**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. |
|  | **Email** | ngs.iitm@gmail.com, gnanasekaran@nitk.edu.in |
|  | **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 (ThermalEngineering) | Government College ofTechnology, Coimbatore | 2004 | 2006 | 79.9%(Distinction) |
| PhD., (Heat Transfer) | IIT Madras | 2008 | 2012 | 8.5 CGPA |
| TWAS-CNPQPostdoctoral fellowship | Federal University of Riode Janeiro, Brazil | 2016 | 2017 | - |

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

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| **Title** | A Bayesian Approach for Multi-parameterEstimation 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 ProjectOfficer | Centre for industrial consultancy and sponsored research, IITMadras | 21/12/2011 | 31/03/2012 | Rs. 24000/-(consolidate pay) |
| 3. | AssociateProfessor | SSN College of Engineering,Chennai | 14/07/2012 | 12/08/2013 | Rs.15600 -39100+AGP 8000 |
| 4. | AssistantProfessor | National Institute ofTechnology 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 TrainingProgramme on “Advanced IC Engines” | Anna University, Chennai | 2012 | 8 days |
| 2. | Short Term Course on “ResearchTopics 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 “WorkplaceSensitization” | NITK | 2013 | 1 day |
| 6. | Evolutionary computing andbiologically inspired algorithms using MATLAB | PSG College ofTechnology, Coimbatore | 2016 | 2 days |
| 7. | One day workshop on statistical learning | PSG College of Technology,Coimbatore | 2016 | 1 day |
| 8. | Mini course on computationalmethods in applied inverse problems | IMPA, Brazil | 2017 | 4 days |
| 9. | Mini course on iterativeregularization methods for parameter identification | IMPA, Brazil | 2017 | 3 days |
| 10. | Mini course on solution of Inverse problems within the Bayesianframework of statistics | IMPA, Brazil | 2017 | 3 days |
| 11. | Mini course on Kalman filters | IMPA, Brazil | 2017 | 3 days |
| 12. | Mini course on ApproximateBayesian Computation | IMPA, Brazil | 2017 | 3 days |
| 13. | TEQIP-III Sponsored One Week Short Term Training Program On Advanced Engineering Optimizationthrough 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. IITMadras) | 2015 |
| 2. | Expert Lecture | Mind and its Control by SwamiAtmashraddhanandha, 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 sFunction 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, IITMadras | 2018 |
| 8. | One week nationalworkshop | Frontiers in Design, Manufacturing andEnergy 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 MultipleParameters using Steady State Heat Transfer Experiments | Thesis awarded(2018) |
| 2 | Computational Modelling of Fluid Flow and HeatTransfer Through Metal Foam and Wire Mesh | Thesis awarded(2019) |
| 3 | Inverse Estimation of Multi-parameters using Bayesian Framework Combined with EvolutionaryAlgorithms 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 slidingcondition | 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 coefficientand 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 strengthfrom a Teflon cube using iterativemethods. |
| 4. | Ashish Gaur, Vinit Mandowara, VishalMurmu | B Tech | May, 2016 | Inverse heat conduction problem using Bayesian inference. |
| 5. | Sachin Menon, Sai Krishna Dammalapati, Rajesh Dayal, AjithPrabhu | 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 NeuralNetworks as a Surrogate Model For The Flow And Heat Transfer In Metal Foams |
| 9. | Derin Antony | B Tech | Nov, 2020 | Estimation of unknown heat fluxFrom 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 inLettuce 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 transferExperiments. |
| 17. | Sundarapandian R | M Tech | June, 2015 | Thermal Management of electronic devices using Phase change Materialbased Heat sink. |
| 18. | Bala ganesh T | M Tech | July, 2015 | Process shortening in pretreatmentfor automotive body in white |
| 19. | Rahul Cheiran P | M Tech | July, 2016 | Inverse estimation of heat flux froma vertical aluminium plate using Levenberg Marquardt algorithm. |
