

**In the name of GOD**

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**EDUCATION:**

- B.Sc. in Electrical (control) Engineering, Sharif University of Technology, Tehran, Iran, Grade: ۱۵.۰۳/۲۰ ۱۹۹۱ – ۱۹۹۶
- M.Sc. in Electrical (power) Engineering, Ferdowsi University of Mashhad, Iran, Grade: ۱۷.۲۳/۲۰ ۱۹۹۶ – ۱۹۹۹
- Ph.D. in Electrical (control) Engineering, Ferdowsi University of Mashhad, Iran, Grade: ۱۷.۹/۲۰ ۲۰۰۵-۲۰۱۰

**RELEVANT EXPERIENCE:**

- Designer of industrial controller systems, Computer and Automation section of “Jahad daneshgahi”, Sharif University of Technology, ۱۹۹۵-۹۶.
- Advisor on industrial automation systems for private enterprises from ۱۹۹۷
- Instructor of Engineering Faculty, university of Kashan, Iran, ۱۹۹۹-۲۰۱۰.
- QC and R&D manager in TUBA electric co. ۲۰۰۰-۲۰۰۱
- Manager of Incubator of technologic private enterprises, Kashan University ۲۰۰۲-۲۰۰۵ .
- Manager of entrepreneurship center of Kashan University, ۲۰۱۰-۲۰۱۲.
- Manager of science communications and technologic affairs, Kashan University ۲۰۱۳-۲۰۱۵

**COURSES TAUGHT:**

Micro processors, Micro controllers, PC interfacing circuits, computer architecture, Linear control, Fuzzy control, Industrial control, Modern control, Nonlinear control, Soft computing, Advanced mathematics for control engineering, Artificial neural networks, Industrial electronics.

**RESEARCH AREAS:**

- Analysis and synthesis of linear and nonlinear systems
- Nonlinear control, Robust control, Fuzzy control
- Design of digital circuits with FPGA, DSP,  $\mu$ .P. and  $\mu$ .C. (AVR, x<sup>o</sup>), ARM).
- Industrial automation and process control (PC& PLC Based)
- Robotic and mechatronic systems
- Advanced automotive electric & electronic

**RESEARCHES:**

- “Design and manufacturing of an intelligent mobile robot with vision”, University of Kashan, Iran, ۲۰۰۱.
- “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, ۲۰۰۲.
- “Design and manufacturing of central lock for Automotive systems”. Joint research between ICT centre of Isfahan university of Technology & University of Kashan, Iran, ۲۰۰۲.
- Designer of Microprocessor Lab, Computer architecture Lab, FPGA Lab, PC interfacing circuits Lab, Industrial control and robotic in electrical faculty of University of Kashan.
- Supervisor of the best team in CANSAT national student competitions for ۳ years ۲۰۱۱-۲۰۱۳

## **PUBLICATIONS:**

- M.sc. thesis: “Design of a  $\mu$  Robust controller for a multi machine power system”, Electrical department, Engineering Faculty, Ferdowsi university of Mashhad, ۱۹۹۹.
- Asgharian R. and Faraji Armaki A., “Design of a  $\mu$  Robust controller for a multi machine power system”, Proceedings of Iranian Conference on Electrical Engineering (ICEE), Isfahan University of Technology, Iran, May ۲۰۰۰.
- 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. ۳, No. ۲, pp ۱۷-۲۴, ۲۰۰۹.
- Faraji Armaki A., Pariz N. and Asgharian R., “Construction of Nonpathological Lyapunov functions for discontinuous systems with Caratheodory solutions”, Asian Journal of Control, printed ۷ oct. ۲۰۱۰.
- Faraji Armaki A., Pariz N. and Asgharian R., “A method for constructing Nonpathological Lyapunov functions for Caratheodory systems”, Submitted to Nonlinear Analysis Journal, June ۲۰۱۰.
- PH.D. thesis: “A new method for constructing Lyapunov functions for Caratheodory systems”, Electrical department, Engineering Faculty, Ferdowsi university of Mashhad, ۲۰۱۰.
- 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. ۷۰۴, pp ۳۲۰-۳۲۴, (۲۰۱۰), doi: ۱۰.۴۰۲۸/www.scientific.net/AMM.۷۰۴.۳۲۰
- 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 ۲۰۱۰.

**WORKSHOPS:**

- Asgharaian R. and Faraji Armaki A., “Analysis and synthesis methods of  $H_\infty$  &  $\mu$  Robust controllers”, Iranian Conference on electrical Engineering (ICEE), Isfahan University of Technology, Iran, May ۲۰۰۰.
- Faraji Armaki A., “Advanced electric and electronic of Automotive systems”, University of Kashan, Iran, ۲۰۰۳.