

# *Jafar Ghazanfarian*


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Personal Webpage GoogleScholar Youtube Channel
Published Book at CRC Press #1
Published Book at CRC Press #2


## FACULTY MEMBER

**Research Director of University of Zanjan,** 2022-present
**Associate Professor**, Mechanical Engineering Department, Faculty of Engineering, University of Zanjan, Room No. 210
2016- Present
**Head of Mechanical and Industrial Engineering Department,** 2017-2019
Assistant Professor, Mechanical Engineering Department, Faculty of Engineering, University of Zanjan, 2011- 2016
Lecturer, Mechanical Engineering Department, Faculty of Engineering, University of Zanjan, 2007- 2011

## EDUCATIONS

| | |
|---|---|
| 2007-2011 | **Ph.D. in Mechanical Engineering**<br>**Amirkabir University of Technology (Tehran Polytechnic)**<br>Major: Thermo-fluid engineering<br>Overall GPA: 19.46/20 (Ranked 1st since the university foundation)<br>Comprehensive Exam Mark: 17.17/20 |
| 2005-2007 | **Master of Science in Mechanical Engineering**<br>**Amirkabir University of Technology (Tehran Polytechnic)**<br>Major: Thermo-fluid<br>Overall GPA: 17.97/20 (Ranked 1st) |
| 2001-2005 | **Bachelor of Science in Mechanical Engineering**<br>**Tehran University**<br>Major: Thermo-fluid<br>Overall GPA: 16.36/20 (Among Top-10 Students) |
| 1997-2001 | **Pre-University Certificate and High School Diploma**<br>**Zanjan SAMPAD**<br>Overall GPA: 19.20/20 (Ranked 2nd) |

## RESEARCH INTERESTS

- Nano/Micro-scale heat transport
- Convection and conduction heat transfer: non-Fourier models
- CFD and numerical grid generation
- Numerical methods with Lagrangian point of view: SPH, MC, LBM
- Renewable energies
- Reinforcement Machine learning
- Aerocoustics

## HONORS

| | |
|---|---|
| 2025 | Selected as Excellent Teacher of University of Zanjan |
| 2025 | Selected as Excellent Researcher of University of Zanjan |
| 2024 | Selected as Excellent Teacher of University of Zanjan |
| 2024 | Selected as Excellent Researcher of University of Zanjan |
| 2024 | **Tedx talk** about Mathematics in Art, Isfahan [Link] |
| 2016-2017 | **Outstanding Reviewer** of<br>**Computational Condensed Matter**<br>**International Journal of Heat and Mass Transfer**<br>**Renewable and Sustainable Energy Reviews**<br>**Energy**<br>**Applied Thermal Engineering**<br>**Powder Technology …** |
| 2017, 2016 | Winner of **Sentinels of Science Award**, medal of Excellence in Peer Review, 2016 |
| 2016 | **Outstanding Reviewer** of "Amirkabir Journal of Mechanical Engineering" |
| 2016 | Nomination of the translation of "Constructal Theory" for **the best book of the year**, selected among 5 final candidates. |
| 2015 | **Outstanding Reviewer** of "Applied Thermal Engineering" (IF=3.04) |
| 2013 | Winner of "**Prof. Kazemi Ashtiani's scholarship award**" from Iranian national elites' committee. |
| 2012 | Selected as the **"Professor of the Year"** by students in the Department of |
| 2012 | Mechanical Engineering, University of Zanjan. |
| 2011 | The **"Highest Overall GPA"** among all students of Ph.D. of mechanical engineering at Amirkabir University of Technology from the university foundation. |
| 2011 | Chosen as the **"Graduated Outstanding PhD Student"** at Amirkabir University of Technology. |
| 2008-Present | **Ranked 1st** among all PhD students of *Mechanical Engineering* at Amirkabir University of Technology. |
| 2010 | A member of **Iranian National Elites' Committee**. |
| 2007 | Chosen as the **"Graduated Outstanding MSc Student"** at Amirkabir University of Technology. |
| 2007 | **Ranked 1st** among all MSc students of *thermo-fluid* at Amirkabir University of Technology. |
| 1999 | Chosen at **"Computer Olympiad"**. |

