

Name: Behrouz Takabi

**Volunteer Reviewer**

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## EDUCATIONAL BACKGROUND

**Ph.D.:** Mechanical Engineering; Texas A&M University. 2014

**M.Sc.:** Mechanical Engineering / Energy Conversion; University of Tehran. 2010

**B.Sc.:** Mechanical Engineering; Amirkabir University of Technology (Tehran Polytechnic). 2005

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## RESEARCH INTERESTS

Nanofluids, Micro/Nano-fluidics, Heat transfer Enhancement, CFD, Physics of complex flows, Turbulence, Multiphase flows, Droplet, Numerical simulations, FSI, Analytical approaches.

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## HONORS AND AWARDS

- Awarded Graduate Teaching Fellow, Texas A&M University.
  - Awarded IEFS scholarship, Texas A&M University.
  - Awarded full scholarship, Univ. of Tehran (UT), Dept. of Mech. Eng.
  - Awarded full scholarship, Amirkabir Univ. of Technology (AUT), Dept. of Mech. Eng.
  - Awarded the superior entrance student prize from Amirkabir Univ. of Technology.
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## PUBLICATIONS

### BOOK CHAPTERS

1) **B. Takabi**, M. Alizadeh, "[Nanofluid and Hybrid nanofluid](#)", LAP Lambert Academic Pub., 2013. (Published in English); *Germany*; ISBN-10: 3659351229; ISBN-13: 978-3659351228.

2) **B. Takabi**, M. Mahmoudi, "Advanced Fluid Mechanics" for PhD, Modarresanesharif Pub., 2013.; ISBN: 978-964-11-1206-8.

3,4) R. Hosseyni, **B. Takabi**, H. Zamaniyan, A. E. Mamaghani, A. Asa, "Mechanical Engineering: A comprehensive book", Vol 1 & 2, Azadeh Pub., 2012., (chapter book); Edited by: R. Hosseyni. ISBN: 978-964-501-625-6 & ISBN: 978-964-501-628-7.

- General Mathematics, Differential Equation, Engineering Mathematics; By: R. Hosseyni
- *Fluid Mechanics, Thermodynamics, Heat Transfer*; By: **B. Takabi**
- Statics, Strength of Materials, Machine Design; By: H. Zamaniyan
- Dynamics, Vibration, Control; By: A. E. Mamaghani
- Manufacturing and Production: A. Asa

5) M. Ekhterachiyani, **B. Takabi**, H. Zargar, A. Najafi, O. Sarbakhteh "Solution of Advanced Problems of Engineering Mathematics", Amad Pub., 2011; ISBN: 978-600-92753-3-5.

6) M. Ekhterachiyani, **B. Takabi**, H. Zargar, A. Najafi, M. Ravanbakhsh, A. Zakerifar, O. Sarbakhteh, F. Assari "Solution of Advanced Problems of General Mathematics", Amad Pub., 2012; ISBN: 978-600-92753-4-2.

### REFEREED JOURNAL PAPERS

1) **B. Takabi**, A.M. Gheitaghy, P. Tazraei, "Hybrid water-based suspension of Al<sub>2</sub>O<sub>3</sub> and Cu nanoparticles on laminar convection effectiveness", *Journal of Thermophysics and Heat Transfer (AIAA)*, *IF:0.833* (in press).

- 2) **B. Takabi**, H. Shokouhmand, "Effects of Al<sub>2</sub>O<sub>3</sub>-Cu/water hybrid nanofluid on heat transfer and flow characteristics in turbulent regime", *International Journal of Modern Physics C*; Vol. 26, No. 4 (2015) 1550047; *IF:1.125*.
- 3) P. Tazraei, A. Riasi, **B. Takabi**, "The influence of the non-Newtonian properties of blood on blood-hammer through the posterior cerebral artery", *Mathematical Biosciences*; Vol. 264, (2015), 119–127; *IF:1.303*.
- 4) **B. Takabi**, S. Salehi, "Augmentation of the Heat Transfer Performance of a Sinusoidal Corrugated Enclosure by Employing Hybrid Nanofluid", *Advances in Mechanical Engineering*, Vol. 6, 147059 (2014); *IF:0.575*.
- 5) **B. Takabi**, "Thermomechanical transient analysis of a thick-hollow FGM cylinder", *Engineering Solid Mechanics* 4 (2016) 25-32.
- 6) A.M. Gheithaghy, **B. Takabi**, M. Alizadeh, "Modeling of laser irradiation in the cornea tissue based on hyperbolic and parabolic heat equation with electrical simulation method", *International Journal of Modern Physics C*, Vol. 25, No. 9 (2014); *IF:1.125*.
- 7) M.M. Mirsayar, **B. Takabi**, "Fracture of underwater notched structures", *Engineering Solid Mechanics* 4 (2016) 43-52.

