

# Mohammad Hassan Saidi, Ph.D.,

Professor, School of Mechanical Engineering,  
Editor-in-Chief, Journal of Fuel and Combustion,  
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## ***Educations***

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### **Ph.D., Mechanical Engineering**

Sharif University of Technology, Tehran, Iran, 1999

### **M.Sc., Mechanical Engineering**

University of Michigan, Ann Arbor, Michigan, USA, 1979

### **B.Sc., Mechanical Engineering**

Sharif University of Technology, Tehran, Iran, 1975

## ***Academic Positions***

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<i>April 2008 - Now</i>	<b>Professor, School of Mechanical Engineering,</b> Sharif University of Technology, Tehran, Iran
<i>May 2018- Sept.2020</i>	<b>Professor and Director, Sharif Energy Research Institute(SERI),</b> Sharif University of Technology, Tehran, Iran
<i>Sept. 2014 –Sept.2020</i>	<b>Professor and Director, Center of Excellence in Energy Conversion (CEEC),</b> Sharif University of Technology, Tehran, Iran
<i>Nov. 2013 - Mar. 2016</i>	<b>Professor and Dean, Centre of Languages and Linguistics(CLL),</b> Sharif University of Technology, Tehran, Iran
<i>Sept. 2012 - Sept. 2014</i>	<b>Professor and Vice President of Academic Affairs(VPAA),</b> Sharif University of Technology, Tehran, Iran
<i>Apr. 2008 - Sept. 2011</i>	<b>Professor and Chair,</b> School of Mech. Eng., Sharif University of Technology, Tehran, Iran
<i>Dec. 2003 - Apr. 2008</i>	<b>Associate professor,</b> School of Mech. Eng., Sharif University of Technology, Tehran, Iran
<i>Jul. 2007 - Sept. 2009</i>	<b>Vice–Chairman of Graduate Studies,</b> School of Mech. Eng., Sharif University of Technology, Tehran, Iran
<i>June 2001 - June 2003, and June 2012 - Now</i>	<b>Director of Center of Excellence in Energy Conversion,</b> Sharif University of Technology, Tehran, Iran
<i>Sept. 1999 - June 2003</i>	<b>Director of Thermo-Fluid Group,</b> School of Mech. Eng., Sharif University of Technology, Tehran, Iran
<i>Sept. 1994 - Now</i>	<b>Coordinator of Heat Transfer and Thermodynamic Labs,</b> School of Mech. Eng., Sharif University of Technology, Iran








## ***Honors and Awards***

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- ❖ Ph.D. thesis advisor to Mohammad Zabetian Toraghi, (co supervisors: Dr. M.S. Saidi, Dr. M.B. Shafiee), Winning the best Ph.D. thesis award in Mechanical Engineering, Selected by the Iranian Society of Mechanical Engineers (ISME)
- ❖ Nationwide Distinguished Professor of Mechanical Engineering, Selected by the Iranian Society of Mechanical Engineers (ISME), 2013
- ❖ Winner of the award of Iran Radiator Industrial Group, 2011
- ❖ Nationwide Distinguished Researcher, Selected in the 12th Festival of the Nomination of the Best Researchers by the Ministry of Science, Research and Technology (MRST), 2011
- ❖ Ph.D. thesis advisor to Saeed Reza Dehghani, (co supervisors: Dr. Akbar Ghafourian and Dr. Ali Asghar Mozafari), Winning the best Ph.D. thesis award in energy conversion, Selected by the Iranian Combustion Institute (ISC)
- ❖ UNIDO Award and Certificate for the Applied Research, 2008
- ❖ Winner of the Khwarizmi International Award (KIA) for the Applied Research, Organized by the Iranian Research Organization for Science and Technology (IROST), 2008
- ❖ B.Sc. thesis advisor to Abolfazl Irani, Winning the Best Bachelor Thesis Award from the 2nd Combustion Conference of National Combustion Institute, Feb., 2008
- ❖ B.Sc. thesis advisor to Hossein Safaei and Sahand Pirouz Panah, Winning the Best B.Sc. thesis award, Ali- Nasab Foundation, ISME, 2006
- ❖ Ph.D. thesis advisor to Amir Farhad Najafi, Winning the best Ph.D. thesis award from Butane Foundation, 2005
- ❖ M.Sc. thesis advisor to Ehsan Farvardin, Winning the best MSc. thesis award from the 1st Combustion Conference of National Combustion Institute, 2005
- ❖ M.Sc. thesis advisor to Saeed Jahangirian and Mahdi Abarham, Winning the best MSc thesis award from Farid-Aalam Foundation, ISME, 2004
- ❖ Distinguished Professor of Sharif University of Technology for the Excellence in Research, 2004
- ❖ M.Sc. thesis advisor to Ala Moradian, Winning the best M.Sc. thesis award from ISME, 2003
- ❖ B.Sc. thesis advisor to Mahmoud Yavari, Winning the best B.Sc. thesis award from Ali-Nasab Foundation, ISME, 2002
- ❖ Distinguished Professor of Mechanical Engineering Department for Excellence in Research, 2001-2002
- ❖ BSc. thesis advisor to Saeed Rahmani, Winning the best B.Sc. thesis award from ISME, 2000
- ❖ Recipient of French Government Scholarship, Sept. 1997-Sept. 1998
- ❖ Distinguished Professor of Mechanical Engineering Department for Excellence in Teaching, 1995-96

