JISHNU HANDIQUE

EDUCATION

M.Tech in Thermal and Fluids Engineering, National Institute of Technology Manipur, Imphal, CGPA **-** 9.14/10 *(2019)*

B.Tech in Mechanical Engineering, Assam Kaziranga University, Jorhat, CGPA **-** 8.55/10   *(2016)*

Senior Secondary in Science, Reliance Junior College, Golaghat, Marks in Percentage **-** 74.60   *(2011)*

SKILLS

OpenFOAM	Ansys (ICEM & Fluent)
Matlab	Basic Knowledge of Python

PROFILES

ENGINEERING EXPERIENCE

Junior Research Fellow at IIT Kharagpur   *(CFD)*

- Working on a project "Development of Bio-mimetic Autonomous Underwater Vehicle for Maritime Surveillance" sponsored by *Naval Research Board, Govt. of India*

Fellowship' 2019 at FOSSEE, IIT Bombay   *(OPENFOAM)*

- A Film-Cooling on a Flat Plate problem was investigated and validated for Air-Water Mist injection with an Eulerian-Eulerian Multiphase solver
- Different case studies were performed with various solvers

Numerical Investigation of Mist Jet Impingement Cooling over Cylindrical Surface   *(ANSYS FLUENT)*

- *Master's Thesis:* A Jet Impingement problem was numerically computed for different H/d ratios and Volume Fractions
- Numerical results were compared with the outcomes of an experimental project funded by *Department of Science and Technology, Govt. of India*

Quasi 1D Supersonic Flow Simulation through a Convergent Divergent Nozzle   *(MATLAB)*

- Developed a solver in Matlab to solve 1D Governing Equations in Conservative and Non-Conservative form
- Implemented a CFL Number based Time Step Controller and used MacCormack Method for second order time accuracy

2D Steady and Transient Heat Conduction Simulation   *(MATLAB)*

- Developed a 2D Heat Equation Solver in Matlab
- Implemented Jacboi, Gauss Seidel and Successive Over Relaxation (SOR) Linear Solvers
- Implemented a Steady State and Transient State Solver with Implicit and Explicit Methods

Dehumidifying Air Cooler   *(EXPERIMENTAL)*

- *Major Project of B.Tech:* Designed a Dehumidifying Air Cooler and Studied its performance

PUBLICATIONS

Journal Paper

- C. Khangembam, D. Singh, **J. Handique**, K. Singh, "Experimental and numerical study of air-water mist jet impingement cooling on a cylinder", ***International Journal of Heat and Mass Transfer*** (in press)
- **J. Handique,** S. Kotoky, "A computational investigation on the effects of particle diameter and particle-particle interactions on jet penetration characteristics inside a bubbling gas-solid fluidized bed with a central jet", ***Flow, Turbulence and Combustion*** (under review)

International Conference Paper

- **J. Handique**, D. Singh, "Slot mist jet impingement cooling on a cylindrical surface", Vol2019 (2019): ICTEA:2019, ***Int. Conference on Thermal Engineering: Theory and Applications***, Gujarat, India

ACHIEVEMENTS

Secured Second Position in Post-Graduation
- M.Tech 2019, NIT Manipur

GATE Scholarship
- Awarded by Ministry of Human Resource Development, India

Best Major Project in B.Tech
- Awarded by SAE Collegiate Club, Assam Kaziranga University

Runners Up in Engineering Design Competetion
- Designed and Tested a model of Trebuchet in Assam Kaziranga University

Anundoram Borooah Award
- Awarded by Government of Assam, India in 2009

Primary Scholarship
- Awarded by Government of Assam, India

EXTRA CURRICULAR ACTIVITIES

- **Took initiative to form the *SAE Collegiate Club* in Assam Kaziranga University**
- **Volunteered in a social drive to *Save Rhino***
- **Co-ordinator of Robotics workshop in KU Winter Fest 2.0**
- **Wicket-Keeper Batsman in School Cricket Team**

ORGANIZATIONS

The Institution of Engineers (India)
- Associate Member (AMIE)

Indian Red Cross Society
- Life Membership

CONTACTS

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