

Curriculum Vitae

Maysam Saidi

Ph.D., Associate Professor, Mechanical Engineering, Razi University, Kermanshah, Iran

Email: msaidi@razi.ac.ir ; maysam.saidi@gmail.com

Website: <https://en.razi.ac.ir/~msaidi> ; <http://msaidi.ir>

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

Office: No. 21, Department of Mechanical Engineering, Faculty of Engineering, Razi University, Kermanshah, Iran; Postal code: 6714414971

Education

Ph.D. in Mechanical Engineering	2011
Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran	-
Thesis: <i>Numerical Modeling of Gas-Solid Two-Phase Flow in Pulsed Spouted Fluidized Bed</i>	2016
Supervisor: <i>Prof. Hassan Basirat Tabrizi</i> Advisor: <i>Prof. Goodarz Ahmadi</i>	
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<b>Research Visit (Sabbatical)</b>	2014
University of British Columbia, Vancouver, Canada	-
	2015
Project: <i>Numerical and Experimental Investigation of Two-Phase Flow in Fluidized Beds</i>	
Supervisors: <i>Prof. John R. Grace and Prof. Jim Lim</i>	
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M.Sc. in Mechanical Engineering	2009
Sharif University of Technology, Tehran, Iran	-
	2011
Thesis: <i>Numerical Investigation of Turbulent Flow inside Deoiling Hydrocyclone using Large Eddy Simulation</i>	
Supervisor: <i>Prof. Bijan Farhanieh</i>	
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<b>B.Sc. in Mechanical Engineering</b>	2004
Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran	-
	2008
Thesis: <i>Experimental Investigation of Air Pressure Effect on Convective Heat Transfer</i>	
Supervisor: <i>Prof. Reza Hosseini Abardeh</i>	
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Diploma in Mathematics	2000
Depend on Razi University High school, Kermanshah, Iran	-
	2003

Research Interest

Biofluid, Computational Fluid Dynamics, Heat Transfer, Multiphase Flows, Turbulent Flows

Awards and Honors

- Selected Distinguished Young Researcher, Faculty of Engineering, Razi University (2024)
- Selected Distinguished Researcher, Mechanical Engineering Department, Razi University (2023)
- Recipient of scholarships (Iran & Canada) for a 9-month research visit at UBC, Canada (2014)
- Ranked 1st in Ph.D. Comprehensive Exam among Energy Conversion students (2012)
- Ranked 1st in the 4th Amirkabir University Best Bachelor Thesis Festival (2009)

Activities and Work Experience

- Associate Professor, Mechanical Engineering Department, Razi University (Sep. 2023-present)
- Assistant Professor, Mechanical Engineering Department, Razi University (Sep. 2016-Sep. 2023)
- Vice president in academic affairs, Faculty of Engineering, Razi University (Apr. 2025, present)
- Head of Mechanical Engineering Department, Razi University (2020-2022)
- Above 220 peer reviews for above 50 journals based on Web of Science (formerly Publons)
- Industrial sabbatical in Savis Sanat Asia Company (Cleanroom industry) (summer 2023)
- Cultural Advisor for Mechanical Engineering Student Scientific Association, Razi University (2021-2022)
- Educational Advisor for undergraduate Mechanical Engineering students, Razi University (2019, 2025)
- Member of Scientific Committee, 5th Regional Student Scientific Olympiad (2017-2025)
- Member of Executive Committee, National Conference on Water and Power Industry, Razi University (2020)
- Workshop presenter on "Ventilation in Cleanrooms" for students, Razi University (2024)
- Workshop presenter on "Energy Resources and Efficient Consumption" for faculty and staff, Razi University (2022)
- Workshop presenter on "Industrial Piping and Valves" for students (2019)
- Teaching graduate courses, Razi University: Advanced Numerical Methods, Advanced Fluid Mechanics, CFD, Two-Phase Flows (2018-present)
- Teaching graduate courses, Kermanshah University of Technology: Selected Topics in Heat Transfer (2018-2019)
- Teaching undergraduate courses, Razi University: Engineering Mathematics, Computer Programming Fundamentals, Technical Drawing, Technical English, Thermodynamics I, Fluid Mechanics I & II, Numerical Methods, Introduction to CFD (2016-present)
- Teaching Assistant for Heat Transfer, Amirkabir University of Technology (2012-2014)
- Undergraduate Course Instructor, Islamic Azad University, Damavand Branch: Refrigeration System Design, Water Transmission Systems (2013 – 2014)
- Research Assistant, Energy Conversion Lab, Amirkabir University of Technology: Supervised 6 student theses (2011-2016)
- Research Assistant, Computational Fluid Dynamics Lab, Sharif University of Technology: Designed a 40-core parallel processing system (2009-2011)
- Numerical simulation of urban and metro tunnels for Sharif Subway Environmental Design Team (SSEDT) (2009 – 2011)
- Editorial Board Member, Journal of Industrial Ventilation, Sharif University; Executive Committee, Industrial Ventilation and Health Conference (2009-2011)
- Member of Scientific Board, Student Scientific Journal "Ofogh" (2013)
- Internship at Iranian research organization for science and technology (Summer 2008)
- Internship at Kermanshah oil refinery company (Summer 2007)