## ***Post-Doctoral Students***











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-  Dr. Hanafizadeh, Pedram: Liquid-Gas Two Phase Flow Modelling in Upward and Downward vertical and Inclined Pipes (*Graduated*)
-  Dr. Sadeghi, Arman: Transport Phenomena in Electroosmotic Flow (*Graduated*)
-  Dr. Alipoor, Alireza: Numerical study of hydrogen-air combustion characteristics in a novel micro-thermophotovoltaic power generator (*Graduated*)
-  Dr. Hoshyargar, Vahid: Transport Phenomena in Diffusioosmotic Flow (*Graduated*)
-  Dr. Ghahramani, Amir Reza: Analytical Investigation of Bio-fuels Blends in the Direct Injection Engine (*Graduated*)
-  Dr. Mahdi Hosseini Abadshapouri: Two-phase, Two-component Simulation of Nanofluids in Natural Convection Applying Lattice Boltzmann Method(*Graduated*)
-  Dr. Rabbani, Reza: Viscosity Calculation of Solid-Like Layer around Nanoparticle using Equilibrium Molecular Dynamics Simulations(*Graduated*)

## ***Ph.D. Students***



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-  Jani, Saeed: Second Law Based Optimization of Falling Film Single Tube Absorption Generator (*Graduated*)
-  Najafi, Amir farhad: Boundary Layer Solution for the Turbulent Swirling Decay Flow through a Fixed Pipe: SBR at the Inlet (*Graduated*)
-  Esfanidiari-Nia, Fatemeh: Heat and Mass Transfer Modeling of Desiccant Wheel for Air Conditioning (*Graduated*)
-  Majidian, Alireza: Life Prediction of Boiler Tubes Using Fuzzy Logic and Neural Network (*Graduated*)
-  Ramezani Zadeh, Mahdi: Computational Simulation of Turbulent Film Cooling Using LES Approach and Considering Density Ratio Effects (*Graduated*)
-  Jafarian Dehkordi, Ali: Analytical – Experimental Modelling of Double Inlet Pulse Tube Refrigerator (*Graduated*)
-  Asadi, Bahman: Numerical Simulation of Hydrodynamics of Bubble Movement in Stagnant Fluid at Zero Gravity Conditions (*Graduated*)
-  Dehghani, Saeed Reza: Modeling of Spray Combustion in Vortex Flow (*Graduated*)
-  Hanafi-Zadeh, Pedram: Experimental and Numerical Modelling of Two Phase Flow in a Vertical Pipe (*Graduated*)
-  Chitsaz, Iman: Experimental and Numerical Investigation on the Jet Characteristics of Spark Ignition Direct Injection Gaseous Injector (*Graduated*)
-  Sajadi, Behrang: Numerical–Experimental Investigation of the Effect of Obstacles on Particles Distribution and deposition in a Clean Room (*Graduated*)
-  Jalaledin Abyaneh, Mohammad Hassan: Experimental Modelling of Aqueous LiBr Solution Absorber: Effect of Bundle Geometry (*Graduated*)
-  Sadeghi, Arman: Transport Phenomena in Electroosmotic Flow (*Graduated*)
-  Zabetian Toraghi, Mohammad: Laser Induced Flow in Particulate Media (*Graduated*)

