Majid Astaneh
Curriculum Vitae

Personal Information

Name	Majid Astaneh
Address	Department of Mechanics and Maritime Sciences, Chalmers University of Technology, Hörsalsvägen 7A, SE-412 96, Göteborg, Sweden.
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Nationality	Iranian
Date of birth	May. 18/1990
Gender	Male

Educations

2014-2019	PhD in Energy Systems Engineering, Department of Energy Engineering, Sharif University of Technology, Tehran, Iran. PhD Thesis: "Development of a Framework to Utilize Thermoelectrochemical-Aging Battery Models in Optimal Design of Renewable Energy Systems". Supervisor: Dr. Ramin Roshandel. (GPA: 17.55 out of 20)
2017	PhD research assistant, Department of Electrical Engineering, University of Zaragoza, Aragon Region, Spain. Research subject: "Contribution in iHOGA software in the field of simulation and optimization of renewable energy systems". Supervisor: Dr. Rodolfo Dufo-Lopez.
2012-2014	M.Sc. in Energy Systems Engineering, Department of Energy Engineering, Sharif University of Technology, Tehran, Iran. (GPA: 17.80 out of 20) M.Sc. Thesis: "Modeling and Analysis of Combined Heat, Power and Hydrogen Production from Heavy Refinery Residues Using Integrated Gasification and Molten Carbonate Fuel Cell Cycle". Supervisor: Dr. Ramin Roshandel.
2008-2012	B.Sc in Chemical Engineering, School of Petroleum and Chemical Engineering, Shiraz University, Shiraz, Iran. (GPA: 18.02 out of 20)
2007-2008	Studied at Pre University at Dr.Hesabi, Abadeh, Iran, graduated with GPA:19.81.
2003-2007	Received diploma in Mathematics from Dr.Hesabi High School, Abadeh, Iran, Graduated with GPA: 19.49.

Publications

Jan.-2019	M. Ghorbanzadeh, M. Astaneh, F. Golzar, *"Long-term degradation based analysis for lithium-ion batteries in off-grid wind-battery renewable energy systems"*. Energy, 2019. 166: p. 1194-1206.

Dec.-2018	M. Astaneh, R. Dufo-Lopez, R. Roshandel, J.L. Bernal-Agustin, *"A novel lifetime prediction method for lithium-ion batteries in the case of stand-alone renewable energy systems"*. International Journal of Electrical Power and Energy Systems, 2018. 103: p. 115-126.
Nov.-2018	M. Astaneh, R. Roshandel, R. Dufo-Lopez, J.L. Bernal-Agustin, *"A novel framework for optimization of size and control strategy of lithium-ion battery based off-grid renewable energy systems"*. Energy Conversion and Management, 2018. 175: p. 99-111.
Jun.-2018	M. Astaneh, R. Dufo-Lopez, R. Roshandel, F. Golzar, J.L. Bernal-Agustin, *"A computationally efficient Li-ion electrochemical battery model for long-term analysis of stand-alone renewable energy systems"*. Journal of Energy Storage, 2018. 17: p. 93-101.
Jun.-2018	M. Astaneh, F. Golzar, R. Roshandel, "*Aging-based performance assessment of lithium-ion batteries in stand-alone wind-battery systems"*. The 12th international Energy Conference (IEC 2018), 2018. June 2018.
May.-2018	R. Roshandel, F. Golzar, M. Astaneh, "*Technical, economic and environmental optimization of combined heat and power systems based on solid oxide fuel cell for a greenhouse case study*'', Energy Conversion and Management, 2018. 164: p. 144-156.
Mar.-2018	J.S. Artal-Sevil, R. Dufo, M. Astaneh, J.A. Dominguez, J.L. Bernal, *"Development of a small wind turbine for stand-alone system in rural environment. Reuse and recycling of electric motors"*. International Conference on Renewable Energies and Power Quality (ICREPQ'18), March 2018.
Mar.-2018	R. Dufo-Lopez, S. Sanz Ortega, J.S. Artal Sevil, M. Astaneh, J. M. Lujano Rojas, J.A. Dominguez Navarro, J.L. Bernal Agustin, *"Analysis of power supply possibilities through lithium batteries connected to the AC grid"*. International Conference on Renewable Energies and Power Quality (ICREPQ'18), March 2018.
Jun.-2015	M. Astaneh, F. Golzar, R. Roshandel, "*Combined heat and power production from heavy refinery products; using integrated gasification and molten carbonate fuel cell cycle''*. Iranian Chemical Engineering Journal, 2014. 14(79): p. 46-60.
Mar.-2015	R. Roshandel, M. Astaneh, F. Golzar, "*Multi objective optimization of molten carbonate fuel cell system for reducing CO_2 emission from exhaust gases''*. Frontiers in Energy, 2015. 9(1): p. 106-114.
Jan.-2015	F. Golzar, M. Astaneh, R. Roshandel, "*Development of the improved Combined Cooling, Heat and Power (CCHP) based on Solid Oxide Fuel Cell (SOFC)*'', Iranian journal of Energy, 2015. 17(4): p. 31-50.
Oct.-2014	F. Golzar, M. Astaneh, R. Roshandel, A. Behzadi Forough, "*Reducing CO_2 emission from exhaust gases using molten carbonate fuel cells; a new approach''*. International Journal of Ambient Energy, 2014. 37(4): p. 331-340.

