

Bio-Data

Dr. Sandip Kumar Mandal

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RESEARCH AREA

Material characterization, optimization, coating, heat transfer

EDUCATION

- Ph.D. (Engg.), NIT Arunachal Pradesh
- M.Tech. (Manufacturing Technology), NITTTR Kolkata.
- B.Tech. (Mechanical Engineering), Haldia Institute of Technology.

PROFESSIONAL EXPERIENCES

- **Assistant Professor**, September 2013 -Present, *Department of Mechanical Engineering*, National Institute of Technology (NIT) Arunachal Pradesh, India.
- **Assistant Professor**, August 2011-August 2013, *Department of Mechanical Engineering*, Haldia Institute of Technology, Haldia, West Bengal, India.

RESEARCH PROJECTS

Co-Principal Investigator for Council of Scientific and Industrial Research (CSIR), sponsored project grant: Project Title: Use of high percentage of Methanol fuel in a Diesel Engine (Ongoing: 2019 - 2022). [Funds sanctioned: Rs.17,59,560/]

INTERNATIONAL REFERRED JOURNALS

2024

1. Ranjan Kumar, Dipak Sen, Sandip Kumar Mandal "Pool Boiling of CNT+ GO Nanomaterial-Coated Copper Substrate: An Experimental Study", ASME Journal of Thermal Science and Engineering Applications, vol. 16, pp. 1-29, 2024. [SCI/SCIE, Q2]
2. Ranjan Kumar, Saurabh Dubey, Dipak Sen, S.K. Mandal "A machine learning based approach for predicting Pool boiling heat transfer coefficient of CNT + GO nanoparticle coated surfaces", International Communications in Heat and Mass Transfer, vol. 154, pp. 107455, 2024. (<https://doi.org/10.1016/j.icheatmasstransfer.2024.107455>)[SCI/SCIE, Q1]
3. Ranjan Kumar, Prity Kumari, N. Rahul, Dipak Sen, S. K. Mandal "Experimental comparison of pool boiling characteristics between CNT, GO, and CNT + GO-coated copper substrate", Heat Transfer, Wiley, , 2024. (<https://doi.org/10.1002/htj.23061>) [Scopus, Q2]

2020

1. SK Mandal, Arnab Deb, Dipak Sen "A computational study on mixed convection with surface radiation in a channel in presence of discrete heat sources and vortex generator based on RSM", Journal of Thermal Analysis and Calorimetry, , 2020.[SCI/SCIE, Q1]

2019

1. Mandal, S. K., Arnab Deb, and Dipak Sen "Mixed convective heat transfer with surface radiation in a rectangular channel with heat sources in presence of heat spreader.", Thermal Science and Engineering Progress, vol. 100423, 2019.[SCI/SCIE, Q1]

2018

1. Mandal, S. K., DIPAK SEN, and ASIS GIRI. "Multi objective optimization of laminar mixed convective heat transfer of electronic chips in a horizontal channel with vortex generator.", International Journal of Mechanical and Production Engineering Research and Development, vol. 8, pp. 155-166, 2018.[Scopus, Others]

2016

1. Mandal, S. K., and Dipak Sen "A brief review on mixed convection heat transfer in channel flow with vortex generator for electronic chip cooling.", International Journal of Engineering Research and Application , vol. 6.6, pp. 74-82, 2016.

CONFERENCE PROCEEDINGS

2023

1. Dipak Sen S K Mandal, Bhiktor M Sen "A Numerical Investigation & Multiple Criteria Decision-Making Approach on Flow over Cylinders at Different Orientations", Conference on Fluid Mechanics and Fluid Power, 2021, 2023

2020

1. SK Mandal, Arnab Deb, Dipak Sen "Mixed Convective Heat Transfer with Surface Radiation in a Vertical Channel in Presence of Heat Spreader", InAdvances in Applied Mechanical Engineering: Select Proceedings of ICAMER 2019 , 2020

2. Arnab Deb, SK Mandal "Computational Study of Mixed Convection of Electronic Chips with Surface Radiation", Advances in Applied Mechanical Engineering: Select Proceedings of ICAMER 2019, 2020

BOOK CHAPTERS

1. Ranjan Kumar, Bhiktor M Sen, Amit Malakar, SK Mandal "RSM Based Multi-Objective Optimization and Selection of Suitable Al 6061-Fly ash-TiO₂ Composite", MATERIALS ENGINEERING RESEARCH .,MATERIALS EXPLORE Vol.1, ,(2023)