-  Ghaebi, Hadi (Co-supervisor): Reduction of Heating-Cooling Energy Consumption of Large Buildings Employing Aquifer Energy Storage and Seasonal Solar Heat Pumps (*Graduated*)
-  Ghahramani, Alireza: Experimental and Analytical Investigation of Bio-fuels Blends in the Direct Injection Engine (*Graduated*)
-  Kavooosi Balotaki, Hassan: Design and Performance of Multi-purpose Vacuum Solar Collector (*Graduated*)
-  Hosseini Abadshapouri, Mahdi: Two-phase, Two-component Simulation of Nanofluids in Natural Convection Applying Lattice Boltzmann Method (*Graduated*)
-  Biglarian, Hassan (Cosupervisor: Prof. Abbaspour, M.): Modeling of a hybrid ground source heat pump system with solar thermal collector and phase change materials (*Graduated*)
-  Eslami, Jaber: (Cosupervisor); Numerical and experimental investigation of human movement on the ventilation effectiveness in the cleanrooms (*Graduated*)
-  Razaghi, Reza: Experimental and Analytical Investigation of Micro-Particle Velocity Domain and Particle-Wall Interaction in Microchannel
-  Shirin Zadeh Farhud (Cosupervisor: Prof. Davari Alireza): Experimental Investigation of Slip Velocity and Settling Distribution of Micro-Particles in Converging-Diverging Microchannel
-  Sadeghi, Morteza (Cosupervisor: Prof. Moosavi, Ali): Electrokinetic flow in pH-regulated solid-state/soft micro-nanochannels
-  Niroomand, Reza (Cosupervisor: Prof. K. Hannani, S.): A quasi-three-dimensional multiscale model for two-phase simulation of multi-stream plate-fin heat exchangers (*Graduated*)







### ***Ph.D. Students Consulting Supervisor***

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-  Bohlouli A.: Liquid-Gas Two Phase Flow Modelling of inclined horizontal Channels (*Graduated*)
-  Kabiri- Samani, Abdolreza: Fluctuation of Air- Water Two – Phase Flow in Horizontal and Inclined Water Pipelines (*Graduated*)

### ***Current Ph.D. Students***

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-  Reshadi, Milad
-  Safari, Ali
-  Keshavarz Mohammadian, Pouria
-  Behzadi Sarokolaei, Mohammad
-  Zamani, Mohammad Amin
-  Kazemi Ranjbar, Sina

### ***Teaching Interests***

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University of Technology, I have taught variety of graduate and undergraduate courses. Some of these courses include:

<i>Graduate Course</i>	<i>Undergraduate Courses</i>
➤ Advanced Thermodynamics	➤ Thermodynamics: Basics and Applied
➤ Convection Heat Transfer	➤ Heat Transfer
➤ Advanced Energy Conversion	➤ Thermal Power plant
➤ Cryogenics	➤ Refrigeration and Air Conditioning
➤ Advanced Power plant	➤ Turbo machinery
➤ Two Phase flow	➤ Heat Transfer Laboratory
	➤ Thermodynamic Laboratory

### ***Research Activities***

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Research activities in the recent years have been in:

