

ABTIN ATAEI

PhD student in Electro Optics at the Department of Electro-Optics and Photonics, University of Dayton, Dayton, Ohio

Opto-mechanical research engineer, Exciting Technology Company LLC, Dayton, Ohio

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PERSONAL

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Google Scholar: <https://scholar.google.com/citations?user=561QYS8AAAAJ&hl=en>

ResearchGate: https://www.researchgate.net/profile/Abtin_Ataei

Total Citations: 679

h-index: 13

i10-index: 21

Citizenship: United States of America

EDUCATION

Ph.D. (expected 2019), Electro Optical Engineering (GPA: 4.0), University of Dayton, Dayton, OH

Dissertation: Beam steering in electro-optical crystals

Ph.D. (2008), Energy Engineering (GPA: 3.8), Science and Research Branch of Azad University, Tehran, Iran

Dissertation: Thermal and electrical analysis of a linear parabolic CPVT system

M.Sc. (2003), Energy Engineering (GPA: 3.6), Science and Research Branch of Azad University, Tehran, Iran

Thesis: Surface modes for near field thermophotovoltaics

B.Sc. (2000), Applied Physics (GPA: 3.1), Isfahan University of Technology, Isfahan, Iran

Project: Artificial intelligence techniques for sizing photovoltaic systems

Professional Membership

SPIE (International society for Optics and Photonics)

TEACHING EXPERIENCE

2014- Present

Math and Physics Tutor

2009-2010

Assistant Professor, School of Engineering, KyungHee University, Suwon, South Korea

2003-2013

Assistant Professor, Department of Energy and Environmental Engineering, Science and Research Branch of Azad University, Tehran, Iran

COURSES TAUGHT

- Photovoltaic.
- General Physics I, II.
- Optimization.
- Energy Resources and Technology.
- Solar Energy.
- Engineering Mathematics.

RESEARCH EXPERIENCE

2016-Present

Electro Optics Crystal and Beam Steering Researcher at Ladar and Optical Communications Institute (LOCI)

2016- Present

Opto-mechanical research engineer, Exciting Technology Company LLC, Dayton, Ohio

2014- Present

Department of Mechanical and Aerospace Engineering & Department of Electro Optics and Photonics, University of Dayton.

2009-2010

Green Energy Center, School of Engineering, KyungHee University, Suwon, South Korea.

2003-2013

Department of Energy and Environmental Engineering, Science and Research Branch of Azad University, Tehran, Iran.

2003-2009

School of Engineering, University of Tehran, Tehran, Iran.

2000-2003

Department of Energy Engineering, Sharif University of Technology, Tehran, Iran

RESEARCH INTERESTS

- Electro Optics and Photonic Crystals.

- Optical Design and Optimization.
- Laser Design and Application.
- Photovoltaic Design and Optimization.
- Remote Sensing.
- Sustainable and Renewable Energy Systems.

LANGUAGE SKILLS

Fluent in English, Native in Farsi (Persian), Basic in Arabic, Turkish and Korean.

COMPUTER SKILLS:

- **Computer Programming:** VC++, C#, Visual Basic, Matlab, Python, Bsic4android, Labview, EES.
- **Web Programming:** HTML, CSS, php, XML.
- **Database Management:** Ms SQL, Ms. Access.
- **Drafting Software:** SolidWorks, AUTOCAD
- **Optical Systems Design Software:** Zemax, COMSOL MultiPhysics, OSLO.
- **Optimization Software:** GAMS, LINGO, TSP, Minitab, SPSS, Eviews, Microfit.
- **General Operation Software:** Ms Office (Word, Power Point, Outlook, Excel, Visio, Access, Ms Project, Visio), Freehand, Photoshop.

HONORS & AWARDS

- 2017:** Hot paper (62 citations), Chemical Engineering Research and Design.
- 2012:** Hot Paper (65 citations) Award, International Journal of Environmental Science and Technology (IJEST).
- 2009:** Best Researcher Award, Azad University, Tehran, Iran.
- 2008:** Best Researcher Award, Azad University, Tehran, Iran
- 2003 - 2008:** Top Ph.D Student Award, Azad University, GPA: 3.8, Ranked 1.
- 2003:** Youngest Faculty Member Award, Azad University, Tehran, Iran.
- 2002:** Full-Tuition Scholarship Award, Azad University, Tehran, Iran.
- 2002:** Highest Score in the National PhD Entrance Examination, Azad University, Ranked 1.
- 2002:** Top MSc Student Award, Islamic Azad University, GPA: 3.7, Ranked 1.
- 2000:** High Score in the National MSc Entrance Examination, Azad University, Ranked 2.

