

## Curriculum Vitae of Mohsen Shakeri



**Professor, PhD**  
**Head of Fuel Cell Research Center**  
**Mechanical Engineering Dept.**  
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### EDUCATION

**PhD, CAD/CAM**, Toyohashi University of Technology, Toyohashi, Nagoya, Japan, April, 1994 – Jun. 2000

- Computer Aided Process Planning, supervised by: **Prof. T. Hoshi**

**MSc, Applied Solid Mechanics**, Tehran University, Tehran, Iran, Sep. 1989– Mar. 1991

- Nonlinear vibration of plates and shell, supervised by: **Prof. H. Naei**

**BS, Mechanical Engineering**, Shiraz University, Shiraz, Iran, Sep. 1984 – Jun. 1989

- First Top ranked among all of BS student by Excellent scores

### RESEARCH INTERESTS / RESEARCH PROFILE

*Feature Based CAD/CAM system, Feature recognition, Computer Aided Process Planning (CAPP), Machining simulation, PEM fuel cell, Fuel Cell Test station, Metallic Bipolar plate, Renewable energy system.*

### RESEARCH EXPERIENCE

**Head of PEM Fuel Cell Research Group**, Mechanical Eng. Faculty/Fuel Cell Lab, Babol Noshirvani University of Technology, Babol, Mazandaran, 2005 – present.

- *Executive director/ researcher of research project titled as "Micro stem welding of metallic bipolar plate for PEM fuel cell", 2019-2022.*
- *Executive director/ researcher of research project titled as "Geometrical and dimensional tolerance allocation of metallic bipolar plate for PEM fuel cell", 2017-2020.*
- *Executive director/ researcher of research project titled as "2.5 KW PEM fuel cell for Combine Heat and Power (CHP) application", 2018-2021.*



## Babol Noshirvani University of Technology

- *Executive director/ researcher of research project titled as "Design and fabrication of 1 KW low weight PEM fuel cell for avionic application", 2013-2017.*
- *Executive director of research project titled as "Local current measurement in DMFC cell", 2012-2014.*
- *Executive director/ researcher of research project titled as "Onboard hydrogen generation system by using NaBrH<sub>4</sub> for PEM fuel cell", 2014-2018.*
- *Executive director/ researcher of research project titled as "Design and fabrication of 1 KW weight PEM fuel cell for urban application", 2010-2013.*
- *Executive director of research project titled as "Onboard hydrogen generation system by using wasted Al for PEM fuel cell", 2011-2014.*
- *Executive director of research project titled as "Effect of clamping force on performance of PEM system ", 2010-2013.*
- *Executive director/ researcher of Research Project titled as "Design & Fabrication of 1000 Watt DMFC system", 2009-2010.*
- *Colleague in research project titled as "Ultrasonic methanol concentration sensor for direct methanol fuel cell", 2009-2010.*
- *Executive director/ researcher of Research Project titled as "Design & Fabrication of 500 Watt Direct Methanol Fuel Cell (DMFC) system", 2005-2009.*

**Research Assistant**, Mechanical Eng. Faculty/Production & Manufacturing Eng. Group, Babol Noshirvani University of Technology, Babol, Mazandaran, 2000 – present.

- *Executive director/ researcher of research project titled as "Computer Aided manufacturing software for correction of surface roughness error with water abrasive machining ", 2005-2006.*
- *Executive director/ researcher of research project titled as "Computer integrated manufacturing system for automatic process planning of rotational components ", 2005-2006.*
- *Executive director/ researcher of research project titled as "Investigation on effective parameters of Nano scale polishing by fluid jet polishing for industrials lens polishing.", 2004-2006.*
- *Executive director/ researcher of research project titled as "Orientation of local industries in use of advanced CAD/CAM system", 2004-2005.*
- *Executive director of research project titled as "Adaptive control system for linear brushless DC motor ", 2003-2004.*
- *Executive director of research project titled as "Design and fabrication of a low speed and high torque brushless DC motor ", 2001-2004.*