## COURSES

- Applied Continuum Mechanics
- Advanced Numerical Analysis
- Advanced Fluid Mechanics, Advanced CFD
- Gas dynamics and Turbo-machinery
- Undergraduate and Graduate Fluid mechanics and Heat transfer Courses

## SELECTED PEER-REVIEWING EXPERIENCE

**Referee of over 160 manuscripts for More than 45 Journals**

Physical Review Letters | IEEE Transactions on Fuzzy Systems | Energy | Microfluidics and Nanofluidics | Applied Thermal Engineering | Applied Mathematical Modelling | International Journal of Thermal Sciences | International Journal of Heat and Mass Transfer | Physical Review E | Renewable & Sustainable Energy Reviewers | International Journal for Numerical Methods for Fluids | Numerical Methods for Partial Differential Equations | Journal of Heat Transfer-ASME | International Journal of Hydrogen Energy | IEEE Trans. On

## EXPIRIENCES

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|---|---|
| 2025 | Member of the Specialized Committee of the Faculty of Engineering, Elected by the Faculty Members |
| 2024 | Members of the Planning and Achievement Monitoring Committee, Iranian Society of Engineering Education |
| 2022-2028 | Member of Education Committee of Zanjan's Building Engineering Organization<br>Full member of Iranian Society of Engineering Education |
| 2020 | Head of Mechanical and Industrial Engineering Department, University of Zanjan |
| 2017-2019 | Member of team of "Council of Evaluation and Regulation of High-Education Institutes and Universities of Zanjan", University of Zanjan |
| 2013-Present | Leader of "Optimization of Solar chimney power plant" project, University of Zanjan |
| 2011-2012 | Researcher at the project: "Simulation of flow in gear pumps". |
| 2003 | Designing and manufacturing of an AC Dynamometer for Engine Testing, Iran Vehicle-Fuel-Environment Research Center, Tehran University. |
| 2004-2005 | Thermal design of transformers, Iran Transformer Research Center, Iran-Transfo Company, Zanjan, Iran. |

## RESEARCH GRANTS

**Jafar Ghazanfarian**, Mohammad Mostafa Mohammadi, Seyed Behnam Hosseini, *Experimental and Numerical Investigation of Energy Harvesting using Piezo Material from Water Waves for Electronic Modules*, 2020.

## Books

**4- Jafar Ghazanfarian, "The Art of Engineering: Fundamentals and Principles", CRC press, 2026.**

**3- Jafar Ghazanfarian, *"Applied Continuum Mechanics for Thermo-fluids"*, CRC Press, 2024.**

**2- Jafar Ghazanfarian**, Zahra Shomali, Shiyun Xiong, *"Nanoscale Energy Transport"*, *21st Century Nanoscience – A Handbook*, Volume 1, Chapter 4, Taylor & Francis Press, 2019, In press.

A 10 volume handbook. Editor is Prof. Kluse Sattler. Invited chapter without publication fee

**1- Jafar Ghazanfarian**, Ehsan Khavasi, Hamid Yousefi, Mojtaba Amiraslanpour, Saba Teymouri, Reza Bayat, *"Modern Online Learning Tools over the Platform of Virtual/Augmented Reality"*, IGI Global Press, Pennsylvania, USA, 2018.

## Publications in International Refereed Journals

**44-** Farhad Sotoudeha, Davood Toghraieb, **Jafar Ghazanfarian**, "***Molecular Dynamics Study of Boiling and Bubble Nucleation under Varying Heat Flux and External Forces in Hydrophobic/hydrophilic Microchannels***", Heat Transfer Engineering, in press.

**43-** Kamyar Dobakhti, **Jafar Ghazanfarian, *"Implementation of Deep Reinforcement Learning for Control of Flow over Rotating Cylinder with Multiple Jets"***, Acta Mechanica Sinica, in press.