SELECTED GRANTS

- Assistantship from University of Dayton for the PhD program in Electro Optics.
- A Grant from Exciting Technology LLC for non-mechanical beam steering.
- A Grant from the Kyung Hee University in 2010 (KHU- 20100188), South Korea.
- A Grant from the Korea Science and Engineering Foundation (KOSEF). That grant funded by the Korean government (MEST) (KRF-2009-0076129) and Seoul R&BD Program (CS070160), South Korea.
- A Grant from Brain Korea 21 project (environmental informatics program), the Korea Science and Engineering Foundation (KOSEF) by the Korea government, South Korea.
- Grants from Science and Research Branch of the Islamic Azad University (SRBIAU), Tehran, Iran for publication of about 30 papers in International Journals and presentation of about 70 papers in domestic and International congresses.
- A Grant from Science and Research Branch of the Islamic Azad University (SRBIAU), Tehran, Iran, 2003-2008.

SELECTED PATENTS

- SYSTEM, METHOD, AND APPARATUS FOR NON-MECHANICAL BEAM STEERING, US patent pending.
- A Solar Window for Air Conditioning, Lighting and Power Generation. Iranian Patent No. 72165, October 30, 2011.
- Wet Cooling Tower Exhaust Water Recovery, Iranian Patent No. 72373, November 14, 2011.
- GT-Cu-Cl Combined Cycle, Iranian Patent No. 62012, January 10, 2010.
- PWR-Cu-Cl-RANKINE Power Cycle, Iranian Patent No. 60028, May 7, 2009.

PROFESSIONAL MODELS DEVELOPED

- A model in MATLAB for Simulation of Horizontal Axis Wind Turbines.
- A model in MATLAB to Reliability Analysis of Hybrid Wind/PV/Battery Power Generators.
- A model in MATLAB to Design and Optimization of Photovoltaic Power Systems.
- A model in MATLAB to Design and Optimization of Hybrid PV/Wind/Diesel/Battery Power Systems.
- A model in MATLAB to Optimum Design of Small Horizontal Axis Wind Turbines.
- A model in EES for Optimum Designing and Simulation of a Novel Braysson/Kalina Combined Cycle Power Plant.
- A model in EES for Optimum Designing and Simulation of a Novel Brayton/Critical Kalina Combined Cycle Power Plant.
- A model in EES for Optimum Design and Simulation of a Novel Combined Cold and Fresh Water (CCW) Generator by Integration of a RO and a Refrigeration cycle.
- A model in EES for Optimum Designing and Simulation of a Novel Combined Heat, Power and Fresh Water Generator by Integration of a Braysson/Rankine Combined Cycles and a MED Desalination Systems.
- A model in Visual C++ for Optimum Designing and Simulation of Wet Cooling Towers
- A model in Visual C++ for Optimum Designing and Simulation of Spiral Heat Exchangers.
- A model in Visual Basic for Water and Wastewater Minimization through Pinch Analysis.

SELECTED PEER REVIEWED PUBLICATIONS

Selected Books:

- Ataei A, Azimi M A E, Magnetohydrodynamic Power Generation, Peik Noor, Tehran, 2015, ISBN: 978-964-7615-419
- Ataei A, Application of Spiral and Plate Heat Exchangers in Oil Industry, Yazda, Tehran, 2015, ISBN: 978-600-165-4084
- Ataei A, Panjeshahi MH, Combined Water and Energy Pinch Analysis, Bahman Borna, Tehran, 2015, ISBN: 978-964-8023-800

Selected Papers:

