biomedical Engineering", *Hamedan University of Technology*, Hamedan, Iran, 2011-2016.
- ❖ "Digital Electronic", *Hamedan University of Technology*, Hamedan, Iran, 2011-2016.
- ❖ "Engineering Mathematics", *Hamedan University of Technology, Hamedan*, Iran, 2011-2016.
- ❖ "Differential Equations", *Hamedan University of Technology, Hamedan*, Iran, 2011-2016.
- ❖ " Electronic I", *Hamedan University of Technology*, Hamedan, Iran, 2011-2016.
- ❖ "Electrical Circuit Laboratory I*", Hamedan University of Technology*, Hamedan, Iran, 2011-2016.
- ❖ "Digital Electronic Laboratory", *Hamedan University of Technology*, Hamedan, Iran, 2011-2016.

Teaching Assistant:

- ❖ "Biological Signal Processing", *Khajeh Nasir Toosi University of Technology*, Tehran, Iran, 2010-2011.
- ❖ "Optic", *Khajeh Nasir Toosi University of Technology*, Tehran, Iran, 2010-2011.
- ❖ "Convex Optimization", *Isfahan University of Medical Sciences*, Isfahan, Iran, 2017-2018.

- ❖ "Advanced Topics in Biomedical Signal Processing", *Isfahan University of Medical Sciences*, Isfahan, Iran, 2017-2018.
- ❖ "Advanced Modeling", *Isfahan University of Medical Sciences*, Isfahan, Iran, 2017-2018.
- ❖ "Pattern Recognition", *Isfahan University of Medical Sciences*, Isfahan, Iran, 2017-2018.

Honors and Certificates

- ❖ The first rank among Ph.D. students in Biomedical Engineering, Isfahan University of Medical Sciences, Isfahan, Iran, 2021. (**GPA**=18.84/20)
- ❖ The first rank among M.Sc. students in Biomedical Engineering, Khajeh Nasir Toosi University of Technology, Tehran, Iran, 2011. (**GPA**=18.24/20)
- ❖ Selected and awarded as the Biomedical Engineering Outstanding Student, Khajeh Nasir Toosi University of Technology, Fall 2010.
- ❖ Winner of the third prize of 1st Iranian Brain Computer Interface (BCI) Competition, Fall 2017.

Publications

- ❖ P. G. Daneshmand and R. Jafari, "A 3D hybrid BE–FE solution to the forward problem of electrical impedance tomography," *Engineering Analysis with Boundary Elements*, vol. 37, no. 4, pp. 757-764, 2013.

- ❖ M. Mokhtari, P. G. Daneshmand, and H. Rabbani, "Optical oherence tomography image reconstruction Using Morphological Component Analysis," *Proceedings of 41st Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC),* Berlin, Germany, pp. 5601-5604, 2019.

- ❖ P. G. Daneshmand, H. Rabbani, and A. Mehridehnavi, "Super-Resolution of Optical Coherence Tomography Images by Scale Mixture Models," *IEEE Transactions on Image Processing*, vol. 29, pp. 5662-5676, 2020.

- ❖ P. G. Daneshmand, A. Mehridehnavi, and H. Rabbani, "Reconstruction of Optical Coherence Tomography Images Using Mixed Low Rank Approximation and Second Order Tensor Based Total Variation Method," *IEEE Transactions on Medical Imaging*, vol. 40, pp. 865 -878, 2021.

❖ Ehsan Mohammadi, Parisa Ghaderi Daneshmand, Seyyed Mohammad Sadegh Moosavi Khorzooghi, "Electroencephalography-based Brain–Computer Interface Motor Imagery Classification", *Journal of Medical Signals & Sensors*, 2021.

Research Projects

❖ **Project:** Classification of the Motor Execution and Imagery EEG Signals with high-accuracy, Supported by Student Research Committee, School of Advanced Technologies in Medicine, Isfahan University of Medical Sciences, Isfahan, Iran, 2017.

Reviewer

I was a reviewer of the following journals:

❖ IEEE Transactions on Medical Imaging

❖ Journal of Medical Signals & Sensors

Work Experience

❖ Prior to my M.Sc. I was working in Besat Hospital, Hamedan, Iran, 2009.

Computer Skills

❖ FEMLAB
❖ MATLAB and Simulink
❖ Python
❖ OrCAD
❖ SPSS

Language

❖ English
❖ Persian