**42-** Erfan Rajabi Khorramdarreh, Mohammad Mostafa Mohammadi, **Jafar Ghazanfarian**, "***A novel floating piezoelectric energy harvesting from water waves: fully-coupled simulation***", Journal of the Brazilian Society of Mechanical Sciences and Engineering, 46, 620, 2024.

**41-** Seyed Behnam Hosseini, Mohammad Mostafa Mohammadi, **Jafar Ghazanfarian**, "***Hybrid numerical-experimental study of an offshore piezoelectric energy harvesting from water waves***", Scientia Iranica, in press.

**40-** Masood Moghaddam, Abbas Abbassi, **Jafar Ghazanfarian,** ***Effect of Microstructures on Mass Transfer Inside a Hierarchically-Structured Porous Catalyst***, Journal of Porous Media, *24, 1-18, 2024.*

**39-** Ali Rezaiei Barandagh, Jafar Ghazanfarian, "***Hydroacoustics of turbulent flow over superhydrophobic and oscillating cylinders***", Ocean Engineering, 294, 116751, 2024.

**38-** Ali Rezaiei Barandagh, Adel Rezaiei Barandagh, Jafar Ghazanfarian, "***Hybrid heat transfer augmentation from oscillating cylinder with partial superhydrophobic Janus surfaces***", Heat Transfer Engineering, 40, 1-25, 2023.

**37-** Z Shomali, R Kovács, P Ván, IV Kudinov, Jafar Ghazanfarian, "***Recent progresses and future directions of lagging heat models in thermodynamics and bioheat transfer****"*, Continuum Mechanics and Thermodynamics, 34 637-679 2022.

**36-** Jafar Ghazanfarian, Mohammad Mostafa Mohammadi, Kenji Uchino, "***Piezoelectric Energy Harvesting: a Systematic Review of Reviews***", Actuators, 10(12) 312 2021.

**35-** Haleh Soheibi, Zahra Shomali, Jafar Ghazanfarian, "***Combined active-passive heat transfer control using slotted fins and oscillation: the cases of single cylinder and tube bank***", International Journal of Heat and Mass Transfer, 182 121972, 2022.

**34-** Armin Ansari, Ehsan Khavasi, Jafar Ghazanfarian**, "*Experimental and SPH Studies of Reciprocal Wet-Bed Dam Break Flow over Obstacles***", International Journal of Modern Physics C, 2150098, 2021.

**33-** Mojtaba Amiraslanpour, Jafar Ghazanfarian, Seyed Hamidreza Nabaei, Mohammad Hasan Taleghani, "***Evaluation of LAF HVAC System for Particle Dispersion Control in Operating Room Including Staffs: a Non-Boussinesq Lagrangian Study***", Journal of Building Physics, 45(2), 236-264 (2021).

**32-** Mohammad Jamshidi, Jafar Ghazanfarian, "***Blood Flow Effects in Thermal Treatment of Three-dimensional Non-Fourier Multi-layered Skin Structure***", Heat Transfer Engineering, 42, 929-946, 2021.

**31-**Masood Moghaddam, Abbas Abbassi, Jafar Ghazanfarian,"*Investigation* ***of Microstructure Effects on Performance of Hierarchically Structured Porous Catalyst using a Novel Pore Network Model***", Chemical Engineering Journal, 388, 124261, 2020.

**30-**Behrad Zeinali, Jafar Ghazanfarian, **"*Turbulent Flow over Partially Superhydrophobic Underwater Structures: The Case of Flow over Sphere and Step***",** Ocean Engineering, 195, 106688, 2020.

**29-** Jafar Ghazanfarian**,** "***Introducing the Sliding-Wall Concept for Heat Transfer Augmentation: the Case of Flow over Square Cylinder at Incidence***" Heat Transfer Engineering, 41, 751-764, 2020.

**28-** Behrad Zeinali, Jafar Ghazanfarian, Bamdad Lessani, "***Janus Surface Concept for Three-Dimensional Turbulent Flows***", Computers & Fluids, 170, 213-220, 2018.