Patent

"Pulsed Spout Fluidized Bed", *Iranian Patent No. 88128*, registered March 2016.

Publication

a) Book

Cooling, Heating and Air Conditioning Control Equipment, *Razi University Press*

Authors: Maysam Saidi, Reza Sepahi Samian, 2018, ISBN:978-600-393-022-3.

b) Journal

1	IOP	Ghaderi Dehrash, P., Saidi, M. , "Numerical study of spouting pulsation and gas inlet velocity variation in a rectangular spouted fluidized bed", <i>Engineering Research Express</i> 7, 035001, 2025.
2	Elsevier	Veiskarami, A., Saidi, M. , "Numerical investigation of a new technique to reduce pipeline elbow erosion employing branching path with flow control of butterfly valves and orifices", <i>Powder Technology</i> 455, 120761, 2025.
3	Elsevier	Veiskarami, A., Saidi, M. , "Numerical analysis of gas-solid flow erosion in different geometries as alternatives to a standard pipe elbow", <i>Powder Technology</i> 448, 120334, 2024.
4	AUT	Saidi, M. , Eslami, J., "Motion Analyses in Modeling of Flow and Contaminant in Cleanrooms: A Review", <i>AUT Journal of Mechanical Engineering</i> 8(1), 3-18, 2024.
5	Springer	Khaksar, S., Paknezhad, P., Saidi, M. , Ahookhosh, K., "Numerical modeling of particle deposition in a realistic respiratory airway using CFD-DPM and genetic algorithm", <i>Biomechanics and Modeling in Mechanobiology</i> , 2024.
6	Springer	Shafiei, E., Saidi, M. , "Experimental Investigation of Taylor Bubbles in a Gas-Liquid Column with Pulsed Gas Feed", <i>Heat and Mass Transfer</i> 60, 1119-1130, 2024.
7	IOP	Noori, Sh., Saidi, M. , "Numerical simulation of gas-solid flow in a cyclone separator with additional inlet", <i>Engineering Research Express</i> 6(1), 015045, 2024.
8	T&F	Abdi Chaghakaboodi, H., Saidi, M. , "Numerical modeling of body shape effect on the performance of a square cyclone separator", <i>Particulate Science and Technology</i> 42(2), 331-343, 2024.
9	Elsevier	Abdi Chaghakaboodi, H., Saidi, M. , "Numerical Study of Gas-Solid Flow in a Square Cyclone Separator with Different Vortex Finders", <i>Chemical Engineering Research and Design</i> 194, 621-635, 2023.
10	Springer	Zand, M.K., Saidi, M. , "Hydrodynamics and Particles Mixing in Rectangular Spouted Bed with Different Base Geometry using CFD-DEM", <i>Korean Journal of Chemical Engineering</i> , 2023.