### **SELECTED CONFERENCE PAPERS**

- 1) **B. Takabi**, S. Salehi, M. H. Rahimian, "Studying the effects of employing hybrid nanofluid on heat transfer performance of a wavy cavity", 21<sup>st</sup> Annual International Conference on Mechanical Engineering (ISME2013), Tehran, Iran. 7-9 May 2013.
- 2) **B. Takabi**, F. Faraji, H. Shokouhmand, "Numerical solution of hollow FGM cylinder subjected in thermomechanical loads, 2<sup>nd</sup> International Conference on Engineering", *Technology and Management, (ICETM)*, India, Sep. 12, vol 7-8, p96-100.
- 3) F. Faraji, **B. Takabi**, H. Shokouhmand, H.N. Isfahani, "Molecular dynamic simulation for calculating the thermal conductivity of clay bricks", 2<sup>nd</sup> International Conference on Engineering, *Technology and Management, (ICETM)*, India, Sep. 12, vol 7-8, p90-95.
- 4) V. Arabi, M. Banaee, **B. Takabi** "Floating and subsea installation of an ultra-large diameter sea water intake pipe line", 15<sup>th</sup> Marine Industrial Conference, Kish Island, Iran, 29-31 Oct. 2013.
- 5) M. Gudarzi, **B. Takabi**, H. Zamaniyan, "Basic design of axial compressor due to stream lines in mean radius of the blades", 13<sup>st</sup> Conference of Mechanical Engineering, Islamic Azad Univ., Iran, 2-3 Nov. 2011.

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### **EXPERIENCES**

#### **REVIEW FOR**

- *International Journal of Hydrogen Energy*; Elsevier; *IF: 3.313*
- *Applied Thermal Engineering*; Elsevier; *IF: 2.739*
- *European Journal of Mechanics / B Fluids* Elsevier; *IF: 1.656*
- *Mathematical Biosciences*; Elsevier; *IF:1.303*
- *Engineering Applications of Computational Fluid Mechanics*-Taylor & Francis; *IF: 0.989*
- *Chemical Engineering Communications*; Taylor & Francis; *IF: 1.104*
- *Canadian Journal of Physics*, NRC Research Press, *IF:0.964*
- *Thermal Science*; Society of Thermal Engineers of Serbia, *IF: 1.222*
- *Journal of Nanofluids*; American Scientific Publishers

#### **TEACHING**

- Instructor: Power Fluid Lab, Texas A&M Univ.
- TA; Heat Transfer, Texas A&M Univ.
- Lecturer: Fluid Mechanics, Islamic Azad University.
- TA; Graduate course: Advanced Engineering Mathematics, Univ. of Tehran.

- Lecturer: Technical drawing, Islamic Azad University.
- Lecturer: Thermodynamics I, Modaresin Institute.
- TA: Strength of Materials I, Univ. of Tehran.
- Lecturer: Thermodynamics II, Modaresin Institute.
- Teacher (for exceptional talent students): Mathematics, Math Home.
- TA: Engineering Mathematics, Amirkabir Univ. of Tech.

## RESEARCH

- Research Assistant: Heat transfer enhancement by using hybrid nanofluid, Texas A&M University.
- Sub supervisor and leadership of 2 graduate and 2 undergraduate students, Heat and Fluid Flow Lab, IAU.
- Superior member: Turbulence group, Mech. Dep., IUST; Leadership of the project: Adding a non-linear model of turbulence to OpenFOAM library, comparison between this model and regular models in some basic geometries and flows, employing this model for the flow in a diffuser and analyzing it by employing OpenFOAM.

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## ADDITIONAL INFORMATION

**Hobbies:** Professional Chess, Ping-Pong, Swimming, Mountain Climbing, Teaching, Music (Pop & Light), Chiaroscuro drawing, Reading book (Science fiction), Photography.

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## REFERENCES

- 1) Dr. J. Alvarado, Assoc. Prof., Mech. Eng. Dep., Texas A&M Univ., *jorge.alvarado@tamu.edu*
- 2) Dr A. Beheshti, Asst. Prof., Mech. Eng. Dep., Texas A&M Univ., *abeheshti@tamu.edu*
- 3) Dr. R. Handler, Research Prof., Mech. Eng. Dep., Texas A&M Univ.; *rhandler@tamu.edu*
- 4) Dr. Y. Alizadeh Vaghasloo, Assoc. Prof., Mech. Eng. Dep., Amirkabir Univ. of Technology; *alizadeh@aut.ac.ir*
- 5) Dr. M. Gudarzi, Asst. Prof., School of Mech. Eng., Islamic Azad univ.; *gudarzi@iust.ac.ir*
- 6) Dr. H. Baghani, Asst. Prof., School of Math., Univ. of Sistan and Baluchestan; *h.baghani@math.usb.ac.ir*
- 7) Dr. M. H. Rahimian, Assoc. Prof., Mech. Eng. Dep., Univ. of Tehran; *rahimyan@ut.ac.ir*
- 8) Dr. V. Arabi, Founder&Deputy Chairman of Delta Offshore Technology Co.; *v.arabi@deltaoffshoregroup.com*