

# Alireza Rahimi's scientific-research certificate

## 1) Scientific degrees

- Mathematics diploma - Physics from Imam Khomeini High School in Kashan.
- Bachelor of Mechanical Engineering, Heat and Fluid Tendency from Isfahan University of Technology.
- Master of Mechanical Engineering (Biomechanics) from Amirkabir University of Technology with first rank.
- PhD in Mechanical Engineering (Biomechanics) from Amirkabir University of Technology.

## 2) Teaching records

- Presenting water transfer systems course (Faculty of Engineering - University of Kashan).
- Presenting lessons on air conditioning systems (Faculty of Engineering - University of Kashan).
- Presenting the course of mechanical installations (Faculty of Architectural Engineering - University of Kashan).
- Cooperation in providing fluid laboratories; Thermodynamics and heat transfer (Faculty of Engineering - University of Kashan).
- Presenting biomechanics course (Physical Education Department - University of Kashan).
- Presenting an analysis course (Physical Education Department - University of Kashan).
- Presenting an industrial drawing lesson (Faculty of Engineering - University of Kashan).

## **3) List of authored articles or translations of articles published or accepted in domestic or foreign journals.**

Name of co-authors	Date of acceptance or publication	Year-Number-Volume	Name of the magazine	Title	row
Abbas Kasaeipoor Emad Hasani lioua kolsi	20 August 2017	2017	International Journal of Mechanical Sciences	Natural convection analysis by entropy generation and heatline visualization using lattice Boltzmann method in nanofluid filled cavity included with internal heaters- Empirical thermo-physical properties	1
Abbas Kasaeipoor Emad Hasani	12 July 2017	2017	Journal of Molecular Liquids	Lattice Boltzmann simulation of natural convection and entropy generation in cavities filled with nanofluid in existence of internal rigid bodies-experimental thermo-physical properties	2
Abbas Kasaeipoor	10 Aug 2017	2017	Petroleum Science and Technology	Emission characteristics of oxy-fuel combustion of crude oil in a fluidized bed combustor	3

Abbas Kasaeipoor Emad Hasani lioua kolsi	6 September 2017	2017 322	Powder Technology	Experimental and numerical study on heat transfer performance of three-dimensional natural convection in an enclosure filled with DWCNTs-water nanofluid	4
Abbas Kasaeipoor Emad Hasani lioua kolsi	17 September 2017	2017	International Journal of Numerical Methods for Heat & Fluid Flow	Lattice Boltzmann simulation of free convection in nanofluid filled cavity with partially active walls – entropy generation and heatline visualization	5
Ali Dehghan Saeed Abbas Kasaeipoor , Payam Hooshmand Emad Hasani	20 September 2018	2018	<i>Chinese Journal of Physics</i>	Lattice Boltzmann simulation for hydrothermal analysis of free convection within dumbbell-shaped heat exchanger	6
Abbas Kasaeipoorb Emad Hasani Malekshah Ali Amiri	7 October 2017	2017	Physica E: Low-dimensional Systems and Nanostructures	Natural convection analysis employing entropy generation and heatline visualization in a hollow L-shaped cavity filled with nanofluid using lattice Boltzmann method-experimental thermo-physical properties	7
Abbas Kasaeipoor Emad Hasani Malekshah Masih Palizian Lioua Kolsi	6 January 2018	2018	Thermal Science and Engineering Progress	Lattice Boltzmann numerical method for natural convection and entropy generation in cavity with refrigerant rigid body filled with DWCNTs-water nanofluid-experimental thermo-physical properties	8
Mohammad Rahjoo Seyed Saeed Hashemi Mohammad Reza Sarlak Masoud Hasani Maleksha Emad Hasani Malekshah	21 January 2018	2018	Thermal Science and Engineering Progress	Combination of Dual-MRT lattice Boltzmann method with experimental observations during free convection in enclosure filled with MWCNT-MgO/Water hybrid nanofluid	9
Abbas Kasaeipoor Emad Hasani Malekshah Abtin Shadab Far Mohammad Sepehr	12-3-2018	2018	<i>Chemical Engineering and Processing</i>	Heat transfer intensification using CuO-water nanofluid in a finned capsule-shaped heat exchanger using lattice Boltzmann method	10
Mohammad Sepehr Milad Janghorban Lariche Abbas Kasaeipoor Emad Hasani Malekshah Lioua Kolsi	3 December 2017	2017	Computers and Mathematics with Applications	Entropy generation analysis and heatline visualization of free convection in nanofluid (KKL model-based)-filled cavity including internal active fins using lattice Boltzmann method	11
Abbas Kasaeipoor Ali Amiri Mohammad Hossein Doranehgard Emad Hasani Malekshah Lioua Kolsi	26 November 2017	2017	Computers and Mathematics with Applications	Lattice Boltzmann method based on Dual-MRT model for three-dimensional natural convection and entropy generation in CuO-water nanofluid filled cuboid	12

				enclosure included with discrete active walls	
Mohammad Sepehr Milad Janghorban Lariche Mohammad Mesbah Abbas Kasaeipoor Emad Hasani Malekshah	1 December 2017	2017	Physica E: Low-dimensional Systems and Nanostructures	Analysis of natural convection in nanofluid-filled H-shaped cavity by entropy generation and heatline visualization using lattice Boltzmann method	13
Ali Dehghan Saeed Abbas Kasaeipoor, Payam Hooshmand Emad Hasani	20 September 2018	2018	<i>Chinese Journal of Physics</i>	Lattice Boltzmann simulation for hydrothermal analysis of free convection within dumbbell-shaped heat exchanger	14
Aravindhan Surendar Aygul Z. Ibatova Abbas Kasaeipoor Emad Hasani Malekshah	17 August 2018	2018	International Journal of Numerical Methods for Heat & Fluid Flow	Fluid flow and heat transfer of a stratified system during natural convection – influence of chamfered corners	15
Ali Dehghan Saeed Abbas Kasaeipoor Emad Hasani Malekshah	16 September 2018	2018	International Journal of Numerical Methods for Heat & Fluid Flow	A comprehensive review on natural convection flow and heat transfer: The most practical geometries for engineering applications	16
Pouria Azarikhah Abbas Kasaeipoor Emad Hasani Malekshah Lioua Kolsi	28 October 2018	2018	International Journal of Numerical Methods for Heat & Fluid Flow	Lattice Boltzmann simulation of free convection's hydrothermal aspects in a finned/multi-pipe cavity filled with CuO-water nanofluid	17
Hesam Bakhshi Ali Dehghan Saeed Abbas Kasaeipoor Emad Hasani Malekshah	27 July 2018	2018	International Journal of Numerical Methods for Heat & Fluid Flow	Lattice Boltzmann method for nanofluid flow and heat transfer in a curve-ended T-shaped heat exchanger	18
Xiaolong Shi Pouriya Jaryani Ali Amiri Emad Hasani Malekshah	19 December 2018	2018	POWDER TECHNOLOGY	Heat transfer and nanofluid flow of free convection in a quarter cylinder channel considering nanoparticle shape effect	19
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