



Moslem (Cyrus) Azamfar

Graduate Researcher
PhD Candidate, Mechanical Engineering
University of Cincinnati, OH, USA

688 Riddle Road, Apt, 400 C. OH, USA
Email: M.Azamfar@gmail.com
TEL: +5135703657

EDUCATION

- **University of Cincinnati, Cincinnati, OH, USA.**
 - PhD in Mechanical Engineering
Aug. 2017 - Present
Supervisor: Professor Jay Lee.

Specialty: Prognostics and Health Management- Industrial Big data.
- **Iran University of Science and Technology, Tehran, Iran**
 - Master of Science in Mechanical Engineering
Sep 2012 – Nov 2014
With a Minor in advanced Control Systems (Digital Control Lab)

Supervisor: Professor Amir H. D. Markazi

Thesis Title: Experimental and analytical Investigation to provide a new control method for time-delay systems.

Seminar Title: stability, robustness, and control of time-delay systems.
- **Yazd University, Yazd, Iran**
 - Bachelor of Science in Mechanical Engineering
Sep 2008 – Jun 2012
Supervisor: Professor S. Mohammad Bozorg

Thesis Title: Lateral movement control of high-speed railroad trains.

PROFESSIONAL EXPERIENCES

- Prognostic and health assessment of CNC machines -Mazak Corporation (Sep. 2017 - Present).
- Prognostic and health assessment of Hard Drives – Huawei Technologies Co (Sep. 2017 - Dec. 2017).
- Developing IOS App for remotely monitoring assets and infrastructures – Prognostic and health management based on Cyber Physical System structure (known as 5S)- (Aug. 2017 - Present).
- Design, prototyping, and testing of Haptic Interfaces for visually impaired people (Nov 2014- Aug. 2017)
- Providing a control method for time-delay systems (Sep 2012 – Nov 2014)
- Providing a method to evaluate fatigue life of mechanical components (2010 –2012)
- Design, prototyping, and testing of a rotary internal combustion engine (2009 –2013)
- Design, prototyping, and testing of a Hybrid Car (2009 –2010)

COMPUTER SKILLS

- Computer Languages: C++, Maple, Matlab, Python, Swift.
- Modeling, Simulation and Other Technical Software: CATIA (Modeling, Assembly, Simulation), Matlab (Simulink, M-file coding), Solidworks, Swift (IOS app development).
- General Computer Skills: LaTeX, MS Excel, MS Power Point, MS Word, Linux

HONORS AND AWARDS

- **Ranked first at Khwarizmi Invention Festival - Feb 2016.**
- Full Financial Aid Award- to Remarkable Inventions- From Iranian National Science Foundation, Jan 2015.
- Ranked in the top 2% of the MSc Degree Participants in the National Entrance Exam, Mar 2012.
- Selected Inventor of the **8th** Regional Inventions Festival, Yazd, Iran, Jan 2012.
- Ranked in the top 40 students in the National Physics Olympiads, May 2007.

SELECTED PUBLICATIONS

- **Journal Papers**

- AZAMFAR, M., & MARKAZI, A. H. (2016). Simple Formulae for Control of Industrial Time Delay Systems. Latin American Journal of Solids and Structures, an ABCM Journal, 13.
- Azamfar, M., & Moshrefifar, M. (2014). Moshrefifar and Azamfar method, a new cycle counting method for evaluating fatigue life. International Journal of Fatigue, 69, 2-15.

- **Conference Papers**

- Azamfar, M., Amiri, A., & Olilo, D. A. (2014, October). Development of the tuning formula for unstable first order processes with time delay. In 2014 Second RSI/ISM International Conference on Robotics and Mechatronics (ICRoM).
- Zakizadeh, M., Bozorg S. M., Azamfar, M., & Jalili M. M. (2013, May). Lateral movement control in a railroad vehicle. In 2013 Third International Conference on Recent Advances in Railway Engineering (ICRARE), http://www.civilica.com/Paper-ICRARE03-ICRARE03_121.html.

- **Inventions**

- Azamfar, M. (2017). "Refreshable Braille Display", United States Patent Number: US20170193856 A1.
- Azamfar, M. (2017). " Device and methods for continuously refreshing a tactile display ", United States Patent Number: US20170287359A1.
- Azamfar, M, Moshrefifar, M. (2014). "The mouse designed for blind people". United States Patent and Trademark Office, Provisional patent, Application Number: 61/929,077.
- Azamfar, M. (2014). "Valveless Rotating Multi-Cylinder-Internal Combustion Engine". United



www.imscenter.net

States Patent and Trademark Office, Provisional patent, Application Number: 61/990,731.

- Azamfar, M. Moshrefifar, M. (2014). "Alternative Motion Mechanism". United States Patent and Trademark Office, Provisional patent, Application Number: 61/839,889.
- Azamfar, M. Moshrefifar, M. (2014). "An efficient structure for electrodynamics machines". United States Patent and Trademark Office, Provisional patent, Application Number: 61/929,075.
- Azamfar, M (2014). "Two internal combustion engines embedded in one block". United States Patent and Trademark Office, Provisional patent, Application Number: 61/926,462.
- Azamfar, M. (2013). "Six stroke rotary internal combustion engine". United States Patent and Trademark Office, Provisional patent, Application Number: 61/878,647.
- Azamfar, M. (2013). "Axial 4-stroke Internal Combustion Engine". United States Patent and Trademark Office, Provisional patent, Application Number: 61/926,986.



REFERENCES

Prof. Jay Lee,

Professor in Advanced Manufacturing

Director of NSF Industry/University Cooperative Research Center for Intelligent Maintenance Systems (IMS)

Phone: + 513-556-2493

E-Mail: jay.lee@uc.edu

Prof. Mohammad Bozorg,

Associate professor of Mechanical Engineering Department

University of Yazd

Phone: +98 351-821 1670 to 79

E-Mail: bozorg@yazd.ac.ir

Prof. Amir Markazi,

Professor of Mechanical Engineering Department

Iran University of Science and Technology

Phone: +98 21-77240195

E-Mail: markazi@iust.ac.ir

FALATI

Intellectual Property Law

11 North Pearl Street, Suite 1515, Albany, NY 12207

Tel.: 518-4- FALATI (518-432-5284)

E-Mail: www.Falati.com