| 20. | Muhammad ZainulAbideen | M Tech | July, 2016 | Numerical investigation of the wiperlift performance. |
| 21. | Balaji S | M Tech | June, 2017 | Study of isothermal air fuel mixingin 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].**
36. Kotresha, Banjara, and **N. Gnanasekaran**. “A Synergistic Combination of Thermal Models for Optimal Temperature Distribution of Discrete Sources Through Metal Foams in a Vertical Channel.” Journal of Heat Transfer 141, no. 2 (January 02, 2019). <https://doi.org/10.1115/1.4041955>. . **[SCI-Impact factor 1.855].**
37. Kotresha, Banjara, and **N. Gnanasekaran**. “Numerical Simulations of Fluid Flow and Heat Transfer through Aluminum and Copper Metal Foam Heat Exchanger – A Comparative Study.” Heat Transfer Engineering 41, no. 6–7 (January 19, 2019): 637–49. <https://doi.org/10.1080/01457632.2018.1546969>. **[SCI-Impact factor 2.431].**
38. 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].**
39. Kotresha, Banjara, and **N. Gnanasekaran**. “Effect of Thickness and Thermal Conductivity of Metal Foams Filled in a Vertical Channel – a Numerical Study.” International Journal of Numerical Methods for Heat & Fluid Flow 29, no. 1 (January 7, 2019): 184–203. <https://doi.org/10.1108/hff-11-2017-0465>. . **[SCI-Impact factor 5.181].**
40. Kotresha, Banjara, and **N. Gnanasekaran**. “Comparison of Fluid Flow and Heat Transfer Through Metal Foams and Wire Mesh by Using CFD.” Recent Patents on Mechanical Engineering 12, no. 3 (September 26, 2019): 220–26. <https://doi.org/10.2174/2212797612666190717163207>. **[Impact factor 0.166].**
41. Prakash H Jadhav, **N. Gnanasekaran**, & D Arumuga Perumal. 2019. A Computational Assessment of Different Materials and Variations in Thickness Ratio of Solid Blocks in a Square Cavity – A Conjugate Heat Transfer Analysis. International Journal of Advanced Trends in Computer Applications, 126–130(2395–3519). Published. **[Impact factor 5.966].**
42. Karthik K Y, Kishan Naik, Banjara Kotresha, & **N. Gnanasekaran**. 2019. Effect of Length Ratio on Heat Transfer through Discrete Heaters in a Vertical Channel. International Journal of Advanced Trends in Computer Applications, 14–18(2395–3519). Published. . **[Impact factor 5.966].**
43. Hasavimath Kartikaswami, Kishan Naik, Banjara Kotresha, and **N. Gnanasekaran**. “Forced Convection through Discrete Heat Sources and Simple Thermal Model – A Numerical Study.” International Journal of Mathematical, Engineering and Management Sciences 4, no. 6 (December 1, 2019): 1397–1406. <https://doi.org/10.33889/ijmems.2019.4.6-110>. **[Impact factor 0.332].**
44. Kotresha, Banjara, and **N. Gnanasekaran**. “Investigation of Mixed Convection Heat Transfer Through Metal Foams Partially Filled in a Vertical Channel by Using Computational Fluid Dynamics.” Journal of Heat Transfer 140, no. 11 (July 23, 2018). <https://doi.org/10.1115/1.4040614>. . **[SCI-Impact factor 1.855].**
45. M K, Harsha Kumar, Vishweshwara P S, **N. Gnanasekaran**, and Balaji C. “A Combined ANN-GA and Experimental Based Technique for the Estimation of the Unknown Heat Flux for a Conjugate Heat Transfer Problem.” Heat and Mass Transfer 54, no. 11 (May 1, 2018): 3185–97. <https://doi.org/10.1007/s00231-018-2341-3>. **[SCI-Impact factor 2.325].**
46. **N. Gnanasekaran**, and S Balaji. “Inverse Approach for Estimating Boundary Properties in a Transient Fin Problem.” Sādhanā 43, no. 7 (June 22, 2018). <https://doi.org/10.1007/s12046-018-0895-x>. **[SCI-Impact factor 1.214].**
47. Narendran, Ganesan, **N. Gnanasekaran**, and Dharmaraj A. Perumal. “A Review on Recent Advances in Microchannel Heat Sink Configurations.” Recent Patents on Mechanical Engineering 11, no. 3 (September 10, 2018): 190–215. <https://doi.org/10.2174/2212797611666180726124047>. **[Impact factor 0.166].**
48. Kumar, Harsha, and **N. Gnanasekaran**. “A Synergistic Combination of Asymptotic Computational Fluid Dynamics and ANN for the Estimation of Unknown Heat Flux from Fin Heat Transfer.” Alexandria Engineering Journal 57, no. 2 (June 2018): 555–64. <https://doi.org/10.1016/j.aej.2017.01.034>. **[SCI-Impact factor 6.626].**
