Mojtaba Baghban

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EDUCATIONS

- 2010 - 2015: Ph.D., Department of Mechanical Engineering, Ferdowsi university of Mashhad, Mashhad, Iran.
  Thesis: Inverse analysis of bioheat transfer problem in general coordinates.(20/20)

- 2007 - 2010: M.Sc., Department of Mechanical Engineering, K. N. Toosi University of Technology, Tehran, Iran.
  Thesis: Inverse radiation-conduction problem using a combined method of genetic algorithm and conjugate gradient. (19/20)

- 2003 - 2007: B.Sc., Department of Mechanical Engineering, Kerman University, Kerman, Iran.
  Thesis: Simulation of ejector refrigeration cycle. (19.50/20)

Honours and Awards

- "**Best Ph.D. Thesis**" in Department of Mechanical Engineering, Ferdowsi university of Mashhad.
- **Ranked 1st** among Ph.D. candidates at the Department of Mechanical Engineering, Ferdowsi university of Mashhad. (period: 2010 - 2015).
- **Ranked 2nd** among M.Sc. students at the Mechanical Engineering Department, K. N. Toosi University of Technology (period: 2007 - 2010).
- **Ranked 2nd** among B.Sc. students at the Mechanical Engineering Department, Kerman University (period: 2003 - 2007).
- Member of Iran's National Elites Foundation.

Academic Experiences

2010-2015: Lecturer, Department of Mechanical Eng., Ferdowsi University of Mashhad.
2015-2017: Lecturer, Department of Mechanical Eng., University of Birjand.
2018-Now: Assistant Professor, Department of Mechanical Eng., Gonabad University.

Interests and research

Heat Transfer, Solar Energy, Inverse Analysis.

PEER-REVIEWED JOURNAL PAPERS

- **M. Baghban**, Z. Shams, Estimation of boundary heat flux in an inverse hyperbolic heat conduction problem with temperature-dependent thermal conductivity, Heat Transfer Research, 2018.
- **M. Baghban**, M. B. Ayani, Heat flux estimation in a nonlinear heat conduction problem with a dual-phase-lag model, Journal of Thermophysics and Heat Transfer, 2017.

- **M. Baghban**, M. B. Ayani, Estimation of surface heat flux in a one-dimensional hyperbolic bio-heat conduction problem with temperature-dependent properties during thermal therapy, Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2017.
- **M. Baghban**, Z. Shams, Inverse Analysis of a Porous Fin to Estimate Time-Dependent Base Temperature, Journal of Thermophysics and Heat Transfer, 2017.
- **M. Baghban**, M. B. Ayani, Source term prediction in a multilayer tissue during hyperthermia, Journal of Thermal Biology, 2015.
- **M. Baghban**, M. B. Ayani, Simultaneous estimation of controllable parameters in a living tissue during thermal therapy, Journal of Thermal Biology, 2015.
- **M. Baghban**, S. H. Mansouri, Z. Shams, Inverse radiation-conduction estimation of temperature-dependent emissivity using a combined method of genetic algorithm and conjugate gradient, Journal of Mechanical Science and Technology, 2014.
- **M. Baghban**, M. B. Ayani, Estimation of Time-dependent Surface Heat Flux in a Nonlinear Inverse Bio-heat Transfer Problem, Journal of Mechanical Engineering, 2018.
- **M. Baghban**, S. Aghanajafi, S. H. Mansouri, An inverse radiation-conduction problem of estimating temperature-dependent absorption coefficient using a combined method of genetic algorithm and conjugate gradient method, 2018.

PEER-REVIEWED CONFERENCE PAPERS

- **M. Baghban**, M. Ameri, Comparative study of the performance of an ejector refrigeration cycle operation with R134a and R152a refrigerats, , 16th International Conference of Mechanical, 2008.
- **M. Baghban**, Z. Shams, M. Shams, The effect of geometry on the two-phase ejector performance, 12th Fluid dynamic conference, 2009.
- **M. Baghban**, Z. Shams, M. Ameri, Comparative study on the ejector performance, 17th International Conference of Mechanical, 2009.
- **M. Baghban**, Z. Shams, S. H. Mansouri, Effect of particle size distribution on the effective thermal conductivity of nanofluids, 13th Fluid dynamic conference, 2010.
- **M. Baghban**, M. B. Ayani, An inverse radiation-conduction problem using a combined method of genetic algorithm and conjugate gradient method, 19th International Conference of Mechanical, 2011.
- **M. Baghban**, M. B. Ayani, An inverse radiation-conduction problem of estimating temperature-dependent emissivity using a combined method of genetic algorithm and conjugate gradient method, 1st Iranian Thermal Science, 2011.

Book

- Combustion in Ansys Fluent, Arya Danesh Publication, 2019.

Invention

- Automatic shower with the ability to return cold water to the heater.

Supervision of M. Sc. Thesis

- Experimental study on the performance of solar chimney.
- Feasibility study and CFD analysis on the solar chimney located in Ferdows.
- Experimental investigation on the effect of fin on the efficiency of solar collector.
- Experimental study of the solar distillation system.
- Numerical and experimental study on optimization of the paint baking process.
- The effect of a pressure reduction on the entropy generation of intercity pressure reduction stations and natural gas distribution network.

Computer Skills

- Softwares : Fluent, Solidworks, Pv syst., MATLAB, Fortran