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h-index (Scopus):

30

Citations (Scopus):

1890

Supervised MSc Theses

#	Thesis title	By	Date
1	Investigation of electrode arrangements on heat transfer enhancement in the presence of electric field	Mehras Amirhakimi & Mohammadreza Hajmohammadi	October 2021
2	Study of arrangement of vortex generators on heat transfer enhancement in a two dimensional channel using lattice Boltzmann method	Saba Mirahsani & Mohammadreza Hajmohammadi	September 2021
3	Optimal design of non-uniform tree-shaped highly conductive pathways embedded in a heat generating piece	Javad Najafian & Mohammadreza Hajmohammadi	April 2021
4	Three-dimensional optimum design of highly thermal conductive pathways embedded in a heat generating medium	Romina Kabiri Khalajzadeh & Mohammadreza Hajmohammadi	April 2021
5	optimal design of wavy microchannel heatsinks cooled with a fluid containing encapsulated phase-change materials	Hadi Nemati Moghaddam & Mohammadreza Hajmohammadi	January 2021
6	The geometric and structural design of the three-dimensional air ducts for cooling the C3X blades	Erfan Hasan Pour & Mohammadreza Hajmohammadi	October 2020
7	The effect of cross-section geometry on thermal performance of microchannel heat sinks	Sayed Moein Ayatollahi & Mohammadreza Hajmohammadi	July 2020

8	Numerical investigation of pressure drop and heat Transfer for laminar force convection of a non-Newtonian nanofluids in microchannel with different cross sections	Aminreza Ramezan & Mohammadreza Hajmohammadi	September 2019
9	Optimal design of micro-channel heat sink under the effect of magnetic field	Sepehr Gholamrezaie & Mohammadreza Hajmohammadi	July 2019
10	Conjugate heat transfer by the forced convection flow of a nanofluid over a heat conducting finite thickness plate	Erfan Mohkamkar & Mohammadreza Hajmohammadi	July 2019
11	Cooling performance enhancement of microchannel heat sinks using a nanofluid with non-Newtonian viscosity	Ali Sarlak & Mohammadreza Hajmohammadi	October 2018
12	Geometric optimization of highly conductive inserts embedded in a fin	Mohammad Ahmadian Elmi & Mohammadreza Hajmohammadi	October 2018
13	Heat transfer investigation of the hybrid rectangular-circular coil using Nano-fluid	Seyedeh Kiana Naghib Zadeh & Mohammadreza Hajmohammadi	September 2018
14	Performance Analysis of Solar Absorption Cooling System Comparison between Najaf and Tehran	Ghaith Yahya Ahmed Abusaibaa & Mohammadreza Hajmohammadi	March 2018









Journal Papers

Portal Records

- Hasan Parsa, Majid Saffar-Avval, Mohammadreza Hajmohammadi, "3D simulation and parametric optimization of a solar air heater with a novel staggered cuboid baffles", INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES, June 2021 Vol. 205, Num. 0, Page 106607-106623, June 2021,
- Mohammadreza Hajmohammadi, Mohammad Bahrami, Mohammad Ahmadian Elmi, "Thermal performance improvement of microchannel heat sinks by utilizing variable cross-section microchannels filled with porous media", INTERNATIONAL COMMUNICATIONS IN HEAT AND MASS TRANSFER, May 2021 Vol. 126, Num. 0, Page 105360-105374, May 2021,
- Sayed Moein Ayatollahi, Ali Ahmadpour, Mohammadreza Hajmohammadi, "Performance evaluation and optimization of flattened microchannel heat sinks for the electronic cooling application", JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY, April 2021 Vol. 0, Num. 0, Page 1-15, April 2021,
- Mohammad Ahmadian Elmi, Mohammad Mohammadifar, Erfan Rasouli, Mohammadreza Hajmohammadi, "Optimal design and placement of heat sink elements attached on a cylindrical heat-generating body for maximum cooling performance", THERMOCHIMICA ACTA, April 2021 Vol. 700, Num. 0, Page 178941-178950, April 2021,
- Mohammadreza Hajmohammadi, Ali Doustahadi, Mohammad Ahmadian Elmi, "Heat transfer enhancement by a circumferentially non-uniform array of longitudinal fins assembled inside a circular channel", INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER, July 2020 Vol. 158, Num. 0, Page 120020-120027, July 2020,
- Mohammadreza Hajmohammadi, Mohammad Mohammadifar, Mohammad Ahmadian Elmi, "Optimal placement and sizing of heat sink attachments on a heat-generating piece for minimization of peak temperature", THERMOCHIMICA ACTA, July 2020 Vol. 689, Num. 0, Page 178645-178653, July 2020,
- Mohammadreza Hajmohammadi, Sepehr Gholamrezaie, Ali Ahmadpour, Zohreh Mansoori, "Effects of applying uniform and non-uniform external magnetic fields on the optimal design of microchannel heat sinks", INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES, June 2020 Vol. 186, Num. 0, Page 105886-105897, June 2020,