- Micro- Nano Fluidics
- Heat Transfer Enhancement in Boiling and Condensation
- Modeling of Pulse Refrigeration, Vortex tube refrigerator, Indoor Air Quality and Clean Room Technology
- Energy Efficiency in Home Appliances, Desiccant Cooling System
- Engine Cooling System Modeling
- Design of Thermal Desalination Systems

### ***Professional Membership and Editorial Services***

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- ASME member
- ISME member
- Board of Director: ISHRAE-Iranian Society of Heating, Refrigeration and Air Conditioning Engineers
- Editor-in – Chief (2009-2011): Journal of Engine Research
- Editorial Board Member: Journal of Engine Research
- Editorial Board Member: Journal of Heat and Mass Transfer Research
- Editorial Board Member: Journal of Mech. and Aerospace
- Editorial Board Member: Journal of Research in Engineering Education
- Editor-in-Chief: Journal of Fuel and Combustion
- Chairman of the Board: Iranian Combustion Society (ICI)

### ***Research and Industry Contracts***

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- Research Industry Contract- 2012-2014, Iranian Gas Transmission Corporation: Hardware and Software Design of Apparatus for Performance Evaluation of Turbine Inlet Air Filters.
- Research Contract- 2012-2014, Ministry of Energy, Regional Power Organization of Khuzestan: Exergy Analysis of Ramin Power Plant for the Means of Efficiency and Performance Enhancement.
- Research Contract- 2011-2013, Ministry of Energy, Regional Power Organization of Tehran: Reduction of Energy Loss of Boiler Air Pre-heaters of Montazer Ghaem Power

Plant.

- Industry Contract- 2009-2010, Tahviah Corporation, Tehran: feasibility Study of Design and Fabrication of Heating Cooling Packages for Residential Applications.
- Research Contract- 2010-2012, Ministry of Industry, Industrial Development and Renovation Organization: Design, Fabrication and Know How Documentation of Apparatus for distinguishing and separation of Particles by Laser.
- Research Contract- 2009-2010, Ministry of Energy, Regional Power Corporation of Mazandaran: Comprehensive Heat Balance Analysis of Neka Steam Power Plant.
- Research Contract- 2007-2008, Ministry of Energy, Kerman shah Power Plant: Possibility of Feeding Spray Water of Reheater from Interstages of Feed Water Boiler
- Research Contract 2008-2009, National South Regions Oil Corporation: Application of Desiccant Technology to Increase the Efficiency of Cooling Systems in Wet and Humid Regions.
- Research Contract- 2008-2008, Petrochemical Industry Corporation: Modelling of Two Phase Low in the Airlift Pumps for de-watering of Gas Wells and Pressurizing the Dead Oil Wells.
- Research Contract- 2005-2006, Ministry of Energy, Energy Consumption Criteria and Energy Labelling of Air Handling Units.
- Research Contract- 2005-2006, Ministry of Industry, Industrial Development and Renovation of Organization, Design and Manufacturing of Rotary Wheel Dehumidifier (SBDC project).
- Industry Contract- 2004-2005, Razi Vaccine and Serology Research Centre of Iran, energy distribution project of Hesarak Karaj.
- Research Industry Contract- 2004- 2005, Cara Tehran Nouavar, Coordinator and chairperson in design of clean rooms for Pastour Institute and Razi Research Centre.
- Research Industry Contract- 2004-2005, Atmosphere Industrial Group, design of new low water content, high heat capacity and light weight radiators for home appliances.
- Research Industry Contract- 2003-Now, SABA, Vice Chancellor in Charge of Energy, Ministry of Energy, Energy Labelling of Refrigerators and freezers.
- Research Contract- 2001-2002, SECCO IRAN, an Iranian leading manufacturer of windows and doors. Research program was to design a test chamber for condition monitoring of their products for air permeability, water diffusivity and strength against wind according to international standards.
- Research Contract- 2000 to 2002, Alfam Radiator Manufacturing Co, Tehran, IRAN. Research work was conducted in precise three dimensional modelling of household heating radiators using FLUENT software package. Precise standard test room was designed for experimental validation of numerical results. The work included design and manufacturing new types of radiators having more heating capacity and less weight.
- Research Contract- 2001-2002, Iran Khodro. Research program was to energy audit Iran Khodro Casting Plant to minimize their energy consumption.
- Research Contract-1998-2000, Sepehr Electric Manufacturing Company, IRAN. Research Contract with Sepehr Electric Manufacturing Company, a leading home appliance manufacturing in Iran, in design and Construction of an automated testing system for quality – control assurance of their Evaporative cooler products.
- Research Contract-September 1995 to December 1998, Electric Power Research Center

