

# Mohammad Hassan Saidi

## Ph.D., Professor,

School of Mechanical Engineering,  
Sharif University of Technology  
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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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*Sept. 2014 - Now*

#### **Professor and Director,**

Center of Excellence in Energy Conversion(CEEC),  
Sharif University of Technology, Tehran, Iran

*Nov. 2013 - Mar. 2016*

#### **Professor and Dean of Centre of Languages and Linguistics,**

Sharif University of Technology, Tehran, Iran

*Sept. 2012 - Sept. 2014*

#### **Professor and Vice President of Academic Affairs,**

Sharif University of Technology, Tehran, Iran

*Apr. 2008 - Sept. 2011*

#### **Professor and Chair,**

School of Mechanical Engineering,  
Sharif University of Technology, Tehran, Iran

*Dec. 2003 - Apr. 2008*

#### **Associate professor,**

School of Mechanical Engineering,  
Sharif University of Technology, Tehran, Iran

*Jul. 2007 - Sept. 2009*

#### **Vice-Chairman of Graduate Studies,**

School of Mechanical Engineering,  
Sharif University of Technology, Tehran, Iran

*June 2001 - June 2003,  
and June 2012 - Now*

#### **Director of Center of Excellence in Energy Conversion,**

Sharif University of Technology, Tehran, Iran

*Sept. 1999 - June 2003*

#### **Director of Thermo-Fluid Group,**

School of Mechanical Engineering,  
Sharif University of Technology, Tehran, Iran

*Sept. 1994 - Now*

#### **Coordinator of Heat Transfer and Thermodynamic Labs,**

School of Mechanical Engineering,  
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



## ***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*)
-  Jalaleddin 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: 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*)

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

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

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

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-  Hosseini Abadshapouri, Mahdi
-  Keshavarz Mohammadian, Pouria
-  Sadeghi, Morteza
-  Aghakashi, Vahid
-  Niroomand, Reza
-  Reshadi, Milad

## ***Research Activities***

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- Research activities in the recent years have been in:
- 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

## ***Teaching Interests***

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At Sharif University of Technology, Faculty of Engineering – Tehran University and Technical University of Khajeh Nasir, I have taught the variety of graduate and undergraduate courses. Some of these courses include:

<b><i>Graduate Course</i></b>	<b><i>Undergraduate Courses</i></b>
➤ 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

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

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- ASME member
- ISME member
- Board of Director of ISHRAE-Iranian Society of Heating, Refrigeration and Air Conditioning Engineers
- Editor in Chief - Journal of Engine Research 2009-2011 and member of the editorial board of the Journal.
- Member of editorial board- Journal of Heat and Mass Transfer Research
- Member of the editorial board – Journal of Mech. and Aerospace
- Member of the editorial board – Journal of Fuel and Combustion

## ***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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- Helisaz, H., **Saidi, M.H.**, Sadeghi, A., “Reduction of production rate in Y-shaped microreactors in the presence of viscoelasticity” *Analytica chimica acta*, Volume 990, pp. 121-134, 2017.
- Alipoor, A., **Saidi, M.H.**, “Numerical study of hydrogen-air combustion characteristics in a novel micro-thermophotovoltaic power generator” *Applied Energy*, Volume 199, pp. 382-399, 2017.
- Shirinzadeh, F., **Saidi, M.H.**, Davari, A., “Experimental investigation of slip velocity and settling distribution of micro-particles in converging–diverging microchannel” *Microsystem Technologies*, Volume 23, pp. 3361-3370, 2017.
- 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*, Volume 24, Issue 3, 2017.
- Sadeghi, M., **Saidi, M.H.**, Sadeghi, A., “Electroosmotic flow and ionic conductance in a pH-regulated rectangular nanochannel” *Physics of Fluids*, Volume 29, Issue 6, 2017.
- 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*, Volume 116, pp. 56-65, 2017.
- Biglarian, H., Abbaspour, M., **Saidi, M.H.**, “A numerical model for transient simulation of borehole heat exchangers” *Renewable Energy*, Volume 104, pp. 224-237, 2017.
- 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*, Volume 24, Issue 2, 2017.
- Reshadi, M., **Saidi, M.H.**, Ebrahimi, A., “Pure axial flow of viscoelastic fluids in rectangular microchannels under combined effects of electro-osmosis and hydrodynamics” *Theoretical and Computational Fluid Dynamics*, pp. 1-21, 2017.
- Arash, A., **Saidi, M.H.**, Najafi, M., “Second law analysis of an infinitely segmented magnetohydrodynamic generator” *Journal of Magnetism and Magnetic Materials*, Volume 426, pp. 294-301, 2017.
- Balotaki, H.K., **Saidi, M.H.**, “Design and performance of multi-purpose vacuum solar collector” *Heat and Mass Transfer*, Volume 53, pp. 1-11, 2017.
- 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*, Volume 81, pp. 445-453, 2017.
- 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*, Volume 24, pp. 237-248, 2017.



