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Faculty : Engineering

Departments : Mechanical Engineering

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Education

- B.Sc, Mechanical Engineering - Mechanics in Heat and Flu,Isfahan University of Technology - 1985
- MS, Mechanical Engineering-Thermo Fluids,Ferdowsi University of Mashhad - 1989
- PhD, Mechanical Engineering-Thermo Fluids,Isfahan University of Technology - 2001

Courses

1. Advanced Fluid Mechanics
2. Technical English
3. Continuum Mechanics 1
4. Fluid Mechanics 1
5. Selected Topics in Fluids
6. Selected Topics in Heat transfer

Master Thesis

Journals Papers

2022

1. Multi-objective optimization to minimize pumping power and flow non-uniformity at the outlets of a distributor manifold using CFD simulations and ANN rapid predictions

, Alireza Hossein Nezhad Devin

Measurement: Journal of the International Measurement Confederation Volume: (188) 110566-1 - 11056-13

2021

2. Investigating the effects of integrating an absorption heat transformer with a combined cooling, heating and power system: A thermodynamic and economic analysis

Saman Khalilzadeh, Alireza Hossein Nezhad Devin, Alessandro Romagnoli, Bakytzhan Akhmetov

ENERGY CONVERSION AND MANAGEMENT Volume: (228) 113677 -1 - 113677 -2

3. A competitive study on different operational models for MHD flow balancing and thermal management inside a fusion blanket manifold

, Alireza Hossein Nezhad Devin

European Physical Journal Plus Volume: (136) 1 - 14

4. Numerical investigation of a vertical finned-tube and shell energy storage system using coupled boundary condition

Mansoor Shademan, Alireza Hossein Nezhad Devin

Journal of Energy Storage Volume: (41) 1-102831 - 16-102831

2020

5. Numerical Investigation of the Effects of Fin Pitch, Transverse, and Longitudinal Pitchs and their Numbers in a Plate-Fin Flat-Tube Heat Exchanger

, Alireza Hossein Nezhad Devin

Volume: (20) 342 - 352

6. High temperature nanofluids based on therminol 66 for improving the heat exchangers power in gas refineries

Abbas Safaei, Alireza Hossein Nezhad Devin, Alimorad Rashidi

APPLIED THERMAL ENGINEERING Volume: (170) 114991-1 - 114991-11

7. Using waste heat of high capacity wind turbines in a novel combined heating, cooling, and power system

Saman Khalilzadeh, Alireza Hossein Nezhad Devin

JOURNAL OF CLEANER PRODUCTION Volume: (276) 123221-1 - 123221-18

2019

8. Laminar ferrofluid heat transfer in presence of non-uniform magnetic field in a channel with sinusoidal wall A numerical study

, Alireza Hossein Nezhad Devin, Faramarz Sarhaddi, Tahere Keikha

JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS Volume: (471) 56 - 63

9. Molecular Dynamics Simulation of the Nanofluidic Energy Absorption System Under Mid-speed Loading

Sayed Hossein Ganjiani, Alireza Hossein Nezhad Devin

Iranian Journal of Science and Technology-Transactions of Mechanical Engineering Volume: (43) 1005 - 1011

10. Reducing the power consumption of cascade refrigeration cycle by a new integrated system using solar energy

Saman Khalilzadeh, Alireza Hossein Nezhad Devin, Faramarz Sarhaddi

ENERGY CONVERSION AND MANAGEMENT Volume: (200) 112083 -

2018

11. Utilization of waste heat of a high-capacity wind turbine in multi effect distillation desalination Energy exergy and thermoeconomic analysis

Saman Khalilzadeh, Alireza Hossein Nezhad Devin

DESALINATION Volume: (439) 119 - 137

12. Application of Various Electromagnetic Coupling Modes for the Better MHD Flow Distribution and Thermal Management Within a Liquid Metal Manifold

, Alireza Hossein Nezhad Devin

International Journal of Applied Mechanics Volume: (10) 1850052 -

13. Molecular dynamics simulation of a nanofluidic energy absorption system effects of the chiral vector of carbon nanotubes

