

PUJA RANI PAUL

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ACADEMIC CREDENTIALS

Bangladesh University of Engineering and Technology (BUET), Dhaka

Apr 2019 - Jun 2024

Bachelor of Science in Mechanical Engineering

Cumulative GPA : 3.87/4.00 | Top 10% of the Department

Holy Cross College, Dhaka

Jul 2016 - Jul 2018

Higher Secondary School Certificate (HSC)

GPA : 5.00/5.00 | Obtained Marks: 88.5% | Major: Science

Board scholarship in General category

Savar Girls' High School, Savar, Dhaka

Jan 2014 - Jun 2016

Secondary School Certificate (SSC)

GPA : 5.00/5.00 | Major: Science

Board scholarship in Talentpool category

RESEARCH INTERESTS

- Advanced Materials
- Manufacturing
- Molecular Dynamics
- Thermal Engineering

RESEARCH EXPERIENCES

Undergraduate Thesis **abstract submitted to a conference

Topic: Analysis of Effective Heat and Sound Insulation Properties of Locally Available Jute Stick Board

Supervisor: Dr. Anup Saha, Assistant Professor, Dept. of Mechanical Engineering, BUET

Software utilized: Ansys FLUENT, Tecplot 360, MS Office Suite

Journal Paper

Title: Molecular Dynamics Simulation of Alloying Characteristics of Al-Mg Nanoparticles: Effect of thermal process parameter

[DOI: <https://doi.org/10.1080/08927022.2024.2381583>]

Authors: Partho Kundu, **Puja Rani Paul**, Apurba Sarker, Mohammad Nasim Hasan

Software utilized: LAMMPS, MATLAB, Tecplot, Ovito, AtomsK

Journal Paper

**under preparation

Title: Thermal Management of Outer Shell of Coaxial Cylinder Containing a Constant Flux Heat Source Using P, PI and PID Controllers

Supervisor: Dr. Sumon Saha, Professor, Dept. of Mechanical Engineering (BUET)

Software utilized: COMSOL

PROJECTS

Spiral Plate Cross Flow Heat Exchanger - a prototype for automobile radiator

Mar 2023

- Design and manufacturing of a spiral plate heat exchanger
- Numerical simulation of the design using Ansys

Med_Pro : A Medicine Delivery Drone

Oct 2022

- Design and manufacturing of a complete drone with real-time video and GPS transmission system

TECHNICAL SKILLS

- LAMMPS
 - SOLIDWORKS
 - COMSOL
- OVITO
 - AutoCAD
 - Ansys FLUENT
- MATLAB
 - Python
 - Adobe Illustrator

WORK EXPERIENCE

Intern, British American Tobacco Bangladesh (BATB)

Nov 2023 - Dec 2023

AWARDS & ACHIEVEMENTS

- The “RISE Student Research Grant 2023, BUET” worth of BDT 55,830
- “Dean’s Award” throughout 4 levels in the department of Mechanical Engineering
- 3rd position in the “Best Term Paper Award” under the course of ME 461: Control Engineering
- Accomplished competitor in “University Physics Competition 2022”
- 2nd Position in the “BAS Divisional Science Olympiad”
- General scholarship in Higher Secondary School Certificate (HSC)
- Talent Pool scholarship in Secondary School Certificate (SSC)

AFFILIATIONS

- **Technical Executive**, ImechE BUET (2021- 2024)
 - **Logistics Executive**, BUET Automobile Club (2020 – 2023)
 - **Association Representative**, Mechanical Engineering Association (MEA), BUET
 - **Core Organizer**, Mechanical Festival 2024, BUET
 - **Executive Member**, BUET Brain Teaser Club
 - **Active Member**, BUET Drama Society
- 2021 - 2024
- 2020 - 2023
- 2019 - 2024
- 2024
- 2022 - 2024
- 2019 - 2024

REFERENCES

Dr. Mohammad Nasim Hasan

Professor, Department of Mechanical Engineering, BUET
Email: nasim@me.buet.ac.bd

Dr. Anup saha

Assistant Professor, Department of Mechanical Engineering, BUET
Email: anup106@me.buet.ac.bd