**ACADEMIC PROFILE**

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| **1.** | **Name** | **Dr. N. Gnanasekaran** |
|  | **Full correspondence address** | Assistant Professor, Department of Mechanical Engineering, National Institute of Technology Karnataka, Srinivasnagar, Surathkal, Mangalore – 575025, Karnataka, India. |
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|  | **Contact number** | +919940871337 |
|  | **Scopus id & Google scholar id** | <https://www.scopus.com/authid/detail.uri?authorId=36155128300> https://scholar.google.co.in/citations?user=id-23GEAAAAJ&hl=en |

1. **Academic Qualification (Undergraduate onwards):**
   1. **Academic record:**

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| **Specialization / Discipline** | **College/University/Institute** | **Year of joining** | **Year of leaving** | **Percentage/ CGPA** |
| B.E (Mechanical) | Bharathidasan University | 1998 | 2002 | 72.0% |
| M.E (Thermal  Engineering) | Government College of  Technology, Coimbatore | 2004 | 2006 | 79.9%  (Distinction) |
| PhD., (Heat Transfer) | IIT Madras | 2008 | 2012 | 8.5 CGPA |
| TWAS-CNPQ  Postdoctoral fellowship | Federal University of Rio  de Janeiro, Brazil | 2016 | 2017 | - |

1. **Ph.D thesis information:**

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| **Title** | A Bayesian Approach for Multi-parameter  Estimation using Heat Transfer Experiments |
| **Guide’s Name** | Prof. C Balaji, IIT Madras |
| **Institute/Organization/University** | Indian Institute of Technology Madras, Chennai |
| **Year of award** | 2012 |

1. **Work Experience (in chronological order)**

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| **Sl.**  **No.** | **Position** | **Organization/Institution** | **Date of joining** | **Date of leaving** | **Pay scale** |
| 1. | Lecturer | SASTRA University | 28/06/2006 | 17/12/2007 | Rs. 18000/-  (consolidate pay) |
| 2. | Senior Project  Officer | Centre for industrial consultancy and sponsored research, IIT  Madras | 21/12/2011 | 31/03/2012 | Rs. 24000/-  (consolidate pay) |
| 3. | Associate  Professor | SSN College of Engineering,  Chennai | 14/07/2012 | 12/08/2013 | Rs.15600 -39100+  AGP 8000 |
| 4. | Assistant  Professor | National Institute of  Technology Karnataka, Surathkal | 21/08/2013 | Till now | AGP 8000 |

1. **Sanctioned Project from various funding agencies:**

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| **S. No** | **Project Title** | **Funding agency** | **Amount** |
| 1. | Analytical and numerical investigations of mixed convection through wire mesh porous structure filled in a channel | SERB (2019-2022)  PI | Rs. 21,74,500/- |
| 2. | Design of concentrated solar receiver tube using inverse thermo-elastic analysis for improved efficiency and safe operation of solar power plants | SERB-CRG (2023-2026)  Co-PI | Rs. 26,05,900/- |
| 3. | 3D PIV Set up | MHRD | Rs. 3.8 Crore |

# Patent:

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| 1. | A Portable Household Micro Bio-Diesel Reactor | Filed in 2022 |

# Professional Training Received:

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| **Sl.**  **No.** | **Name of Training** | **Organization where training**  **was received** | **Year** | **Duration** |
| 1. | Faculty Development Training  Programme on “Advanced IC Engines” | Anna University, Chennai | 2012 | 8 days |
| 2. | Short Term Course on “Research  Topics in Fluid Dynamics” | IIT Madras | 2012 | 6 days |
| 3. | International Symposium on “Micro/Nano Scale Heat Transfer” | PES Institute of Technology,  Bangalore | 2013 | 2 Days |
| 4. | Certificate Programme “E-Foundry:  Casting Design and Simulation” | IIT Madras | 2013 | 2 days |
| 5. | One day workshop on “Workplace  Sensitization” | NITK | 2013 | 1 day |
| 6. | Evolutionary computing and  biologically inspired algorithms using MATLAB | PSG College of  Technology, Coimbatore | 2016 | 2 days |
| 7. | One day workshop on statistical learning | PSG College of Technology,  Coimbatore | 2016 | 1 day |
| 8. | Mini course on computational  methods in applied inverse problems | IMPA, Brazil | 2017 | 4 days |
| 9. | Mini course on iterative  regularization methods for parameter identification | IMPA, Brazil | 2017 | 3 days |
| 10. | Mini course on solution of Inverse problems within the Bayesian  framework of statistics | IMPA, Brazil | 2017 | 3 days |
| 11. | Mini course on Kalman filters | IMPA, Brazil | 2017 | 3 days |
| 12. | Mini course on Approximate  Bayesian Computation | IMPA, Brazil | 2017 | 3 days |
| 13. | TEQIP-III Sponsored One Week Short Term Training Program On Advanced Engineering Optimization  through Intelligent Techniques | SVNIT, Surat | 2019 | One week |