49. Kumar, Harsha, and **N. Gnanasekaran**. “A Bayesian Inference Approach: Estimation of Heat Flux from Fin for Perturbed Temperature Data.” Sādhanā 43, no. 4 (April 2018). <https://doi.org/10.1007/s12046-018-0861-7>. **[SCI-Impact factor 1.214].**
50. Kumar, Harsha, Sharath Kumar, **N. Gnanasekaran**, and Chakravarthy Balaji. “A Markov Chain Monte Carlo-Metropolis Hastings Approach for the Simultaneous Estimation of Heat Generation and Heat Transfer Coefficient from a Teflon Cylinder.” Heat Transfer Engineering 39, no. 4 (February 25, 2018): 339–52. <https://doi.org/10.1080/01457632.2017.1305823>. **[SCI-Impact factor 2.431].**
51. Bhargav Sriram, S., S. Sravan, and **N. Gnanasekaran**. “Numerical Estimation of Heat Flux and Convective Heat Transfer Coefficient in a One Dimensional Rectangular Plate by Levenberg-Marquardt Method.” Indian Journal of Science and Technology 9, no. 45 (December 20, 2016). <https://doi.org/10.17485/ijst/2016/v9i45/104628>. **[Impact factor 0.159].**
52. Sai Krishna, Dammalapati, Murmu Vishal, and **N. Gnanasekaran**. “Bayesian Inference Approach to Estimate Robin Coefficient Using Hybrid Monte Carlo Algorithm.” Indian Journal of Science and Technology 9, no. 45 (December 19, 2016). <https://doi.org/10.17485/ijst/2016/v9i45/104584>. **[Impact factor 0.159].**
53. **N. Gnanasekaran**, Nagarajan, Sharath Kumar, and Harsha Kumar. “A NEURAL NETWORK BASED METHOD FOR ESTIMATION OF HEAT GENERATION FROM A TEFLON CYLINDER.” Frontiers in Heat and Mass Transfer 7 (July 18, 2016). <https://doi.org/10.5098/hmt.7.15>. **[Impact factor 0.439].**
54. Sai Krishna, Dammalapati, Murmu Vishal, and **N. Gnanasekaran**. “Bayesian Inference Approach to Estimate Robin Coefficient Using Hybrid Monte Carlo Algorithm.” Indian Journal of Science and Technology 9, no. 45 (December 19, 2016). <https://doi.org/10.17485/ijst/2016/v9i45/104584>. **[Impact factor 0.159]**
55. **N. Gnanasekaran**., and C. Balaji. “Markov Chain Monte Carlo (MCMC) Approach for the Determination of Thermal Diffusivity Using Transient Fin Heat Transfer Experiments.” International Journal of Thermal Sciences 63 (January 2013): 46–54. <https://doi.org/10.1016/j.ijthermalsci.2012.07.005>. **[SCI-Impact factor 4.779].**
56. **N. Gnanasekaran**., and C. Balaji. “A Bayesian Approach for the Simultaneous Estimation of Surface Heat Transfer Coefficient and Thermal Conductivity from Steady State Experiments on Fins.” International Journal of Heat and Mass Transfer 54, no. 13–14 (June 2011): 3060–68. <https://doi.org/10.1016/j.ijheatmasstransfer.2011.01.028>. **[SCI-Impact factor 5.341].**
57. **N. Gnanasekaran**., and C. Balaji. “An Inexpensive Technique to Simultaneously Determine Total Emissivity and Natural Convection Heat Transfer Coefficient from Transient Experiments.” Experimental Heat Transfer 23, no. 3 (June 17, 2010): 235–58. <https://doi.org/10.1080/08916150903564788>. **[SCI-Impact factor 3.272].**
58. Balaji, C., and **N. Gnanasekaran**. “A CORRELATION FOR NUSSELT NUMBER UNDER TURBULENT MIXED CONVECTION USING TRANSIENT HEAT TRANSFER EXPERIMENTS.” Frontiers in Heat and Mass Transfer 2, no. 2 (January 1 20, 2010). <https://doi.org/10.5098/hmt.v2.2.3008>. **[Impact factor 0.439]**

# 11. LIST OF BOOK CHAPTERS

1. **Gnanasekaran, N.**, and MK Harsha Kumar. "Accelerating MCMC Using Model Reduction for the Estimation of Boundary Properties Within Bayesian Framework." *Numerical Heat Transfer and Fluid Flow*. Springer, Singapore, 2019. 159-165.
2. Vishweshwara, P. S., **Gnanasekaran, N.**, and M. Arun. "Estimation of Interfacial Heat Transfer Coefficient for Horizontal Directional Solidification of Sn-5 wt% Pb Alloy Using Genetic Algorithm as Inverse Method." *Soft Computing for Problem Solving*. Springer, Singapore, 2019. 447-459.
3. Kotresha, Banjara, and **N. Gnanasekaran.** "Analysis of Forced Convection Heat Transfer Through Graded PPI Metal Foams." *Numerical Heat Transfer and Fluid Flow*. Springer, Singapore, 2019. 151-158.
