

# Barmak Baigzadehnoe

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**Assistant Professor**

**Doctor of Philosophy**

**Electrical Engineering - Control**

Mailing Address: No 102, Department of Electrical Engineering,

Faculty of Engineering, University of Kurdistan,

Sanandaj , Kurdistan, Iran

Postal Code: 6617715175

Date of Birth: April, 12<sup>th</sup>, 1980

Place of Birth: Sari, Iran

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Sex/Marital Status: Male/Single

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## RESEARCH INTERESTS

Robotics,

Large-scale Systems, Networked Control Systems and Time-delay Systems

Artificial Intelligence, Fuzzy Sets and Systems,

Decentralized Control,

Optimal and Nonlinear Control.

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## SUMMARY OF EDUCATIONAL QUALIFICATION

**Ph.D. in Electrical Engineering, Control System, 2013-2018**

Faculty of Electrical and Computer Engineering, Babol Noshirvani University of Technology, Babol, Iran.

GPA: 19.25/20

Thesis Title: *Design of Decentralized Control Scheme for Networked Control Systems with Time Delays.*

Supervisor: *Dr. Zahra Rahmani and Dr. Alireza Khosravi.*

Advisor: *Dr. Behrooz Rezaie.*

**M.Sc. in Electrical Engineering, Control System, 2004-2007**

Faculty of Electrical Engineering, K.N. Toosi University of Technology, Tehran, Iran.

GPA: 18.05/20

Thesis Title: *Solution of Finite Horizon Nonlinear Optimal Control Problem.*

Supervisor: *Prof. Hamid Khaloozadeh.*

Advisor: *Prof. Hamid D. Taghirad.*

**B.Sc. in Electrical Engineering, Control System, 1998-2004.**

Electrical and Computer Engineering Department, University of Tehran, Tehran, Iran.

GPA: 14.12/20

Thesis Title: *Design and Construction of Calculator Using Microprocessor.*

Supervisor: *Associate Prof. Hassan Seyedrazi.*

**High School Diploma in Math and physics, 1994-1998.**

Shahid Beheshti High School, under supervision of NODET, National Organization for Developing Exceptional Talents, Sari, Iran.

GPA: 19.36/20

## PUBLICATIONS AND PAPERS

1. **B. Baigzadehnoe**, Z. Rahmani, Alireza Khosravi, B. Rezaie, "Adaptive decentralized fuzzy output feedback tracking control for a class of nonlinear large-scale systems with input delays ", Transactions of the Institute of Measurement and Control, Vol. 40, Issue 12, 2018, pp. 3534-3548.
2. **B. Baigzadehnoe**, Z. Rahmani, Alireza Khosravi, B. Rezaie, "On position /force tracking control problem of cooperative robot manipulators using adaptive fuzzy backstepping approach ", ISA Transaction, Vol. 70, 2017, pp. 432-446.
3. **B. Baigzadehnoe**, B. Rezaie, Z. Rahmani, "Fuzzy-model-based fault detection for nonlinear networked control systems with periodic access constraints and Bernoulli packet dropouts", Applied Soft Computing, Vol. 80, 2019, pp. 465-474.
4. **B. Baigzadehnoe**, Z. Rahmani, Alireza Khosravi, B. Rezaie, "Adaptive decentralized fuzzy dynamic surface control scheme for a class of nonlinear large-scale systems with input and interconnection delays ", European Journal of Control, In Press.
5. H. Dastres, B. Rezaie, **B. Baigzadehnoe**, "Neural-network-based adaptive backstepping control for a class of unknown nonlinear time-delay systems with unknown input saturation", Neurocomputing, In Press.
6. Z. Rahmani, **B. Baigzadehnoe**, B. Rezaie, "Tracking control of a class of nonlinear systems with output delay based on adaptive fuzzy dynamic surface control ", International Journal of System Science, In Press.
7. **B. Baigzadehnoe**, Z. Rahmani, Alireza Khosravi, B. Rezaie, "Control of large-scale system with sensor delays based on decentralized adaptive neural dynamic surface method via LMI approach ", **Under Review**.
8. **B. Baigzadehnoe**, V.Nazarzehi, and H.Khaloozadeh, "Evaluation and Comparison of the Performance of two Techniques on Two-Cart Inverted Pendulum System", International Review of Automatic Control, Vol. 4, July 2011
9. S. Ahangar, Z. Rahmani, **B. Baigzadehnoe**, "Designing backstepping controller for position/force tracking of cooperative robot manipulators ", Modares Mechanical Engineering, Vol. 17, Issue 9, 2017, pp. 45-54.
10. B. Yeganegi, M. Mojahedfar, B. Rezaie **B. Baigzadehnoe**, "Designing fuzzy sliding mode controller for stabilizing Rossler chaotic system ", International Journal Of Mechatronics, Electrical And Computer Technology, 2014.
11. **B. Baigzadehnoe**, H. Khaloozadeh, H. Taghirad, "Solution of finite-horizon nonlinear optimal Tracking control Problem", ICEE2010, Isfahan, Iran.
12. **B. Baigzadehnoe**, V.Nazarzehi, and H.Khaloozadeh, "Simulation of the performance of novel Nonlinear Optimal Control technique on two cart-inverted pendulum system", ICECCE 2010, Amsterdam, Netherlands
13. **B. Baigzadehnoe**, V.Nazarzehi, and H.Khaloozadeh, "Design of Hybrid Controller for Two-Cart Inverted Pendulum System", ICCEE 2010, Chengdu, China
14. **B. Baigzadehnoe**, H. Khaloozadeh, "Solution of finite-horizon nonlinear optimal control for time-delay systems", ICEE2011, Tehran, Iran