1. Ataei A, Tahouni N, Haji Seyedi SM, Hashemian SM, Yoo CK and Panjeshahi MH, 2014, A novel approach to hot oil system design for energy conservation, *Appl. Therm. Eng.*, 66(1-2): 423-434.
2. Ataei A., 2010, Wastewater Treatment: Energy-Conservation Opportunities, *Chem. Eng-New York*, 117(1): 34-41.
3. Ataei A. and Rashidi Z, 2012, Life Cycle Assessment of Advanced Zero Emission Combined Cycle Power Plants, *Int. J. Environ. Res.*, 6(3):801-814
4. Ataei A., Gharaie M., Parand R., Panjeshahi E., 2010, Application of ozone treatment and pinch technology in cooling water systems design for water and energy conservation, *Int. J. Energy Res.*, 34:494-506.
5. Ataei A., Panjeshahi M. H. and Gharaie M., 2008, Performance Evaluation of Counter-Flow Wet Cooling Towers Using Exergetic Analysis, *Transactions of the CSME*, 32 (3-4): 499-511.
6. Sahafzadeh M, Ataei A, Tahouni N, Panjeshahi MH, 2013, Integration of a gas turbine with an ammonia process for improving energy efficiency, *Appl. Therm. Eng.*, 58(2013): 594-604.
7. Janghorban E I, Ataei A, Shetty V, Oh T S, Park J H, Yoo CK, 2012, Modeling and genetic algorithm-based multi-objective optimization of the MED-TVC desalination system, *Desalination* 292 (2012) 87-104.
8. Panjeshahi M. H., Ataei A., Gharaie M. and Parand R., 2009, Optimum Design of Cooling Water Systems for Energy and Water Conservation, *Chem. Eng. Res. Des.*, 87: 200-209. **(HOT PAPER)**
9. Panjeshahi M. H., Gharaie M. and Ataei A., 2010, Debottlenecking procedure of effluent thermal treatment system, *Energy*, 35: 5202-5208.
10. Tahouni N., Panjeshahi M.H. and Ataei A., 2011, Comparison of sequential and simultaneous design and optimization in low-temperature liquefaction and gas separation processes, *J. Franklin. Inst.*, 348:1456-1469.
11. Ataei A. and Yoo C.K., 2010, Combined pinch and exergy analysis for energy efficiency optimization in a steam power plant, *Int. J. Phys. Sci.*, 5 (7):1110-1123.
12. Ataei A. and Yoo C.K., 2011, Application of Pinch Technology for Waste Heat Recovery in The Linear-Alkyl-Benzene Sulfonation Process, *Asian J. Chem.*, 23(4):1539-1547.
13. Yoo C.K., Ataei A., Kim Y.S., Liu H.B. and Lim J.J., 2010, Environmental systems engineering: A state of the art review, *Sci. Res. Essays*, 5(17): 2341-2357.
14. Manbachi M., Mahdloo F., Haghifam M.R., Ataei A. and Yoo C.K., 2010, A New Approach for Maintenance Scheduling of Power Systems, using A Genetic Algorithm and Monte-Carlo Simulation, *Maintenance and Reliability*, 4:82-90.
15. Ataei A., Khalaji Assadi M., Janghorban Esfahani I., Golzari Y., Oh J.M., Yoo C.K., 2011, Integration of reverse osmosis and refrigeration systems for energy efficient seawater desalination, *Int. J. Phys. Sci.*, 6(12): 2832-2843.