4. **Gnanasekaran, N.**, and MK Harsha Kumar. "Accelerating MCMC Using Model Reduction for the Estimation of Boundary Properties Within Bayesian Framework." *Numerical Heat Transfer and Fluid Flow*. Springer, Singapore, 2019. 159-165.
5. Vishweshwara, P. S., **N. Gnanasekaran**, and M. Arun. "Inverse Estimation of Interfacial Heat Transfer Coefficient During the Solidification of Sn-5wt% Pb Alloy Using Evolutionary Algorithm." *Advances in Materials and Metallurgy*. Springer, Singapore, 2019. 227-237.
6. Dammalapati, Sai Krishna, Vishal Murmu, and **Gnanasekaran, N.** "Bayesian Inference Approach to Estimate Robin Coefficient Using Metropolis Hastings Algorithm." *Recent Advances in Chemical Engineering*. Springer, Singapore, 2016. 293-302.
7. Narendran G, **N Gnanasekaran** and Arumuga Perumal, [Flow induced hotspot migration studies with heat spreader integrated microchannels using reduced graphene oxide nanofluids,](https://www.scopus.com/record/display.uri?eid=2-s2.0-85048878770&origin=resultslist&sort=plf-f&src=s&sid=6fc1f57b8b9f30d9d7093573a33d211c&sot=autdocs&sdt=autdocs&sl=18&s=AU-ID%2836155128300%29&relpos=14&citeCnt=1&searchTerm) 19th International Conference on Thermal, Mechanical and Multi-Physics Simulation and Experiments in Microelectronics and Microsystems, EuroSimE, 2018 pp. 1- 10
8. Kotresha, Banjara, and **N. Gnanasekaran** , [Prediction of heat transfer with discrete heat sources in a vertical channel filled with high porosity metal foam](https://www.scopus.com/record/display.uri?eid=2-s2.0-85061129096&origin=resultslist&sort=plf-f&src=s&sid=6fc1f57b8b9f30d9d7093573a33d211c&sot=autdocs&sdt=autdocs&sl=18&s=AU-ID%2836155128300%29&relpos=18&citeCnt=0&searchTerm), International Conference on Computational Methods for Thermal Problems, (223309), 2018, pp. 197-200
9. Narendran G, **N Gnanasekaran** and Arumuga Perumal , [Experimental and numerical investigation on conjugate effects in deep parallel microchannel using tio2 nanofluid for electronic cooling,](https://www.scopus.com/record/display.uri?eid=2-s2.0-85061122415&origin=resultslist&sort=plf-f&src=s&sid=6fc1f57b8b9f30d9d7093573a33d211c&sot=autdocs&sdt=autdocs&sl=18&s=AU-ID%2836155128300%29&relpos=19&citeCnt=0&searchTerm) International Conference on Computational Methods for Thermal Problems, (223309), 2018, pp. 535-538.
10. Kotresha, Banjara, and **N. Gnanasekaran** , [Asymptotic approach to obtain nusselt number correlation for laminar mixed convection in a vertical channel](https://www.scopus.com/record/display.uri?eid=2-s2.0-85061114531&origin=resultslist&sort=plf-f&src=s&sid=857da89f299c945b03e29bf00a23a983&sot=autdocs&sdt=autdocs&sl=18&s=AU-ID%2836155128300%29&relpos=20&citeCnt=0&searchTerm), International Conference on Computational Methods for Thermal Problems, (223309), 2018, pp. 531-534.
11. Vishweshwara, P. S. and **N. Gnanasekaran** [Computation of error model for the inverse bioheat transfer problem](https://www.scopus.com/record/display.uri?eid=2-s2.0-85061149744&origin=resultslist&sort=plf-f&src=s&sid=3b3e2e1485a90ab6e8db62ad52405992&sot=autdocs&sdt=autdocs&sl=18&s=AU-ID%2836155128300%29&relpos=17&citeCnt=0&searchTerm), International Conference on Computational Methods for Thermal Problems, (223309), 2018, pp. 936-939.

# LIST OF CONFERENCES

1. Prakash H Jadhav, Banjara Kotresha, **N Gnanasekaran**, D Arumuga Perumal, Forced Convection Analysis in a Horizontal Pipe in the Presence of Aluminium Metal Foam – A Numerical Study, Proceedings of the 46th National Conference on Fluid Mechanics and Fluid Power (FMFP), December 9-11, 2019, PSG College of Technology, Coimbatore, India
2. Banjara Kotresha, Prakash H Jadhav, **Gnanasekaran N**, Natural Convection through High Porosity Metal Foams – A Numerical Study, Proceedings of the 46th National Conference on Fluid Mechanics and Fluid Power (FMFP) December 9-11, 2019, PSG College of Technology, Coimbatore, India.