(MATN), Research was conducted to Minimize power consumption of Evaporative Coolers.

- Research Contract-July 1995 to July 1996, Iranian standard and research Institute (ISRI), the research contract was to design test chamber for Evaporative coolers under ISO and EN standards.

### ***Publications (Referred Journal papers)***

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- [1] Korouyeh, M.M., **Saidi, M. H.**, Najafi, M., Aghanajafi, C., Selection of prime mover to meet heating demand of a single effect absorption chiller based on laws of thermodynamics, *SN Applied Sciences* 3(1), 1-12, 2021.
- [2] Jiryaei, Z., **Saidi, M.H.**, Effect of collision on self-assembly of nanoparticles in zirconia microparticle suspension, *Journal of Dispersion Science and Technology*, 1-9, 2020.
- [3] Sadeghi, M., **Saidi, M.H.**, Moosavi, A., Sadeghi, A., Unsteady solute dispersion by electrokinetic flow in a polyelectrolyte layer-grafted rectangular microchannel with wall absorption, *Journal of Fluid Mechanics*, Vol. 887, A13, 2020.
- [4] Gandomkar, A., Kalan, K., Vandadi, M., Shafii, M.B., **Saidi, M.H.**, Investigation and visualization of surfactant effect on flow pattern and performance of pulsating heat pipe, *Journal of Thermal Analysis and Calorimetry*, Vol. 139 (3), pp. 2099-2107, 2020.
- [5] Mohammadian Korouyeh, M., **Saidi, M.H.**, Najafi, M., Aghanajafi, C., A simplified analytical model to predict heating performance of single U-tube ground heat exchangers, *Scientia Iranica*, 2020, Accepted in Press.
- [6] **Saidi, M.H.**, Sajadi, B., Ahmadi G., Computer modeling of the operating room ventilation performance in connection with surgical site infection, *Scientia Iranica: Transactions on Mechanical Engineering (B)*, Vol. 27 (2), pp. 704-714, 2020.
- [7] Reshadi, M., **Saidi, M.H.**, Tuning the dispersion of reactive solute by steady and oscillatory electroosmotic–Poiseuille flows in polyelectrolyte-grafted micro/nanotubes, *Journal of Fluid Mechanics*, Vol. 880, pp. 73-112, 2019.
- [8] Keshavarz Mohammadian, P., **Saidi, M.H.**, Simulation of startup operation of an industrial twin-shaft gas turbine based on geometry and control logic, *Energy*, Vol. 183 (15), pp. 1295-1313, 2019.
- [9] Sajadi, B., **Saidi, M.H.**, Ahmadi, G., Numerical evaluation of the operating room ventilation performance: ultra-clean ventilation (UCV) systems, *Scientia Iranica*, Vol. 26 (4), pp. 2394-2406, 2019.
- [10] Niroomand, R., **Saidi, M.H.**, Hannani, S.K., A quasi-three-dimensional thermal model for multi-stream plate fin heat exchangers, *Applied Thermal Engineering*, Vol. 157, 2019.
- [11] Balotaki, H.K., **Saidi, M.H.**, Design and Performance of a Novel Hybrid Photovoltaic–Thermal Collector with Pulsating Heat Pipe (PVTPHP), *Iranian Journal of Science and Technology, Transactions of Mechanical Engineering*, Vol. 43 (2), pp. 1-11, 2019.
- [12] Biglarian, H., **Saidi, M.H.**, Abbaspour, M., Economic and environmental assessment of a solar-assisted ground source heat pump system in a heating-dominated climate, *International Journal of Environmental Science and Technology*, Vol. 16 (7), pp. 3091-3098, 2019.
- [13] Ghaebi, H., Bahadori, M.N., **Saidi, M.H.**, Different operational alternatives of aquifer thermal energy storage system for cooling and heating of a residential complex under various climatic conditions in Iran, *Scientia Iranica*, Vol. 26 (3), 1281-1292, 2019.
- [14] Mohammadian Korouyeh, M., **Saidi, M.H.**, Najafi, M., Aghanajafi, C., Evaluation of desiccant wheel and prime mover as combined cooling, heating, and power system, *International Journal of Green Energy*, Vol. 16 (3), 256-268, 2019.
- [15] Akbari, A., **Saidi, M.H.**, Experimental investigation of nanofluid stability on thermal performance and flow regimes in pulsating heat pipe, *Journal of Thermal Analysis and Calorimetry*, vol. 135 (3), 1835-1847, 2019.