## **AREAS OF TEACHING EXPERTISE & EXPERIENCE**

**List of courses have been taught during 2000 up to now in Babol Uni. Of Technology.**

- **PhD Courses:** Optimization on manufacturing and system, Computer Aided Process planning, Advanced Engineering Mathematics, Design of Experiments, Computer modelling and simulation.
- **Msc Courses:** Advanced CAD/CAM, Advance Computer Numerical Control (Advanced CNC), Advanced Optimization Method, Advanced Engineering Math., Advanced Optimization Method.



Babol Noshirvani University of Technology

- **BS Courses:** *Computer Aided Design, Computer Aided Design & Manufacturing (CAD/CAM), Computer Numerical Control (CNC), Mechanical Element Design I, Mechanical Element Design II, CAD/CAM Lab., Mechanical Vibration.*

#### PROFESSIONAL MEMBERSHIPS / ORGANIZATIONS

- *Society of Manufacturing Engineering of Iran (SMEIR)*
- *Japan society of Precision Engineering (JSPE)*
- *Iranian Society of Mechanical Engineering (ISME)*
- *Iranian Society of Hydrogen and Fuel Cell (ISHFC)*
- *Electrochemical Society of Iran (ESI)*

#### COMMUNITY INVOLVEMENT / ADMINISTRATIVE ACTIVITY / SERVICE

- *Head of Fuel Cell Research and Technology Group (2005-2010)*
- *Head of PEM Fuel Cell Group (2010 – Present)*
- *Head of Renewable energy Center (2015- Present)*

#### PUBLICATIONS

1. **M Nasrollahzadeh, M Shakeri, A Zolfaghari**, “**Investigation on physical and chemical properties of modified copper bipolar plate produced by electrospinning of carbon nanotubes, carbon black and polypyrrole composite**”, *Renewable Energy* 242, 122500.
2. **HR Taheri, M Shakeri**, “**Geometrical parameters optimization to improve the effective thermal conductivity of the gas diffusion layer for PEM fuel cell**”, *International Journal of Thermal Sciences* 205, 109281.
3. **T Beiki, G Najafpour-Darzi, M Mohammadi, M Shakeri**, “**Design of a novel electrochemical aptasensor based on molybdenum disulfide nanosheets for lysozyme detection**”, *Journal of Analysis and Testing* 8 (1), pp.16-27.
4. **T Beiki, G Najafpour-Darzi, M Mohammadi, M Shakeri, R Boukherroub**, “**Fabrication of a novel electrochemical biosensor based on a molecular imprinted polymer-aptamer hybrid receptor for lysozyme determination**”, *Analytical and Bioanalytical Chemistry* 415 (5), 899-911.
5. **A Amiri, A Zolfaghari, M Shakeri**, “**3D printing of glass fiber reinforced acrylonitrile butadiene styrene and investigation of tensile, flexural, warpage and roughness properties**” *polymer Composites* 43 (9), 6287-6299.
6. **Tafaoli-Masoule M, Shakeri M, Zahedi SA, Vaezi M.**, “**Experimental investigation of process parameters in polyether ether ketone 3D printing**”, *Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering*. 2022;0(0).