1. **Awards and Distinctions**
2. **Best Paper award** entitled "Surrogate forward model using Artificial Neural Networks in conjunction with Bayesian computations for 3D conduction convection heat transfer problem." , SoCProS 2019 conference, Vellore Institute of Technology, Tamil Nadu.
3. **Best Paper award** entitled "Inverse estimation of interfacial heat transfer coefficient during solidification of Sn5%wt Pb alloy using evolutionary algorithm" at ICEMMM 2018 conference, SSN College of Engineering, Chennai.
4. **Best Paper award** entitled "Accelerating MCMC using model reduction for the estimation of boundary properties within Bayesian framework " at NIT Warangal, 2018.
5. Certificate of reviewing **, Applied Thermal Engineering Journal, 2017**
6. Outstanding contribution in reviewing**, International Journal of Thermal Sciences , 2017**
7. Certificate of reviewing**, Alexandria Engineering Journal, 2016**
8. **MV Chauhan All India Student Paper Contest**, "Solving inverse heat transfer problem using extreme random forest", 2016.
9. **Best paper award**, "Numerical estimation of wall heat flux in a one dimensional rectangular fin by conjugate gradient method", 2016, Kerala.

# Short-term Course/Workshop/Seminars etc. organized

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| **Sl. No.** | **Conference/Seminar** | **Title of the talk/program** | **Year** |
| 1. | Expert Lecture | Inverse Heat Conduction by Prof. Prasanna Kumar (former Prof. IIT  Madras) | 2015 |
| 2. | Expert Lecture | Mind and its Control by Swami  Atmashraddhanandha, Editor Vedanta Kesari a monthly magazine | 2015 |
| 3. | Expert Lecture | The Joy of Research | 2016 |
| 4. | GIAN course | Inverse Heat Transfer | 2016 |
| 5. | GIAN course | Transfer Function ased on Green s  Function Method (TFBGF) to Solve | 2016 |

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|  |  | Inverse Heat Conduction problem  (IHCP): Manufacturing Process Application |  |
| 6. | One week workshop | Inverse Problems and Applications | 2018 |
| 7. | Expert Lecture | Why is my paper not getting accepted?" delivered by Prof. C Balaji, IIT  Madras | 2018 |
| 8. | One week national  workshop | Frontiers in Design, Manufacturing and  Energy Sustainability | 2018 |
| 9. | Expert Lecture | Renewable energy, nanofluids,  turbulence flow | 2018 |
| 10. | National Workshop | Intelligent Optimization Techniques for Engineering Problems | 2019 |

* 1. **Post-Doctoral Fellowship Guidance**

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| 1. | Thermal Management of Lithium-ion Batteries | Ongoing |

* 1. **Ph.D Guidance (completed: 6, submitted: 1 ongoing: 4)**

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| **Sl. No** | **Title** | **Status** |
| 1 | Inverse Techniques for the Estimation of Multiple  Parameters using Steady State Heat Transfer Experiments | Thesis awarded  (2018) |
| 2 | Computational Modelling of Fluid Flow and Heat  Transfer Through Metal Foam and Wire Mesh | Thesis awarded  (2019) |
| 3 | Inverse Estimation of Multi-parameters using Bayesian Framework Combined with Evolutionary  Algorithms for Heat Transfer Problems | Thesis awarded  (2020) |
| 4 | Investigation of Heat Transfer and Fluid Flow in Micro Channels | Thesis awarded  (2022) |
| 5 | Experimental studies on friction under full sliding  condition | Thesis awarded (2022) |
| 6 | Numerical and experimental investigations on metal foam porous media | Thesis awarded (2023) |
| 7 | Heat transfer studies using phase change materials | Thesis submitted |
| 8 | Numerical and Analytical investigations of fluid flow and heat transfer on wire mesh in a vertical channel | ongoing |
| 9 | Inverse Bio-heat transfer | ongoing |
| 10 | Enhancement of heat transfer in solar air heater | ongoing |
| 11 | Fluid flow and heat transfer analysis using PIV | ongoing |

