Mohammad Sabouri

PERSONAL INFORMATION	**Date & Place of Birth:** September 7, 1994 (Shiraz, Iran) **Gender:** Male **Marital status:** Single **Tell:** +39-331-8902121 **E-mail:** Mohamadsabory@hotmail.com **Address:** NO 46, Floor 3, Yas1 Residential Complex, Fazilat Blvd, Shiraz, Iran.

EDUCATION

Sep. 2022 – Now   University of Genova, Genova, Italy
Master of Science in Robotic Engineering.

Sep. 2017 – Feb. 2021   Shiraz University, Shiraz, Iran
Master of Science in Control Engineering.
  - Thesis Title: "**Modelling and control of non-holonomic mobile robots using the quasi-LPV method**"
  - Supervisor: Dr. Mohammad Hasan Asemani. (asemani@shirazu.ac.ir)
  - Total **GPA: 3.32/4**.

Sep. 2012 - March 2017   Fars Science and Research Branch, Fars, Iran
Bachelor of Science in Electrical Engineering, with a specialty in Control.
  - Project Title: "**Design and implementation of sound compass for trajectory control of mobile robot**"
  - Supervisor: Dr. Mazda Moattari.
  - Total **GPA: 3.76/4**.

March 2017   Shiraz, Iran
Diploma in Industrial Electricity Discipline, Javid High School, **GPA: 3.27/4**.

June 2011   Shiraz, Iran
Diploma in Mathematics and Physics Discipline, Niromand High School, **GPA: 3.57 /4**.

RESEARCH INTERESTS

Control Theory	❖ Nonlinear Control ❖ Robust control ❖ Control of Linear Parameter Varying (LPV) systems
Robotic & Mechatronic	❖ Autonomous Vehicles (Mobile Robots, AUV, UAV) ❖ Biomedical Application
Data science & Artificial Intelligent	❖ Machine Learning, Neural Network Application ❖ Data Analysis & Data Mining

PUBLICATIONS

Conference PAPERS

1- Sabouri, Mohammad, and Mohammad Hassan Asemani. "**LPV Controller Design for Trajectory Tracking of Non-holonomic Wheeled Mobile Robots in the Presence of Slip**." *2021 29th Iranian Conference on Electrical Engineering (ICEE)*. IEEE. (2021, October).

2- Shayan, Z., **Sabouri, M**., Shayan, M., Asemani, M. H., Sarmoori, A. B., & Zare, M., "**Pressure Control of Cellular Electromechanical Medical Mattress For Bedsore Prevention**," *7th International Conference on Control, Instrumentation and Automation (ICCIA)*, IEEE. (2021, February).

3- Firouzimagham, D., Aminaie, P., Shayan, Z., **Sabouri, M**., & Asemani, M. H., "**Online Transformer Oil Analysis Based on Spectroscopy Technique and Machine Learning Classifier: Experimental Setup**," *15th International Conference on Protection and Automation of Power Systems (IPAPS)*. IEEE. 2020.

4- **M. Sabouri**, P. Setoodeh, M.H. Asemani, '' **Construction of Lyapunov Functions**

using **Multi-Objective Genetic Algorithm** '', *28th Iranian Conference on Electrical Engineering (ICEE), Tabriz University*, 2020, Tabriz, Iran.

5- M. Zare, M. Jampour, A.S. Arezoomand, **M. Sabouri**, "**Handwritten Recognition based on Hand Gesture Recognition using Deterministic Finite Automata and Fuzzy Logic**," *4th International Conference on Pattern Recognition and Image Analysis (IPRIA)*, 2019, Tehran, Iran. IEEE.

