

Shahnawaz AHMED

PhD Research Scholar | Indian Institute of Technology Guwahati, India

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SUMMARY

Research Interest Thermal hydraulics, Microscale heat transfer, Microfabrication, Lattice-Boltzmann Method
Computer Programming C, FORTRAN
Soft Skills AutoCAD, Inkscape, Latex, Mathematica, Matlab, MS-Office

EDUCATION

- 2013–2020** | **Doctor of Philosophy | Indian Institute of Technology Guwahati, INDIA**
Department: Mechanical Engineering
Specialization: Fluids and Thermal Engineering
Thesis title: Investigations on Micro Loop Heat Pipe: Design, Fabrication and Mathematical Modeling using Thin-film Evaporation Theory
- 2011–2013** | **Masters of Technology | National Institute of Technology Rourkela, INDIA**
Department: Mechanical Engineering
Specialization: Thermal Engineering
CGPA: 8.69
Thesis title: Prediction of Bubble and Drop Dynamics under Different Flow Situations: Lattice Boltzmann Study
- 2006–2010** | **Bachelor of Technology | Tezpur University, INDIA**
Department: Mechanical Engineering
CGPA: 6.66
- 2005–2006** | **All India Senior School Certificate Examination, AISSCE**
School: Delhi Public School Dhaligaon, Assam, India
Subjects: Physics, Chemistry, Mathematics, Biology, English
Percentage: 83.6
- 2003–2004** | **All India Secondary School Examination, AISSE**
School: Delhi Public School Dhaligaon, Assam, India
Subjects: English, Hindi, Mathematics, Science, Social Science
Percentage: 88.4

EXPERIENCE

- 2019** | **Teaching Assistant, NPTEL ONLINE CERTIFICATION COURSE**
> Two-phase flow with phase change in conventional and miniature channels
- 2016** | **Hands-on Training, INDIAN NANO-ELECTRONICS USERS PROGRAM (INUP)**
> Introduction to Nanofabrication Technologies (held at Indian Institute of Technology Bombay, India)
- 2014–2018** | **Graduate Teaching Assistant | Indian Institute of Technology Guwahati, INDIA**
> Applied Thermodynamics
> Engineering Drawing
> Engineering Mechanics
> Fluid Machinery Laboratory

Reviewer

- > International Journal of Heat and Mass Transfer
- > Physics of Fluids
- > 25th National and 3rd International ISHMT-ASTFE Heat and Mass Conference (2019)

PUBLICATION IN PEER-REVIEWED JOURNALS

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| 2021 | Journal of Thermal Science and Engineering Applications, ASME
Title: Loop Heat Pipe Design: An Evaluation of Recent Research on the Selection of Evaporator, Wick and Working Fluid
Authors: Shahnawaz Ahmed , Manmohan Pandey and Masahiro Kawaji
Status: Under review |
| 2020 | International Communications in Heat and Mass Transfer, ELSEVIER
Title: A Simple Figure of Merit for Devices Utilizing Thin Film Evaporation
Authors: Shahnawaz Ahmed and Manmohan Pandey
Volume: 117
DOI: 10.1016/j.icheatmasstransfer.2020.104803 |
| 2019 | Physics of Fluids, AMERICAN INSTITUTE OF PHYSICS
Title: New Insights on Modeling of Evaporation Phenomena in Thin Films
Authors: Shahnawaz Ahmed and Manmohan Pandey
Volume: 31
DOI: 10.1063/1.5112139 |
| 2015 | The Journal of Computational Multiphase Flows, SAGE JOURNALS
Title: Study of the Dynamics of a Condensing Bubble Using Lattice Boltzmann Method
Authors: Shahnawaz Ahmed , Sandeep Sreshth, Suman Ghosh and Arup Kumar Das
Volume: 7
DOI: 10.1260/1757-482X.7.2.117 |

PUBLICATION IN CONFERENCE PROCEEDINGS

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| 2020 | 8th International and 47th National Conference on Fluid Mechanics and Fluid Power (FMFP), INDIA
Title: A comparative study of spurious currents for cubic equation of state for E4, E6 and E8 order of isotropy and contact angle measurement using Pseudopotential LBM
Authors: Mohammad Kashan, Anoop Kumar Das, Manmohan Pandey and Shahnawaz Ahmed |
| 2019 | 3rd International and 25th National Conference on ISHMT-ASTFE Heat and Mass Transfer, INDIA
Title: Effect of wick parameters on the performance of miniature loop heat pipe
Authors: Pratik Sondkar, Shahnawaz Ahmed , Chandan Nashine and Manmohan Pandey |
| 2018 | Joint 19th International Heat Pipe Conference and 13th International Heat Pipe Symposium, ITALY
Title: Study of transport phenomena in the evaporator channels of a two phase capillary device using thin film evaporation model
Authors: Shahnawaz Ahmed and Manmohan Pandey |
| 2016 | 6th International and 43rd National Conference on Fluid Mechanics and Fluid Power (FMFP), INDIA
Title: Design and numerical simulation of a micro-loop heat pipe with finned evaporator
Authors: Shahnawaz Ahmed , and Manmohan Pandey |

2013 | 22nd National and 11th International ISHMT-ASME Heat and Mass Transfer Conference, INDIA
Title: Study of The Dynamics of an Evaporating Bubble using Lattice Boltzmann Method
Authors: Shahnawaz Ahmed, Suman Ghosh and Arup Kumar Das

AWARDS

2019 Awarded the silver medal in the course “Fundamentals of Micro and Nanofabrication” certified by National Programme on Technology Enhanced Learning (NPTEL)

REFERENCES

Dr. Manmohan Pandey

PhD mentor

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Dr. Ujjwal K. Saha

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Dr. Dipankar Bandyopadhyay

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PERSONAL DETAILS

Date of birth : 25 November, 1988
Gender : Male
Marital status : Married
Language : Assamese, Hindi, English
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PO-Dhaligaon, Dist-Chirang,
PIN-783385 (Assam)