* 1. **MTech research students guidance**

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| **Sl.No** | **Title** | **Status** |
| **1.** | A holistic approach to mitigate hotspot in microprocessor using microchannel and its application in bioimplants. | Completed  (2019) |
| **2.** | Numerical and experimental study of flow and heat transfer characteristics of bio-oil in a microreactor | Ongoing |

* 1. **BTech and MTech students guided**

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| **Sl.**  **no** | **Name** | **Course** | **Year** | **Thesis title** |
| 1. | Pallav Patnaik, Subham Burnwal | B Tech | May, 2015 | Simultaneous estimation of convective heat transfer coefficient  and emissivity from a lumped system under natural convection. |
| 2. | Sandeep Kumar, Shiv Singh Saini, Suyog Wani | B Tech | May, 2015 | A new approach to estimate unknown parameters from fin heat transfer. |
| 3. | Shikar Gopal,  Sunny Goyal | B Tech | May, 2016 | Inverse estimation of heat strength  from a Teflon cube using iterative  methods. |
| 4. | Ashish Gaur, Vinit Mandowara, Vishal  Murmu | B Tech | May, 2016 | Inverse heat conduction problem using Bayesian inference. |
| 5. | Sachin Menon, Sai Krishna Dammalapati, Rajesh Dayal, Ajith  Prabhu | B Tech | April, 2017 | A hybrid Monte Carlo method for Bayesian estimation of heat generation in Teflon cylinder. |
| 6. | Prasheel Nakate, Krishna Chaitanya, Aman kumar and Devraj Meena | B Tech | April, 2019 | Asymptotic approach to obtain correlation of Nusselt number for laminar mixed convection |
| 7. | Shriram | B Tech | April, 2019 | Compressor-Combustor Interactions: Impact of Inlet Velocity profile on Combustor Aero Attributes |
| 8. | Devansh Modi,  Yash Khivasara,  Anup Choudhary,  Vaisakh Vineethan | B Tech | Nov, 2020 | Implementation of Artificial Neural  Networks as a Surrogate Model For The Flow And Heat Transfer In Metal Foams |
| 9. | Derin Antony | B Tech | Nov, 2020 | Estimation of unknown heat flux  From fin heat transfer using Approximation error model |
| 10. | Athith T S | B Tech | Nov, 2020 | Numerical study and optimization of pressure drop and heat transfer through the Al, Cu and Ni metal foam heat exchanger |
| 11. | Ashik K A | B Tech | June, 2020 | Natural convection heat transfer in cooling of heat source array with metal foams |
| 12. | Renu prasad S,  Shashank R | B Tech | June, 2020 | Estimation of bacterial growth in  Lettuce using kalman filters |
| 13. | Nripendra Diwakar and Rahul | B Tech | April, 2022 | Performance study of aluminum metal foams in heat exchanger |
| 14. | Shilpashree V and Arjun Gopalan C | B Tech | April, 2023 | Experimental characterization of heat transfer and flow characteristics using wire mesh inserts in horizontal pipe. |
| 15. | Devika Harikrishnan, Monal and Aman | B Tech | April, 2023 | Experimental characterization of heat transfer and flow characteristics using a porous medium in a forced convection set up. |
| 16. | Sharath kumar | M Tech | July, 2015 | A Bayesian approach for the estimation of volumetric heat generation using heat transfer  Experiments. |
| 17. | Sundarapandian R | M Tech | June, 2015 | Thermal Management of electronic devices using Phase change Material  based Heat sink. |
| 18. | Bala ganesh T | M Tech | July, 2015 | Process shortening in pretreatment  for automotive body in white |
| 19. | Rahul Cheiran P | M Tech | July, 2016 | Inverse estimation of heat flux from  a vertical aluminium plate using Levenberg Marquardt algorithm. |
| 20. | Muhammad Zainul  Abideen | M Tech | July, 2016 | Numerical investigation of the wiper  lift performance. |
| 21. | Balaji S | M Tech | June, 2017 | Study of isothermal air fuel mixing  in an industrial gas turbine swirl fuel nozzle |
| 22. | Sanket Bhatt | M Tech | June 2019 | Design optimization of “Perseus pump through cutter” of 1.38” casing size through CFD analysis. |
| 23. | Kotipalli Mahesh | M Tech | June 2019 | Modelling of engine surface heat loss – A numerical study |
| 24. | Arvind Kumar Singh | M Tech | July 2020 | Prediction of immune cells in chemotherapy and validating the results using extended Kalman filter. |
| 25. | Sandeepta Kumar Mallik | M Tech | July 2021 | Numerical Simulations to Identify Temperature Non- Uniformity in Mini-channel Heat Sink |
| 26. | Pranav Krishnan | M Tech | June 2022 | Breast cancer diagnosis: Segmentation and classification by CNN. |
| 27. | Patel Shahil Shaileshkumar | M Tech | June 2022 | Numerical analysis of PEM fuel cell using metal foam. |