- [16] Khademi, A. **Saidi, M.H.**, Darbandi, M., Schneider, G.E., Numerical Study of Patient Respiration Effect on Bacterial Dispersion in a Surgery Room, *Journal of Fluid Flow, Heat and Mass Transfer*, Vol. 6, pp. 49-59, 2019.
- [17] Reshadi, M., **Saidi, M.H.**, The role of ion partitioning in electrohydrodynamic characteristics of soft nanofluidics: Inclusion of EDL overlap and steric effects, *Chemical Engineering Science*, Vol. 190, 443-458, 2018.
- [18] Hosseini Abadshapoori, M., **Saidi, M.H.**, 3D investigation of natural convection of nanofluids in a curved boundary enclosure applying lattice Boltzmann method, *International Journal of Numerical Methods for Heat & Fluid Flow*, Vol. 28 (8), pp. 1827-1844, 2018.
- [19] Hosseini Abadshapoori, M., **Saidi, M.H.**, Lattice Boltzmann simulation of TiO<sub>2</sub>-water nanofluid in a curved boundary domain at high Rayleigh numbers, *Computers & Fluids*, Vol. 168, pp. 159-169, 2018.
- [20] Ghahremani, A.R., Jafari, M., Ahari, M., **Saidi, M.H.**, Hajinezhad, A., Mozaffari, A.A., Spray characteristics and atomization behavior of bio-diesel (Norouzak) and diesel fuel blends, *Particulate Science and Technology*, Vol. 36 (3), pp. 270-281, 2018.
- [21] Reshadi, M., **Saidi, M.H.**, A Ebrahimi, Pure axial flow of viscoelastic fluids in rectangular microchannels under combined effects of electro-osmosis and hydrodynamics, *Theoretical and Computational Fluid Dynamics*, Vol. 32 (1), pp. 1-21, 2018.
- [22] Biglarian, H., Abbaspour, M., **Saidi, M.H.**, Evaluation of a transient borehole heat exchanger model in dynamic simulation of a ground source heat pump system, *Energy*, Vol. 147, pp. 81-93, 2018.
- [23] Aghakashi, V., **Saidi, M.H.**, Turbulent decaying swirling flow in a pipe, *Heat Transfer Research*, Vol. 49 (16), 2018.
- [24] Schneider, G.E., Ghafourizadeh, M., Darbandi, M., **Saidi, M.H.**, Exhaust Soot Investigation in a JP Combustor Working at Various Wall Temperature Considerations, *AIAA Aerospace Sciences Meeting*, No. 1414, 2018.
- [25] Sadeghi, M., **Saidi, M.H.**, Moosavi, A., Sadeghi, A., Geometry effect on electrokinetic flow and ionic conductance in pH-regulated nanochannels, *Physics of Fluids*, Vol. 29 (12), 122006, 2017.
- [26] Ghaebi, H., Bahadorinejad, M., **Saidi, M.H.**, Energy efficiency in a building complex through seasonal storage of thermal energy in a confined aquifer, *Energy Equipment and Systems*, Vol. 5 (4), pp. 341-348, 2017.
- [27] Helisaz, H., **Saidi, M.H.**, Sadeghi, A., Reduction of production rate in Y-shaped microreactors in the presence of viscoelasticity, *Analytica chimica acta*, Vol. 990, pp. 121-134, 2017.
- [28] Alipoor, A., **Saidi, M.H.**, Numerical study of hydrogen-air combustion characteristics in a novel micro-thermophotovoltaic power generator, *Applied Energy*, Vol. 199, pp. 382-399, 2017.
- [29] Shirinzadeh, F., **Saidi, M.H.**, Davari, A., Experimental investigation of slip velocity and settling distribution of micro-particles in converging-diverging microchannel, *Microsystem Technologies*, Vol. 23, pp. 3361-3370, 2017.
- [30] Eslami, J., Abbassi, A., **Saidi, M.H.**, Numerical simulation of the effect of visitor's movement on bacteria-carrying particles distribution in hospital isolation room, *Scientia Iranica: Transaction B, Mechanical Engineering*, Vol. 24 (3), 2017.
- [31] Sadeghi, M., **Saidi, M.H.**, Sadeghi, A., Electroosmotic flow and ionic conductance in a pH-regulated rectangular nanochannels, *Physics of Fluids*, Vol. 29 (6), 2017.
- [32] Gandomkar, A., **Saidi, M.H.**, Shafii, M.B., Vandadi, M., Kalan, K., Visualization and comparative investigations of pulsating ferro-fluid heat pipe, *Applied Thermal Engineering*, Vol. 116, pp. 56-65, 2017.
- [33] Biglarian, H., Abbaspour, M., **Saidi, M.H.**, A numerical model for transient simulation of borehole heat exchangers, *Renewable Energy*, Vol. 104, pp. 224-237, 2017.