- 8 Mohammad Reza Daneshvar Garmroodi, Ali Ahmadpour, Mohammadreza Hajmohammadi, Sepehr Gholamrezaie, "Natural convection of a non-Newtonian ferrofluid in a porous elliptical enclosure in the presence of a non-uniform magnetic field", JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY, November 2019 Vol. 0, Num. 0, Page 1-17, November 2019,
- 9 Mohammadreza Hajmohammadi, Erfan Rasouli, Mohammad Ahmadian Elmi, "Geometric optimization of a highly conductive insert intruding an annular fin", INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER, October 2019 Vol. 146, Num. 0, Page 118910-118918, October 2019,
- 10 Mohammadreza Hajmohammadi, Hasan Parsa, Javad Najafian, "Proposing an optimal tree-like design of highly conductive material configuration with unequal branches for maximum cooling a heat generating piece", INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER, July 2019 Vol. 142, Num. 0, Page 118422-118422, July 2019,
- 11 Seyedeh Kiana Naghib Zadeh, Mohammadreza Hajmohammadi, Majid Saffar-Avval, "Heat transfer enhancement of a nanofluid in a helical coil with flattened cross-section", CHEMICAL ENGINEERING RESEARCH & DESIGN, April 2019 Vol. 146, Num. 0, Page 36-47, April 2019,
- 12 Mohammad Ahmadian Elmi, Mohammadreza Hajmohammadi, S.Salman Nourazar Khoshknab, "Geometric optimization of highly conductive inserts with variable thickness embedded in a fin", February 2019 Vol. 50, Num. 4, Page 525-532, February 2019,
- 13 Mohammadreza Hajmohammadi, Mohammad Hossein Haji Mollaali Tork, "Effects of the magnetic field on the cylindrical Couette flow and heat transfer of a nanofluid", PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS, February 2019 Vol. 523, Num. 0, Page 234-245, February 2019,
- 14 Mohammadreza Hajmohammadi, Seyed Emad Rezaei Taleshi, "Proposing a new algorithm for the optimization of conduction pathways based on a recursive localization", APPLIED THERMAL ENGINEERING, January 2019 Vol. 151, Num. 0, Page 146-153, January 2019,
- 15 Ali Sarlak, Ali Ahmadpour, Mohammadreza Hajmohammadi, "Thermal design improvement of a double-layered microchannel heat sink by using multi-walled carbon nanotube (MWCNT) nanofluids with non-Newtonian viscosity", APPLIED THERMAL ENGINEERING, October 2018 Vol. 147, Num. 0, Page 205-215, October 2018,
- 16 Mohammadreza Hajmohammadi, Mohammad Ahmadian Elmi, S.Salman Nourazar Khoshknab, "Introducing highly conductive materials into a fin for heat transfer enhancement", INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES, October 2018 Vol. 150, Num. 0, Page 420-426, October 2018,
- 17 Mohammadreza Hajmohammadi, Pedram Ali Pour, Hasan Parsa, "Microfluidic effects on the heat transfer enhancement and optimal design of microchannels heat sinks", INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER, July 2018 Vol. 126, Num. 0, Page 808-815, July 2018,
- 18 Mohammadreza Hajmohammadi, Iman Toghraei, "Optimal design and thermal performance improvement of a double-layered microchannel heat sink by introducing Al₂O₃ nano-particles into the water", PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS, April 2018 Vol. 505, Num. 0, Page 328-344, April 2018,
- 19 Mohammadreza Hajmohammadi, "Design and analysis of multi-scale annular fins attached to a pin fin", INTERNATIONAL JOURNAL OF REFRIGERATION-REVUE INTERNATIONALE DU FROID, December 2017 Vol. 88, Num. 0, Page 16-23, December 2017,
- 20 Mohammadreza Hajmohammadi, "Optimal design of tree-shaped inverted fins", INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER, October 2017 Vol. 116, Num. 0, Page 1352-1360, October 2017,
- 21 Mohammadreza Hajmohammadi, Pedram Aghajannezhad, S.S. Abolhassani, M. Parsaee, "An integrated system of zinc oxide solar panels, fuel cells, and hydrogen storage for heating and cooling applications", INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, August 2017 Vol. 42, Num. 31, Page 19683-19694, August 2017,
- 22 Mohammadreza Hajmohammadi, "Introducing a Psi-shaped cavity for cooling a heat generating medium", INTERNATIONAL JOURNAL OF THERMAL SCIENCES, August 2017 Vol. 121, Num. 0, Page 204-212, August 2017,
- 23 Mohammadreza Hajmohammadi, "Cylindrical Couette flow and heat transfer properties of nanofluids; single-phase and two-phase analyses", JOURNAL OF MOLECULAR LIQUIDS, May 2017 Vol. 240, Num. 0, Page 45-55, May 2017,
- 24 Mohammadreza Hajmohammadi, "Assessment of a lubricant based nanofluid application in a rotary system", ENERGY CONVERSION AND MANAGEMENT, May 2017 Vol. 146, Num. 0, Page 78-86, May 2017,

