

# PARTHO KUNDU

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## ACADEMIC CREDENTIALS

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**BSc in Mechanical Engineering**

2019 – 2024

*Bangladesh University of Engineering and Technology*

**CGPA: 3.61/4.00**

## RESEARCH INTERESTS

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Molecular Dynamics • Advanced Materials • Manufacturing • Fluid Dynamics

## RESEARCH EXPERIENCE

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**1. Dynamic Wind Load Analysis and Mitigation Strategies for High-Rise Staggered Buildings: A Computational Fluid Dynamics Approach.**

*(Abstract Submitted to the 6th ICMIME: Paper ID 219)*

**Thesis Supervisor:** Dr Mohammad Mamun,  
Professor, Dept. of Mechanical Engineering, BUET

**Software Used:** Ansys, MS Excel, Techplot

**2. Molecular Dynamics Simulation of Alloying Characteristics of Al-Mg Nanoparticles under different process heating conditions.**

*(Manuscript Accepted for Publication)*

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

**Software Utilized:** LAMMPS, MATLAB, Tecplot, Ovito, AtomsK

## PROJECTS

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**1. MED-PRO: A Medicine Delivery Drone**

2023

An Unmanned Air Vehicle (UAV) designed for delivering medicines to remote areas with real-time video and GPS transmission system.

**2. Closed Loop Thermosyphon**

2023

A natural convection and conduction-based CPU cooler aimed at finding the cheapest, most lightweight, and compact alternative to existing high-end products.

## TECHNICAL SKILLS

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**Programming Languages:** C, Python, Java

OpenCV and Arduino based projects

**Technical Software:** Autocad, Solidworks, Ansys Fluent, LAMMPS, Comsol, MATLAB, Tecplot 360, Ovito, MS Excel, MS Powerpoint, MS Word

**Design Software:** Adobe Illustrator

## WORK EXPERIENCE

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**Internship**

Nov 2023 – Dec 2023

*Bangladesh industrial Technical Assistance Centre (BITAC)*

## SUPPLEMENTARY PURSUITS

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<b>Image Processing workshop</b> <i>Instructor</i> Organized by BUET Robotics Society	2023
<b>National Environment Carnival 2023</b> <i>Regional Organizer</i> Organized in collaboration with Satyen Bose Science Club (BUET)	2023

## AFFILIATIONS

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<b>Satyen Bose Science Club, BUET</b> <i>General Secretary</i>	2023 – 2024
<b>BUET Robotics Society</b> <i>Deputy Head of Design</i>	2023 – 2024
<b>Badhan, Ahsan Ulla Hall Unit, BUET Zone</b> <i>Vice President</i> A voluntary blood donors organization.	2023 – 2024
<b>Satyen Bose Science Club, BUET</b> <i>Assistant Financial Secretary</i>	2022 – 2023
<b>BUET Robotics Society</b> <i>Publicity and Outreach Coordinator</i>	2022 – 2023

## AWARDS & ACHIEVEMENTS

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<b>Accomplished Competitor</b> <i>University Physics Competition 2022</i> Team Number: 466	2022
<b>4th position with Class A</b> <i>2nd Kibo Robot Programming Challenge (RPC)</i> organized by NASA and Jaxa	2021
<b>Talent Pool scholarship in Higher Secondary Certificate (HSC)</b> <i>Dinajpur Education Board</i> <b>Board Rank: 10th</b>	2018
<b>Talent Pool scholarship in Secondary School Certificate (SSC)</b> <i>Dinajpur Education Board</i> <b>Board Rank: 5th</b>	2016

## REFERENCES

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**Dr. Mohammad Nasim Hasan**, *Professor*, Department of Mechanical Engineering, BUET  
Email: nasim@me.buet.ac.bd

**Dr. Sheikh Mohammad Shavik**, *Associate Professor*, Department of Mechanical Engineering, BUET  
Email: shavik@me.buet.ac.bd