16. Ataei A., 2011, Application of combined pinch and exergy analysis in retrofit of an olefin plant for energy conservation, *Sci. Res. Essays*, 6(12): 2437-2446.
17. Mohammadnejad S., Ataei A., Bidhendi G.R.N., Mehrdadi N., Ebadati F. and Lotfi F., 2011, Water pinch analysis for water and wastewater minimization in Tehran oil refinery considering three contaminants, *Environ. Monit. Assess.*, DOI 10.1007/s10661-011-2146-z.
18. Nasir Aghdam H., Ataei A., Ghadimi N., Farhadi P., 2011, Adjusting PID Controllers Coefficients to Control Fuel Cell Using Genetic Algorithm, *International Review of Automatic Control*, 4(2):243-247.
19. Kim M.J., Kim Y.S., Ataei A., Kim J.T., Lim J.J. and Yoo C.K., Statistical Evaluation of Indoor Air Quality Changes after Installation of the PSD System in Seoul's Metro, *Indoor. Built. Environ.*, 20(1):187-197.
20. Ataei A. and Yoo C.K., 2011, Exploration of dual optimal conditions for COD and nitrogen removal in an MBR, *Asia-Pac. J. Chem. Eng.*, 6: 433-440.
21. Panjeshahi M. H. and Ataei A., 2008, Application of an environmentally optimum cooling water system design in water and energy conservation, *Int. J. Environ. Sci. Tech.*, 5 (2):251-262. **(HOT PAPER)**
22. Ataei A., Panjeshahi M. H. and Gharaie M., 2009, New Method for Industrial Water Reuse and Energy Minimization, *Int. J. Environ. Res.*, 3(2): 289-300.
23. Ataei A., Panjeshahi M. H., Gharaie M. and Tahouni N., 2009, New Method for Designing an Optimum Distributed Cooling System for Effluent Thermal Treatment, *Int. J. Environ. Res.*, 3(2): 155-166.
24. Atabi F., Ataei A., Mohammadi R., 2010, Technical-Environmental and Economical Evaluation of Oleum Elimination from Sulfuric Acid Units of Petrochemical Industries, *Asian J. Chem.*, 22 (1), 179-188.
25. Atabi F., Ataei A., Shafizadeh S., 2010, Technical and Economical Assessment of SO₃/SO₂ Removal from Sulphuric Acid Plants in a Petrochemical Industry and Converting it to Ammonium Sulfate, *Asian J. Chem.*, 22(1): 168-178.
26. Panjeshahi MH, Ataei A, Gharaie M, 2010, A Comprehensive Approach to an Optimum Design and Simulation Model of a Mechanical Draft Wet Cooling Tower, *Iran. J. Chem. Chem. Eng.*, 29 (1): 21-32.
27. Ataei A., Yoo CK, 2010, Simultaneous Energy and Water optimization in Multiple-Contaminant Systems with Flowrate Changes Consideration, *Int. J. Environ. Res.*, 4 (1), pp.11- 26
28. Salarian H, Khalaji Assadi M and Ataei A, 2011, An experimental and modeling study of a dehumidification tower, *Int. J. Phys. Sci.*, 6(12): 2852-2860.