**27-** Kaveh Torkashvand, Esmaeil Poursaeidi, Jafar Ghazanfarian, "***Experimental and Numerical Study of Thermal Conductivity of Plasma-Sprayed Thermal Barrier Coatings with Random Distributions of Pores***", Applied Thermal Engineering, 137, 494-503, 2018.

**26-** Mohammad Jamshidi, Jafar Ghazanfarian, *"**Dual-Phase-Lag Analysis of CNT-$MoS_2$-$ZrO_2$-$SiO_2$-Si Nano-Transistor and Arteriole in Multi-Layered Skin***", Applied Mathematical Modelling, 60, 490-507, 2018.

**25-** Jafar Ghazanfarian, Mahshid Moradi, *"**Hybrid SPH-MD two-phase Modelling of 3D Free-surface Flows Introducing Double K-H Instability***", Engineering Analysis with Boundary Elements, 88, 115-131, 2018.

**24-** Jafar Ghazanfarian, Behzad Taghilou, *"**Active Heat Transfer Augmentation of Bundle of Tubes by Partial Oscillatory Excitation**",* Journal of Thermophysics and Heat Transfer, Accepted, 32, 590-604.

**23-** Mojtaba Amiraslanpour, Jafar Ghazanfarian, S.E. Razavi, **"*Drag Suppression for 2D Oscillating Cylinder with Various Arrangement of Splitters at Re=100: A High-Amplitude***

***Study with OpenFOAM",*** Journal of Wind Engineering and Industrial Aerodynamics, 164,128-137, 2017.

**22-** Zahra Shomali, Behrad Pedar, Jafar Ghazanfarian, Abbas Abbassi, **"*Monte-Carlo Parallel Simulation of Phonon Transport for 3D Silicon Nano-Devices",*** International Journal of Thermal Sciences, 114, 139-154, 2017.

**21-** Sajjad Bouzari, Jafar Ghazanfarian, ***Unsteady Forced Convection over Cylinder with Radial Fins in Cross Flow,*** Applied Thermal Engineering, 112, 214-225, 2017.

**20-** Jafar Ghazanfarian, Roozbeh Saghatchi, Mofid Gorji-Bandpy, ***"SPH simulation of Turbulent Flow past a High-Frequency In-line Oscillating Cylinder near Free-Surface",*** International Journal of Modern Physics C, 27(11), 1650152, 2016.

**19-** Zahra Shomali, Abbas Abbassi, Jafar Ghazanfarian, ***"Development of Non-Fourier Thermal Attitude for Three-Dimensional and Graphene-Based MOS Devices",*** Applied Thermal Engineering, 104, 616-627, 2016.

**18-** Jafar Ghazanfarian, Zahra Shomali, Abbas Abbassi, ***"Macro- to Nanoscale Heat and Mass Transfer: The Lagging Behavior",*** International Journal of Thermophysics, 36, 1416-1467, 2015.

**17-** Zahra Shomali, Jafar Ghazanfarian, Abbas Abbassi, ***"Effect of film properties for non-linear DPL model in a nanoscale MOSFET with high-k material: $ZrO_2/HfO_2/La_2O_3$",*** Superlattices and Microstructures, 83, 699-718, 2015.

**16-** J. Ghazanfarian, R. Saghatchi, D.V. Patil, ***"Implementation of Smoothed-Particle Hydrodynamics for Non-linear Pennes' Bioheat Transfer Equation",*** Applied Mathematics and Computation, 259, 21-31, 2015.

**15-** Jafar Ghazanfarian, Roozbeh Saghatchi, Mofid Gorji-Bandpy, **"*Turbulent Fluid-Structure Interaction of Water-Entry/Exit of a Rotating Circular Cylinder using SPH Method*"**, International Journal of Modern Physics C, 26(8), 1550088, 2015.

**14-** Jafar Ghazanfarian, D. Ghanbari "Computational fluid dynamics ***investigation of turbulent flow inside a rotary double external gear pump***", Journal of Fluids Engineering-Transactions of ASME, 137(2), 021101, 2015.

**13-** Roozbeh Saghatchi, Jafar Ghazanfarian, "***A Novel SPH Method for the Solution of Dual-Phase-Lag Model with Temperature-Jump Boundary Condition in Nanoscale***", Applied Mathematical Modelling, Vol. 39(3), 1063-1073, 2015.