1. **Academic activities**

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| **Sl. No** | **Administrative duty** | **Period and Year** |
| 1 | B.Tech Project Work Evaluation Committee | June 2014 - Dec 2016 |
| 2 | Faculty Advisor | June 2015 - Dec 2016 |
| 3 | DRPC Secretary | June 2015 - Dec 2016 |
| 4 | Coordinator of Inverse Problems and Applications Workshop, NITK | July 9- 13, 2018 |
| 5 | Department Faculty volunteer for Ring presentation ceremony | 2014-2016 |
| 6 | Department Assistant for preparing the report of FIST Level 2 Project Proposal | May 2015 |
| 7 | DRPC Member | 2014-2016 |
| 8 | Department in charge for preparing NBA (for B. Tech & M. Tech. ) visit | June to August 2016 |
| 9 | Annual convocation committee (seating arrangement) | 2014-2016 |
| 10 | Committee member for Fluid Mechanics and Fluid Power (FMFP-2015) Conference, NITK | Dec 14-16, 2015 |
| 11 | Coordinator for GEC, Jhalawar summer internship | 2018-2020 |
| 12 | DUGC Secretary, NITK | 2018-2020 |
| 13 | Coordinator for AICTE examination | 2018 |
| 14 | Committee member for the event “Engineers” | 2018 |
| 15 | Hostel Warden | 2019-2023 |
| 16 | DPGC Secretary, NITK | 2020-2021 |
| 17 | DRPC Secretary, NITK | 2021-2022 |
| 18 | Departmental Time Table Committee | 2022-2023 |
| 19 | Member of institute NIRF committee | 2022-2023 |