7. **Gholami, O., Shakeri, M., Imen, S.J., Jamshidi Aval, H., "Small-scale resistance seam welding of stainless steel bipolar plates of PEM fuel cells"**, *International Journal of Energy Research*, 2021, 45(9), pp. 13822–13835.
8. **Hajiahmadi, S., Elyasi, M., Shakeri, M., " Development a new methodology for measuring deep drawing forces based on dimensionless evaluation"**, *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, 2021, 235(19), pp. 4057–4069.
9. **Shamami, D.Z., Rabiee, S.M., Shakeri, M., "Characterization of magnesium-hydroxyapatite functionally graded composites prepared by rapid microwave sintering technique"**, *Ceramics International*, 2022, 48(9), pp. 12641–12653.
10. **Shamami, D.Z., Rabiee, S.M., Shakeri, M., "Use of rapid microwave sintering technique for the processing of magnesium-hydroxyapatite composites"**, *Ceramics International*, 2021, 47(9), pp. 13023–13034.
11. **Gholami, O., Shakeri, M., Imen, S.J., Jamshidi Aval, H., "Small-scale resistance seam welding of 304 stainless steel with capacitor discharge welding machine"**, *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture*, 2021, 235(6-7), pp. 1154–1167.
12. **Hajiahmadi, S., Elyasi, M., Shakeri, M., "Evaluation of drawing force by a new dimensionless method in deep drawing process"**, *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture*, 2020, 234(13), pp. 1604–1614.
13. **Vazifeshenas, Y., Sedighi, K., Shakeri, M., "Open Cell Metal Foam as Extended Coolant Surface – Fuel Cell Application"**, *Fuel Cells*, 2020, 20(2), pp. 108–115.
14. **Arman Gholizadeh Roshan, Abbas Zolfaghari, Mohsen Shakeri, "Investigation of physical and mechanical properties of 3D printed parts by using of ABS plastic filaments filled by alumina"**, *Iranian Journal of Manufacturing Engineering, Volume:7 Issue: 4, 2020, pp 1-9 (in Persian)*.
15. **Amirhossein Amiri, Mohsen Shakeri, Abas Ramiar, Mostafa Jafarzadeh Khatibani, "Numerical study of Iran-Bushehr Container Ship motions and added resistance in regular head waves using STAR-CCM+"**, *Journal of Marine Engineering, Volume:16 Issue: 31, 2020 pp 41-52 (in Persian)*.
16. **Hajiahmadi, S., Elyasi, M., Shakeri, M., "Investigation of a new methodology for the prediction of drawing force in deep drawing process with respect to dimensionless analysis"**, *International Journal of Mechanical and Materials Engineering*, 2019, 14(1), 14.
17. **Tafazoli, M., Shakeri, M., Baniassadi, M., Babaei, A., Safdari, M., "Developing a Coupled Statistical and Monte Carlo Approach for Geometric Modeling and Optimizing of Infiltrated Solid Oxide Fuel Cell Electrode"**, *Fuel Cells*, 2019, 19(2), pp. 112–124.
18. **A Gholipoor, H Baseri, M Shakeri, M Shabgard, "Investigation of the effects of magnetic field on near-dry electrical discharge machining performance"**, *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of*.
19. **S Yousefi, M Shakeri, K Sedighi, "The effect of cell orientations and environmental conditions on the performance of a passive DMFC single cell"**, *Ionics* 19 (11), 1637-1647.
20. **S. Simaafrookhteh, M. Shakeri, M. Baniassadi, A. Alizadeh Sahraei, "Microstructure Reconstruction and Characterization of the Porous GDLs for PEMFC Based on Fibers Orientation Distribution"**, *FUEL CELLS* 18, 2018, No. 2, 160–172.