**12-** Masood Moghaddam, Jafar Ghazanfarian, Abbas Abbassi, "***Implementation of DPL-DD model for the simulation of nanoscale MOS devices***", IEEE Transactions on Electron Devices, Vol. 61(9), P. 3131-3138, 2014.

**11-** Roozbeh Saghatchi, Jafar Ghazanfarian, Mofid Gorji-Bandpy, "***Numerical Simulation of Water-Entry and Sedimentation of an Elliptic Cylinder using Smoothed-Particle Hydrodynamics Method***", Journal of Offshore Mechanics and Arctic Engineering-Transactions of ASME, 136(3), 031801, 2014.

**10-** R.S. Samian, A. Abbassi, J. Ghazanfarian, "***Transient Conduction Simulation of a Nano-scale Hotspot using Finite Volume Lattice Boltzmann Method***", International Journal of Modern Physics C, Vol. 25(3), 1350103, 2014.

**9-** R.S. Samian, A. Abbassi, J. Ghazanfarian, "***Thermal Investigation of Common 2D FETs and New Generation of 3D FETs using Boltzmann Transport Equation in Nanoscale***", International Journal of Modern Physics C, Vol. 24(9), 1350064, 2013.

**8-** J. Ghazanfarian and Z. Shomali, "***Investigation of Dual-Phase-Lag Heat Conduction Model in a Nanoscale Metal-Oxide-Semiconductor Field-Effect Transistor***", International Journal of Heat and Mass Transfer, Vol. 55, P. 6231-6237, 2012

**7-** J. Ghazanfarian and A. Abbassi, "***Investigation of 2-D Transient Heat Transfer under the Effect of Dual-Phase-Lag Model in a Nanoscale Geometry***", International Journal of Thermophysics, Vol. 33, P. 552-566, 2012

**6-** J. Ghazanfarian and A. Abbassi, "***Heat transfer and fluid flow in microchannels and nanochannels at high Knudsen number using thermal Lattice-Boltzmann method***", Physical Review E, Vol. 82, 026307, 2010.

Selected for Virtual Journal of Nanoscale Science & Technology.

Published in the book: "Advances in Nanotechnology Research and Application: 2011 Edition" ScholaryEditions.

**5-** M.R.H. Nobari, J. Ghazanfarian, "***Convective heat transfer from a rotating cylinder with inline oscillation***", International Journal of Thermal Science, Vol. 49, P. 2026-2036, 2010

**4-** J. Ghazanfarian and M.R.H. Nobari, "***A numerical study of convective heat transfer from a rotating cylinder with cross-flow oscillation***", International Journal of Heat and Mass Transfer, Vol. 52, P. 5402–5411, 2009.

Published in the book: "Issues in Mechanical Engineering: 2011 Edition", ScholaryEditions.

**3-** M.R.H. Nobari and J. Ghazanfarian, "***A numerical investigation of fluid flow over a rotating cylinder with cross flow oscillation***", Computers & Fluids, Vol. 38, 2026–2036, 2009,

Selected among 25 hottest articles (No. 10), 2013.

**2-** J. Ghazanfarian and A. Abbassi, "***Effect of boundary phonon scattering on Dual-Phase-Lag model to simulate micro- and nano-scale heat conduction*** ", International Journal of Heat and Mass Transfer, Vol. 52, P. 3706–3711, 2009.

**1-** J. Ghazanfarian and A. Abbassi, "***Mixed Convection in a Square Cavity Filled with a Porous Medium and Different Exit Port Position***", Journal of porous media, Vol. 10, P. 701-718, 2007.

## ISC Articles

**4- Jafar Ghazanfarian**, "***Improving the Effectiveness of the Mechanical Engineering Curriculum by Combining Global, Local and Future-oriented Perspectives***", Iraninan Journal of Engineering Education, in press.