1. **LIST OF JOURNALS**
2. CJ, Thomas Renald, Somasundaram P, Matheswaran M M, **N. Gnanasekaran**. “Analytical Investigation on Thermo Hydraulic Performance Augmentation of Triangular Duct Solar Air Heater Integrated with Wavy Fins.” International Journal of Green Energy 20, no. 5 (April 09, 2023): 544–54. <https://doi.org/10.1080/15435075.2022.2111215>. **[SCI-Impact factor 3.206].**
3. Narendran, Ganesan, **N. Gnanasekaran**, D. Arumuga Perumal, M. Sreejesh, and H. S. Nagaraja. “Integrated Microchannel Cooling for Densely Packed Electronic Components Using Vanadium Pentaoxide (V2O5)-Xerogel Nanoplatelets-Based Nanofluids.” Journal of Thermal Analysis and Calorimetry 148, no. 6 (January 23, 2023): 2547–65. <https://doi.org/10.1007/s10973-022-11925-0>.  **[SCI-Impact factor 4.755].**
4. Selvan Nedumaran, Muthamil, and **N. Gnanasekaran**. “Comprehensive Analysis of Hybrid Heat Sinks with Phase Change Materials for Both Charging and Discharging Cycles.” Heat Transfer Engineering 44, no. 4 (February 21, 2023): 334–52. <https://doi.org/10.1080/01457632.2022.2059216>. **[SCI-Impact factor 2.431].**
5. Jadhav, Prakash H., **N. Gnanasekaran**, and Moghtada Mobedi. “Analysis of Functionally Graded Metal Foams for the Accomplishment of Heat Transfer Enhancement under Partially Filled Condition in a Heat Exchanger.” Energy 263 (January 2023): 125691. <https://doi.org/10.1016/j.energy.2022.125691>. **[SCI-Impact factor 8.857].**
6. Narendran, Ganesan, B Mallikarjuna, B K Nagesha, and **N. Gnanasekaran**. “Experimental Investigation on Additive Manufactured Single and Curved Double Layered Microchannel Heat Sink with Nanofluids.” Heat and Mass Transfer, January 6, 2023. <https://doi.org/10.1007/s00231-022-03336-6>.  **[SCI-Impact factor 2.325].**
7. P Ganesan, Fathiah Zaib, Tuan Zaharinie, Moghtada Mobedi, **N. Gnanasekaran**, Thermal resistance of Open-Cell metal foam with thermal interface materials (TIM), Applied Thermal Engineering, Volume 218, 5 January 2023, 119336. <https://doi.org/10.1016/j.applthermaleng.2022.119336>, **[SCI-Impact factor 6.465].**
8. Diganjit, Rawal, **N. Gnanasekaran**, and Moghtada Mobedi. “Numerical Study for Enhancement of Heat Transfer Using Discrete Metal Foam with Varying Thickness and Porosity in Solar Air Heater by LTNE Method.” Energies 15, no. 23 (November 26, 2022): 8952. <https://doi.org/10.3390/en15238952>.  **[SCI-Impact factor 3.252].**
9. Narendran G, **N. Gnanasekaran**, Investigation on novel inertial minichannel to mitigate maldistribution induced high temperature zones, Energy Conversion and Management Volume 271, 1 November 2022, 116300. <https://doi.org/10.1016/j.enconman.2022.116300> **[SCI-Impact factor 11.533].**
10. Nedumaran, Muthamil Selvan, **N. Gnanasekaran**, and Kamel Hooman. “Numerical Analysis of Multiple Phase Change Materials Based Heat Sink with Angled Thermal Conductivity Enhancer.” Journal of Energy Storage 55 (November 2022): 105316. <https://doi.org/10.1016/j.est.2022.105316>.  **[SCI-Impact factor 8.907].**
11. G Venkatapathy, A Mittal, **N. Gnanasekaran**, VH Desai, Inverse Estimation of Breast Tumor Size and Location with Numerical Thermal Images of Breast Model Using Machine Learning Models, Heat Transfer Engineering, Oct 2022. <https://doi.org/10.1080/01457632.2022.2134081>. **[SCI-Impact factor 2.431].**
12. G., Trilok, Vishweshwara P.S., and **N. Gnanasekaran**. “Inverse Estimation of Heat Flux under Forced Convection Conjugate Heat Transfer in a Vertical Channel Fully Filled with Metal Foam.” Thermal Science and Engineering Progress 33 (August 2022): 101343. <https://doi.org/10.1016/j.tsep.2022.101343>. **[SCI-Impact factor 4.56]**