3. Prakash H Jadhav, **N. Gnanasekaran** and D Arumuga Perumal, Entropy generation analysis in a horizontal pipe filled with high porosity metal foam, Proceedings of the International Conference on Numerical Heat Transfer and Fluid flow (NHTFF-2020) NIT Warangal, India – Jan 17-19, 2020.
4. Narendran G, **Gnanasekaran N**, Arumuga Perumal D, 2019, Migration of flow induced hotspot with heat spreader integrated microchannel subjected to asymmetric heat flux. A multiphysics approach . IEEE Packaging Society EuroSimE 2019, Hannover, Germany, March 24-27.
5. Vishweshwara P S, **Gnanasekaran N** and Arun M,2019, "A novel framework for the estimation of interfacial heat transfer coefficient using Bat algorithm during solidification of metal casting", 12th International Conference on Thermal Engineering: Theory and Applications (ICTEA-2019), February 23-26, 2019, PDPU ,Gandhinagar , India
6. Narendran G, **Gnanasekaran N** and Arumuga Perumal D ,2019, "Hydrodynamic performance of Graphene Oxide nanofluid in heat spreader integrated microchannel", 12th International Conference on Thermal Engineering: Theory and Applications (ICTEA-2019), February 23-26, 2019, PDPU ,Gandhinagar , India
7. Kartikaswami Hasavimath, Kishan Naik, Banjara Kotresha, **N Gnanasekaran**, “Forced Convection through Discrete Heat Sources and Simple Thermal Model – A Numerical Study”, National Conference on Computational Modeling of Fluid Dynamics Problems (CMFDP-2019), National Institute of Technology, Warangal, India, Jan. 18 – 20, 2019.
8. Karthik K Y, Kishan Naik, Banjara Kotresha, **N Gnanasekaran**, “Effect of Length Ratio on Heat Transfer through Discrete Heaters in a Vertical Channel”, National Conference on Computational Modeling of Fluid Dynamics Problems (CMFDP-2019), National Institute of Technology, Warangal, India, Jan. 18 – 20, 2019.
9. Prakash H Jadhav, **N Gnanasekaran**, D Arumuga Perumal, “A Computational Assessment of Different Materials and Variations in Thickness Ratio of Solid Blocks in a Square Cavity – A Conjugate Heat Transfer Analysis” National Conference on Computational Modeling of Fluid Dynamics Problems (CMFDP-2019), National Institute of Technology, Warangal, India, Jan. 18 – 20, 2019.
10. Harsha Kumar M K, Vishweshwara P S, **Gnanasekaran N** 2018, “A surrogate forward model using Artificial Neural Networks in conjunction with Bayesian computations for 3D conduction- convection heat transfer problem.”, Soft Computing for Problem Solving - SocProS-2018, , Vellore Institute of Technology, Vellore, December 17-19, 2018.
11. Banjara Kotresha and **N Gnanasekaran**,"Effect of Porosity Grading of the Metal foam in a Mixed Convection Heat Transfer Filled in a Vertical Channel",7th International and 45th National Conference on Fluid Mechanics and Fluid Power (FMFP) December 10-12, 2018, IIT Bombay, Mumbai, India.
12. Siva Guru, Banjara Kotresha and **N Gnanasekaran**,"Mixed Convection Heat Transfer through Metal Foams Filled in a Vertical Channel with Thermal Dispersion: A Numerical Study ",7th International and 45th National Conference on Fluid Mechanics and Fluid Power (FMFP) December 10-12, 2018, IIT Bombay, Mumbai, India.
13. Vishweshwara P S, Amlan P, Ambareesh P, **Gnanasekaran N,** Arun M, 2018, Estimation of location of cancer tumor using Random Forest and Convolutional Neural Network, 14th Indo-Australian Biotechnology Conference 2018 at ACTREC-TMC, Navi Mumbai, INDIA , October 22-23, 2018.
14. Banjara Kotresha and **N Gnanasekaran**, “Prediction of Heat Transfer with Discrete Heat Sources in a Vertical Channel Filled with High Porosity Metal Foam”, 5th International Conference on Computational Methods for Thermal Problems (THERMACOMP2018), Indian Institute of Science, Bangalore, INDIA, July 9-11, 2018.
15. Prasheel Nakate, Banjara Kotresha and **N Gnanasekaran**, “Asymptotic Approach to obtain Nusselt Number Correlation for Laminar Mixed Convection in a Vertical Channel”, 5th International Conference on Computational Methods for Thermal Problems (THERMACOMP2018), Indian Institute of Science, Bangalore, INDIA, July 9-11,2018.