**3-** Hamid Adabzadeh, Mohammad Mostafa Mohammadi, **Jafar Ghazanfarian**, ***"Energy harnessing from water waves by a piezoelectric energy harvester with and without ore-like tip; an experimental study"***, Amirkabir Journal of Mechanical Engineering, 55(10), 1195-1206, 2024.

**2 -** Nazila Nematzadeh, **Jafar Ghazanfarian,** ***"3D modeling of blood flow in artificial heart with double volute using dynamic mesh",*** Iranian Journal of Mechanical Engineering-Transactions of ISME, Vol. 19, P. 6-12, 2017 (In Persian).

**1- J. Ghazanfarian,** D. Jamshideasli, A. Abbassi, ***"Thermal Lattice Boltzmann Method for Curved Boundaries in the Transition Regime"***, Amirkabir Mechanical Engineering Journal, Vol. 49, No. 3, P. 617-624, 2017.

## Contributions to Conference Proceedings

**36-** Niloufra Kamalkhani, Zahra Shomali, **Jafar Ghazanfarian**, "***Acoustic analysis of turbulent flow over oscillating cylinder at Re=3000, 4000, 5000***", 15Th International Conference on Acoustics and Vibration (ISAV2025), 24th December, Tehran, Iran, 2025.

**35-** Saeed Gholami, **Jafar Ghazanfarian**, Mohammad Mostafa Mohammadi, "***Active measurement of radon gas in indoor environments as a causative factor for lung cancer: A case study of laboratories at the University of Zanjan***", 2nd International Congress on Cancer Prevention, October 1-2, Zanjan, Iran, 2025.

**34-** Fariborz Jamshidi, **Jafar Ghazanfarian**, Yousefali Abedini, "***Investigation of Lead Particulate Dispersion in the Southern Area of the University of Zanjan Campus with the Aim of Preventing Non-Smoking Lung Cancer***", 2nd International Congress on Cancer Prevention, October 1-2, Zanjan, Iran, 2025.

**33- Jafar Ghazanfarian**, "***University industry/society engagement with the goal of advancing universities into the fourth-generation***", The First National Conference on the Civilizational Governance Model of Science and Technology, 1 December,Tehran, Iran, 2024.

Selected as "top paper" of conference.

**32- Jafar Ghazanfarian**, Zahra Shomali, *"**Heat Transfer Augmentation Through the Sliding-Wall Concept**"*, ICHMT International Symposium on Advances in Computational Heat Transfer, 26-30 May, Istanbul, Turkiye 2024.

**31-** Kamyar Dobahkti, **Jafar Ghazanfarian**, "***Active Control of Flow Over Spinning Cylinder by Flow Injection Using Deep Reinforcement Learning***", The 32th Annual International Conference of Iranian Society of Mechanical Engineers, May 9-11, Arak, Iran 2024.

**30-** Alireza Ghaderi Saneh, Ali Rezaiei Barandagh, **Jafar Ghazanfarian**, "***Natural convection over a cylinder with extended surfaces and local superhydrophilicity***", 31th Annual International Conference of the Iranian Association of Mechanical Engineers, 9-12 May, Tehran, Iran 2023

**29-** Ali Rezaei Barandagh, **Jafar Ghazanfarian**, "***Acoustic analysis of turbulent flow over superhydrophobic cylinder***", 12th International Conference on Acoustics and Vibration, December 14th, Tehran, Iran 2022.

**28-** Seyed Emran Hamzehnezhad Abkenari, **Jafar Ghazanfarian**, Mohammad Mostafa Mohammadi "***Implementation of Machine learning for voltage generation from a piezomaterial in a fluid flow"***, 30th Annular International Conference on Mechanical Engineering, May 10th, Tehran, Iran, 2022.

