



## Hamed Tirandaz

Ph.D. in Control Engineering  
Lecturer at Hakim Sabzevari University  
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## RESEARCH INTERESTS

Intelligent control, Fault Diagnosis/FTC, Neural Networks, Machine Learning, Computational Intelligence.

## EDUCATION

- Ph.D. in Control Engineering (Fully Funded Ph.D. position Scholarship)** January 2019 — September 2024  
University of Cyprus, Nicosia, Cyprus  
Thesis Title: "Actuator Fault Diagnosis And Accommodation In Interconnected Nonlinear Dynamical Systems"
- M.Sc in Mechatronics Engineering,** September 2007 — September 2009  
Semnan University, Semnan, Iran
- B.S. in Applied Mathematics,** September 2001 — September 2006  
Hakim Sabzevari University, Sabzevar, Iran

## ACADEMIC EXPERIENCE

- Associate Researcher** January 2019 — Present  
*KIOS Research Center of Innovation and Excellence, Nicosia, Cyprus*
- Lecturer** November 2011 — December 2019  
*Hakim Sabzevari University, Sanbzevar, Iran*
- SCADA Softwar Developer** November 2009 — November 2011  
*Royesh Company, Sanbzevar, Iran*

## PUBLICATIONS

### Journals:

- [1] **Tirandaz, Hamed**, Keliris, Christodoulos , and Polycarpou, Marios. "Actuator Fault Accommodation: An Adaptive Command Filtering-Based Scheme for a Class of Nonlinear Uncertain Interconnected Systems", *IEEE Transactions On Automation Science And Engineering*, [To be submitted].
- [2] **Tirandaz, Hamed**, Keliris, Christodoulos , and Polycarpou, Marios. "Actuator and Sensor Fault Isolation in a Class of Large-Scale Nonlinear Dynamical Systems", *Journal of Automation and Intelligence*, 2024
- [3] **Tirandaz, Hamed**, Keliris, Christodoulos , and Polycarpou, Marios. "Actuator fault detection and isolation in a class of nonlinear interconnected systems." *International Journal of Control* (2024): 1-21.
- [4] Karami-Mollaei, Ali, **Tirandaz, Hamed**, and Barambones, Oscar. "On dynamic sliding mode control of nonlinear fractional-order systems using sliding observer." *Nonlinear Dynamics* 92 (2018): 1379-1393. (JCR: impact factor: 5.741)
- [5] Karami-Mollaei, Ali, **Tirandaz, Hamed**, and Barambones, Oscar. "Neural dynamic sliding mode control of nonlinear systems with both matched and mismatched uncertainties." *Journal of the Franklin Institute* 356, no. 8 (2019): 4577-4600. (JCR: IF: 4.246)
- [6] Karami-Mollaei, Ali, **Tirandaz, Hamed**, and Barambones, Oscar. "State tracking control of nonlinear systems using neural adaptive dynamic sliding mode." *Transactions of the Institute of Measurement and Control* 41, no. 11 (2019): 3033-3042. (JCR: IF: 2.146)
- [7] **Tirandaz, Hamed**, and Ali Karami-Mollaei. "On active synchronization of fractional-order Bloch chaotic system and its practical application in secure image transmission." *International Journal of Intelligent Computing and Cybernetics* (2018). (JCR: IF: 0.426)
- [8] Karami-Mollaei, Ali, and **Tirandaz, Hamed** "Adaptive fuzzy fault tolerant control using dynamic sliding mode." *International Journal of Control, Automation and Systems* 16 (2018): 360-367. (JCR: IF: 2.964)
- [9] **Tirandaz, Hamed**, and Karami-Mollaei, Ali. "Combination synchronization of multiple chaotic systems with uncertain parameters using adaptive hybrid modified projective control method." *Acta Phys. Polonica B* 49, no. 1 (2018): 59-71. (JCR: IF: 0.53)
- [10] **Tirandaz, Hamed**, Saeidi Aminabadi, Saeid and Hamidreza Tavakoli. "Chaos synchronization and parameter identification of a finance chaotic system with unknown parameters, a linear feedback controller." *Alexandria engineering journal* 57, no. 3 (2018): 1519-1524. (JCR: IF: 6.626)

- [11] **Tirandaz, Hamed.** "Chaos synchronization of TSUCS unified chaotic system, a modified function projective control method." *Kybernetika* 54, no. 4 (2018): 829-843. (JCR: IF: 0.69)

## TEACHING EXPERIENCES

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### Master's Courses (at the University of Cyprus)

**Role:** Teacher Assistant

University of Cyprus, Nicosia, Cyprus

- Industrial Control.

### Bachelor's Courses

**Role:** Instructor

Hakim Sabzevari University, Sabzevar, Iran

- Linear Control,
- Linear Algebra,
- C/C++ programming,
- Math I, II,
- Discrete Mathematics
- Numerical Computations,

## LANGUAGES

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English: Level: Advanced

Persian: Level: Mother tong

Arabic: Level: Intermediate

## SKILLS

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- **Programming:** C/C++, Python, Matlab, Latex, HTML, CSS
- Controller design/Simulink

## Current Membership

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- SAISE membership (membership ID: 20240223001)

## Honors and Awards

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- Fully Funded Ph.D. position Scholarship at the KIOS Research and Innovation Center of Excellence (KIOS CoE), which operates within the University of Cyprus, in collaboration with Imperial College London. 2019-2024

## REFERENCES

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### Ali Karami-Mollaei

*Associate Professor at the Electrical and Computer Engineering Department, Hakim Sabzevari University, Sabzevar, Iran*

E-mail: a.karami@hsu.ac.ir

Scholar Profiles: University of Hakim Sabzevari - Personal Page — Google Scholar

### Saeid Saeidi Aminabadi

*Assistant Professor at the Electrical and Computer Engineering Department, Hakim Sabzevari University, Sabzevar, Iran*

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