13. Selvan Nedumaran, Muthamil, and **N. Gnanasekaran**. “Comprehensive Analysis of Hybrid Heat Sinks with Phase Change Materials for Both Charging and Discharging Cycles.” Heat Transfer Engineering 44, no. 4 (April 19, 2022): 334–52. <https://doi.org/10.1080/01457632.2022.2059216>. **[SCI-Impact factor 4.56].**
14. G, Trilok, Kurma Eshwar Sai Srinivas, Devika Harikrishnan **N. Gnanasekaran**, and Moghtada Mobedi. “Correlations and Numerical Modeling of Stacked Woven Wire-Mesh Porous Media for Heat Exchange Applications.” Energies 15, no. 7 (March 24, 2022): 2371. <https://doi.org/10.3390/en15072371>. **[SCI-Impact factor 3.252].**
15. G, Trilok, K. Kiran Kumar, **N. Gnanasekaran**, and Moghtada Mobedi. “Numerical Assessment of Thermal Characteristics of Metal Foams of Orderly Varied Pore Density and Porosity under Different Convection Regimes.” International Journal of Thermal Sciences 172 (February 2022): 107288. <https://doi.org/10.1016/j.ijthermalsci.2021.107288>. **[SCI-Impact factor 4.779].**
16. Jadhav, Prakash H., Trilok G, **N. Gnanasekaran**, and Moghtada Mobedi. “Performance Score Based Multi-Objective Optimization for Thermal Design of Partially Filled High Porosity Metal Foam Pipes under Forced Convection.” International Journal of Heat and Mass Transfer 182 (January 2022): 121911. <https://doi.org/10.1016/j.ijheatmasstransfer.2021.121911>. **[SCI-Impact factor 5.431].**
17. Narendran, G., Amit Kumar, **N. Gnanasekaran**, and D. Arumuga Perumal. “A Numerical Study on Microgap-Based Focal Brain Cooling Device to Mitigate Hotspot for the Treatment of Epileptic Seizure.” ASME Open Journal of Engineering 1 (January 1, 2022). <https://doi.org/10.1115/1.4055465>.
18. G, Trilok, **N. Gnanasekaran**, and Moghtada Mobedi. “Various Trade-Off Scenarios in Thermo-Hydrodynamic Performance of Metal Foams Due to Variations in Their Thickness and Structural Conditions.” Energies 14, no. 24 (December 10, 2021): 8343. <https://doi.org/10.3390/en14248343>. **[SCI-Impact factor 3.252].**
19. Kotresha, Banjara, and **N. Gnanasekaran**. “A Parametric Study on Mixed Convection in a Vertical Channel in the Presence of Wire Mesh.” Heat Transfer Engineering 42, no. 22 (September 23, 2021): 1914–25. <https://doi.org/10.1080/01457632.2020.1834212>. **[SCI-Impact factor 2.431].**
20. Jadhav, Prakash H., **N. Gnanasekaran**, D. Arumuga Perumal, and Moghtada Mobedi. “Performance Evaluation of Partially Filled High Porosity Metal Foam Configurations in a Pipe.” Applied Thermal Engineering 194 (July 2021): 117081. <https://doi.org/10.1016/j.applthermaleng.2021.117081>. . **[SCI-Impact factor 6.465].**
21. Jadhav, Prakash H., and **N. Gnanasekaran**. “Optimum Design of Heat Exchanging Device for Efficient Heat Absorption Using High Porosity Metal Foams.” International Communications in Heat and Mass Transfer 126 (July 2021): 105475. <https://doi.org/10.1016/j.icheatmasstransfer.2021.105475>. **[SCI-Impact factor 6.782].**
22. Jadhav, Prakash H., **N. Gnanasekaran**, and D. Arumuga Perumal. “Conjugate Heat Transfer Study Comprising the Effect of Thermal Conductivity and Irreversibility in a Pipe Filled with Metallic Foams.” Heat and Mass Transfer 57, no. 6 (June 2021): 911–30. <https://doi.org/10.1007/s00231-020-03000-x>. **[SCI-Impact factor 2.325].**
23. Jadhav, Prakash H., **N. Gnanasekaran**, and D. Arumuga Perumal. “Numerical Consideration of LTNE and Darcy Extended Forchheimer Models for the Analysis of Forced Convection in a Horizontal Pipe in the Presence of Metal Foam.” Journal of Heat Transfer 143, no. 1 (November 5, 2020). <https://doi.org/10.1115/1.4048622>. **[SCI-Impact factor 1.855].**
24. Banjara, Kotresha, and **N. Gnanasekaran**. “Nuances of Fluid Flow through a Vertical Channel in the Presence of Metal Foam/Solid Block – A Hydrodynamic Analysis Using CFD.” Thermal Science and Engineering Progress 20 (December 2020): 100749. <https://doi.org/10.1016/j.tsep.2020.100749>. **[SCI-Impact factor 4.56].**