29. Manbachi M, Mahdloo F, Ataei A and Haghifam MR, 2011, New Interface for Coordinated Maintenance Scheduling of Generating Units in Neighbor Countries Applying Genetic Algorithm and Monte-Carlo Simulation, *International Review of Electrical Engineering*, Vol. 6, N. 4, 2011.
30. Ataei A, Lee KS, Lim JJ, Kim MJ, Liu HB, Kang OY, Oh TS, Yoo CK, 2011, A Review on Environmental Process Engineering, *Int. J. Environ. Res.*, 5(4):875-890
31. Janghorban Esfahani I, Ataei A, Kim MJ, Kang OY, Yoo CK, 2012, Parametric analysis and optimization of combined gas turbine and reverse osmosis system using refrigeration cycle, *Desalination and Water Treatment*, 43 (2012) 149-158.
32. Ataei A, Aliehyae M, Alizadeh MY, 2012, WATER AND AMMONIA (KALINA) POWER CYCLE IN SUPERCRITICAL CONDITION, 2012 Asia-Pacific Power and Energy Engineering Conference (APPEEC 2012), China.
33. Ataei A, Azimi A, Behboodi S, 2012, Energy Analysis of a Coal-Biomass Gasification Power Generation System, 2012 Asia-Pacific Power and Energy Engineering Conference (APPEEC 2012), China.
34. Ataei A, Iranmanesh A, 2012, Life Cycle Assessment of AZEP Gas Turbine Combined Cycle Power Plants, 2012 Asia-Pacific Power and Energy Engineering Conference (APPEEC 2012), China.
35. Ataei A, Shirzad M, 2012, Presentation of a New Combined Cycle for Cogeneration of Power and Water, 2012 Asia-Pacific Power and Energy Engineering Conference (APPEEC 2012), China.
36. Atabi F, Ataei A, Mirmolavi MS, Rasooli A, Poursaeidesfahani A, 2012, Technical-Economical and Environmental Feasibility Study of Combined Heat and Power Systems in Pulp and Paper Industry, 2012 International Conference on Environment, Energy and Biotechnology IPCBEE vol.33 (2012) © (2012) IACSIT Press, Singapore.
37. Khalaji Assadi M, Ataei A, Falahatkar A, 2011, Technical, economical and environmental evaluation of a solar absorption cooling system in Kerman, 8th National Energy Congress, Tehran, Iran.
38. Ataei A, Azimi A, Behboodi Kalhori S, Mirabi M, 2012, Thermodynamic Simulation of a Co-Gasification System, 20th Annual International Conference on Mechanical Engineering-ISME2012, 16-18 May, 2012, School of Mechanical Eng., Shiraz University, Shiraz, Iran.
39. Darabadi MT, Hashemi F, Ghadimi N, Ataei A, 2011, Newton-raphson load flow with consideration of the fuzzy load and in the presence of the distributed generations in distribution network, 10th International Conference on Environment and Electrical Engineering (EEEIC), Rome, Italy.
40. Mohammadnejad S, Ataei A, Ebadati F, Nabi Bidhendi GH, Mehrdadi N, Lotfi F, Shadman F, 2011, Water and wastewater minimization in Tehran oil refinery through water pinch analysis using double contaminants approach, WASET 2011, Spring International Conference, Bangkok, Thailand, March 29-30, 2011.