**27-** *Zahra Shomali, Haleh Soheibi, Jafar Ghazanfarian, "**Investigation of Fin Ripping on Convective Heat Transfer over a Cylinder in Cross Flow**", 21st IACM Computational Fluids Conference, 17-21 October, Hangzhou, China, 2021*

**26-** H. Adabzadeh, M.M. Mohammadi, Jafar Ghazanfarian, "***Harnessing energy from water waves by ore-shaped piezoelectric energy harvesters, and experimental study based on response surface methodology***", Understanding Transport Processes on the Nanoscale for Energy Harvesting Devices, 8th March, Bad Honnef, Germany, 2021

**25-** Jafar Ghazanfarian, Mohammad Mostafa Mohammadi, Seyed Behnam Hosseini, "***A Variable angle Piezo electric Harvester for Offshore Applications***", Understanding Transport Processes on the Nanoscale for Energy Harvesting Devices, 8th March, Bad Honnef, Germany, 2021

**24-** Mohammad Amin Seifinia, Jafar Ghazanfarian, "***Computational Platform for Convolution-type Constitutive Relation for Nanoscale Phonon Transport*"** Conference on Nanophononics, Bridging Statistical Physics, Molecular Modeling and Experiments, 24th June, Trieste, Italy, 2019.

**23-** Mehdi Mehri, Jafar Ghazanfarian, "***Numerical Analysis of 2D Subsonic Flow over Oscillating Airfoil at Incidence"***, 26th Annular International Conference on Mechanical Engineering, April 24th, Semnan, Iran, 2018.

**22-** Ehsan Khavasi, Zahra Mashhadi, Jafar Ghazanfarian, "***LES Investigation of 3D turbudity flow with 2 set of particles with various diameters in an experimental setup with a bump using OpenFOAM"***, 25th Annular International Conference on Mechanical Engineering, May 2nd, Tehran, Iran, 2017.

**21-** Behrad Zeinali, Jafar Ghazanfarian, "***LES simulation of 3D flow over cylinder with superhydrophobic surfaces***", 25th Annular International Conference on Mechanical Engineering, May 2nd, Tehran, Iran, 2017.

**20-** Jafar Ghazanfarian, Mostafa Mostafavi, "***Aeroacoustic analysis of flow over cylinder with splitter plate using FWH model***", 25th Annular International Conference on Mechanical Engineering, May 2nd, Tehran, Iran, 2017.

**19-** Zahra Shomali, Jafar Ghazanfarian, *"**3-D Atomistic Investigation of silicon MOSFETs "***, International Symposium on Advances in Computational Heat Transfer, May 28th, Napoli, Italy, 2017.

**18-** Mohammad Jamshidi, Jafar Ghazanfarian, *"**Development of DPL-Based Heat Conduction Solver for Multi-Layered Arbitrary Shapes: Nano- and Bio- Case Studies"***, International Symposium on Advances in Computational Heat Transfer, May 28th, Napoli, Italy, 2017.

**17-** Z. Shomali, A. Abbassi, J. Ghazanfarian, *"**Non-Fourier investigation of the Tri-Gate MOSFET with a graphene heat spreader"***, 6th International Advances in Applied Physics and Materials Science Congress & Exhibition (APMAS2016), June 1-3, Istanbul, Turkey, 2016.

**16-** J. Ghazanfarian, Z. Shomali, A. Abbassi, *"**Non-Fourier behaviours in different three-dimensional MOSFET transistors**"*, 6th International Advances in Applied Physics and Materials Science Congress & Exhibition (APMAS2016), June 1-3, Istanbul, Turkey, 2016.

**15-** Reza Sepahi Samian, Abbass Abbassi, Jafar Ghazanfarian, *"**High-Knudsen Conjugate Heat Transfer in Micro/Nano-Channels for use in microelectronic devices: Thermal Lattice Boltzmann Study**"*, Proceedings of Sixth International Conference on Nanostructures (ICNS6), March 7-10, Kish Island, Iran, 2016.

**14-** Sajad Bouzari, Jafar Ghazanfarian, "***Heat Transfer Augmentation for Flow over Finned Cylinder using OpenFOAM***", Proceedings of 24th Annular International Conference on Mechanical Engineering (ISME16), April 26-28, Yazd, Iran, 2016.

**13-** Jafar Ghazanfarian, Masood Moghaddam, "***Dual-Phase-Lag Investigation of High-k Material in Novel Generation of Nanoscale MOS Devices***", Proceedings of 23rd Annual International Conference on Mechanical Engineering (ISME2015), 12-14 May, Tehran, Iran, 2015.

