

# HasanAlipour



## Contact

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Shabestar Branch  
Shabestar, Iran  
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## Email and Web Page

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## Languages

Persian native  
Azerbaijani native  
English fluency

## Fields of Interest

Electric Vehicles (EVs)  
HEVs  
Electric Motor Drives  
Linear Machines  
Power Electronics  
Photovoltaic Energy  
Renewable Energies  
Distributed Generation

## Skills

Electric Vehicles (EVs)  
EVs Stability Control  
HEVs Power Management  
Fault Detection  
Electric Motor Drives  
ARM-STM  
Microcontroller  
Command Circuit Design  
Power Electronics  
Photo Voltaic Systems  
Design

## Education

- 2011 - 2015 **PhD** in Power Electrical Engineering, Electric Machines and Drives [3.9 out of 4.00]  
Tabriz, Iran  
University of Tabriz  
Thesis subject: Fault-tolerant controller design for improving stability of four-wheel drive electric vehicles with induction drive
- 2009 - 2011 **M.Sc** in Power Electrical Engineering, Electric Machines and Power Electronics [3.58 out of 4.00]  
Tehran, Iran  
University of Tehran  
Thesis subject: Power Management Strategy Designing for Plug-in Hybrid Electric Vehicles with the Goal of Energy Consumption and Emission Reduction
- 2004 - 2009 **B.Sc.** in Power Electrical Engineering [3.15 out of 4.00]  
Tehran, Iran  
Iran University of Science and Technology (IUST)  
Thesis subject: Designing a Maximum Power Point Tracking (MPPT) System for Photovoltaic Power Plants Using Variable Step Perturb and Observe Methodg

## Job Experience

- 2013 - Now **Faculty Member of Islamic Azad University, Shabestar Branch**  
Shabestar, Iran  
*Assistant Professor (for 5 years) and Lecturer (for 2 years)*
- 2015 - Now **Member of Electrical and Mechatronics Engineering post-graduated Council of Islamic Azad University, Shabestar Branch**  
Shabestar, Iran  
*Member of post-graduated Council*
- 2016 - 2017 **Chief of Young Researchers and Elite Club of Islamic Azad University, Shabestar Branch**  
Shabestar, Iran  
*Chief of Young Researchers and Elite Club*
- 2009 - 2009 **Researcher in Pars khodro Com. [<http://www.parskhodro.ir/>]**  
Tehran, Iran  
*Study on Photo-Voltaic Energy Application in Hybrid Electric Vehicles*

## Honours and Awards

- 2015 **Ranked No.1 among Power Electrical Engineering Ph.D. students (Electric Machines and Drives) of University of Tabriz.**
- 2010 **Member of National Elite Foundation of Iran**
- 2009 **Rank No. 25 at Iranian M.Sc. National Power Electrical Engineering University Entrance Exam**
- 2004 **Rank No. 547 at Iranian National University Entrance Exam**
- 2003 **Silver Medal at the 2003 National Chemistry Olympiad**

## Software Knowledge

MATLAB  
PSCAD  
CARSIM  
ADVISOR  
STMCUBEMX  
KEIL  
POWERWORLD  
PROTEUS  
ORCAD  
LaTeX  
C/C++

## Publications

Journal Papers and conferences [29 papers].