41. Ataei A., Kani A. H., DESIGN AND MODELING OF A PHOTOVOLTAIC REVERSE-OSMOSIS SYSTEM FOR SOLAR DESALINATION OF SEAWATER, 23rd International Power Systems Conference (PSC2008), Tehran, Iran, 2008.
42. Ataei A. and Panjeshahi M. H., Combined Water and Thermal Pinch Analysis in Pulp and Paper Industries, The 5th International Chemical Engineering Congress & Exhibition (ICHEC 2008), Kish Island, Iran, 2008.
43. Ataei A, Modification of Co-generation Plant in a Sugar Cane Factory, 6th National Energy Congress, Tehran, Iran, 2007.
44. Sahafzadeh M, Ataei A, Panjeshahi MH, integration of a gas turbine in the ammonia process using combined pinch and exergy analysis, 14th Conference of chemical Engineering, Tehran, Iran.
45. Ataei A, Shabani S, Azimi A, Behboodi Kalhori S, Foroughi Abari M, Radnezhad H, 2012, Energy Analysis of a Co-gasification System Based on Rice Husk and Bagasse, The 4th National Congress on Recycling of Organic Waste in Agriculture, 26 – 27 April 2012 in Isfahan, Iran.
46. Ataei A., Panjeshahi M.H., Energy Integration in Water Efficient Pulp and Paper Plants, 12th Iranian Chemical Engineering Congress, Tabriz, Iran, 2008.
47. Sahafzadeh M, Ataei A, Tahouni N, Pajeshahi MH, 2012, Improving Energy Efficiency in Ammonia Plant Using Pinch and Exergy Analysis, 2012 International Conference on Power and Energy Systems (ICPES 2012), IPCSIT vol. XX (2012) © (2012) IACSIT Press, Singapore, DOI: 10.7763/IPCST.2012.Vx.??.
48. Teflissi R, Ataei A, 2013, Effect of temperature and gas flow on the efficiency of an air bottoming cycle, J. Renewable Sustainable Energy 5, 021409 (2013);<http://dx.doi.org/10.1063/1.4798486>.
49. Ataei A, Haji Seyedi SM, Hashemian SM, 2012, A Novel Approach to Design of Hot Oil Systems Based on Regeneration Concept and Pinch Technology for Optimum Heat and Power Co-generation, International Symposium on Advanced Waste Heat Valorization Technologies, Organic Rankine Cycle and Industrial Heat Pumps for Waste Heat Upgrading, Sep 13-14, 2012, Kortrijk, Belgium.
50. Rashidi Z, Kabassi AR, Ataei A, Ifaei P, Samiee-zafarghandi R, 2012, Power plant Design using gas produced by waste Leachate treatment plant, Int. J. Environ. Res., 6(4):875-882, Autumn 2012.
51. Ataei A, Azimi A, Behboodi Kalhori S, Foroughi Abari M, Radnezhad H, 2012, Performance analysis of a co-gasifier for organic waste in agriculture, International Journal Of Recycling of Organic Waste in Agriculture, 2012, 1:6.
52. Khosravi S, Ataei A, Panjeshahi MH, 2013, Application of exergy analysis for quantification and optimization of the environmental performance in wastewater treatment plants, Int. J. Exergy, Vol. 12, No. 1, 2013.
53. Jabbari B, Tahouni N, Ataei A, Panjeshahi MH, 2013, Design and optimization of CCHP system incorporated into kraft process, using Pinch Analysis with pressure drop consideration, Appl. Therm. Eng., 61(1): 88-97.
54. Shoja M, Akhond Babatabar M, Tavasoli A, Ataei A, 2013, Production of hydrogen and syngas via pyrolysis of bagasse in a dual bed reactor, Journal of Energy Chemistry 22(2013)639–644.
55. Azhdari A., Ghadamian H. and Ataei A., Yoo C. K., 2009, A New Approach for Optimization of Combined Heat and Power Generation in Edible Oil Plants, J. Appl. Sci., 9(21): 3813-3820.
56. Ataei A., Panjeshahi M. H. and Gharai M., 2009, A New Algorithm for Optimum Design of Mechanical Draft Wet Cooling Towers, J. Appl. Sci., 9(3): 561-566.
57. Ataei A., Panjeshahi M. H., Parand R. and Tahouni N., 2009, Application of an Optimum Design of Cooling Water System by Regeneration Concept and Pinch Technology for Water and Energy Conservation, J. Appl. Sci., 9:1847-1858.
58. Parand R., Rashidian B., Ataei A. and Shakibi Kh., 2009, Modeling the transient response of the thermosyphon heat pipes, J. Appl. Sci., 9(8): 1531-1537.
59. Raoufinia M., Petrakov Y. V., Ataei A., Parand R., Abou-El-Hossein K., 2009, Error Compensation of Complex Three-Dimensional Surfaces Machined on Computer-Numeric-Control Grinding Machine Tools, J. Appl. Sci., 9(7): 1356-1361.