21. *H. Hajimiria, Vahid Abedini, M. Shakeri, M.H. Siahmargoueia, " Simultaneous fixturing layout and sequence optimization based on genetic algorithm and finite element method ", The International Journal of Advanced Manufacturing Technology (2018) 97:3191–3204.*
22. *M. Tafazoli, M. Shakeri, M. Baniassadi, A. Babaei, " An investigation on effect of backbone geometric anisotropy on the performance of infiltrated SOFC electrodes", Energy Equip. Sys./ Vol.5/No.3/September 2017/: 251-264.*
23. *Sepehr Sima Afrookhteh, Jalil Jamali, Mohsen Shakeri, Majid Baniassadi, " Stochastic reconstruction of carbon fiber paper gas diffusion layers of PEFCs: A comparative study", Energy Equip. Sys./ Vol. 6/No. 1/March 2018/ pp. 51-59.*
24. *Hamed Darzi Naghibi, Mohsen Shakeri, Morteza Hosseinzadeh, " Neural Network and Genetic Algorithm Based Modeling and Optimization of Tensile Properties in FSW of AA 5052 to AISI 304 Dissimilar Joints", Trans Indian Inst Met (2016) 69(4):891–900.*
25. *Pouya Pashaie, Mohsen Shakeri, Salman Nourouzi, "Finite element simulation and ANFIS prediction of dimensional error effect on distribution of BPP/GDL contact pressure in a PEM fuel cell ", Iranian Journal of Hydrogen & Fuel Cell 2(2017) 125-138.*
26. *M. Tafazoli, M. Shakeri, M. Baniassadi, A. Babaei, " Geometric Modeling of Infiltrated Solid Oxide Fuel Cell Electrodes with Directional Backbones", FUEL CELLS 17, 2017, No. 1, 67–74.*
27. *M. Tafazoli, M. Shakeri, M. Baniassadi, A. Babaei, " Investigation of the geometric property hull for infiltrated solid oxide fuel cell electrodes", Int J Energy Res. 2017;41:2318–2331.*
28. *M. Tafazoli, M. Shakeri, M. Baniassadi, A. Babaei, " A Geometric Modeling Approach to Find the Best Microstructure for Infiltrated SOFC Electrodes", AUT J. Mech. Eng., 1(1) (2017) 55-66*
29. *M. Tafazoli, M. Shakeri, M. Riazat, M. Baniassadi, "A new approach to microstructure optimization of solid oxide fuel cell electrodes", Iranian Journal of Hydrogen & Fuel Cell 2(2017) 93-102.*
30. *H. Hajimiria, M.H. Siahmargoueia, H. Ghorbanib, M. Shakeri, " A simple and robust setup planning scheme for prismatic workpieces", CIRP Journal of Manufacturing Science and Technology 19 (2017) 164–175.*
31. *Pouya Pashaie, Mohsen Shakeri, Salman Nourouzi, " Analysis of dimensional errors for metallic bipolar plates in single PEM fuel cell ", Modares Mechanical Engineering 2017, 17(9): 55-64. (in Persian)*
32. *Milad Sadegh yazdi, Mohammad Bakhshi, Hamid Gorji, Mohsen Shakeri, Maziar Khademi, " Optimization of pressure paths in hydrodynamic deep drawing assisted by radial pressure with inward flowing liquid using a hybrid method ", Modares Mechanical Engineering 2018, 17(11): 311-322. (in Persian).*
33. *M Sadegh-Yazdi, M Bakhshi-Jooybari, M Shakeri, H Gorji, M Khademi, "Optimization of pressure paths in hydrodynamic deep drawing assisted by radial pressure with inward flowing liquid using a hybrid method", The International Journal of Advanced Manufacturing Technology 97 (5), 2587-2601.*
34. *Mostafa Habibnia, Mohsen Shakeri, Salman Nourouzi, Peyman Ghasemi Tamami, "Investigation and optimization of a PEM fuel cell's electrical and mechanical behavior", Iranian Journal of Hydrogen & Fuel Cell 1(2016) 1-10.*