Also, Full list of my publications can be found in

<http://halipour.iaushab.ac.ir/index.aspx?fkeyid=&siteid=172&pageid=9252>

and <https://scholar.google.com/citations?user=nHjKiNgAAAAJ&hl=en>

## Journal Papers

- [1] H. Alipour, M. Sabahi, M. B. Bana Sharifian, "Lateral stabilization of a four wheel independent drive electric vehicle on slippery roads," *Mechatronics*, vol. 30, no. 1, pp. 275-285, Sep. 2015.
- [2] H. Alipour, M. B. Bana Sharifian, M. Sabahi, "A modified integral sliding mode control to lateral stabilisation of 4-wheel independent drive electric vehicles," *Vehicle System Dynamics*, vol. 52, no. 12, pp. 1584-1606, Dec. 2014.
- [3] Y. Alipouri, J. Poshtan, H. Alipour, "Global minimum routing in evolutionary programming using fuzzy logic," *Information Sciences*, vol. 292, no. 20, pp. 162-174, Jan. 2015.
- [4] F. Masoudina, E. Babaei, M. Sabahi, and H. Alipour, "New Basic Unit and Cascaded Multilevel Inverters with Reduced Power Electronic Devices," *International Journal of Electronics*, vol. -, no. -, pp. 1-18, Feb. 2020.
- [5] Y. Alipouri, J. Poshtan, H. Alipour, "Improvement of classical evolutionary programming using state feedback controller," *International Journal of Innovative Computing, Information and Control*, vol. 10, no. 4, pp. 1413-1433, Aug. 2014.
- [6] Y. Alipouri, H. Alipour, "Attenuating noise effect on yaw rate control of independent drive electric vehicle using minimum variance controller," *Nonlinear Dynamics*, vol. 87, no. 3, pp. 1637-1651, 2017
- [7] H. Farham, L. Mohammadian, H. Alipour, and J. Pouladi "Robust Performance of Photovoltaic/Wind/ Grid Based Large Electricity Consumer," *Solar Energy*, vol. 174, pp. 923-932, 2018.
- [8] Y. Alipouri, H. Alipour, "Optimal Controller Design with Communication Delay for Solid Oxide Fuel Cell," *Asian Journal of Control*, vol. 22, no. 2, pp. 1-10, 2020.
- [9] H. Farham, L. Mohammadian, H. Alipour, and J. Pouladi, "Energy procurement of large industrial consumer via interval optimization approach considering peak demand management," *Sustainable Cities and Society*, vol. 46, no. 101421, pp. 1-10, 2019.
- [10] Y Alipouri, H Alipour, B Huang, "Multiple step ahead prediction based high order discrete-time sliding mode control design with actuator and communication delays," *Journal of the Franklin Institute*, vol. -, no. -, pp. 1-19, 2020.(Accepted)
- [11] F. Masoudina, E. Babaei, M. Sabahi, and H. Alipour, "New Cascaded Multilevel Inverter With Reduced Power Electronic Components," *Iranian Journal of Electrical and Electronic Engineering*, vol. 16, no. 1, pp. 107-113, 2020.
- [12] N. Bagheri, H. Alipour, "Yaw Rate Control and Actuator Fault Detection and Isolation for a Four Wheel Independent Drive Electric Vehicle," *Journal of Operation and Automation in Power Engineering (JOAPE)*, vol. 5, no. 1, pp. 83-95, Jun. 2017.

- [13] H. Alipour, M. Sabahi, and M. B. Bana Sharifian, "Lateral Stabilization of a Four Wheel Independent Drive Electric Vehicle Using a Three Layer Controller and Sliding Mode Control," *Iranian Journal of Electrical and Computer Engineering (IJECE)*, vol. 43, no. 2, pp. 119-127, 2015. (In Persian)
- [14] H. Alipour, B. Asaei, "An Online Fuel Consumption and Emission Reduction Power Management Strategy for Plug-in Hybrid Electric Vehicles," *Vehicle Engineering (VE)*, vol. 1, no. 2, pp. 41-55, Jun. 2013.
- [15] H. Alipour, M. B. Bana Sharifian, and H. Afsharirad, "A PID Sliding Mode Control for Ropeless Elevator Maglev Guiding System," *Energy and Power Engineering (EPE)*, vol. 4, no. 3, pp. 158-164, May. 2012.
- [16] H. Alipour, B. Asaei, "An Online Adaptive Power Management Strategy for Plug-in Hybrid Electric Vehicles," *Canadian Journal on Electrical and Electronics Engineering*, vol. 3, no. 3, pp. 108-114, Mar. 2012.
- [17] G. Mohebalizadeh, H. Alipour, L. Mohammadian, and M. Sabahi, "An Improved Sliding Mode Controller for DC/DC Boost Converters Used in EV Battery Chargers with Robustness Against the Input Voltage Variations," *International Journal of Industrial Electronics Control and Optimization (IECO)*, vol. -, no. -, pp. -, 2020.

