



Techno College of Engineering Agartala

An Engineering College affiliated to Tripura University (A Central University),

Approved by AICTE, MHRD, Govt. of India

Website: www.tiaedu.org

Name of the faculty: Dr. Pulak Sen

Designation: Associate Professor

Education: PhD

Contact:

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Research Interest: CFD, Fluid mechanics, Heat Transfer, Thermodynamics

Membership of professional bodies:

Professional Experience: 12Years 9 Month

Patents:

Publications:

Publishes Journal/ Conference papers/ Book/ Book Chapters:

- Pulak Sen, Sanjib Kalita , Dipak Sen , Ajoy Kumar Das , Bidyut Baran Saha,” Pool boiling heat transfer and bubble dynamics of modified copper micro-structured surfaces”, International Communications in Heat and Mass Transfer Volume 134, May 2022, 106039
<https://doi.org/10.1016/j.icheatmasstransfer.2022.106039>.
- S Kalita , Pulak Sen , Dipak Sen , Sudev Das , Ajoy Kumar Das, Bidyut Baran Saha, “Experimental study of nucleate pool boiling heat transfer on microporous structured by chemical etching method”, Thermal Science and Engineering Progress Volume 26, 1 December 2021, 101114
<https://doi.org/10.1016/j.tsep.2021.101114>.
- Sanjib Kalita , Dipak Sen , Pulak Sen , Sudev Das , Bidyut Baran Saha,” Pool boiling heat transfer enhancement and bubble visualization on a microporous copper over CuO filmed surface through combination of chemical etching and electrochemical deposition,” International Communications in Heat and Mass Transfer Volume 144, May 2023, 106740
<https://doi.org/10.1016/j.icheatmasstransfer.2023.106740>.





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<https://doi.org/10.1016/j.tsep.2023.101965>.
- N. Rahul, Sanjib Kalita ,Pulak Sen, Biresh Shil & Dipak Sen,” Enhanced pool boiling heat transfer characteristics on microstructured copper surfaces coated with hybrid nanofluid,” Journal of Thermal Analysis and Calorimetry Volume 149, pages 6281–6293, (2024) [Enhanced pool boiling heat transfer characteristics on microstructured copper surfaces coated with hybrid nanofluid | Journal of Thermal Analysis and Calorimetry | Springer Nature Link](#)
- Biresh Shil, Dipak Sen, Ajoy Kumar Das, Pulak Sen & Sanjib Kalita,” Pool boiling performance enhancement of micro/nanoporous coated surfaces fabricated through novel hybrid method Heat and Mass Transfer Volume 60, pages 47–66, (2024) [Pool boiling performance enhancement of micro/nanoporous coated surfaces fabricated through novel hybrid method | Heat and Mass Transfer | Springer Nature Link](#).
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<https://doi.org/10.1002/ceat.202100558>.
- Pulak Sen, Ajoy Kumar Das, Dipak Sen, Sanjib Kalita, Biresh Shil, Sudev Das,” Pool Boiling Performance on Cu-TiO₂ Nanoparticle-Coated Copper Surfaces Prepared Through Hybrid Method,” Volume 46 Pages 345-361 Taylor & Francis <https://doi.org/10.1080/01457632.2024.2317607>.
- Dipak Sen, Probir Kumar Bose, Rajsekhar Panua, Ajoy Kumar Das, Pulak Sen,” LAMINAR NATURAL CONVECTION STUDY IN A QUADRANTAL CAVITY USING HEATER ON ADJACENT WALLS,” Frontiers in Heat and Mass Transfer (FHMT), 4, 013005 (2013)
[10.5098/hmt.v4.1.3005](https://doi.org/10.5098/hmt.v4.1.3005).
- Sanjib Kalita, Pulak Sen, Dipak Sen, Sudev Das,” Effect of micro-/nano-porous thin film surfaces prepared by a hybrid method of etching and electrochemical deposition on pool boiling heat transferperformance,” Thermal Science and Engineering Progress Volume 51 Pages 102602 Elsevier <https://doi.org/10.1016/j.tsep.2024.102602>.
- Sanjib Kalita, Pulak Sen, Dipak Sen, Sudev Das, Bidyut Baran Saha,” Phase Transition Heat Transfer Enhancement of a Graphene-Coated Microporous Copper Surface Using Two-Step Electrodeposition Method,” Thermal Science and Engineering Applications Volume 16 Pages 071007 American Society of Mechanical Engineers
<https://doi.org/10.1115/1.4065358>.



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- Sanjib Kalita, Pulak Sen, Dipak Sen, Sudev Das, Biresh Shil,” Experimental investigation of bubble dynamics and pool boiling heat transfer of composite nano-particle coating on horizontal copper surfaces using hybrid method,” Heat and Mass Transfer Volume 61 Page 89 Springer Berlin Heidelberg [Experimental investigation of bubble dynamics and pool boiling heat transfer of composite nano-particle coating on horizontal copper surfaces using hybrid method](#) | Heat and Mass Transfer | Springer Nature Link.
- Rakesh Kumar, Kapil Dev, Ranjan Kumar, Pulak Sen, Dipak Sen,” Influence of Pulsating Flow on Thermal Characteristics in a Triangular Sharp-Edged Wavy Channel,” Advances in Thermofluids and Renewable Energy Pages 113-126 Springer Singapore [Influence of Pulsating Flow on Thermal Characteristics in a Triangular Sharp-Edged Wavy Channel](#) | Springer Nature Link.
- Rakesh Kumar, Kapil Dev, Ranjan Kumar, Pulak Sen, Dipak Sen,” Sharp-Edged Wavy Channel,” Advances in Thermofluids and Renewable Energy Pages 113 Springer Nature [Advances in Thermofluids and Renewable Energy: Select Proceedings of TFRE 2020 - Google Books.](#)

Achievements (if any): Best Faculty Award 2015 (TCEA), Best HOD Award 2025(TCEA)

Hobbies: Painting, Watching News, Travelling