- [34] Ghaebi, H., Bahadori, M.N., **Saidi, M.H.**, Economic and environmental evaluation of different operation alternatives to aquifer thermal energy storage in Tehran, Iran, *Scientia Iranica: Transaction B, Mechanical Engineering*, Vol. 24 (2), 2017.
- [35] Arash, A., **Saidi, M.H.**, Najafi, M., Second law analysis of an infinitely segmented magnetohydrodynamic generator, *Journal of Magnetism and Magnetic Materials*, Vol. 426, pp. 294-301, 2017.
- [36] Balotaki, H.K., **Saidi, M.H.**, Design and performance of multi-purpose vacuum solar collector, *Heat and Mass Transfer*, Vol. 53, pp. 1-11, 2017.
- [37] Ghahremani, A.R., **Saidi, M.H.**, Hajinezhad, A., Mozafari A.A., Experimental investigation of spray characteristics of a modified bio-diesel in a direct injection combustion chamber, *Experimental Thermal and Fluid Science*, Vol. 81, pp. 445-453, 2017.
- [38] Ghahremani, A.R., Jafari, M., Ahari, M., **Saidi, M.H.**, Hajinezhad, A., Mozafari, A.A., Experimental and theoretical investigations on spray characteristics of bio-ethanol blends using a direct injection system, *Scientia Iranica*, Vol. 24, pp. 237-248, 2017.
- [39] Balotaki, H.K., **Saidi, M.H.**, Experimental Investigation of Dual-Purpose Solar Collector using with Rectangular Channels, *Journal of Thermal Engineering*, Vol. 3, pp. 1052-1059, 2017.
- [40] Ghahremani, A., Ahari, M., Jafari, M., **Saidi, M.H.**, Hajinezhad, A., Mozafari A., Experimental and theoretical study on spray behaviors of modified bio-ethanol fuel employing direct injection system, *Thermal Science*, Vol. 21, pp. 475-488, 2017.
- [41] Ghahremani, A.R., Karimi, H., **Saidi, M.H.**, Mozafari, A.A., Letter to “A contribution to the understanding of isothermal diesel spray dynamics”, *Fuel*, Vol. 187, pp. 468-469, 2017.
- [42] Reshadi, M., **Saidi, M. H.**, Investigation of Mixed Electro-Osmotic/Poiseuille Slip Flows of Viscoelastic Fluids in Rectangular Microchannels with Hydrophobic Surfaces, *Amirkabir Journal of Mechanical Engineering*, Vol. 1, pp. 3-12, 2017.
- [43] Razaghi, R., **Saidi, M.H.**, Experimental investigation of drag and lift forces on microparticles in low Reynolds number poiseuille flow in microchannel, *Journal of Dispersion Science and Technology*, Vol. 37, pp. 1767-1777, 2016.
- [44] Ghahremani, A.R., Jafari, M., Ahari, M., **Saidi, M.H.**, Hajinezhad, A., Mozaffari, A.A., Spray characteristics and atomization behavior of bio-diesel (Norouzak) and diesel fuel blends, *Particulate Science and Technology*, Vol. 36 (3), pp. 270-281, 2016.