16. Narendran G, **Gnanasekaran N**, Arumuga Perumal D, 2018, “Flow induced hotspotmigration studies with heat spreader integrated microchannel using reduced grapheneoxide nanofluid”, 19th International conference on thermal, mechanical and multi- physics, simulation and experiments in microelectronics and microsystems. EurosimE-2018, Toulouse, France.
17. Narendran G, Amit Kumar, **Gnanasekaran N**, Arumuga Perumal D, 2018, “Numerical simulation of microgap based focal brain cooling bioimplants for treatment of epilepsy” ,5th International Conference on Computational Methods for Thermal Problems (THERMACOMP2018), Indian Institute of Science, Bangalore, INDIA, July 9-11,2018.
18. Narendran G, **Gnanasekaran N**, Arumuga Perumal D, 2018, “Experimental and Numerical investigation on conjugate effects in deep parallel microchannels using TiO 2nanofluid for electronic cooling” 5th International Conference on Computational Methods for Thermal Problems (THERMACOMP2018), Indian Institute of Science, Bangalore, INDIA, July 9-11,2018.
19. G. Narendran, **N. Gnanasekaran**, D. Arumuga Perumal, Computational Study of mixedconvection in a lid-driven cavity with square block subjected to constant heat flux. IES,Kumamoto University, Japan, March-2017.
20. Palanikumar P, Nagaraj M. K., **Gnanasekaran N.**, Vadivuchezhian Kaliveeran,2018, ICAMPS- International Conference on Advanced Materials and Manufacturing Processes for strategic Sectors, IIM Indian Institute of Metals, Thiruvananthapuram, Kerala, 25-27 Oct,2018.
21. Palanikumar P,Nagaraj M. K., and **Gnanasekaran N**, 2018, “Effect of frictional heat on coefficient of friction during full slip of Al6061-T6 Hertzian contacts”, IES - International Engineering Symposium , Kumamoto university, 7-9 March, 2018 Japan.
22. **Gnanasekaran N**, 2018, “Application of ayesian Statistics for a Transient Fin Heat Transfer Problem”, 7th International Engineering Symposium (IES2018), March 7-9, 2018 at Kumamoto University, Japan.
23. Vishweshwara P S, **Gnanasekaran N** and Arun M,2018, “Inverse estimation of interfacial heat transfer coefficient during the solidification of Sn-5wt%Pb alloy using evolutionary algorithm”, International Conference on Engineering Materials, Metallurgy and Manufacturing-2018 (ICEMMM-2018), Feb 15-16, 2018.
24. **Gnanasekaran N** and Harsha Kumar M K, 2018, “Acceleration MCMC using model reduction for the estimation of boundary properties within ayesian framework”, Numerical Heat Transfer and Fluid Flow (NHTFF-2018), NIT Warangal, 19th-21st January 2018.
25. Banjara Kotresha and **Gnanasekaran N**,2017, “Analysis of Forced Convection Heat Transfer through Graded PPI Metal Foams”, International Conference Numerical Heat Transfer and Fluid Flow (NHTFF-2018), National Institute of Technology, Warangal, India, Jan. 19 – 21, 2018.
26. Palanikumar P,Nagaraj M. K, **Gnanasekaran N**, Gowtham S and Vadivuchezhian Kaliveeran , Ramesh M. R, 2017, “Dry sliding experiments to understand the effect of sliding speed on coefficient of friction for SS304 and SS304L”, ICRAMC-International Conference on Recent Advances in Material Chemistry, SRM,University, 15-17- Feb,2017,Chennai.
27. **Gnanasekaran N**, Helcio R B Orlande, M Valeria De Bonis, Gianpaolo Ruocco, 2017, Estimation of Bacterial Growth Parameters in a Vegetable Food with Markov Chain Monte Carlo Method”, UK Heat Transfer Conference 2017,4-5th Sept 2017.
28. Narendran G, **Gnansekaran N** and Arumuga Perumal, 2017, “Numerical Analysis of Graphene Nano fluid in microscale Heat sink combined with Heat Spreader- A Holistic Approach for effective packaging”, 6th Symposium on Computational Heat Treatment and Fluid Flow (ASCHT-DEC-2017), Indian Institute of Technology Madras, Chennai.
29. Banjara Kotresha and **Gnanasekaran N**,2017, “Comparison of Fluid Flow and Heat Transfer Through Metal Foams and Wire Mesh by Using CFD”, 44th National Conference on Fluid Mechanics and Fluid Power, (FMFP-2017), Amrita university, Kollam, India, Dec. 14- 16, 2017.