- Balotaki, H.K., **Saidi, M.H.**, “Experimental Investigation of Dual-Purpose Solar Collector using with Rectangular Channels” *Journal of Thermal Engineering*, Volume 3, pp. 1052-1059, 2017.
- 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*, Volume 21, pp. 475-488, 2017.
- Ghahremani, A.R., Karimi, H., **Saidi, M.H.**, Mozafari, A.A., “Letter to" A contribution to the understanding of isothermal diesel spray dynamics"” *Fuel*, Volume 187, pp. 468-469, 2017.
- 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*, Volume 1, pp3-12, 2017.
- 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*, Volume 37, pp. 1767-1777, 2016.
- 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*, pp. 1-12, 2016.
- 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*, Volume 508, pp. 345-359, 2016.
- Helisaz, H., **Saidi, M.H.**, Sadeghi, A., “3D modeling of reaction-diffusion dynamics in an electrokinetic Y-shaped microreactor” *Sensors and Actuators B: Chemical*, Volume 235, pp. 343-355, 2016.
- 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*, Volume 127, pp. 648-657, 2016.
- 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*, Volume 20, Issue 8, 2016.
- 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*, Volume 3, pp. 201-208, 2016.
- 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*, Volume 37, pp. 582-594, 2016.
- **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*, Volume 27, pp. 564-574, 2016.
- Sadeghi, M., Sadeghi, A., **Saidi, M.H.**, “Electroosmotic flow in hydrophobic microchannels of general cross section” *Journal of Fluids Engineering*, Volume 138, Issue 3, 2016.
- 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*, Volume 92, pp. 244-251, 2016.
- 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*, Volume 37, pp. 6-13, 2016.
- Hanafizadeh, P. Momenifar, M.R. Bastankhah, M., **Saidi, M.H.**, “Thermosyphon Analysis Using the Particle Image Velocimetry Method (PIV).” *Industrial Engineering & Management Sharif*, Volume 323, No. 1, pp. 11-20, 2016.

