

Marzie Babaie Rabiee

Assistant Professor

Department of Mechanical Engineering

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Education:

Ph.D : Yazd University, Yazd, Iran, 2010-2015

Thesis title: **An Investigation on the effects of particles' deposition on the Performance of the Air Filters**

Supervisor: Dr. Shahram Talebi

MSc : Yazd University, Yazd, Iran, 2005-2007

Thesis title: **Application of the lattice Boltzmann method in computational fluid dynamics**

Supervisor: Dr. Shahram Talebi

BSc : Ferdowsi University, Mashhad, Iran, 1999-2003

Thesis title: **Designing potable water transfer lines from Gisire field to Gonabad**

Supervisor: Professor Mohsen Kahrom

Fields of Interest:

Renewable energy

Particulate Flows

Bio fluid Mechanics

Fluid - structure interactions

Applied Fluid Mechanics and Heat Transfer

Computational fluid dynamics

Teaching experiences:

Thermodynamics

Heat transfer

Air conditioning systems

Engineering mathematics

Computer programming

Numerical analysis

Mechanical drawing

Statics

Reviewer

- Modares Mechanical Engineering
- Iranian Journal of Science and Technology

Industrial research:

- Engineering Design and Economic Analysis of a Seawater Desalination Pilot Unit Using Humidification-Dehumidification Method, 2017
-

Publications:

Journal:

- Effect of rotating and oscillating blade on the heat transfer enhancement of non-Newtonian fluid flow in a channel, Applied Thermal Engineering, 113, 2017.
- Effect of cylinder geometry on the heat transfer enhancement of power-law fluid flow inside a channel, Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2016.
- Numerical investigation on the effectiveness of fiber arrangement on the pressure drop in air filters, Journal of modeling in engineering (in Persian).
- Investigation of the characteristics of particulate flows through fibrous filters using the lattice Boltzmann method, Particuology, 21, 2015.
- An Experimental Investigation on Boundary Layer Flow by Using Hot-Wire Anemometer and Neural Network, fluid dynamics and aerodynamics journal, 2, 2013 (in Persian).

Conference:

- Loading fibrous filter performance in comparison with clean filters, Fluid Dynamics Conference, Razi university, Kermanshah, 2015, (in Persian)
- Effect of fibers' arrangement on the pressure drop and efficiency of filters, Iran Conference on Heat and Mass Transfer (ICHMT), Semnan university, Semnan, 2014, (in Persian)
- Simulation of the flow over an array of circular micro-cylinders using Lattice Boltzmann method, Fluid Dynamics Conference, Hormozgan university, Bandar abbas, 2013, (in Persian)
- Simulation of boundary layer flow on a flat plate using LBM, Annual (International) Conference of Iranian Aerospace Society, Malek-Ashtar University of Technology, Isfahan-Shahin shahr, Iran, 2009 (in Persian)
- Simulation of 2-D jet flow using lattice Boltzmann method(LBM), CFD conference, Razi university, Kermanshahm Iran, 2008 (in Persian)
- Simulation of transient square lid driven cavity flow using LBM, Annual (International) Conference of Iranian Aerospace Society, Sharif University of Technology, Tehran, Iran, 2008 (in Persian)
- Investigating the effect of thermal Mach number on temperature profile around moving heat source, Annual (International) Conference of ISME (Iranian Society of Mechanical engineering), Amir-Kabir University of Technology, Tehran, Iran, 2006 (in Persian)