11	Elsevier	Fattahi, R., Saidi, M. , "Numerical investigation of curved shape fins height effect on heat transfer and flow characteristics in open microchannel heat sink", <i>International Journal of Thermal Sciences</i> 185, 108060, 2023.
12	Springer	Rafiei, A., Saidi, M. , "Aneurysm geometric features effect on the hemodynamic characteristics of blood flow in coronary artery: CFD simulation on CT angiography-based model", <i>Medical & Biological Engineering & Computing</i> 60 (12), 3357-3375, 2022.
13	Elsevier	Zand, M.K., Saidi, M. , "Numerical investigation of lateral aeration effect on gas-solid flow and particle mixing in spouted bed with different base angles", <i>Powder Technology</i> 412, 117924, 2022.
14	AUT	Rafiei, A., Saidi, M. , "Numerical evaluation on blood rheological behavior in a realistic model of aneurysmal coronary artery", <i>AUT Journal of Mechanical Engineering</i> 6 (4), 2022.
15	Elsevier	Ahookhosh, K., Saidi, M. , Mohammadpourfard, M., Aminfar, H., Hamishehkar, H., Farnoud, A., Schmid, O., "Flow structure and particle deposition analyses for optimization of a pressurized metered dose inhaler (pMDI) in a model of tracheobronchial airway", <i>European Journal of Pharmaceutical Sciences</i> 164, 105911, 2021.
16	AUT	Saidi, M. , Samian R., "Numerical Investigation of Cardiac Function Parameters in Left Heart Hemodynamics with Stenosed Mitral", <i>AUT Journal of Mechanical Engineering</i> 5(3), 9, 2021.
17	Elsevier	Ahookhosh, K., Saidi, M. , Aminfar, H., Mohammadpourfard, M., Hamishehkar, H., Yaqoubi, S., "Dry Powder Inhaler Aerosol Deposition in a Model of Tracheobronchial Airways: Validating CFD Predictions with In Vitro Data", <i>International Journal of Pharmaceutics</i> 587, 119599, 2020.
18	IOP	Rostami, J., Saidi, M. , "Optimum size and location of diamond shaped isotherm blocks in heat transfer and friction of flow in a channel", <i>Engineering Research Express</i> 2(3), 035008, 2020.
19	IOP	Rostami, J., Saidi, M. , "Numerical study of the flow field and heat transfer in a channel equipped with phase change material blocks", <i>Engineering Research Express</i> 2(1), 015009, 2020.
20	Elsevier	Samian, R., Saidi, M. , "Investigation of left heart flow using a numerical correlation to model heart wall motion", <i>Journal of Biomechanics</i> 93, 77-85, 2019.
21	Elsevier	Saidi, M. , Basirat Tabrizi, H., Grace, J.R., "A Review on Pulsed Flow in Gas-Solid Fluidized Beds and Spouted Beds: Recent Work and Future Outlook", <i>Advanced Powder Technology</i> 30, 1121-1130, 2019.
22	Elsevier	Saidi, M. , Basirat Tabrizi, H., "On the fluidizing and spouting pulsations in particle motion of spout-fluid beds", <i>Particuology</i> 36, 139-148, 2018.
23	AUT	Eslami, J., Abbasi, A., Saidi, M.H., Saidi, M. , "Numerical comparison of the effect of constant and variable angle air diffuser on flow field and contaminant dispersion in a ventilated room", <i>Amirkabir Journal of Science and Technology Mechanical Engineering (AJSR-ME)</i> 50, 873-882, 2018.
24	T&F	Saidi, M. , Basirat Tabrizi, H., Ahmadi, G., Grace, J.R., Lim, C.J., "Hydrodynamics of pulsed spouted beds: effects of pulsation waveform, amplitude and frequency", <i>Drying Technology</i> 34, 1546-1557, 2016.

25	Elsevier	Wang, Z., Saidi, M. , Lim, C.J., Grace, J.R., Basirat Tabrizi, H., Chen, Z., Li, Y., "Comparison of DEM simulation and experiments in a dual-column slot-rectangular spouted bed with a suspended partition", <i>Chemical Engineering Journal</i> 290, 63-73, 2016.
26	Wiley	Saidi, M. , Wang, Z., Grace, J.R., Lim, C.J., "Numerical and experimental investigation of hydrodynamic characteristics of a slot-rectangular spouted bed", <i>Canadian Journal of Chemical Engineering</i> 94, 332-339, 2016.
27	ACS	Saidi, M. , Basirat Tabrizi, H., Grace, J.R., Lim, C.J., Ahmadi, G., "Hydrodynamic and mixing characteristics of gas-solid flow in a pulsed spouted bed", <i>Industrial & Engineering Chemistry Research</i> 54, 7933-7941, 2015.
28	Elsevier	Saidi, M. , Basirat Tabrizi, H., Grace, J.R., Lim, C.J., "Hydrodynamic investigation of gas-solid flow in rectangular spout-fluid bed using CFD-DEM modeling", <i>Powder Technology</i> 284, 355-364, 2015.
29	Elsevier	Saidi, M. , Basirat Tabrizi, H., Chaichi, S., Dehghani, M., "Pulsating Flow Effect on the Segregation of Binary Particles in a Gas-Solid Fluidized Bed", <i>Powder Technology</i> 264, 570-576, 2014.
30	Springer	Saidi, M. , Maddahian, R., Farhanieh, B., "Numerical investigation of cone angle effect on the flow field and separation efficiency of deoiling hydrocyclones", <i>Heat and Mass Transfer</i> 49(2), 247-260, 2013.
31	Elsevier	Saidi, M. , Maddahian, R., Farhanieh, B., Afshin, H., "Modeling of flow field and separation efficiency of a deoiling hydrocyclone using Large Eddy Simulation", <i>International Journal of Mineral Processing</i> 112-113, 84-93, 2012.
32	T&F	Hosseini, R., Saidi, M. , "Experimental study of air pressure effects on natural convection from a horizontal cylinder", <i>Heat Transfer Engineering</i> 33 (10), 878-884, 2012.

