

# Tanvir Saklan

+880-1635817747

saklantanvir@gmail.com

Github Profile Link

Portfolio Website

## Career Objective

Hi there, I am a passionate STEM engineer who loves to work in both hardware and software divisions. With a view to sustainable green solution, I aim to integrate hardware and software for better optimization. My academic background provided me a solid knowledge about materials and various tools. I have done several nano-particle synthesis and characterization processes during my academics. On the other hand, my passion took me to the path of programming. I have crawled from design to code via a Cybersecurity path. Through which I have learned Web Development, Automation, Artificial Intelligence, and Cybersecurity.

## Education

B.Sc. in Engineering

Department : **Materials Science and Engineering**, University of Rajshahi, Bangladesh.

Passing Year : **2024** ( Jan 2019 – Dec 2024)

CGPA : **3.28** out of **4.00**

## Research Experiences

**Research Assistant at Bio and Nanotechnology Laboratory**

**Prof. Dr. Anwarul Kabir Bhuiya**

Work : Done several nanoparticle synthesis and characterization techniques for biomedical applications under his supervision. Learned to operate various complex machines such as VSM, FTIR, UV-Vis, FESEM under his supervision. Made an DIY Photocatalytic Degradation Testing Machine with co-workers in his lab.

## Research Projects

**Eco Friendly Nano-Particle Synthesis using Food Waste**

Title : *Green Synthesis & Characterization of Ferrimagnetic Nickel Ferrite Nanoparticles Using Seed Extract of Phoenix Dactylifera for Biomedical Applications.*

Contribution : Expected ferrimagnetic NPs with good particle size and magnetic properties was achieved through several low temperature operations (less than 650°C). A formal presentation was presented before the board of faculties on this research.

**Honey Synthesized Maghemite Nanoparticles for Hyperthermia Cancer Treatment**

Title : *Lychee Honey-Mediated Green Synthesis of Maghemite Nanoparticles for Potential Application in Cancer Hyperthermia Therapy.*

Contribution : Provided assistantship to my lab-mate to complete his project. Used **FESEM** & other techniques to characterize which aligns with structural analysis and sustainable material synthesis theme.

## Soft Skills

Softwares	Materials Studio, Origin Pro, MS Office, Libre Office
Design and Simulations	AutoCAD, Adobe Illustrator, Figma
Programming Languages	Python, C, MatLab, PostgreSQL
Scripting Languages	Bash, Powershell, Linux CLI, INNO Scripting

## Laboratory Skills

*Machines I can operate :* Vacuum Oven, HYSC Muffle Furnace, Magnetic Hot Plate Stirrer, Centrifuging Machine, FTIR, UV-Vis Spectroscopy, VSM, FESEM, Rockwell Hardness Testing Machine, Welding, Soldering, Lathe Machine, Photocatalytic Degradation Machine.

## Job Experiences

Prescribemate, System Developer ( July 2024 – July 2025 )

A paperless e-healthcare system designed for doctors, patients, hospitals, diagnostic centers and pharmacies under one hood. This project is built on python-django & django rest framework. An AI model was developed to handle some tasks and supercharge the platform.

Materials Science Hub, System Developer ( April 2024 – July 2024 )

A platform for enthusiast in Materials Science and Engineering. Focusing on showcasing the database of materials, creating a forum, blogs and brainstorming with AI assistant. This platform is open for all.

Kamrul Academy, Web Developer ( July 2023 – April 2024 )

An e-learning platform, has a user management system, admin panel, course showcasing, purchasing, progress tracking and automated certificate generation features.

Cambridge IT Consultancy, Software Tester Internship ( October 2021 – Jan 2022 )

An multinational B2B company, has several products on their timeline. My role was to test the vulnerability and bugs in their softwares.

Arena Web Security, Cybersecurity Internship ( April 2021 – June 2021 )

A Bangladeshi Cybersecurity Firm, offers learning materials, courses and internship after course completing successfully. I got chance into the internship program.

## Achievements

- 2024 Champion, Bangladesh Inter-University Basketball Championship Tournament
- 2023 Champion, Bangladesh Inter-University Basketball Championship Tournament
- 2022 Runners-Up, Inter-Department Football Tournament

## Hobbies

Robotics, Basketball, Football, Travelling, Gardening, Reading fictions, Karate

## References

### **Dr. Anwarul Kabir Bhuiya**

#### **Professor**

Department of Materials Science & Engineering, University of Rajshahi, Bangladesh

Email : [mkabir@ru.ac.bd](mailto:mkabir@ru.ac.bd)

Google Scholar Profile : <https://scholar.google.com/citations?user=PnBNiY4AAAAJ&hl=en&oi=ao>

### **Dr. G.M. Shafiur Rahman**

#### **Professor**

Department of Materials Science & Engineering, University of Rajshahi, Bangladesh

Email : [drgmshafi\\_mse@ru.ac.bd](mailto:drgmshafi_mse@ru.ac.bd)

Google Scholar Profile : <https://scholar.google.com/citations?user=mYPrXQoAAAAJ&hl=en&oi=ao>