60. Ataei A., Khalaji Assadi M., Parand R., Sharee N., Raoufinia M. and Kani A. H., 2009, Solar Combi-system a New Solution for Space Heating in Buildings, J. Appl. Sci., 9(8): 1458-1546.
61. Ataei A., Panjeshahi M. H. and Karbassian S., 2009, Simultaneous Energy and Water Minimization-Approach for Systems with Optimum Regeneration of Wastewater, Res. J. Environ. Sci., 3:604-618.
62. Ataei A., 2009, Modification of Co-generation Plant in a Sugar Cane Factory for Reduction of Power Deficit, Res. J. Environ. Sci., 3(6): 619-630.
63. Ataei A., Kani A. H., Parand R., Raoufinia M., 2009, Optimum Design of a Photovoltaic Reverse-Osmosis System for Persian Gulf Water Solar Desalination, Res. J. Environ. Sci., 3(4):414-426.
64. Ghazi Mirsaeed M, Ataei A, Torabian A, Hassani AH, Hashmiyan J, 2014, COMPARISON STUDY OF CORROSION BEHAVIOR AND SEDIMENTATION OF TWO CONVENTIONAL AND OZONE METHODS IN WET COOLING TOWERS AT SEMI-INDUSTRIAL SCALE, The International Journal of Plant, Animal and Environmental Sciences, 4(2): 436-446.
65. F Safari, M Salimi, A Tavasoli, A Ataei, 2016, Non-Catalytic Conversion of Wheat Straw, Walnut Shell and Almond Shell into Hydrogen Rich Gas in Supercritical Water Media, Chinese Journal of Chemical Engineering, doi:10.1016/j.cjche.2016.03.002
66. Abtin Ataei, Hoofar Hemmatabady, Seyed Yahya Nobakht, 2016, Hybrid thermal seasonal storage and solar assisted geothermal heat pump systems for greenhouses, Advances in Energy Research, An International Journal, 4(1) 87-106.
67. Mohammad Hoseini Rahdar, Abolghasem Emamzadeh, Abtin Ataei, 2016, A comparative study on PCM and ice thermal energy storage tank for air-conditioning systems in office buildings, Applied Thermal Engineering, 96(5) 391-399.
68. Mojtaba Nedaei, Abtin Ataei, Changkyoo Yoo, Jun-Ki Choi, Ehsanolah Assareh, 2016, The Potential of Wind for Energy Production and Water Pumping in Iran, Saravan County, Distributed Generation and Alternative Energy Journal, 31(1) 7-26.
69. Mohammad Hoseini Rahdar, Mohammad Heidari, Abtin Ataei, Jun-Ki Choi, 2016, Modeling and optimization of R-717 and R-134a ice thermal energy storage air conditioning systems using NSGA-II and MOPSO algorithms, Applied Thermal Engineering, 96 217-227.
70. Abtin Ataei, Reza Rashidi, Mojtaba Nedaei, Elnaz Kurdestani, 2015, Techno-economic viability of a hybrid wind and solar power system for electrification of a commercial building in Shiraz, Iran, Advances in Energy Research, An International Journal, 3(4) 251-263
71. Abtin Ataei, Farid Safari, 2015, Thermal and electrical analysis of a linear parabolic CPVT system, Advances in Energy Research, An International Journal, 3(4) 221-233.
72. Abtin Ataei, Mojtaba Nedaei, Reza Rashidi, Changkyoo Yoo, 2015, Optimum design of an off-grid hybrid renewable energy system for an office building, JOURNAL OF RENEWABLE AND SUSTAINABLE ENERGY, 7(5) 053123
73. Ataei Ataei, Morteza Ghazi Mirsaeed, Jun-Ki Choi, Reza Lashkarboluki, 2015, Application of ozone treatment in cooling water systems for energy and chemical conservation, Advances in Environmental Research, An International Journal, 4(3) 155-172
74. Abtin Ataei, Jun-Ki Choi, Zeinab Hamidzadeh, Navid Bagheri, 2015, Simultaneous water and energy saving of wet cooling towers, modeling for a sample building, Advances in Environmental Research, An International Journal, 4 (3) 173-181.
75. Abtin Ataei, Ali Nowrouzi, Jun-Ki Choi, 2015, Indoor air quality and ventilation requirement in residential buildings: A case study of Tehran, Iran, Advances in Environmental Research, An International Journal, 4(3) 143-153.
76. Abtin Ataei, Mehdi Ebadi, 2015, Environmental and Economic Optimization Model for Electric System Planning in Qazvin, Iran: A LEAP Model, Physics Journal, 1 (2) 112-120.
77. Abtin Ataei, Khaled Fararian, 2015, Environmental and Economic Analysis of Scenarios for Transition to Renewable Energy in the Iranian Electricity Supply System, International Journal of Energy Science and Engineering, 1(4) 153-162.