c) Conference

33		Jalilian, M., Saidi, M. , "Study of sinusoidal transient inlet in a geometric model of the human respiratory system", 33 rd Annual International Mechanical Engineering Conference (ISME2025), 12-13 May 2025, Tehran, Iran
34		Mansouri, A., Baniardalani, M., Saidi, M. , "Numerical Analysis of Number of blocks on PEM Fuel-cell Efficiency", 11th Iranian Conference on Renewable Energies and Distributed Generation (ICREDG2024), 6-7 March 2024, Yazd, Iran.
35		Mansouri, A., Baniardalani, M., Saidi, M. , "Numerical Analysis of Block Geometry on PEM Fuel-cell Efficiency", 9th International Conference on Technology and Energy Management (ICTEM2024), 14-15 Feb 2024, Mazandaran, Iran.
36		Samian, R., Saidi, M. , Samian, F., Teymori, A., "Numerical study of forced convection heat transfer effect on transient change of fireproofing intumescent", 5th International Conference and Exhibition on Urban Fire Service and Safety (NFUS2022), 11-13 July 2022, Tehran, Iran.
37		Rostami, J., Mollasharifi, S., Veysi, F., Saidi, M. , Shafei, A., Salami, B., "Efficiency Enhancement by CHP Method in Gas and Diesel Power Plants of Kermanshah Oil Refining Company", <i>1st National Conference of Applied Researches on Water and Power Industry (AWPC2020)</i> , 30-31 Dec 2020, Kermanshah, Iran. (Fa)
38		Khaksar, S., Saidi, M. , "Numerical modeling of blood flow in left heart coronary artery", <i>27th Annual International Mechanical Engineering Conference (ISME2019)</i> , 30 April-2 May 2019, Tehran, Iran.

- 39 **Saidi, M.**, Samian, R., "Numerical modeling of pulsatile blood flow in human heart", *27th Annual International Mechanical Engineering Conference (ISME2019)*, 30 April-2 May 2019, Tehran, Iran
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- 40 samian, R., Sharif, E.K., **Saidi, M.**, "Numerical simulation of fireproofing effects of intumescent on increasing strength of steel structures", *The 1st International and 4th National Conference on Urban Fire Service and Safety (NFUS2019)*, 24-26 Feb 2019, Tehran, Iran.
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- 41 **Saidi, M.**, Basirat Tabrizi, H., Ahmadi, G. "Numerical investigation of pulsed flow effect on particle behavior in gas-solid bed", *25th Annual International Mechanical Engineering Conference (ISME2017)*, 2-4 May 2017, Tehran, Iran.
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- 42 Eslami, J., **Saidi, M.**, Abbasi, A., Saidi, M.H., "Numerical study of square four-way ceiling diffuser angle on decreasing the contaminants in the ventilated space", *7th International Conference on Heating, Ventilation and Air Conditioning (ICHVAC)*, 30 May-1 June 2016, Tehran, Iran.
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- 43 Wang, Z., **Saidi, M.**, Lim, C.J., Grace, J.R., "Dual column Slot-Rectangular Spouted bed with a suspended partition -An experimental and numerical study", *65th Canadian Chemical Engineering Conference (CSCHE2015)*, 4-7 October 2015, Calgary, Canada.
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- 44 **Saidi, M.**, Wang, Z., Basirat Tabrizi, H., Grace, J.R., Lim, C.J., "CFD-DEM and experimental study of slot-rectangular spouted bed", *19th Romanian International Conference on Chemistry and Chemical Engineering (RICCCE19)*, 2-5 September 2015, Sibiu, Romania.
-
- 45 **Saidi, M.**, Basirat Tabrizi, H., Grace, J.R., Lim, C.J., "Gas-solid flow modeling in a spouted bed using discrete element method", *23rd Annual International Mechanical Engineering Conference (ISME2015)*, 12-14 May 2015, Tehran, Iran.
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- 46 **Saidi, M.**, Basirat Tabrizi, H., "Numerical Investigation of Particles in a Gas-Solid Spouted Fluidized Bed", *AICHE annual meeting (AIChE 2014)*, 16-21 November 2014, Atlanta, United States.
-
- 47 **Saidi, M.**, Basirat Tabrizi, H., Rahmani, A., Faroughi, S., "Minimum Spouting Velocity of Food Particles in a Gas-Solid Spouted Bed", *AICHE annual meeting (AIChE 2014)*, 16-21 November 2014, Atlanta, United States.
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- 48 **Saidi, M.**, Basirat Tabrizi, H., Chaichi, S., Dehghani, M., "The Effect of Non-Continuous Inlet Air on Increasing the Segregation of Binary Particles in a Fluidized Bed", *ASME 2014 International Mechanical Engineering Congress and Exposition (IMECE 2014)*, 14-20 November 2014, Montreal, Canada.
-
- 49 Moallemi, A., **Saidi, M.**, Basirat Tabrizi, H., "Humidity Effect on the Separation Efficiency of Cyclone Separator", *ASME 2014 International Mechanical Engineering Congress and Exposition (IMECE 2014)*, 14-20 November 2014, Montreal, Canada.
-
- 50 **Saidi, M.**, Basirat Tabrizi, H., Sepahi Samian, R., "Lattice Boltzmann Modeling of Wave Propagation and Reflection in the Presence of Walls and Blocks", *World Congress on Engineering (WCE 2013)*, 3-5 July 2013, London, United Kingdom.
-
- 51 Basirat Tabrizi, H., Panahandeh, M., **Saidi, M.**, "Experimental Segregation of Binary Particles Using Gas-Solid Fluidized Bed", *World Congress on Engineering (WCE 2013)*, 3-5 July 2013, London, United Kingdom.
-
- 52 **Saidi, M.**, Hosseini Abardeh, R., "Experimental Correlation for Free Convection Coefficient of Horizontal Cylinder in Different Air Pressures", *International Conference on Mechanical Engineering and Advanced Technology (ICMEAT 2012)*, 10-12 October 2012, Isfahan, Iran. (Fa)
-
- 53 **Saidi, M.**, Maddahian, R., Farhanieh, B., Afshin, H., "Separation Efficiency of Deoiling Hydrocyclones Using Particle Tracking", *International Conference on Mechanical Engineering and Advanced Technology (ICMEAT 2012)*, 10-12 October 2012, Isfahan, Iran. (Fa)

