

In the name of GOD

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EDUCATION:

- B.Sc. in Electrical (control) Engineering, Sharif University of Technology Iran, 1991 – 1996
- M.Sc. in Electrical (power) Engineering, Ferdowsi University of Mashhad, Iran, 1996 – 1999
- Ph.D. in Electrical (control) Engineering, Ferdowsi University of Mashhad, Iran, 2005-2010

TECHNICAL EXPERIENCES:

- Designer of industrial controller systems, Computer and Automation section of “Jahad daneshgahi”, Sharif University of Technology, 1995-96.
- “Design and manufacturing of an intelligent mobile robot with vision”, University of Kashan, Iran, 2001.
- “Design and manufacturing of ECUs with CAN bus for Automotive systems”. Joint research between ICT centre of Isfahan university of Technology & University of Kashan, Iran, 2002.
- “Design and manufacturing of central lock for Automotive systems”. Joint research between ICT centre of Isfahan university of Technology & University of Kashan, Iran, 2002.
- Advisor on industrial automation systems for private enterprises from 1997.
- Designer and executor of Smart Double Car Park, University of Kashan, 2015.
- Supervisor of six student’s teams in 4 series of the national and international competitions of the CANSAT of the Iranian Space Research Institute and winning 4 first ranks and 2 second ranks, 2011-2015.
- Manager of fixed wing drone design and construction team with a completely new design and various types of multi-rotors in different sizes, 2016-2019.
- Mentor of companies in designing ozone, ultrasonic, electrolysis systems for pollutant treatment, 2019-2020.

- Master of technical troubleshooting team for pneumatic conveyer of mass transferring in Khatoon Abad copper co. and designer of pneumatic conveyer in Samangan co. with Kimiagaran sanat Amirkabir co. 2020.
- Thinker of The TAFTA Lab. for Purification and recovery of waste waters in Kimiagaran sanat Amirkabir co. 2020.
- Project manager for designing and building a coordinated flight system for quad-rotors at the Elite's National Foundation (bmn.ir), 2020.

EDUCATION & TRAINING SKILLS:

Electrical Engineering Faculty, university of Kashan, Iran, from 1999.

Designer of the below Lab's in electrical faculty of University of Kashan:

- Microprocessor Lab,
- Computer architecture Lab,
- FPGA Lab,
- PC interfacing circuits Lab,
- Industrial control
- Digital control

TAUGHT COURSES:

- Microprocessors,
- PC interfacing circuits,
- Computer architecture,
- Linear control,
- Fuzzy control,
- Industrial control,
- Industrial automation,
- Modern control,
- Nonlinear control,
- Soft computing,
- Advanced mathematics for control engineering,
- Artificial neural networks,
- Industrial electronics,
- Intelligent control.

RESEARCH AREAS:

- Analysis and synthesis of linear and nonlinear systems
- Nonlinear control, Robust control, Fuzzy control, Intelligent control
- Design of digital circuits with FPGA, Microcontroller and Embedded systems.
- Real time work and Hardware in the loop systems.
- Industrial automation and protocols and process control
- Robotic design and mechatronic systems
- Advanced automotive electric & electronic

MANAGEMENT EXPERIENCES & SKILLS:

- QC and R&D manager in ISKRA auto-electric co. 2000-2001.
- Manager of Incubator of technology private enterprises, Kashan University 2002-2005.
- Manager of entrepreneurship center of Kashan University, 2010-2012.
- Manager of science communications and technologic affairs, Kashan University 2013-2018.
- Manager of student's research affairs of Kashan university from 2010.
- Instructor of courses in creativity, entrepreneurship and business models.
- Fluent in implementing standards and QC&QA systems.
- Referee for evaluating knowledge-based companies and national patents.

PUBLICATIONS:

- M.sc. thesis: “Design of a μ Robust controller for a multi machine power system”, Electrical department, Engineering Faculty, Ferdowsi university of Mashhad, 1999.
- Asgharaian R. and Faraji Armaki A., “Design of a μ Robust controller for a multi machine power system”, Proceedings of Iranian Conference on Electrical Engineering (ICEE), Isfahan University of Technology, Iran, 2000.
- Faraji Armaki A., Pariz N. and Asgharian R., “An algorithm for constructing nonsmooth Lyapunov functions for continuous nonlinear time invariant systems”, Iranian Journal of Control, Vol. 3, No. 2, pp 17-24, 2009.
- Faraji Armaki A., Pariz N. and Asgharian R., “Construction of Nonpathological Lyapunov functions for discontinuous systems with Caratheodory solutions”, Asian Journal of Control, printed 7 oct. 2010.
- Faraji Armaki A., Pariz N. and Asgharian R., “A method for constructing Nonpathological Lyapunov functions for Caratheodory systems”, Submitted to Nonlinear Analysis Journal, June 2010.
- PH.D. thesis: “A new method for constructing Lyapunov functions for Caratheodory systems”, Electrical department, Engineering Faculty, Ferdowsi university of Mashhad, 2010.
- Design of Robust Nonlinear Optimal Controller for Underwater Vehicle to Move in Depth Channel using Gradient Descent Method with Systematic Step Selection, Marzieh Ahmadi, Abolfazl Halvaei Niasar, Alireza Faraji, Hassan Moghbeli, Applied Mechanics and Materials Trans Tech Publications, Switzerland, Vol. 704 , pp 320-324, (2015) , doi:10.4028 /www.scientific.net/AMM.704.320.
- Position Sensorless Direct Power Control of Brushless DC Motor Drive, Saber Jamshidi far, Abolfazl Halvaei Niasar, Alireza Faraji, power electronic technologies, sharif university conference, march 2015.
- Sensorless Selective Torque Harmonic Elimination Control for a Non-Sinusoidal Permanent Magnet Brushless Motor Using a Full-Order Sliding Mode Observer, A. Halvaei Niasar, A. Faraji, Tabriz Journal of Electrical Engineering, vol.47, no.1, 2017.

- Photovoltaic stability analysis using Lyapunov method and new strategy for MPPT, M. Poor monfared azimi, A. Faraji, M. Rahimi, 5th regional conference on electricity distribution, Tehran, jan, 2017.
- Prediction of Peak Ground Acceleration for earthquakes by using Intelligent Methods, Marzieh ahmadi, Ali Nasrollahnejad, Alireza Faraji, 5th congress Intelligent and Fuzzy systems, Azad university of Qazvin, 2017.
- A New Sparse Representation Algorithm For 3D Human Pose Estimation, Azam Andalib, Seyed Morteza babamir, Alireza Faraji, Computing and Informatics, Vol. 35, 2016.
- Actuator Faults Estimation for a Helicopter UAV in the Presence of Disturbances, Alireza Faraji, Zahra Nejati & Mostafa Abedi, Journal of Control, Automation and Electrical Systems, formerly CONTROLE & AUTOMAÇÃO, ISSN 2195-3880, DOI 10.1007/s40313-020-00621-9, 2020.
- Active control to reduce the vibration amplitude of the solar honeycomb sandwich panels with CNTRC face sheets using piezoelectric patch sensor and actuator, Amir Amini, M. Mohammadimehr, and A.R. Faraji, Steel and Composite Structures, Vol. 32, No. 5 671-686, 2019.
- Vibration Suppression of Composite Plate Reinforced by CNTs On Elastic Foundation Using Active Control Method, Amir Amini, Alireza Faraji, Mehdi Mohammadimehr, JSTC-2005-1656 (R1), 2020.