BOOK
1- **M. Sabouri**, M. S. Sharifi, "Robotics in simple language-VOL.1", ISBN 978-600-7495-30-8, Published by Kheradazin, 2016. (This book is written for teenagers)

PROFESSIONAL EXPERIENCES	**Work Experiences**

Work Experiences
- Research Assistant at Applied Control & Robotics Research Laboratory (ACRRL), under the supervision of Dr. Mohammad Hassan Asemani, Shiraz University, Iran, Sep.2017– Present.
- Robotic Research at Minoosa company, Shiraz University, Iran, Sep.2021– Aug.2022.
- Mechatronics Department Manager at "Arioobarzan" company, Shiraz, Iran, Sep.2016– June.2021.
- Designer engineer at "Kasbo Kar Jahan Jadid" company, Shiraz, Iran, Apr.2017– June.2021.
- Designer and Programmer at "Sapid Gaman Parse" company (S.G.P), Shiraz, Iran, Apr.2013 –Sep.2016.
- Instructor of Robotics at "Chista" Inst., Shiraz, Iran, Dec. 2012 – Sep.2016.
- Member of Young Researchers and Elite Club, Shiraz, Iran, Feb. 2013 – Apr. 2016.

Teaching and Lecture Experiences
Teacher Assistant:
- **Computer Applications in Control**, under supervision of Dr. Mohammad Hassan Asemani, Shiraz University, Jan 2020 – Sep 2021.
- **Computer Applications in Control**, under supervision of Dr. Mohammad Hassan Asemani, Shiraz University, Jan 2019 – Sep 2020.
- **MIMO Control**, under supervision of Dr. Peyman Setoodeh, Shiraz University, Sep 2018 – Jan 2019.
- **Modern Control**, under supervision of Dr. Paknoush Karimaghaee, Shiraz University, Sep 2018 – Jan 2019.
- **Computer Applications in Control**, under supervision of Dr. Mohammad Hassan Asemani, Shiraz University, Jan 2018 – Sep 2018.
- **Electrical Installations lab**, under supervision of Dr. Omid Yazdani, Apadana University, Oct 2017 – Jun 2018.

Lecturer:
- **Electronic & Robotic Tutor**, Arioobarzan Company, Shiraz, Iran, Summer 2017.
- **Robotic Tutor**, Arioobarzan Company, Shiraz, Iran, Spring 2017.
- **Robotic Tutor**, Chista Company, Shiraz, Iran, Summer 2016.
- **Robotic Tutor**, Dr. Hassabi Primary school, Shiraz, Iran, Fall 2014.
- **Robotic Tutor**, Emam Khomeini High school, Shiraz, Iran, Fall 2014.
- **Robotic Tutor**, Tafazoli High school, Shiraz, Iran, Fall 2014.

Speaker:

- **Instrumentation Seminar**, Fars Petrochemical Company, Fars, Iran, Jun. 2017.
- **Microcontrollers and Microprocessors Seminar**, Iran Technical and Vocational Training Organization, Shiraz, Iran, Jan. 2017.
- **Introduction to Robotics Seminar**, Fasa University, Fars, Iran, Dec. 2016.
- **Introduction to Robotics Seminar**, Eram University, Shiraz, Iran, Dec. 2016.

RESEARCH EXPERIENCES	**Current Research** - Design and Implementation Non-holonomic Mobile Robot, Shiraz University, Shiraz, Iran. – Supervisor: Dr. M. H. Asemani.

RESEARCH EXPERIENCES

Current Research
- Design and Implementation Non-holonomic Mobile Robot, Shiraz University, Shiraz, Iran.
    – Supervisor: Dr. M. H. Asemani.

- Design and construction of smart medical beds to prevent bedsores with the ability to receive feedback from the patient's condition.
    – Team work with Zeinab Shayan, Milad Shayan.

Completed Research
- Mortality prediction in trauma patients based on Arterial Blood gases by system identification approaches, Spring 2018-2020, Shiraz, Iran.
    – Supervisor: Dr. Shahram Paydar, Trauma research center and Shiraz University of Medical Sciences, Shiraz, Iran.
    – Team work with Milad Shayan, Zeinab Shayan.

- Transformer Oil Quality Assessment System Based on Internet of Things in Power Grid, Shiraz University, Sep 2019-Sep 2020 Shiraz, Iran.
    – Supervisor: Dr. M. H. Asemani.
    – Team work with Zeinab Shayan, Danial Firouzimagham, Pouya Aminaie.

