

Jafar Ghazanfarian



Birth: Jan. 6, 1984

Citizenship: Iranian

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RESEARCH INTERESTS:

- CFD and numerical grid generation
- Nano/Micro-scale heat transfer
- Convection and conduction heat transfer
- Lattice Boltzmann and other atomistic methods
- Thermal design of transformers

EDUCATION:

- 2007-Present **Professor of fluid mechanics and thermal science**
Zanjan University
Instructor
- 2007-Present **PhD Candidate in Mechanical Engineering**
Amirkabir University of Technology (Tehran Polytechnic)
Major: Thermo-fluid
Overall GPA: 19.46/20
Comprehensive Exam Mark: 17.17
Supervisor: Dr. A. Abbassi
- 2005-2007 **Master of Science in Mechanical Engineering**
Amirkabir University of Technology (Tehran Polytechnic)
Major: Thermo-fluid
Overall GPA: 17.97/20
Project Grade: 19.87/20
Final Project: Simulation of Flow and Heat Transfer over an
Oscillating Cylinder
Supervisor: Dr. M. R. Heyrani Nobari
- 2001-2005 **Bachelor of Science in Mechanical Engineering**
Tehran University
Major: Thermo-fluid
Overall GPA: 16.36/20
Project Grade: 18.5/20
Final Project: Investigation of Cryogenic Refrigeration System and its
Applications

Supervisor: Dr. H. Sharifi Bidgoli

1997-2001 **Pre-University Certificate and High School Diploma**
Zanjan SAMPAD
Overall GPA: 19.20/20

HONORS:

2009 The highest overall GPA among all students of Ph.D. of mechanical engineering in Amirkabir University of Technology from the beginning

2008 A member of Iranian national committee of elite students

2008 Chosen as the **outstanding PhD student** in Amirkabir university of Technology

2007 Chosen as the **outstanding M.Sc. student** in Amirkabir university of Technology

2006 Ranked **1st** among all M.S. students of *thermo-fluid* in Amirkabir university of technology

2005 Ranked **149th** among the 10,000 participants in the *nationwide High Education university entrance exam*

2001 Ranked **304th** among the 450,000 participants in the *nationwide university entrance exam*

2000 Ranked **2nd** among all students in the high school and the pre-university center

1999 Be chosen in the Second Stage of *Computer Olympiad*

UNDERGRADUATE COURSES

- Gas dynamics
- Turbo-machinery
- Fluid mechanics I and II
- Heat transfer II

EXPIRIENCES:

2009 **A member of scientific committee**
Sixth mechanical engineering student conference, Amirkabir University of Technology
Head of *Computational mechanics* and *Fluid mechanics* fields

2008 **Teaching Assistant**
Dept. of Mechanical Engineering, Amirkabir University of Technology

Taught Advanced Convective Heat Transfer, Dr. A. Abbassi

- 2007 A member of editorial board of Ofogh magazine**
Dept. of Mechanical Engineering, Amirkabir University of Technology
- 2006 Teaching Assistant**
Dept. of Mechanical Engineering, Amirkabir University of Technology
Taught Fluid Mechanics I, Dr. M. R. Heyrani Noubari
- 2004 Designing and manufacturing of an AC Dynamometer for Engine Testing**
Iran Vehicle-Fuel-Environment Research Center
Tehran University, Iran
- 2003 Heat transfer design of transformers**
Iran Transformer Research center
Iran-transfo Company, Zanjan, Iran

PUBLICATIONS:

International Articles:

- 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, **Accepted, In press.**
- 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, Issue 8, P. 701-718, 2007.

International conferences:

- H. Basirat, J. Ghazanfarian, P. Forooghi, "**Implementation of Dual-Phase-Lag Model at Different Knudsen Numbers within Slab Heat Transfer**", Proceedings of International Conference on Modeling and Simulation, MS'06, Vol. 2, P. 895-899, Aug 28-30, Konia, Turkey, 2006.
Presented by: J. Ghazanfarian

National articles:

- J. Ghazanfarian and R. Hoseini Abardeh, "**A Glance at the Application of Cryogenics in the Space science and Biology**", Mechanical Engineering magazine, Y. 16, No. 55, Aban 1386, P. 62-68.
- P. Forooghi and J. Ghazanfarian, "**Review of Current Status of World Geothermal Energy-Part 1**", Ofogh Magazine, Vol. 16, P. 73-79, 2007.
- P. Forooghi and J. Ghazanfarian, "**Review of Current Status of World Geothermal Energy-Part 2**", Ofogh Magazine, Vol. 17, P. 60-66, 2007.

Submitted Papers:

- M.R.H. Nobari and J. Ghazanfarian, "*A Finite Element Investigation of Flow over Rotating Cylinder with Cross Oscillation*", Journal of computers and fluids, Under Review
- M.R.H. Nobari and J. Ghazanfarian, "*Numerical simulation of Flow over Rotating Cylinder with Inline Oscillation*", European journal B, Under Review
- J. Ghazanfarian and M.R.H. Nobari, "*Numerical simulation of Heat Transfer of Flow over Rotating Cylinder with Cross Oscillation*", International Journal of Heat and mass transfer, Under Review
- J. Ghazanfarian and M.R.H. Nobari, "*Numerical simulation of Heat Transfer of Flow over Rotating Cylinder with Inline Oscillation*", Journal of Heat and fluid flow, Under Review

SELECTED COURSES ATTENDED:

- Numerical grid generation
- Renewable energies
- Finite element method
- Large eddy simulation of turbulence flows
- Micro- & nano-fluid mechanics
- Direct energy conversion

COMPUTER SKILLS:

Solvers	Fluent, ANSYS,
Mesh generation software	Gambit,
Graphical and technical plotting	Tecplot, MATLAB,
Simulation Software	Mechanical Desktop, AutoCAD,
Programming Languages	FORTRAN, C++,
Graphics	Photoshop, CorelDraw,
And	Microsoft Office, \LaTeX

LANGUAGES:

- English
- Turkish

ENGLISH PROFICIENCY:

Junior Proficiency Certificate: Iran Language Institute (ILI), 2001

EXTRACURRICULAR ACTIVITIES:

- Piano playing, Harmonica playing**
- Basketball:** Member of the faculty basketball team
- Football:** Member of the dormitory football team

