





Ram Munde

 Email




 LinkedIn

 Website

Employment History

- August 2024 – present  **Graduate Research Assistant** Raisul Islam Semiconductor Engineering Lab
Materials Engineering, Purdue University, West Lafayette, USA
- May 2023 – July 2023  **Data Scientist Internship** United Phosphorus Ltd, Bengaluru, India
- May 2022 – July 2022  **Invention Internship** Indian Institute of Technology, Gandhinagar, India

Education

- August 2024 – present  **Ph.D, Materials Science and Engineering (GPA: 4.0/4.0)**
Purdue University, West Lafayette, USA
Advisor: Prof. Raisul Islam
Thesis: *The Fundamental study of Nanoscale Heat Transport for Next-Generation Intelligent Computing Systems*
- November 2020 – June 2024  **B.Tech, Materials Science and Engineering (GPA: 8.01/10)**
Indian Institute of Technology Delhi, New Delhi, India
Advisor: Prof. Dibyajyoti Ghosh
Thesis: *Computational Insights into Modulating the Performance of MXene-Based Electrocatalysts for Hydrogen Evolution Reaction (HER)* 

Research Publications

Journal Articles



- 1** **R. Munde**, H.-R. Chuang, B. C. Wyatt, B. Anasori, and R. Islam, “High-throughput parasitic-independent probe thermal resistance calibration for robust thermal mapping with scanning thermal microscopy,” (*in preparation for submission to Journal of Applied Physics*), (In preparation).
- 2** A. Kumari, S. Singh, **R. Munde**, A. Bashir, P. Ingole, and D. Ghosh, “Boosting hydrogen evolution on halogenated mxenes via surface termination engineering: A data-informed computational and experimental strategy,” *Advanced Functional Materials (Under review)*, *ACS catalysis (Under review)*, 2025.
- 3** **R. Munde**, N. Vaillancourt, H.-R. Chuang, C. Gu, Y. Wang, and R. Islam, “3d integrated system for advanced intelligent computing,” *Advances in Physics: X (Under Review)*, 2025.

Conference & Symposium Proceedings


- 1** **R. Munde**, B. C. Wyatt, K. K. Kamarth, B. Anasori, and R. Islam, “High-throughput thermal conductivity mapping for 2d mxene via probe thermal resistance calibration in scanning thermal microscopy (sthm),” in *MRS Fall Meeting 2025*, Boston, MA, USA, (Accepted for oral presentaion).
- 2** **R. Munde** and R. Islam, “The study of nanoscale heat transfer using scanning thermal microscopy (sthm),” in *Purdue Graduate Symposium*, Indianapolis, IN, USA, 2025, (Poster presentation).

Awards, Scholarships & Honors


Leadership Experience

- 2023  **Technical Overall Coordinator:** *Offices of Career Services, IIT Delhi*
-  **Convener:** *Department of Materials Science & Engineering, IIT Delhi*

Awards, Scholarships & Honors (continued)

2022  **Academic Mentor:** *Board for Student Welfare, IIT Delhi*

Awards and Achievements

2021  **Joining Hands Scholarship:** *3 Year NXP Semiconductors Support for Bachelor Program*

2024  **Significant Contribution Award** *Office of Career Services, IIT Delhi*

 **Micron Hackathon Winner Micron** *Memory optimization for AI .*

2023  **Best Contribution Award** *Office of Career Services, IIT Delhi.*

Certification

2024  **Phi Kappa Phi.** Merit Award