35. **Mostafa Habibnia, Mohsen Shakeri, Salman Nourouzi**, "Determination of the effective parameters on the fuel cell efficiency, based on sealing behavior of the system", *international journal of hydrogen energy* 41 (2016) 18147 -18156.
36. **M Habibnia, M Shakeri, S Nourouzi, MK Givi**, "Microstructural and mechanical properties of friction stir welded 5050 Al alloy and 304 stainless steel plates", *The International Journal of Advanced Manufacturing Technology* 76 (5), 819-829.
37. **M. Habibnia, M. Shakeri, S. Nourouzi**, "Study of assembly and design on mechanical- electrical fuel cell properties", *Iranian Journal of Manufacturing Engineering*, Vol. 3, No. 1, pp. 66-76, 2016 (in Persian)
38. **Hamed Darzi Naghibi, Mohsen Shakeri, and Morteza Hosseinzadeh**, "Neural Network and Genetic Algorithm Based Modeling and Optimization of Tensile Properties in FSW of AA 5052 to AISI 304 Dissimilar Joints" *Trans Indian Inst Met* (2016) 69(4):891–900.
39. **S.J. Imen, M. Shakeri**, "Vibration Modeling of PEM Fuel Cell for Prediction of Cell Number Effects by Experimental Data", *FUEL CELLS* 16, 2016, No. 2, 193–204.
40. **S.J. Imen, M. Shakeri**, "Reliability Evaluation of an Open-Cathode PEMFC at Operating State and Longtime Vibration by Mechanical Loads", *FUEL CELLS* 16, 2016, No. 1, 126–134.
41. **Mohammadreza Hassanzadehtalouki, Mohsen Shakeri**, " Measuring, Cross-Sectional Profiling and Geometrical Modeling of the Pipe by an Application Programming Interface", *Modares Mechanical Engineering* 2016, 16(1): 72-80 (in Persian).
42. **N. Nabian, A.A. Ghoreyshi, A. Rahimpour, M. Shakeri** "Effect of Polymer Concentration on the Structure and Performance of Polysulfone Flat Membrane for CO<sub>2</sub> Absorption in Membrane Contactor", *Iranian Journal of Chemical Engineering* Vol. 11, No. 2 (Spring 2014), IACHE.
43. **Nima Nabian, Ali Asghar Ghoreyshi, Ahmad Rahimpour, and Mohsen Shakeri** "Performance evaluation and mass transfer study of CO<sub>2</sub> absorption in flat sheet membrane contactor using novel porous polysulfone membrane", *Korean J. Chem. Eng.*, 32(11), 2204-2211 (2015).
44. **Yousef Vazifeshenas, Kurosh Sedighi, Mohsen Shakeri**, "Numerical investigation of a novel compound flow-field for PEMFC performance improvement", *international journal of hydrogen energy* 40 (2015) 15032 -15039
45. **M. Tafazoli , M. Baniassadi , A. Babaei , M. Shakeri**, "Geometric Modeling of Infiltrated Solid Oxide Fuel Cell Electrodes for Performance Optimization" *Procedia Materials Science* 11 ( 2015 ) 428 – 433.
46. **Omid Gholami, S. Javad Imen, Mohsen Shakeri**, "Effect of anode and cathode flow field geometry on passive direct methanol fuel cell performance", *Electrochimica Acta* Vol. 158, ( 2015), pp 410-417.
47. **Ali Soltani, Mohsen Shakeri , Salman Nourouzi , Hamid Jamshidi**, "Effect of friction stir welding parameters on mechanical properties of aluminum alloy to austenitic stainless steel lap joint". *Amirkabir Journal Mechanical Engineering*, Volume:46 Issue: 2, 2015 pp 35-43 (in persian).
48. **A. Shamsi-Sarband, S.J. Hosseinipour, M. Bakhshi-Jooybari, and M. Shakeri**, "The Effect of Geometric Parameters of Conical Cups on the Preform Shape in Two-Stage Superplastic Forming Process", *Journal of Materials Engineering and Performance* , JMEPEG (2013) 22:3601–3611.
49. **Vahid Abedini, Mohsen Shakeri, Mohammad Hasan Siahmargouei and Hamid Baseri**, "Analysis of the influence of machining fixture layout on the workpiece's