Sayed Hossein Ganjiani, Alireza Hossein Nezhad Devin

PHYSICAL CHEMISTRY CHEMICAL PHYSICS Volume: (20) 5140 - 5148

2017

14. INVESTIGATION OF MAGNETOHYDRODYNAMICS FLOW AND HEAT TRANSFER IN THE PRESENCE OF A CONFINED SQUARE CYLINDER USING SM82 EQUATIONS

, Alireza Hossein Nezhad Devin

Thermal Science Volume: (21) 889 - 899

15. Experimental and numerical study of ventilated supercavitation around a cone cavitator

, Said Farahat, , , Alireza Hossein Nezhad Devin

HEAT AND MASS TRANSFER Volume: (53) 1491 - 1502

2016

16. Molecular dynamics simulation of the effects of the carbon nanotube length on the nanofluidic energy absorption system

Sayed Hossein Ganjiani, Alireza Hossein Nezhad Devin

Volume: (16) 359 - 365

17. -

, Alireza Hossein Nezhad Devin, Said Farahat

Volume: (3) 22 - 35

18. ENTROPY GENERATION CASE STUDIES OF TWO-IMMISCIBLE FLUIDS UNDER THE INFLUENCE OF A UNIFORM MAGNETIC FIELD IN AN INCLIND CHANNEL

Alireza Hossein Nezhad Devin,

JOURNAL OF MECHANICS Volume: (32) 749 - 757

19. Optimization of fuel consumption and emissions in diesel engines by using of artificial neural network and ant colony algorithm with intake VVT and fuel injection approach

, Alireza Hossein Nezhad Devin, Said Farahat

Volume: (43) 13 - 30

20. A NEW APPROACH FOR THE ANALYSIS OF THE NANOPARTICLES EFFECTS ON Cu-WATER NANOFLUID MIXED CONVECTION HEAT TRANSFER AND REQUIRED POWER IN A LID-DRIVEN CAVITY

Alireza Hossein Nezhad Devin, Mostafa Valizade ardalan

Thermal Science Volume: (20) 405 - 414

21. Molecular Dynamics Simulation of the Eects of the CarbonWater Interaction Parameters on the Nanouidic Energy Absorption System

, Alireza Hossein Nezhad Devin

Journal of Physical Chemistry C Volume: (120) 11864 - 11870

22. AN EXPERIMENTAL AND NUMERICAL STUDY OF SUPERCAVITATING FLOWS AROUND AXISYMMETRIC CAVITATORS

, Said Farahat, , , Alireza Hossein Nezhad Devin

Journal of Theoretical and Applied Mechanics Volume: (54) 795 - 810

23. Analysis of the Characteristics, Physical Concepts and Entropy Generation in a Turbulent Channel Flow Using Vortex Blob Method

, , Alireza Hossein Nezhad Devin

International Journal of Engineering, Transactions A: Basics Volume: (29) 1 - 11

24. Reduction of Pollutant Emissions by Developing a Variable Valve Timing System in a Direct Injection Diesel Engine Using Computational Fluid Dynamics Modeling

, Alireza Hossein Nezhad Devin, Said Farahat

ENVIRONMENTAL PROGRESS Volume: (35) 1430 - 1440

2015

25. Experimental and Numerical Investigation of Parameters of Ventilated Super-Cavitation around 30-Degree Conical Cavitator