Research and Projects

2016-2018	Granted project: Techno-economic analysis of battery storage technologies (Role: main researcher)
2017	Research assistant in iHOGA software (a powerful tool for simulation, design and operation optimization of renewable and hybrid renewable energy systems).
2015- to date	Application of Li-ion batteries in renewable energy systems.
Jan-Jun. 2016	Techno-economic feasibility analysis of 10 MW grid-connected PV power plant in Fars province in Iran. (Role: Technical designer)
Dec. 2015- Jun. 2016	Granted project: Basic design and operation of energy systems in energy efficient greenhouses based on climate and environmental potentials and develop a national network to promote green greenhouses. (Role: Energy supply group leader)
2014-2015	Design, installation and operation of 5 kW hybrid PV/Wind renewable energy system in Department of Energy Engineering, Sharif University of Technology. (Role: Technical and executive expert)

Research Interests

- System level modeling of electric vehicles.
- Multi-scale simulation and optimization.
- Optimization of renewable energy systems regarding techno-economic and environmental issues.
- Battery system technology for stationary renewable applications.
- Grid integration of renewable energy systems.
- Aging behavior of battery storage systems.
- Thermoelectrochemical-aging based modeling of Li-ion batteries.
- Battery Management Systems.
- Technical, economic and environmental optimization of energy conversion systems.
- Carbon dioxide capture and storage technologies.
- High temperature fuel cells as active CCS technologies.
- Multi generation systems.

Academic Experiences

2014-2016	Teaching assistant of "*Advanced Energy Conversion*" offered by Prof. R. Roshandel at Sharif University of Technology.
2014-2016	Teaching assistant of "*Advanced Mathematical Programming*" offered by Prof. R. Roshandel at Sharif University of Technology.
2011-2012	Teaching assistant in "*Heat Transfer*" offered by Prof. H. Mahdiyar and Prof. R. Karimi, at Shiraz University.

Working Experiences

Jun. 2018- Feb. 2019	Engineering and technical manager of NANOSAV company.

Personal skills

Professional Softwares	MATLAB ASPEN PLUS iHOGA(improved Hybrid Optimization by Genetic Algorithms) GT-SUITE
General Softwares	Microsoft Office (ICDL degree)

English Level and Ability

2016	MSRT degree from Iran Ministry of Science, Research and Technology.

Awards

2017	Holding a scholarship from the Ministry of Science, Research and Technology of the Islamic Republic of Iran to carry out part of ongoing PhD research study at the University of Zaragoza.
2014	Holding PhD position at the Sharif University of Technology, Iran, from the University Office of Talent.
2012	Holding M.Sc position at the Sharif University of Technology, Iran, from the University Office of Talent.

References

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