- dimensional accuracy using genetic algorithm”** Proc IMechE Part B: J Engineering Manufacture, 228(11) 1409-1418, IMechE 2014.
50. **Alizadeh E., Farhadi M., Sedighi K. and Shakeri M.**, “**Effect of Channel Depth and Cell Temperature on the Performance of a Direct Methanol Fuel Cell**” *Journal of Fuel Cell Science and Technology*, JUNE 2013, Vol. 10 / 031002-1.
  51. **M. Habibnia, M. Shakeri, S. Nourouzi, M.K. Besharati Givi**, “**Microstructural and mechanical properties of friction stir welded 5050 Al alloy and 304 stainless steel plates**”, *Int. J Adv Manuf Technol*, Vol. 76: 819–829, 2015.
  52. **Ahad Gholipour, Hamid Baseri, Mohsen Shakeri**, “**Experimental study of the near dry EDM process**”, *Modares Mechanical Engineering* 2014, 14(1): 106-112 (in Persian).
  53. **Sasan Yousefi, Mohsen Shakeri and Koroush Sedighi**, “**The effect of cell orientations and environmental conditions on the performance of a passive DMFC single cell**”, *Ionics* (2013) 19:1637–1647.
  54. **S. Nourouzi, M. Shakeri, M. Habibnia**, “**Effect of Friction Stir Welding parameters on Microstructure and mechanical properties of Dissimilar Joint Al Alloy to Stainless Steel**”, July 2020 pp 69-75 (in Persian).
  55. **Vahid Abedini, Mohsen Shakeri, Mohammad Hasan Siahmargouei and Hamid Baseri**, “**Automated process planning system: A new method for setup planning and a mathematical model for fixture design**”, *Proc IMechE Part B: J Engineering Manufacture*, 227(12) 1849–1859, IMechE 2013.
  56. **Omid Gholami, S. Javad Imen, Mohsen Shakeri**, “**Effect of non-uniform parallel channel on performance of passive direct methanol fuel cell**”, *International Journal of Hydrogen Energy*, Volume 38, Issue 8, 19 March 2013, Pages 3395-3400.
  57. **M. Rahimnejad, G.D. Najafpour, A.A. Ghoreyshi, M. Shakeri, H. Zare**, “**A novel microbial fuel cell stack for continuous production of clean energy**”, *international journal of hydrogen energy* 37 (2012) 5992 - 6000.
  58. **Mehdi Tafazoli, Hamid Baseri, Ebrahim Alizadeh, and Mohsen Shakeri**, “**Modeling of Direct Methanol Fuel Cell Using the Artificial Neural Network**” *Journal of Fuel Cell Science and Technology*, AUGUST 2013, Vol. 10 / 041007-1.
  59. **Salman Nourouzi, Mohsen Shakeri** “**Comparison of Microstructure and Mechanical Properties of Aluminum Alloy Joining by Friction Stir Welding in Air and Underwater Friction Stir Welding**”, *Modares Mechanical Engineering* 2013, 13(3): 146-152 (in persian).
  60. **S. Nourouzi, M. Shakeri, M. Habibnia**, “**Frictions stir welding of dissimilar metal Al 5050 Aluminum alloy to AISI304 stainless steel**”, *Modares Mechanical Engineering* 2013, 12(6): 95-103 (in Persian).
  61. **Pouya Pashaie, Mohsen Shakeri and Reza Miremadeddin** “**A kW-Scale Integrated System for On-Demand Hydrogen Generation using NaBH<sub>4</sub> Solution and a Low-Cost Catalyst**” *Advanced Materials Research* Vol. 664 (2013) pp 795-800.
  62. **Namdar Karimi, Salman Nourouzi, Mohsen Shakeri, Mostafa Habibnia, Amir Deghani**. “**Underwater FSW Process on the Joing of 5050 Aluminum Alloy**”, *steel research - Journal*, pp. 623-626.
  63. **S.Nourouzi, M.Shakeri, N.Karimi**, “**Comparison of microstructure and mechanical properties of aluminum alloy joining by friction stir welding in air and underwater**” *Modares Mechanical Engineering Journal*, june 2012, Vol. 13 No. 3 pp 747-752 (In Persian)
  64. **Asghar Shamsi-Sarband, Seyed Jamal Hosseinipour, Mohammad Bakhshi-Jooybari, Mohsen Shakeri**, “**Study on the effect of friction coefficient on the optimized**