- Zaraki, H.E. Majidniya, M., Abadshapoori, M.H., **Saidi, M.H.**, “Experimental investigation of flow regime and efficiency of airlift pumps with tapered upriser pipe” *Multiphase Science and Technology*, Volume 28, Issue 2, 2016.
- Aghakashi, V., Keshavarz, P.M., **Saidi, M.H.**, “Numerical Analysis of Coherent Structures in Bidirectional Swirl Combustion Chamber” *Computational Thermal Sciences: An International Journal* 8, Volume, Issue 3, 2016.
- Abadshapoori, M.H., **Saidi, M.H.**, “Simulation of natural convection of nanofluids at high Rayleigh numbers: A two-component lattice Boltzmann study” *Computational Thermal Sciences: An International Journal*, Volume 8, Issue 1, 2016.
- Yazdi, A.A., Sadeghi, A., **Saidi, M.H.**, “A depthwise averaging solution for cross-stream diffusion in a Y-micromixer by considering thick electrical double layers and nonlinear rheology” *Microfluidics and Nanofluidics*, Volume 19, pp. 1297-1308, 2015.
- Yazdi, A.A., Sadeghi, A., **Saidi, M.H.**, “Steric effects on electrokinetic flow of non-linear biofluids” *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, Volume 484, pp.394-401, 2015.
- Sadeghi, A., Amini, Y., **Saidi, M.H.**, Yavari, H., “Shear-rate-dependent rheology effects on mass transport and surface reactions in biomicrofluidic devices” *AIChE Journal*, Volume 61, pp. 1912-1924, 2015.
- Yazdi, A.A., Sadeghi, A., **Saidi, M.H.**, “Electrokinetic mixing at high zeta potentials: Ionic size effects on cross stream diffusion” *Journal of Colloid and Interface Science*, Volume 442, pp. 8-14, 2015.
- Ghaebi, H., Bahadori, M.N., **Saidi, M.H.**, “Parametric study of the pressure distribution in a confined aquifer employed for seasonal thermal energy storage” *Scientia Iranica. Transaction B, Mechanical Engineering*, Volume 22, Issue 1, 2015.
- Aghakashi, V., **Saidi, M.H.**, Mozafari, A.A., Keshavarz, P., “Temperature Distribution on a Gas Turbine Shaft Exposed to Swirl Combustor Flue” *Journal of Thermophysics and Heat Transfer*, Volume 29, No. 2 (2015), pp. 319-328.
- Chitsaz, I., **Saidi, M.H.**, Mozafari, A.A., “CFD based optimization of the mixture formation in spark ignition direct injection CNG engine” *Scientia Iranica. Transaction B, Mechanical Engineering*, Volume 21, Issue 5, 2014.
- Sadeghi, M., Sadeghi, A., **Saidi, M.H.**, “Gaseous Slip Flow Mixed Convection in Vertical Microducts of Constant but Arbitrary Geometry” *Journal of Thermophysics and Heat Transfer*, Volume 28, No. 4, pp. 771-784, 2014.
- Yazdi, A.A., Sadeghi, A., **Saidi, M.H.**, “Rheology effects on cross-stream diffusion in a Y-shaped micromixer” *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, Volume 456, pp. 296-306, 2014.
- Hanafizadeh, P., Raffiee, A.H., **Saidi, M.H.**, “Experimental investigation of characteristic curve for gas-lift pump” *Journal of Petroleum Science and Engineering*, Volume 116, pp. 19-27, 2014.
- Zabetian, M., Shaffi, M.B., **Saidi, M.H.**, Saidi, M.S., Rohani R., “A new experimental approach to investigate the induced force and velocity fields on a particulate manipulation mechanism” *Scientia Iranica. Transaction B, Mechanical Engineering*, Volume 21, Issue 2, 2014.
- Zabetian, M., **Saidi, M.H.**, Saidi, M.S., Shaffi, M.B., “Modeling of laser thermal and hydrodynamic effects on a dilute suspension of micro-particles in water” *Journal of Mechanical Science and Technology*, Volume 28, Issue 3, 2014.
- Hanafizadeh, P., Moezzi, M., **Saidi, M.H.**, “Simulation of gas-liquid two phase flow in upriser pipe of gas-lift systems” *Energy Equipment and Systems*, Volume 2, pp 25-42, 2014
- Sadeghi, A., Baghani, M., **Saidi, M.H.**, “Gaseous slip flow mixed convection in vertical microducts with constant axial energy input” *Journal of Heat Transfer*, Volume 136, Issue 3, 2014.