Taught Courses

#	Course title	Description	Headlines	Date
1	Heat Transfer (I)	To internalize the meaning of the terminology and physical principles associated with heat transfer, To delineate pertinent transport phenomena for any process or system involving heat transfer, To use requisite inputs for computing heat transfer rat		Fall 2021
2	Heat Transfer	To internalize the meaning of the terminology and physical principles associated with heat transfer, To delineate pertinent transport phenomena for any process or system involving heat transfer, To use requisite inputs for computing heat transfer rat		Fall 2021
3	Advanced Heat Transfer (Conduction)	Formulation and derivation of the governing equations in heat conduction Mathematical modeling of the systems arising in heat conduction Mathematical solution of the governing equations in heat conduction		Fall 2021
4	Heat Transfer (I)	To internalize the meaning of the terminology and physical principles associated with heat transfer, To delineate pertinent transport phenomena for any process or system involving heat transfer, To use requisite inputs for computing heat transfer rat		Spring 2021
5	Advanced Heat Transfer (Conduction)	Formulation and derivation of the governing equations in heat conduction Mathematical modeling of the systems arising in heat conduction Mathematical solution of the governing equations in heat conduction		Spring 2021
6	Heat Transfer (I)	To internalize the meaning of the terminology and physical principles associated with heat transfer, To delineate pertinent transport phenomena for any process or system involving heat transfer, To use requisite inputs for computing heat transfer rat		Fall 2020
7	Heat Transfer	To internalize the meaning of the terminology and physical principles associated with heat transfer, To delineate pertinent transport phenomena for any process or system involving heat transfer, To use requisite inputs for computing heat transfer rat		Fall 2020
8	Advanced Heat Transfer (Conduction)	Formulation and derivation of the governing equations in heat conduction Mathematical modeling of the systems arising in heat conduction Mathematical solution of the governing equations in heat conduction		Fall 2020