

# Asif Ahmed Tanmoy



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Academic Portfolio: [asifahmedtanmoy.github.io](https://asifahmedtanmoy.github.io)



<https://www.linkedin.com/in/asif-ahmed-tanmoy>

## Academic Credentials

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Bachelor of Science in Materials and Metallurgical Engineering

Bangladesh University of Engineering and Technology (BUET), March 2025

**CGPA:** 3.39/4.00 (Last two term average GPA: **3.50**)

## Research Experiences

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### ▪ Undergraduate Thesis (March 2024 – March 2025)

- Topic: "Structural and Magnetic Properties of  $La^{3+}$  Substituted  $NiFe_2O_4$  Nanoparticles"
- Produced  $La^{3+}$  doped  $NiFe_2O_4$  nanoparticles with varying dopant concentration (2.5%, 5% and 7.5%).
- Characterized the physical properties of the nanoparticles by conducting SEM, XRD and VSM tests.
- Compared and investigated the effects of dopant concentration on the structural and magnetic properties of the nanoparticles.

## Undergrad Projects

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### ▪ Capstone Project of level 3

- Completed as part of the *MME 310* undergraduate course
- Arsenic Removal from Ground Water by Adsorption and Photocatalytic Oxidation Method Using  $MgFe_2O_4 - TiO_2$  Porous Ceramic.

### ▪ SolidWorks Project of level 2, term 1

- Completed as part of the *IPE 204* undergraduate course
- Topic: "HP LaserJet Pro M15W"
- Modeled and assembled components using SolidWorks 2013 (x64 edition)

## Professional Experiences

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### ▪ Intern, DBL Ceramics Ltd, Gazipur, Dhaka, Bangladesh [June 2024].

- Gained practical hands-on experience in tiles manufacturing processes
- Developed a comprehensive understanding of the raw materials used in tile production and their associated properties.
- Acquired knowledge through observation of the squaring, polishing, sorting, and packaging processes involved in tiles production.
- Learned about the standardized tests used to characterize the produced tiles.

## Relevant Course Works

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- Computer Programming (CSE 287)
- Engineering Graphics and Introduction to CAD (IPE 204)
- Crystallography and Structure of Materials (MME 211)
- Thermodynamics of Materials (MME 215)
- Computer Applications to Materials Engineering (MME 208)
- Phase Diagrams and Transformations (MME 213)
- Capstone Project (MME 310)

- Electrical, Optical and Magnetic Properties of Materials (MME 311)
- Mechanical Behaviour of Materials (MME 313)
- Glass and Ceramic Materials (MME 305)
- Characterisations of Materials (MME 315)
- Advanced Ceramics (MME 435)
- Materials Selection and Design (MME 411)
- Solar Cells, Fuel Cells and Batteries (MME 457)

## Technical Skills

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- Engineering & Analysis Tools: MATLAB
- Programming Languages: C, C++
- Web Technologies: HTML, CSS
- CAD & 3D Modelling: SolidWorks
- Data analysis and graphing software: OriginPro
- Image processing and analysis software: ImageJ
- XRD analysis software: HighScore Plus

## Academic Achievements

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- Board Scholarship (General) for Higher Secondary Certificate Exam (2019)

## Language Proficiency

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- IELTS: 7 (Listening - 7.5, Reading - 6.5, Writing - 7.0, Speaking - 6.0)

## Team Work Experiences

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- Vice President, BUET Debating Club [Sep 2024 – Mar 2025]
  - Organized event logistics and adjudicated debates at “BUETDC Freshers’ 2022”
  - Coordinated event operations for “AUGMEDIX Presents 11<sup>th</sup> BUETDC Nationals 2023”
  - Led the Publication Team and published the annual club magazine “Boidurjo”
- General Secretary, BUET Dance Club [Sep 2024 – May 2025]
  - Organized “Inter-University Dance Fest, BUET - Season 6”
- Logistics Secretary, BUET Automobile Club [Sep 2022 – Jun 2023]

## Volunteer Experiences

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- Office Secretary, Badhan [May 2023 – May 2024]
  - Actively volunteered in Badhan, a national voluntary blood donation organization
  - Managed blood requests and coordinated donor–recipient communication
  - Helped organize the “Blood Donors’ Reception 2021”

## References

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Thesis Supervisor:

**Dr. Takian Fakhru**

Associate Professor,

Department of Materials and Metallurgical  
Engineering

Bangladesh University of Engineering and  
Technology, Dhaka.

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Undergraduate Advisor:

**Dr. H. M. Mamun Al Rashed**

Professor and Head of the Department,  
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