- prefom die shape in a multistage superplastic forming*”, *steel research -Journal*, pp. 1007-1010.
65. **Saeed Heysiattalab , Mohsen Shakeri , Mehdi Safari, and M.M. Keikha**, “**Investigation of key parameters influence on performance of direct ethanol fuel cell (DEFC)**” *Journal of Industrial and Engineering Chemistry* 17 (2011) 727–729.
  66. **M. Masouleh, M. Shakeri , Q. Esmaili, and A. Bahrami**, “**PEM Fuel Cell Modeling and Pressure Investigation**” *Energy Sources, Part A: 33:2291–2302*, 2011.
  67. **M. Masouleh, M. Shakeri and A. Bahrami**, “**Process parameters for maximum power of a proton exchange membrane fuel cell**”, *Journal of Petroleum and Gas Engineering*, Vol. 3(2), pp. 16-25.
  68. **S. Kafashi, M. Shakeri, V.Abedini**, “**Automated setup planning in CAPP: A modified particle swarm optimization-based approach**” *International Journal of Production Research*, Vol. 50, No. 15, 1 August 2012, 4127 - 4140.
  69. **Saeed Heysiattalab , Mohsen Shakeri** “**2D Analytical Model for Direct Ethanol Fuel Cell Performance Prediction**”, *Smart Grid and Renewable Energy*, Vol. 2, 2011, pp. 427-433.
  70. **N.Karimi, M.Shakeri, M.Habibnia, S.Nourouzi**, “**Joining of 1100 Al alloy to AISI 1045 carbon steel by friction stir welding**” *Applied Mechanics and Materials*, Vol.152-154(2012), pp 418-442.
  71. **M. SHAKERI, J. IMEN and A. DELAVAR**, “**Design criteria of a DMFC stack with low scaling effects**” *Applied Mechanics and Materials* , Vol.152-154(2012) , pp 424-429.
  72. **V.Abedini, M. Shakeri and M.H. Siahmargouie**, “**Error Analysis in Multistage Machining Process Using Kinematic Analysis of Workpiece Fixturing**” *Applied Mechanics and Materials*, Vol.152-154(2012) , pp 430-435.
  73. **M.Habibnia, M.Shakeri, S.Nourouzi, N.Karimi**, “**Effect of tool rotation speed and feed rate on friction stir welding of 1100 aluminum alloy to carbon steel**” *Advanced Materials Research* Vol. 445 (2012) pp 741-746.
  74. **N.Karimi, S.Nourouzi, M.Shakeri, M.Habibnia, A.Dehghani** , “**Effect of tool material and offset on friction stir welding of Al alloy to carbon steel**” *Advanced Materials Research* Vol. 445 (2012) pp 747-752.
  75. **Vahid Abedini, Mohsen Shakeri and Mohammad Hasan Siahmargouei**, “**Automatic Machining Setup Generation for Prismatic Components**” *Advanced Materials Research* Vol. 445 (2012) pp 953-958.
  76. **M. Vaezi, D. Safaeian, and M. Shakeri**, “**Integration of reverse engineering and rapid technologies for rapid investment casting of gas turbine blades**”, *Virtual and Physical Prototyping*, Vol.6,No.4, December 2011, pp. 225-239.
  77. **M. Masouleh, M. Shakeri, Q. Esmaili and A. Bahrami**, “**PEM Fuel Cell Modeling and Pressure Investigation**” *Energy Sources Part A. 33* (2011) pp. 2291-2302.
  78. **T. Selyari, A.A. Ghoreyshi, M. Shakeri, G.D. Najafpour, T. Jafary**, “**Measurement of polarization curve and development of a unique semi-empirical model for description of PEMFC and DMFC performances**”, *Chemical Industry & Chemical Engineering Quarterly*, 17 (2), (2011), pp. 207-214.
  79. **M. Rahimnejad, G.D. Najafpour, A.A. Ghoreyshi, M. Shakeri, H. Zare**, “**Methylene blue as electron promoters in microbial fuel cell**”, *Int J Hydrogen Energy* 36 (2011) 13335–13341.
  80. **A. Kolahdooz, M. Shakeri**, “**A New BLDC Motor for Propulsion Application** ”, *International Review of Electrical Engineering (I.R.E.E.)*, Vol 5. N. 5, **September-October-2010**, pp. 1872-1878.