- Design Fibrinogen Prediction System Based on Artificial Neural Network, Rajaee hospital, Spring 2017-2020, Shiraz, Iran.
    – Supervisor: Dr. Shahram Paydar.
    – Team work with Milad Shayan.

- Arterial Blood Gas Prediction Items in Trauma Victims Based on Artificial Neural Network, Rajaei hospital, Spring 2018-2019, Shiraz, Iran.
    – Supervisor: Dr. Shahram Paydar.
    – Team work with Milad Shayan.

- Design and Implementation of Dry Medical Block Heater, Shiraz University, Summer 2019.
    – Supervisor: Dr. P. Karimaghaee.

- Manufacturing a hardware simulator to synchronize PMU data and send it to the control center, Shiraz University, Summer of 2019.
    – Supervisor: Dr. M. Dehghani.
    – Team work with Sara Siamak.

- Design system for intercepting specific targets in cyberspace, Arioobarzan company, winter 2017, Shiraz, Iran. Team work with Mohammad Zare.
- Design and Implementation Large Shear Apparatus, Payam Noor University, summer 2015, Shiraz, Iran. Team work with Milad Shayan.
- Design and Implementation of Temperature and Humidity logger, Arioo Company,

spring 2015, Shiraz, Iran. Team work with Milad Shayan, Mohammad Zare.
- Design and Implementation Shake Table, Payam Noor University, summer 2013, Shiraz, Iran.
- Design and Implementation Data logger, Fasa University, Summer 2013, Shiraz, Iran.

PROFESSIONAL QUALIFICATIONS

- **Altium Designer Software,** Educational institution in Shiraz, Summer 2019.
- **AVR microcontrollers**, Educational institution in Shiraz, Summer 2017.
- **Robotic teaching certificate**, NURMS, Feb. 2017.
- **Designer and analyst of AVR microcontrollers**, Iran Technical and Vocational Training Organization, Jun. 2017.
- **Entrepreneurship with the KAB method**, Iran Technical and Vocational Training Organization, Jun. 2017.
- **Installer of Intelligent Building Management System (BMS)**, Iran Technical and Vocational Training Organization, Nov. 2016.
- **Assembly and installation of electrical panels**, Iran Technical and Vocational Training Organization, Sep. 2016.
- **ICDL 2**, Iran Technical and Vocational Training Organization, Sep. 2016.
- **Industrial grade 2 electrical power**, Iran Technical and Vocational Training Organization, July 2016.
- **Robotic Programming**, Iran Technical and Vocational Training Organization, Oct. 2014.
- **Basics of Robotic**, Iran Technical and Vocational Training Organization, Oct. 2014.
- **Robotic Hardware**, Iran Technical and Vocational Training Organization, Sep. 2014.
- **MATLAB**, South Industrial Management Institute (SIMI), Summer 2013.

HONOR AND AWARDS

- **1st Place** Gladiators Warrior Robot League, RoboSkill Competition under the Supervision of Kerman Technical and Vocational Training Organization, Aug. 2016.
- **Third place** in 30 kg Warrior Robot League, RoboSkill Competition under the supervision of Kerman Technical and Vocational Training Organization, Aug. 2016.
- **Diploma of Honor** In 15th National Skill Competitions in the field of robotics, Iran Technical and Vocational Training Organization, Karaj, Iran, Aug. 2014.
- **First place** in National Skill Competitions, the provincial stage in the field of robotics, Iran Technical and Vocational Training Organization, Fars, Iran, Jun. 2014.
- **Second place** in National Skill Competitions, the provincial stage in the field of robotics, Iran Technical and Vocational Training Organization, Fars, Iran, Jun. 2013.

PROFESSIONAL SKILLS

- **Programming Languages**: C, C++, Python, PLC Programming.
- **Web/Server-side Programming:** HTML, CSS, Php.
- **Technical Software**: MATLAB, LabVIEW, Altium Designer, Proteus, Solid Work.
- **Operation Systems:** Windows, Linux.
- **Public Software:** Microsoft Office, Edraw, Visio, Endnote, Mendeley.