30. Banjara Kotresha and **Gnanasekaran N**,2017, “CFD Simulation of Fluid Flow and Heat Transfer through Aluminum Metal Foam Heat Exchanger”, 24th National and 2nd

International ISHMT– ASTFE Heat and Mass Transfer Conference (IHMTC-2017), BITS Pilani, Hyderabad, India, Dec. 27 – 30, 2017.

1. Harsha Kumar M K, Vishweshwara P S, **Gnanasekaran N**,2017, “The use of GA and PSO for the inverse estimation of heat flux in a conjugate heat transfer problem”,24th National and 2nd International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTC-2017), BITS-Pilani,”Hyderabad Campus.
2. Vishweshwara P S, **Gnanasekaran N**, Arun M,2017, “Application of GA, PSO And PSO- FGS for the inverse estimation problem”, International Conference on Intelligent Computing and Technology, ICICT 2017, Coimbatore, India.
3. Vishweshwara P S, **Gnanasekaran N**, Arun M,2017, “Estimation of interfacial heat transfer coefficient for horizontal directional solidification of sn-5wt%pb alloy using genetic algorithm as inverse method”, Soft Computing for Problem Solving - SocProS 2017, Indian Institute of Technology Bhubaneswar, Bhubaneswar.
4. Balaji S and **Gnanasekaran N**, 2017, “Inverse problem in determining parameters associated with heat transfer in rectangular fin”, International conference on advances in mechanical engineering sciences (ICAMES)-2017, 21st – 22nd April 2017, PES college of Engineering, Mandya, Karnataka.
5. Banjara Kotresha, **Gnanasekaran N**, 2017, “CFD Simulation of Fluid Flow and Heat Transfer through Aluminium and Copper Metal Foam Heat Exchanger - A Comparative Study”, 1st International and 18th National ISME conference on Enabling Sustainable Development in Mechanical Engineering ISME-2017, National Institute of Technology Warangal, India.
6. Vishweshwara P S, **Gnanasekaran N**, Arun M,2016, “Determination of Metal Mold Interfacial Heat Transfer Coefficient During Solidification of Casting: A Review”, The 4th International Conference on Advances in Materials & Materials Processing, iCAMMP-iv, 2016, IIT Kharagpur.
7. Narendran G, Shreyas Hegde, **Gnanasekaran N**, 2016, "Conjugate Heat Transfer Studies in Branched Microchannel with Partially Filled Porous Medium Heat Sink Subjected to Magnetic Field, 6th International and 43rd National Conference on Fluid Mechanics and Fluid Power, Motilal Nehru National Institute of Technology, Allahabad.
8. Akhil H G, AlrazKulai, Narendran G and **N. Gnanasekaran**, 2016 "Numerical Study of Solar Water Heater with Modified Absorber Plate having Circular Tubes Fitted with Twisted Tape Inserts". 6th International and 43rd National Conference on Fluid Mechanics and Fluid Power, Motilal Nehru National Institute of Technology, Allahabad.
9. Sai Krishna Dammalapati, Vishal Murmu, **Gnanasekaran N**, 2016, “ ayesian Inference Approach to Estimate Robin Coefficient using Hybrid Monte Carlo Algorithm”, International Conference on Advanced Materials, Manufacturing, Management and Thermal Sciences, Siddaganga Institute of Technology Tumkur, Karnataka, India during Sep 23-24.
10. Bhargav Sriram, Sravan S and **Gnanasekaran N**, 2016, “Numerical estimation of heat flux and convective heat transfer coefficient in a one dimensional rectangular plate by Levenberg-Marquardt method”, International Conference on Systems, Energy and Environment held at Government College of Engineering Kannur during 5-6, August.
11. Balaji S and **Gnanasekaran N**, 2016, “Numerical Estimation of Wall Heat Flux in a One Dimensional Rectangular Fin by Conjugate Gradient Method”, International Conference on Systems, Energy and Environment held at Government College of Engineering Kannur during 5-6 August.
12. ShreyasHegde , Narendran G, **Gnanasekaran N**, 2016, "Conjugate Heat Transfer in a Hexagonal Micro Channel using Hybrid Nano Fluids", Proceedings of the ASME 2016 14th International Conference on Nanochannels, Microchannels, and Minichannels, ICNMM2016, Washington DC, USA.
13. Narendran G, **Gnanasekaran N**, ArumugaPerumal D, 2016, “A review on fluid flow and heat transfer characteristics of Micro channel heat sink”, International Conference on Design, Analysis, Manufacturing and Simulation, April 7 - 8, 2016, Saveetha University, Chennai.