81. [A. Jabbari](#), [M. Shakeri](#), [A. Nabavi](#), " Pole Shape Optimization of Permanent Magnet Synchronous Motors Using the Reduced Basis Technique", *Iranian Journal of Electrical & Electronic Engineering*, Vol. 6, No. 1, Mar. 2010, pp. 48-55.
82. [A. Jabbari](#), [M. Shakeri](#) and [A. Nabavi](#), "Torque Ripple Minimization in PM Synchronous Motors Using Tooth Shape Optimization", *Majlesi Journal of Mechanical Engineering*, Vol. 3/ No .2/Winter-2010, pp. 27-31.
83. [Alizadeh E.](#), [Farhadi M.](#) , [Sedighi K.](#) and [Shakeri M.](#), " EFFECTS OF OPERATING PARAMETERS ON PERFORMANCE OF A SINGLE DIRECT METHANOL FUEL CELL", *THERMAL SCIENCE: Year 2010*, Vol. 14, No. 2, pp. 469-477.
84. [A. Jabbari](#), [M. Shakeri](#) and [A. Nabavi](#), "Iron Pole Shape Optimization of IPM Motors Using an Integrated Method", *Advances in Electrical and Computer Engineering*, Vol. 10, No. 1,(2010), pp. 67-70.
85. [A. Jabbari](#), [M. Shakeri](#) and [Asghar S. GHOLAMIAN](#), " Rotor Pole Shape Optimization of Permanent Magnet Brushless DC Motors Using the Reduced Basis Technique", *Advances in Electrical and Computer Engineering*, Vol. 9, No. 2,(2009), pp. 75-81.
86. [M. Shakeri](#), "Automated Operation planning and Optimum Operation Sequencing and Tool Selection Algorithms", *Journal of Faculty of Eng., Uni. Of Tabriz*, Vol.36, No. 2 (Mechanic Eng.), Autumn 2008, pp. 39-49 (In Persian).
87. [R. Ghayor](#), [M. Shakeri](#), [K. Sedighi](#), [M. Farhadi](#); " **Experimental and numerical investigation on passive and active mDMFC**" *Int J Hydrogen Energy* 35 (2010) 9329 – 9337.
88. [Shakeri M.](#), [Amirabadi H.](#), and [Horiuchi O.](#); "**Measuring out of Flatness of a Rough Quartz Surface and Correction by Mist-Abrasion Machining**", *Advanced Materials Research Vols. 83-86 (2010)*, pp 1016-1024.
89. [A. Jabbari](#), [M. Shakeri](#), "**Rotor-pole shape optimization of interior permanent magnet motors using the reduced basis technique**", *ELECTROMOTION*, Volume 16, Number 1, 2009, pp.3-7.
90. [A. Jabbari](#), [M. Shakeri](#) and [A. Nabavi](#), "**Shape Optimization of Permanent Magnet Motors Using the Reduced Basis Technique**", *WORLD ACADEMY OF SCIENCE, ENGINEERING AND TECHNOLOGY VOLUME 37 JANUARY 2009 ISSN 2070-3740*, pp.592-597.
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