PATENT AND CERTIFICATE OF REGISTRATION

PATENTS

Registered

1- **M. Sabouri**, A. Bina, A. Mohammadi, M.J. Mohammadi, M.H. Mohammadi, M. Salmanpour, S.M.H. Zahraei, P. Aminaei, M.H. Asemani, D. Firouzimagham, Z. Shayan, M. Shayan, S.A.H. Zahraei, M. Alishahi "**Surgeon and operating room staff vigilance monitoring system based on infrared spectroscopy to reduce medical errors,**" *Industrial Property Office of Iran*, Application Number: -, Declaration number: 139950140003000206, September. 2020, Iran.

2- **M. Sabouri**, A. Bina, A. Mohammadi, M.J. Mohammadi, M.H. Mohammadi, M. Salmanpour, S.M.H. Zahraei, P. Aminaei, M.H. Asemani, D. Firouzimagham, Z.

Shayan, M. Shayan, S.A.H. Zahraei, M. Alishahi "**Wearable gadget that prevents bed sores with the ability to analyze surface pressures by electronic pulse stimulation**," *Industrial Property Office of Iran*, Application Number: -, Declaration number: 139950140003000135, September. 2020, Iran.

3- **M. Sabouri**, A. Bina, M. Shayan, A. Javanmardi, H. Norzad, S.A.H. Zahraei, M. Alishahi, A. Seadi, M.A. Norzad, Z. Khosro Shiri "**Smart medical bed prevents bed sores with the ability to receive feedback from the patient**," *Industrial Property Office of Iran*, Application Number: 100386, Declaration number: 139850140003004197, May. 2020, Iran.

4- **M. Sabouri** (20%), S. Salehi, A. Bina "**Announced burning street lamps**," *Industrial Property Office of Iran*, Application Number: 98365, Declaration number: 139350140003002736, March. 2019, Iran.

5- **M. Sabouri** (45%), S. Salehi, A. Bina "**Multi Antimicrobials AHUV**," *Industrial Property Office of Iran*, Application Number: 83763, Declaration number: 139250140003011507, Apr. 2014, Iran.

CERTIFICATE OF REGISTRATION
1- "Gostogo Dar Doneaye Robotic" Game Design Certificate, Institute for the Intellectual Development of Children and Young Adults (IIDCYA) - Iran Toy Council, Credential ID 99/1183517/2, Aug. 2020.
2- "Chobchoghak" Game Design Certificate, Institute for the Intellectual Development of Children and Young Adults (IIDCYA) - Iran Toy Council, Credential ID 98/6543392/3, Nov. 2019.
3- "Electronic Planet" Game Design Certificate, Institute for the Intellectual Development of Children and Young Adults (IIDCYA) - Iran Toy Council, Credential ID 98/5383389/2, Nov. 2019.
4- "Power Plant Challenge" Game Design Certificate: The first game to introduce power engineering, Institute for the Intellectual Development of Children and Young Adults (IIDCYA) - Iran Toy Council, Credential ID 98/3383337/2, Sep. 2019.
5- "RoboIQ" Game Design Certificate, Institute for the Intellectual Development of Children and Young Adults (IIDCYA) - Iran Toy Council, Credential ID 98/337336/2, Sep. 2019.

HOBBIES	Playing Computer Games, Billiard, Barista.
ACADEMIC REFERENCES	**1- Prof. Mohammad Hasan Asemani** • Associate Professor of Power and Control Engineering at Shiraz University, Iran. • Email: asemani@shirazu.ac.ir **2- Prof. Peyman Setoodeh** • Assistant Professor of Power and Control Engineering at Shiraz University, Iran. • Email: psetoodeh@shirazu.ac.ir **3- Dr. Shahram Paydar** • Professor of General Surgery at Shiraz Medical School, University of medical sciences, Shiraz, Iran. • Email: paydarsh@sums.ac.ir