14. Sai Krishna Dammalapati, Vishal Murmu, **Gnanasekaran N**, 2015, “ ayesian Inference Approach to Estimate Robin Coefficient using Metropolis Hastings Algorithm”, International Conference on Advances in Chemical Engineering and Golden Jubilee Celebrations between 20-22 December 2015, National Institute of Technology Karnataka.
15. SuyogWani, Shiv Singh Saini, **Gnanasekaran N**., 2015, “A New Methodology to Estimate unknown Parameter from Fin Heat Transfer”, 10th National Conference on Optimization Techniques in Engineering Sciences and Technologies (OPTEST 2015), BIT, Erode, Tamil Nadu, India.
16. Pallav Pattnaik, Subham Burnwal, **Gnanasekaran N.**, 2015, “A Novel Method to Estimate Convective Heat Transfer Coefficient and Emissivity from a Lumped System Using Transient Experiments”, 10th National Conference on Optimization Techniques in Engineering Sciences and Technologies (OPTEST 2015), BIT, Erode, Tamil Nadu, India.
17. Harsha Kumar, Amey S Kulkarni, **N.Gnanasekaran**, 2015, “Estimation of heat transfer coefficient from mild steel fin using inverse heat transfer approach”, International Conference

on Computer Aided Engineering (CAE-2015) Department of Mechanical Engineering, GITAM University, School of Technology, Hyderabad, India.

1. Amey S Kulkarni , Harsha Kumar, **N.Gnanasekaran**, 2015, “A new Forward model approach for a mild steel fin under natural convection heat transfer”, International Conference on Computational Heat and Mass Transfer-2015, National Institute of Technology Warangal, November 30 to December 2, 2015.
2. Harsha Kumar, Sharath Kumar, SrinivasaSagar, N., **Gnanasekaran, N.**, 2015, “Synergestic Approach for the Simultaneous Estimation of Heat Transfer Coefficient and Heat Flux Using Fin from Steady State Heat Transfer Experiments”, 6th International Symposium on Advances in Computational Heat Transfer, CHT-15, Rutgers University, U.S.A.
3. Sharath Kumar, Harsha Kumar, Srinivasa Sagar, N., **Gnanasekaran, N.**, 2014,“Asymptotic Computational Fluid Dynamics (ACFD) - A Novel Approach as Forward Model for Estimation of Volumetric Heat Generation Using Surrogated Data”, 23rd International Conference on Interdisciplinary Mathematical, Statistical and Computational Technique, IMSCT 2014-FIMXXIII, NITK.
4. Harsha Kumar, Sharath Kumar, SrinivasaSagar, N., **Gnanasekaran, N.**, 2014, “Hybrid Monte Carlo Approach for Estimation of Heat Flux from Perturbed Temperature Data”,23rd International Conference on Interdisciplinary Mathematical, Statistical and Computational Technique, IMSCT 2014-FIMXXIII, NITK.
5. SrinivasaSagar, N., **Gnanasekaran N.**, 2014,“Estimation of Heat Flux Under Natural Convection Laminar Flow”,5thInternational and 41stNational Conference on Fluid Mechanics and Fluid Power, FMFP 2014, IIT Kanpur.
6. **Gnanasekaran N.**, Nithin and Balaji, C., 2014, “Parameter Estimation Using Heat Transfer Models with Experimental Data Using a Combined Ann- Bayesian Approach”15th International Heat Transfer Conference - IHTC-15, Kyoto, Japan.
7. Kondareddy B, **Gnanasekaran N** and Balaji C, “Estimation of Thermo-physical and Transport Properties with Bayesian Inference using Transient Liquid Crystal Thermography Experiments ”, EUROTHERM, 6th European Thermal Sciences Conference Eurotherm 2012, Poitiers - Futuroscope France.
8. Kondareddy B, **Gnanasekaran N** and Balaji C, “Simultaneous Estimation of Multiple Parameters with Bayesian Inference Based on Liquid Crystal Thermography Data”. ISHMT- ASME Heat and Mass Transfer Conference, December 27-30, 2011, IIT Madras, India.
9. **Gnanasekaran N** and Balaji C, 2010, “A Correlation for Nusselt Number Under Turbulent Mixed Convection Using Transient Heat Transfer Experiments” 14th International Heat Transfer Conference –IHTC,Washington D.C, 2010.
10. **Gnanasekaran N** and Balaji C, 2010, “Estimation of Multiple Parameters in Transient Cooling Using Bayesian Method”, 20th National and 9th International ISHMT ASME Heat and Mass Transfer Conference, Mumbai, January 2010 (ISHMT ASME 2010).