, Said Farahat, , , Alireza Hossein Nezhad Devin

Volume: (5) 303 - 314

26. Quasi-two-dimensional case studies of MHD flow and heat transfer behind a square cylinder in a duct

, Alireza Hossein Nezhad Devin

INTERNATIONAL JOURNAL OF APPLIED ELECTROMAGNETICS AND MECHANICS Volume: () 123 - 132

27. Simulation of copper–water nanofluid in a microchannel in slip flow regime using the lattice Boltzmann method

, Alireza Hossein Nezhad Devin, , , ,

EUROPEAN JOURNAL OF MECHANICS B-FLUIDS Volume: () 89 - 99

28. EFFECTS OF BLOCKAGE RATIO AND PRANDTL NUMBER ON STEADY FLOW AND HEAT TRANSFER AROUND AN INCLINED SQUARE CYLINDER.

, Alireza Hossein Nezhad Devin, Amin Behzadmehr

HEAT TRANSFER RESEARCH Volume: (46) 541 - 562

2014

29. Simulation of copper water nanofluid in a microchannel in slip flow regime using the lattice Boltzmann method

Arash Karimipour, Alireza Hossein Nezhad Devin, , , ,

EUROPEAN JOURNAL OF MECHANICS B-FLUIDS Volume: (49) 89 - 99

30. NUMERICAL SIMULATION OF ELECTRICALLY CONDUCTING FLUID FLOW AND FREE CONVECTIVE HEAT TRANSFER IN AN ANNULUS

, Said Farahat, Alireza Hossein Nezhad Devin, , Faramarz Sarhaddi

Heat Transfer Research Volume: (45) 749 - 766

31. Multi-objective optimization of natural convection in a cylindrical annulus mold under magnetic field using particle swarm algorithm

, Said Farahat, Alireza Hossein Nezhad Devin, Ghanbar Ali Sheikhzadeh, Faramarz Sarhaddi, Somchai Wo

INTERNATIONAL COMMUNICATIONS IN HEAT AND MASS TRANSFER Volume: (1) 1 - 8

32. Effect of blade type on a 3D FC centrifugal fan

, Alireza Hossein Nezhad Devin, Hossein AJAM

Journal of the Serbian Society for Computational Mechanics Volume: (8) 23 - 35

33. Numerical simulation of electrically conducting fluid flow and free convective heat transfer in an annulus on applying a magnetic field

, Said Farahat, Alireza Hossein Nezhad Devin, , Faramarz Sarhaddi

HEAT TRANSFER RESEARCH Volume: () 749 - 766

34. 3D numerical investigation of natural convection in a tilted cylindrical annulus containing molten potassium and controlling it using various magnetic fields

, Said Farahat, Alireza Hossein Nezhad Devin, , Faramarz Sarhaddi

INTERNATIONAL JOURNAL OF APPLIED ELECTROMAGNETICS AND MECHANICS Volume: () 809 - 821

35. NUMERICAL SIMULATION OF ELECTRICALLY CONDUCTING FLUID FLOW AND FREE CONVECTIVE HEAT TRANSFER IN AN ANNULUS ON APPLYING A MAGNETIC FIELD

, Said Farahat, Alireza Hossein Nezhad Devin, , Faramarz Sarhaddi

HEAT TRANSFER RESEARCH Volume: (45) 749 - 766

2013

36. The effects of inclination angle and Prandtl number on the mixed convection in the inclined lid driven cavity using lattice Boltzmann method

, Alireza Hossein Nezhad Devin, Annunziata D Orazio, Ebrahim Shirani

JOURNAL OF THEORETICAL AND APPLIED MECHANICS Volume: (51) 447 - 462

37. Investigation of The Effects of Twist Ratio on Heat Transfer And The Required Power of The Pump For A Flow In A Round Pipe With A twisted Tape

Mahmoud Pourrajabi sadat mahalleh, Alireza Hossein Nezhad Devin, Mohammad Reza Pourrajabi

AMERICAN JOURNAL OF ADVANCED SCIENTIFIC RESEARCH (AJASR) Volume: (1) 418 - 426

38. THE EFFECTS OF INCLINATION ANGLE AND PRANDTL NUMBER ON THE MIXED CONVECTION IN THE INCLINED LID DRIVEN CAVITYUSING LATTICE BOLTZMANN METHOD

, Alireza Hossein Nezhad Devin, ,

Journal of Theoretical and Applied Mechanics Volume: () 447 - 462

2012

39. Numerical Investigation of the Effects of the Wall Porosity on the Hemodynamic Parameters of a Stenosed Carotid Artery under Pulsatile Blood Flow Conditions with a two-layer Flexible Wall