## conferences

- [1] H. Alipour, B. Asaei, and G. Farivar, "Fuzzy Logic Based Power Management Strategy for Plug-in Hybrid Electric Vehicles with Parallel Configuration," *International Conference on Renewable Energies and Power Quality (ICREPQ'12)*, pp. 1-5, Spain, 28-30 Mar. 2012.
- [2] H. Alipour, B. Asaei, "A Heuristic power management Strategy for Plug-in Hybrid Electric Vehicles," *IEEE conference on Electric Power and Energy Conversion System*, pp. 1-6, Sharjah, 15-17 Nov. 2011.
- [3] H. Farham, H. Alipour, "Effects of Demand Response Program and Energy Storage System on Optimal Stochastic Short-Term Generation Scheduling of Grid Connected Microgrid," *22nd Electrical power Distribution Conference*, pp. 1-9, Semnan, Iran, 19-20 Apr. 2017.
- [4] H. Alipour, G. Farivar, and B. Asaei, "Power Management Strategy for Consumption Reduction of Plug-in Hybrid Electric Vehicles with Parallel Configuration," *First National Conference on Energy, Vehicle Technologies, and Sustainable Development*, pp.1-5, Tehran, Iran, 23 Oct. 2011. (In Persian)
- [5] H. Alipour, M. B. Bana Sharifian, and M. Sabahi, "Fault Detection and Lateral Stability Control for a Four Wheel Independent Drive Electric Vehicle," *Second National Conference on Applied researches on Electric, Mechanic, and Mechatronics*, pp. 1-10, Tehran, Iran, 19 Feb. 2015. (In Persian)
- [6] N. Bagheri, H. Alipour, "Yaw Control for a Four Wheel Drive Electric Vehicle," *The first national conference on the application of intelligent systems in electrical engineering, computer and information technology*, pp. 1-9, Islamic Azad University, Shabestar, Iran, 1 Mar. 2016. (In Persian)
- [7] N. Bagheri, H. Alipour, "Fault Detection on increasing and decreasing gain of in-wheel motors in four-wheel drive electric vehicles," *The first national conference on the application of intelligent systems in electrical engineering, computer and information technology*, pp. 1-8, Islamic Azad University, Shabestar, Iran, 1 Mar. 2016. (In Persian)

- [8] N. Bagheri, H. Alipour, "Lateral Stability Control for a Four Wheel and two wheel Drive Electric Vehicle," Third National Conference on Development of Civil Engineering, Architecture, Electrical and Mechanical Engineering, pp. 1-14, Gorgan, Iran, 6 May. 2016. (In Persian)
- [9] N. Bagheri, H. Alipour, "Separately excited DC motor speed control using buck-boost converter," Third National Conference on Development of Civil Engineering, Architecture, Electrical and Mechanical Engineering, pp. 1-12, Gorgan, Iran, 6 May. 2016. (In Persian)
- [10] Z. Sarafrazi, H. Alipour, "Designing a Controller for a Guidance System and Drive motor of a Ropeless Linear Elevator, Using Direct Thrust Control," International Conference on Fundamental Research in Electrical Engineering, pp. 1-19, Tehran, Iran, 21 Jul. 2017. (In Persian)
- [11] Z. Sarafrazi, H. Alipour, "Designing a Controller for a Guidance System and Drive motor of a Ropeless Linear Elevator, Using Sliding Mode Control," International Conference on Fundamental Research in Electrical Engineering, pp. 1-18, Tehran, Iran, 21 Jul. 2017. (In Persian)
- [12] G. H. Khandar, S. Shojaei, and H. Alipour, "Comparative Protection of Distribution Networks Considering Distributed Generation Resources," Twenty-third National Conference on Power Distribution Networks, Tehran, Iran, Jul. 2017. (In Persian)
- [13] H. Farham, L. Mohammadian, and H. Alipour, "Comparison of the effects of real-time load response program versus time load response program on large industrial consumer power supply considering uncertainty," Twenty-third National Conference on Power Distribution Networks, Tehran, Iran, Jul. 2017. (In Persian)