- Yavari, H., Sadeghi, A., **Saidi, M.H.**, Chakraborty S., "Temperature rise in electroosmotic flow of typical non-newtonian biofluids through rectangular microchannels" *Journal of Heat Transfer*, Volume 136, Issue 3, 2014.
- Sadeghi, M., Sadeghi, A., **Saidi, M.H.**, "Gaseous Slip-Flow Mixed Convection Through Ordered Microcylinders" *Journal of Thermophysics and Heat Transfer*, Volume 28, No. 1, pp. 105-117, 2014.
- Ghaebi, H., Bahadori, M.N., **Saidi, M.H.**, "Performance analysis and parametric study of thermal energy storage in an aquifer coupled with a heat pump and solar collectors, for a residential complex in Tehran, Iran" *Applied Thermal Engineering*, Volume 62, pp 156-170, 2014.
- Mohammadi, M., Taslimifar, M., Haghayegh, S., Kazemzadeh Hannani S., Shafii, M. B., **Saidi, M. H.**, Afshin H., "Open-loop pulsating heat pipes charged with magnetic nanofluids: powerful candidates for future electronic coolers" *Nanoscale and Microscale Thermophysical Engineering*, Volume 18, pp 18-38, 2014.
- Sadeghi, M., Sadeghi, A., **Saidi, M.H.**, " Buoyancy Effects on Gaseous Slip Flow in a Vertical Rectangular Microchannel" *Microfluidics and Nanofluidics*, No. 16, pp 207- 214, 2014.
- Hanafizadeh, P., Rafiee, A.H., **Saidi, M.H.**, "Experimental Investigation of Characteristic Curve for Gas -Lift pump" *Journal of Petroleum Science and Engineering*, Volume 116, pp 19-27, 2014.
- Sadeghi, M., Sadeghi, A., **Saidi, M.H.**, "Gaseous Slip-Flow Mixed Convection Through Ordered Microcylinder" *AIAA Journal of Thermophysics and Heat Transfer*, Volume 28 No. 1, pp 105- 117, 2014.2
- Vakili, M., Sadeghi, A., **Saidi, M.H.**, "Pressure Effects on Electroosmotic Flow of Power-law Fluids in Rectangular Microchannels" *Journal of Theoretical and Computational Fluid Dynamics*, Volume 28, No. 132, pp 409- 426, 2014.
- Mohammadi, M., Taslimifar, M., **Saidi, M.H.**, Shafiee, M.B., Afshin, H., Hannani, S. K., " Ferrofluidic Open Loop Pulsating Heat Pipes: Efficient Candidates for Thermal Management of Electronics" *Journal of Experimental Heat Transfer*, Volume 27, pp 296-312, 2014
- Abianeh, M.H. J., **Saidi, M.H.**, Aghanajafi, S., "Experimental Investigation of Aqueous LiBr Solution Absorber Bundle with Horizontal Elliptical Tubes" *Journal HVAC& Research*, Volume 20, pp 251- 263, 2014
- Mohammadi, M., Taslimifar, M., Haghayegh, S., Hannani, S.K., Shafiee, M.B., **Saidi, M.H.**, Afshin, H.," Open Loop Pulsating Heat Pipes Charged with Magnetic Nano – fluids: Powerful Candidates for Future Electronic Coolers" *Journal of Nanoscale and Microscale Thermophysical Engineering*, Volume 18, pp 18- 37, 2014
- Yavari, H., Sadeghi, A., **Saidi, M.H.**, Chakraborty, S., "Temperature Rise in Electroosmotic Flow of Typical Non- Newtonian Biofluids Through Rectangular Microchannels" *Journal of Heat Transfer- Transactions of the ASME*, Volume 136, pp 1- 11, 2014
- Zabetian, M., **Saidi, M.H.**, Saidi, M.S., Shafiee, M.B., "Modeling of Laser Thermal and Hydraulic Effects on a Dilute Suspension of Micro- Particles in Water" *Journal of Mechanical Science and Technology*, Volume 28, No. 3, pp 1017- 1026, 2014
- Sadeghi, A., Amini, Y., **Saidi, M.H.**, Chakraborty, S., "Numerical Modeling of Surface Reaction Kinetics in Electrokinetically Actuated Microfluidic Devices" *Analytica Chimica Acta*, Volume 838, pp 64- 75, 2014.
- Sadeghi, M., Sadeghi, A., **Saidi, M.H.**, "Gaseous Slip-Flow Mixed Convection in Vertical Microducts of Constant but Arbitrary Geometry" *AIAA Journal of Thermophysics and Heat Transfer*, Volume 28 No. 4, pp 771- 784, 2014
- Vakili, M., **Saidi, M.H.**, Sadeghi, A., "Thermal Transport Characteristics Pertinent to Electrokinetic Flow of Power-law Fluids in Rectangular Microchannels" *International Journal of Thermal Sciences*, Volume 79, pp 76-89, 2014

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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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