, Alireza Hossein Nezhad Devin, ,

AAPG BULLETIN Volume: (6) 71 - 79

2011

40. Analysis for the Different Schemes of the Muskingum-Cunge Method in the Natural Waterways

, , Alireza Hossein Nezhad Devin

Volume: (7) 62 - 74

41. Numerical study of two phase laminar mixed convection nanofluid in elliptic ducts

, Alireza Hossein Nezhad Devin, Amin Behzadmehr

APPLIED THERMAL ENGINEERING Volume: (255) 2149 - 2160

42. Effects of inclination angle on the steady flow and heat transfer of power-law fluids around a heated inclined square cylinder in a plane channel

, Alireza Hossein Nezhad Devin, Amin Behzadmehr

JOURNAL OF NON-NEWTONIAN FLUID MECHANICS Volume: (31) 2348 - 2356

43. Periodic mixed convection of a nanofluid in a cavity with top lid sinusoidal motion

, Alireza Hossein Nezhad Devin, Amin Behzadmehr,

PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE Volume: (225) 2149 - 2160

2010

44. Numerical analysis of the effects of nozzles number on the flow and power of cooling of a vortex tube

, Alireza Hossein Nezhad Devin

INTERNATIONAL JOURNAL OF REFRIGERATION-REVUE INTERNATIONALE DU FROID Volume: () 774 - 782

2009

45. NUMERICAL THREE-DIMENSIONAL ANALYSIS OF THE MECHANISM OF FLOW AND HEAT TRANSFER IN A VORTEX TUBE

Alireza Hossein Nezhad Devin,

INTERNATIONAL JOURNAL OF THERMAL SCIENCES Volume: (13) 183 - 196

Conferences Papers

2021

1. Numerical study of the effects of velocity and temperature in a vertical shell and tube energy storage system in a discharging process

5th International Conference On Mechanical Engineering, Materials and Metallurgy

Mansoor Shademan, Alireza Hossein Nezhad Devin

2019

2. Numerical study of a PCM finned-tube and shell LHTES: effects of HTF temperature and velocity

27th Annual International Conference on Mechanical Engineering, 7th Conference On Thermal Power Plants

Mansoor Shademan, Alireza Hossein Nezhad Devin

2010

3. Numerical study of laminar forced convection of a nanofluid in an elliptical horizontal pipe

18th Annual International Conference on Mechanical Engineering-ISME2010

Alireza Hossein Nezhad Devin

2009

4. Computation of first order hydrodynamic loads on a large cylinder in the sea due to combined wave and current using higher order boundary element method

ICHEC 2009

Alireza Hossein Nezhad Devin, ,

2008

5. Mixed convection in inclined driven cavity with hot moving lid

16th Annual (International) Conference on Mechanical Engineering ISME2008

, Behzad Ghasemi, Alireza Hossein Nezhad Devin

6. BEST FITTING PARAMETERS IN RIVER- RESERVOIR SYSTEM

IWRM2008

, Alireza Hossein Nezhad Devin

7. Flooding prediction in natural rivers by numerical characteristics solution

4th National Congress on Civil Engineering Faculty of Civil Engineering

Alireza Hossein Nezhad Devin,

8. ROUTING SEDIMENTS OF SARAVAN-KAJOO FLOODING

, Alireza Hossein Nezhad Devin,

9. Numerical simulation of unsteady mixed convection in a driven cavity using

2nd international congress on nanoscience and nanotechnology 2008 tabriz

, Alireza Hossein Nezhad Devin, Amin Behzadmehr, ,

10. Numerical simulation of unsteady mixed convection in a driven cavity using an externally excited sliding side wall utilizing nanofluids

2 ht international congress on nanoscience and nanotechnology

, Alireza Hossein Nezhad Devin, Amin Behzadmehr, ,

11. Best Fitting Parameters in a River-Reservoir System

IWRM2008

, Alireza Hossein Nezhad Devin

2004

12. Inverse Heat Source Design Radiation Problem in Two-Dimensional Participating Media

Alireza Hossein Nezhad Devin,

Research Project

2002

1. The study of nonlinear effects of water wave on a large horizontal cylinder in the sea using an imp

Alireza Hossein Nezhad Devin - 2002