## Taught Courses

- B.Sc. Power System Analysis 1 & 2, Electric Machines Laboratory 1 & 2, Power System Analysis Laboratory, Technical English language, Electric Machines 1 & 2, Special Machines, Three Phase Electric Machines, AC and DC Machines, Electrical Workshop, Safety in Electricity, Electric basics Laboratory, Electric Circuits 2, Command Circuit Workshop, Industrial Electronics, Electric Circuit Laboratory, Winding Workshop 1, signals & Systems Analysis (Signals and Systems)
- Ph.D & M.Sc. Electric and Hybrid-Electric Vehicle Design, Distributed Generation (DG), Research Methodology, Linear Electric Motors, Study on Renewable Energies, Mechatronics 1, Electric Drives, Electric Machines Analysis

## Completed Supervision Ph.D. Thesis

- [1] H. Farham, Energy procurement of large consumer considering power market price uncertainty using interval optimization approach, April, 2019.

## Under Supervision Ph.D. Thesis

- [1] G. R. Moheb Alizadeh, Proposing an Improved Multi-Input DC-DC Converter Based on Coupled Inductors
- [2] N. Bagheri, Modeling, Performance Analysis, and Control of a Multi-Input Converter for Charging Electric Vehicles

- [3] A. Khodadadi, Resiliency Improvement in Smart Grids during Extreme Weather Conditions

## Completed Advising Ph.D. Thesis

- [1] F. Masudiniya, Improved Topology of Multilevel Inverters with Reduced Number of Devices, Feb. 2020.

## Under Advising Ph.D Thesis

- [1] S. Shojaei, Optimal Scheduling of Microgrid Energy Consumption with Renewable Energy, Storage Resource and Responsive Loads
- [2] S. Khosravi, Smart Building Energy Management Considering Renewable Energies and V2G Parking Lot

## Completed Supervision M.Sc. Thesis

- [1] K. Kiyumarzi, Three phase induction motor sensorless drive using matrix converters with buck-boost capability, Sep. 2015.
- [2] S. Majidi, Designing a Feedback Linearization Controller and a Sliding Mode Controller for Speed and Position control of Induction Motors, Sep. 2015.
- [3] N. Bagheri, Yaw rate control of a multi wheel independent drive electric vehicle with a DC drive, Feb. 2016.
- [4] Z. Sarafrazi, Designing a Controller for the Guidance System and Driving Motor of a Linear Rope-less Elevator Using Sliding Mode Control and Direct Thrust Control Methods, Oct. 2016.
- [5] H. Jalil Golzar, Allocation of DG in order to reduce power losses and improve voltage profile with firefly algorithm in distribution networks, Dec. 2016.
- [6] S. R. Ghahhari Hosseini, Optimal placement of FACTS devices such as SVC, TCSC, and UPFC to enhance the reliability of power system using genetic algorithm, Sep. 2017.
- [7] S. Rasali Ahadi, Optimal sizing of a hybrid grid connected photovoltaic and wind turbine system with the goal of cost minimization using particle swarm optimization algorithm for Tabriz weather as a case study, Feb. 2018.
- [8] M. Jahangir kuzekonon, Designing a Robust Controller for Switch Reluctance Motors drive in using an Electric Vehicle, Feb. 2018.
- [9] A. R. Pir Mohammadi, PMSM Torque Control Based on Predictive models and Impedance Network Inverter, Feb. 2018.
- [10] J. Fekri, Voltage and frequency control for a solid oxide fuel cell, photovoltaic energy, and battery hybrid system using fuzzy logic controller, Sep. 2018.
- [11] A. Shadifar, Optimal operation of intelligent distribution networks using cuckoo algorithm, Sep. 2019.

## Under Supervision M.Sc. Thesis

- [1] **A. R. Mostafazade, Modeling and drive a single side linear induction motor using field oriented control method**
- [2] **M. Afaghi, Designing a power system stabilizer using fuzzy logic**