- [45] Yousefian, Z., **Saidi, M.H.**, Mass transport analysis of non-Newtonian fluids under combined electroosmotically and pressure driven flow in rectangular microreactors, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, Vol. 508, pp. 345-359, 2016.
- [46] Helisaz, H., **Saidi, M.H.**, Sadeghi, A., 3D modeling of reaction-diffusion dynamics in an electrokinetic Y-shaped microreactor, *Sensors and Actuators B: Chemical*, Vol. 235, pp. 343-355, 2016.
- [47] Eslami, J., Abbassi, A., **Saidi, M.H.**, Bahrami, M., Effect of supply/exhaust diffuser configurations on the contaminant distribution in ultra clean environments: Eulerian and Lagrangian approaches, *Energy and Buildings*, Vol. 127, pp. 648-657, 2016.
- [48] Reshadi, M., **Saidi, M.H.**, Firoozabadi, B., Saidi, M.S., Electrokinetic and aspect ratio effects on secondary flow of viscoelastic fluids in rectangular microchannels, *Microfluidics and Nanofluidics*, Vol. 20 (117), 2016.
- [49] Ghaebi, H., Bahadorinejad, M., **Saidi, M.H.**, Sensitivity analysis of fluid flow in a confined aquifer using numerical simulation, *Journal of Applied Research in Water and Wastewater*, Vol. 3, pp. 201-208, 2016.
- [50] Razaghi, R., **Saidi, M.H.**, Transportation and settling distribution of microparticles in low-Reynolds-number Poiseuille flow in microchannel, *Journal of Dispersion Science and Technology*, Vol. 37, pp. 582-594, 2016.
- [51] **Saidi, M.H.**, Tamim, H., Heat transfer and pressure drop characteristics of nanofluid in

- unsteady squeezing flow between rotating porous disks considering the effects of thermophoresis and Brownian motion, *Advanced Powder Technology*, Vol. 27, pp. 564-574, 2016.
- [52] Sadeghi, M., Sadeghi, A., **Saidi, M.H.**, Electroosmotic flow in hydrophobic microchannels of general cross section, *Journal of Fluids Engineering*, Vol. 138 (3), 2016.
- [53] Keramati, H., Sadeghi, A., **Saidi, M.H.**, Chakraborty, S., Analytical solutions for thermofluidic transport in electroosmotic flow through rough microtubes, *International Journal of Heat and Mass Transfer*, Vol. 92, pp. 244-251, 2016.
- [54] Keramati, H., **Saidi, M.H.**, Zabetian, M., Stabilization of the suspension of zirconia microparticle using the nanoparticle halos mechanism: zeta potential effect, *Journal of Dispersion Science and Technology*, Vol. 37, pp. 6-13, 2016.
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### ***Personal***

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Married with two children, excellent health, active in sports, interested in traveling.

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