- 54 **Saidi, M.**, Basirat Tabrizi, H., Maddahian, R., "Vortex Formation in Lid-driven Cavity with Disturbance Block", *International Conference on Mechanical and Industrial Engineering (ICMIE 2012)*, 19-20 September 2012, Berlin, Germany.
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- 55 **Saidi, M.**, Maddahian, R., Farhanieh, B., "A parametric study on deoiling hydrocyclone flow field", *International Conference on Mechanical and Industrial Engineering (ICMIE 2012)*, 19-20 September 2012, Berlin, Germany.
-
- 56 **Saidi, M.**, Maddahian, R., Farhanieh, B., "Deoiling hydrocyclones flow field -A comparison between k-epsilon and LES", *International Conference on Mechanical and Aerospace Engineering (ICMAE 2011)*, 28-30 November 2011, Venice, Italy.
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- 57 **Saidi, M.**, Saidi, M.H., Hosseini Abardeh, R., "Experimental investigation of pressure effects on rate of entropy changes", *1st Iranian Thermal Science Conference (ITSC 2011)*, 8-9 February 2011, Mashhad, Iran. (Fa)
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- 58 **Saidi, M.**, Hosseini Abardeh, R., "Air Pressure Dependence of Natural-Convection Heat Transfer", *World Congress on Engineering (WCE 2010)*, 30 June-2 July 2010, London, United Kingdom.

Computer Experience

- Operating System: Linux (Fedora, Ubuntu)
- Programming: Fortran, Pascal, C++, MATLAB
- Open-Source Code: OpenFOAM, MFIX, Palabos
- Software: AutoCAD, CATIA, Gambit, Fluent, Salome, Tecplot, Paraview, Latex

Workshops

- Principles of University Teaching, Amirkabir University of Technology (2013)
- Particle Transfer and Deposition Workshop, Khaje-Nasir-Toosi University of Technology (2013)
- Industrial Ventilation Workshop, Sharif University of Technology (2011)
- Software Training: PDMS, Gambit & Fluent, ADAMS, CATIA, AutoCAD (2005 – 2008)

Membership

- Iranian Society of Mechanical Engineering (ISME) [2006]
- American Society of Mechanical Engineering (ASME) [2006]
- American Institute of Chemical Engineers (AIChE) [2014]
- International Association of Engineers (IAENG) [2010]
- Amirkabir University Alumni Association [2009]
- Sharif University Alumni Association [2011]

Updated: September 2025