78. Mohammad Hosseini Rahdar, Abtin Ataei, Hohammad Heidari, Mohammadreza Torkamani, Mojtaba Nedaei, 2015, Techno-Economic Evaluation of Utilizing a Micro Wind Turbine in Arak, Iran, *Physics Journal*, 1 (2) 79-88.
79. Majid Zare Abtin Ataei, Jun-Ki Choi, Neda Ziabakhsh, Mehdi Namdari, 2015, Integration of a Photovoltaic System and a Combined Heat and Power Generator in an Educational Building Using eQUEST and HOMER Models, *American Journal of Renewable and Sustainable Energy*, 1(3) 106-114.
80. Jun-Ki Choi Ehsan Khanehabad, Abtin Ataei, Hossein Reza Darabi, 2015, A New Cycle for Combined Hydrogen and Power Generation, *American Journal of Renewable and Sustainable Energy*, 1(3)90-101.
81. Mojtaba Nedaei Abtin Ataei, Jun-Ki Choi, Sara Shamshiri, Hossein Torabi, 2015, Evaluating of the Energy Consumption in Iran During 1980-2030 Using the Leap Model, *American Journal of Renewable and Sustainable Energy*, 1(2) 72-85.
82. Mojtaba Nedaei Abtin Ataei, Jun-Ki Choi, 2015, Evaluating the Potential of Wind Power in Order to Electrify a Remote Village in South East of Iran, *American Journal of Renewable and Sustainable Energy*, 1(2)58-65.
83. Jun-Ki Choi Abtin Ataei, Farid Safari, 2015, Thermodynamic Performance Analysis of Different Organic Rankine Cycles to Generate Power from Renewable Energy Resources, *American Journal of Renewable and Sustainable Energy*, 1(2) 31-38.
84. Mohammad Heydari Mohammad Amin Abdollahi, Abtin Ataei, 2015, Water Boiling Heat Transfer in Vertical Jacketed Pipe: A CFD Model, *International Conference on Chemical, Civil and Environmental Engineering (CCEE-2015) June 5-6, 2015 Istanbul (Turkey)*.
85. Mohammad Hoseini Rahdar Mohammad Heydari, Mohammad Amin Abdollahi, Abtin Ataei, 2015, Technical and Economic survey on power generation by use of flaring purge gas, *International Conference on Chemical, Civil and Environmental Engineering (CCEE-2015) June 5-6, 2015 Istanbul (Turkey)*.
86. Abtin Ataei, Hossein Asghari Faryad, Jun-ki Choi, Zahra Mohammadi, 2015, PHOTOVOLTAIC GENERATOR CHARACTERISTICS MODELING USING MATLAB/SIMULINK, *International Journal of Current Trends in Engineering & Technology*, 1(4) 113-118.
87. Jun-Ki Choi Nabiollah Mansouri, Abtin Ataei, Bahareh Vatankhahi Zaferani, 2015, Designing a Seawater Packed Bed Scrubber for Reducing SO₂ Emissions in Claus Plants, *International Journal of Current Trends in Engineering & Technology*, 1(4) 108-112.
88. Abtin Ataei, Mojtaba Biglari, Mojtaba Nedaei, Ehsanolah Assareh, Jun-Ki Choi, Changkyoo Yoo, Muiyiwa Samuel Adaramola, 2015, Techno-economic feasibility study of autonomous hybrid wind and solar power systems for rural areas in Iran, A case study in Moheydar village, *Environmental Progress & Sustainable Energy*, 1-7
89. Jun-Ki Choi Farid Safari, Ahmad Tavasoli, Abtin Ataei, 2015, Hydrogen and syngas production from gasification of lignocellulosic biomass in supercritical water media, *International Journal of Recycling of Organic Waste in Agriculture*, 1-5.
90. Ahmad Tavasoli, Mohammad Irani, Mehdi Vahidi, Abtin Ataei, 2015, Energy Consumption Minimization in Amine Plants Using Hybrid Nanostructures, *The Caspian Sea Journal*, 9(1)92-98.
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- 2014: Green HVAC/R Certified Tech. Certification, Mainstream Engineering Corporation, Florida.
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- 2014: R-410A Tech. Certification, Mainstream Engineering Corporation, Florida, U.S.A.
- 2014: HVAC/R Tech. Certification, EPA Section 609.
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- 2013- 2014: Professional Certificates in Heating and Air Conditioning, Ashworth College, Norcross, Georgia.

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- 2012: Certificate in Wind Farm Design and Optimization using WindPro software, EMD Co., Denmark.
- 2009- 2010: Post-Doctoral Certificate in Green Energy Engineering, Green Energy Center, College of Engineering, KyungHee University, Suwon, South Korea.
- 2010: 100kW Wind Turbine Installation and Maintenance, Parawell Co., China.
- 2010: 660kW Wind Turbine Installation and Maintenance, Amid Co., Iran.
- 2010: Converting Diesel Power Generators into Gas by Retrofitting & Repowering, Miracle Power Co., China.
- 2009: Small Scaled Wind Turbines and Hybrid Wind/ PV Generators Installation and Maintenance, Isfahan University of Technology, Iran.
- 2008: Certificate in Solar Heating Systems Design, Installation and Maintenance, Isfahan University of Technology, Iran.

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2008 - Present: Technical Reviewer for the following Peer Reviewed Journals;

- Energy (ISI)
- Canadian Journal of Chemical Engineering (ISI)
- Environmental Monitoring and Assessment (ISI)
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