25. Kumar, M K Harsha, P S Vishweshwara, and **N. Gnanasekaran**. “Evaluation of Artificial Neural Network in Data Reduction for a Natural Convection Conjugate Heat Transfer Problem in an Inverse Approach: Experiments Combined with CFD Solutions.” Sādhanā 45, no. 1 (March 27, 2020). <https://doi.org/10.1007/s12046-020-1303-x>. **[SCI-Impact factor 1.214].**
26. Narendran, Ganesan, **N. Gnanasekaran**, and Dharmaraj Arumuga Perumal. “Experimental Investigation on Heat Spreader Integrated Microchannel Using Graphene Oxide Nanofluid.” Heat Transfer Engineering 41, no. 14 (August 05, 2020): 1252–74. <https://doi.org/10.1080/01457632.2019.1637136>. **[SCI-Impact factor 2.341].**
27. Kotresha, Banjara, **N. Gnanasekaran**, and Chakravarthy Balaji. “Numerical Simulations of Flow-Assisted Mixed Convection in a Vertical Channel Filled with High Porosity Metal Foams.” Heat Transfer Engineering 41, no. 8 (April 27, 2020): 739–50. <https://doi.org/10.1080/01457632.2018.1564208>. **[SCI-Impact factor 2.341].**
28. Narendran, G., **N. Gnanasekaran**, and D. Arumuga Perumal. “Thermodynamic Irreversibility and Conjugate Effects of Integrated Microchannel Cooling Device Using TiO2 Nanofluid.” Heat and Mass Transfer 56, no. 2 (February, 2020): 489–505. <https://doi.org/10.1007/s00231-019-02704-z>. **[SCI-Impact factor 2.325].**
29. Jadhav, Prakash H., **N. Gnanasekaran**, and D. Arumuga Perumal. “Numerical Consideration of LTNE and Darcy Extended Forchheimer Models for the Analysis of Forced Convection in a Horizontal Pipe in the Presence of Metal Foam.” Journal of Heat Transfer 143, no. 1 (November 5, 2020). <https://doi.org/10.1115/1.4048622>. **[SCI-Impact factor 1.855].**
30. G, Trilok, and **N. Gnanasekaran**. “Numerical Study on Maximizing Heat Transfer and Minimizing Flow Resistance Behavior of Metal Foams Owing to Their Structural Properties.” International Journal of Thermal Sciences 159 (2020): 106617. <https://doi.org/10.1016/j.ijthermalsci.2020.106617>. **[SCI-Impact factor 4.779].**
31. Vishweshwara, P. S., **N. Gnanasekaran**, and M. Arun. “Inverse Approach Using Bio-Inspired Algorithm Within Bayesian Framework for the Estimation of Heat Transfer Coefficients During Solidification of Casting.” Journal of Heat Transfer 142, no. 1 (January 1, 2020). <https://doi.org/10.1115/1.4045134>. **[SCI-Impact factor 1.855].**
32. Nakate, Prasheel, Banjara Kotresha, and **N. Gnanasekaran**. “Inexpensive Computations Using Computational Fluid Dynamics Combined With Asymptotics Applied to Laminar Mixed Convection in a Vertical Channel.” Journal of Heat Transfer 141, no. 12 (October 8, 2019). <https://doi.org/10.1115/1.4044698>. **[SCI-Impact factor 1.855].**
33. P.S., Vishweshwara, Harsha Kumar M.K., **N. Gnanasekaran**, and Arun M. “3D Coupled Conduction-Convection Problem Using in-House Heat Transfer Experiments in Conjunction with Hybrid Inverse Approach.” Engineering Computations 36, no. 9 (November 11, 2019): 3180–3207. <https://doi.org/10.1108/ec-11-2018-0496>. **[SCI-Impact factor 1.675].**
34. Vishweshwara, P S, **N. Gnanasekaran**, and M Arun. “Simultaneous Estimation of Unknown Parameters Using A-Priori Knowledge for the Estimation of Interfacial Heat Transfer Coefficient during Solidification of Sn–5wt%Pb Alloy—an ANN-Driven Bayesian Approach.” Sādhanā 44, no. 4 (March 30, 2019). <https://doi.org/10.1007/s12046-019-1076-2>. **[SCI-Impact factor 1.214].**
35. Kotresha, Banjara, and **N. Gnanasekaran**. “Determination of Interfacial Heat Transfer Coefficient for the Flow Assisted Mixed Convection through Brass Wire Mesh.” International Journal of Thermal Sciences 138 (April 2019): 98–108. <https://doi.org/10.1016/j.ijthermalsci.2018.12.043>. **[SCI-Impact factor 4.779].**
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