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**RESEARCH EXPERIENCES**

- Design and Control of 3DOF Robot Manipulator with Application to Cylindrical Surface.

Funded by **Chabahar Maritime University**

Contract Number: 48/1334

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**TEACHING EXPERIENCES**

- **Babol Noshirvani University of Technology**, Spring 2014 - present.  
*Courses:* Linear Control Systems, Linear Algebra, Probability and statistics, Industrial Control Labrotory, Linear Control Systems Laboratory

*Advisor of M.Sc. Students:* Shima Ahangar (2015), Hossein Dastres (2017), Mohammadreza Shamekhi (2019)

- **Chabahar Maritime University**, Fall 2008 - Fall 2011.  
*Courses:* Signals and Systems, Automatic Control Systems, Logic Circuits, Electrical Measurements, Engineering Mathematic, Probability and Statistics, Logic Circuits Laboratory, ...
  - **Rouzbahan University**, Spring 2015 - Spring 2016.  
*Courses:* Fuzzy Systems, Robotics, Signals and Systems, Automatic Control Systems, Engineering Mathematic, ...
  - **Hadaf University**, Spring 2014 - Fall 2014.  
*Courses:* Modern Control, Digital Control, Engineering Software, Linear Control Systems Laboratory,...
  - **Azad University of Sari**, Spring 2012 - Spring 2014.  
*Courses:* Linear Control Systems, Signals and Systems, Linear Control Systems Laboratory
  - **Azad University of Chabahar**, Fall 2010 - Fall 2011.  
*Courses:* Computer Hardware
  - **Azad University of Nikshahr**, Fall 2009 - Fall 2010 .  
*Courses:* General Mathematic 1, General Mathematic 2, Linear Algebra, ...
  - **Payam Noor University**, Chabahar, Fall 2011.  
*Courses:* Electrical Principles
  - **Comprehensive University of Applied Science and Technology**, Chabahar, Spring 2010.  
*Courses:* The Principles of Digital Science
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**LANGUAGE SKILLS**

- **Persian:** Native.
  - **English:** IELTS (6.5/9).
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**COMPUTER SKILLS**

- **Scientific Applications:** MATLAB (Programming, Simulink), L<sup>A</sup>T<sub>E</sub>X.
  - **Programming Languages:** C, C++.
  - **Office Applications:** Microsoft Office Word, PowerPoint, Visio, Excel.
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**CERTIFICATES**

- Internal Audit Based on Requirement of ISO9001-2008, January 10-12, 2009.
  - Process Approach, June 15-16, 2009.
  - Teaching Methods, Feb. 26-27, 2009.
  - Training for Trainers Course, June 23-25, 2010.
  - Basic Concepts of International Computer Driving Licence, 22.Nov.- 7.Dec, 2010.
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**REFERENCES**

- **Dr. Zahra Rahmani**, Associate Professor, Department of Electrical and Computer Engineering, Babol Noshirvani University of Technology  
**Email:** Zrahmani@nit.ac.ir
  - **Dr. Alireza Khosravi**, Associate Professor, Department of Electrical and Computer Engineering, Babol Noshirvani University of Technology  
**Email:** Akhosravi@nit.ac.ir
  - **Dr. Behrooz Rezaie**, , Associate Professor, Department of Electrical and Computer Engineering, Babol Noshirvani University of Technology  
**Email:** Brezaie@nit.ac.ir
  - **Dr. Hamid Khaloozadeh**, Professor, Department of Electrical Engineering, K. N. Toosi University of Technology  
**Email:** [H\\_khaloozadeh@kntu.ac.ir](mailto:H_khaloozadeh@kntu.ac.ir)
  - **Dr. Hamid D. Taghirad**, Professor, Department of Electrical Engineering, K. N. Toosi University of Technology  
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