**12-** Dourna Jamshideasli, Abbas Abbassi, Jafar Ghazanfarian, "***Thermal Lattice Boltzmann Method for Curved Boundaries in the Transition Regime***", Proceedings of 23rd Annual International Conference on Mechanical Engineering (ISME2015), 12-14 May, Tehran, Iran, 2015.
Selected as "top paper" of conference.

**11-** Jafar Ghazanfarian, Masood Moghaddam, Abbas Abbassi, "***Development of Dual-Phase-Lag model for Conjugate Heat Transfer in Nanoscale MOS Devices***", Proceedings of 23rd Annual International Conference on Mechanical Engineering (ISME2015), 12-14 May, Tehran, Iran, 2015.
Selected as "top paper" of conference.

**10-** Nazila Nematzade, Jafar Ghazanfarian, "*Numerical Simulation of blood flow in radial artificial heart with splitter*", Proceedings of 1st Conference on Novel Approaches of Biomedical Engineering in Cardiovascular Diseases (NABICAD2015), January 22-23, Tehran, Iran, 2015.

**9-** Mojtaba Amiraslanpour, Jafar Ghazanfarian, "***Impact of LAF system design factors on contaminant removal and thermal comfort in the operating room HVAC system: CFD approach***", Proceedings of International Conference on Heating Ventilation and Air Conditioning (ICHVAC22014), June 10-12, Tehran, Iran, 2014.

**8-** Zahra Shomali, Jafar Ghazanfarian, Abbas Abbassi, "***Investigation of solid argon film with temperature-dependent properties under the framework of highly non-linear Dual-Phase-Lag Model in a nanoscale geometry***", Proceedings of National Conference on Mechanical Engineering of Iran (NCMEI2014), February 27, Shiraz, Iran, 2014.

**7-** Jafar Ghazanfarian, Roozbeh Saghatchi, "***SPH Simulation of Fluid-Structure Interaction of Flow past a Water-Leaving Rotating Circular Cylinder***", Proceedings of National Conference on Mechanical Engineering of Iran (NCMEI2014), February 27, Shiraz, Iran, 2014 .

**6-** R. Saghatchi, M Gorji-Bandpy, J. Ghazanfarian, "***Water Impact and Sedimentation of Solid Bodies in a Newtonian Fluid using SPH Method***", Proceedings of International Conference on Mechanical Engineering and Advanced Technologies (ICMEAT2012), October 10-12, Isfahan, Iran, 2012.

**5-** J. Ghazanfarian, D. Ghanbari, "***2D Numerical Simulation of a Double Gear Pump using Dynamic Mesh***", Proceedings of International Conference on Mechanical Engineering and Advanced Technologies (ICMEAT2012), October 10-12, Isfahan, Iran, 2012.

**4-** J. Ghazanfarian, A. Abbassi, "***Numerical Investigation of Flow over Square Cylinder with Moving Walls and Incident Angle by CBS Method***", Proceedings of the 16th International Conference on Finite Elements in Flow Problems (FEF 2011), March 23-25, Munich, Germany, 2011.

**3-** I. Tasdighi, J. Ghazanfarian, "***Evaluation and Simulation of Surgery Room Air Conditioning System Using Fluent***", Proceedings of the 2nd Conference on Heating, Ventilating and Air Conditioning, June 1-3, Tehran, Iran, 2010.

**2-** J. Ghazanfariana, A. Abbassi, "***Simulation of Nano-scale Heat Conduction Using Dual-Phase-Lag Model and Introducing a General Time Dependent 1-D Model***", Proceedings of the 3rd Conference on Nanostructures (NS2010), March 10-12, Kish Island, Iran, 2010.

**1-** H. Basirat, J. Ghazanfarian, P. Forooghi, ***"Implementation of Dual-Phase-Lag Model at Different Knudsen Numbers within Slab Heat Transfer",*** Proceedings of the International Conference on Modeling and Simulation (MS'06), Aug 28-30, Konia, Turkey, 2006.