Sovendo Talapatra

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ACADEMIC CREDENTIALS

Bangladesh University of Engineering and Technology (BUET) **Dhaka, Bangladesh**
Bachelor of Science (B.Sc.) in Materials and Metallurgical Engineering; *2018 – 2023*
CGPA: 3.25 out of 4.00

RESEARCH INTEREST

- Opto-electronic Materials
- Photonics and Photovoltaics
- Semiconducting Materials
- Thin Films
- Computational Materials Science

SKILLS

- **Characterization Techniques:** XRD, UV-visible spectroscopy, SEM, Hall measurement, DSC, FTIR, VSM
- **Programming Languages:** C++, Python,
- **Data Analysis and Graphing tools:** OriginPro
- **CAD Tools:** AutoCAD, Solidworks
- **Scripting:** MS Word, MS Excel, MS Powerpoint, LaTeX
- **Programming Platform:** Matlab

RESEARCH EXPERIENCE AND PROJECTS

Undergraduate Thesis **2023**
Supervisor:Dr. Md. Muktadir Billah

- **Optostructural Characterization of Nd Doped CuO Thin Film via Sol-gel Spin Coating Route**
  The primary focus of this study was to comprehend the influence of neodymium on the structural, optical, and electrical characteristics of copper (II) oxide thin films. To investigate these properties, we utilized the sol-gel spin coating method, a cost-effective and straightforward chemical deposition technique, to fabricate the thin films on glass substrates. Currently, the work is in the process of being submitted to a journal.

Undergraduate Plant Design Project **2022**
Design of Urea Production Plant

- This project was mandatory to complete MME 440 (Materials Processing Plant Design) course. Within the scope of the ACES process, our team attempted to make a comprehensive design of a urea fertilizer facility, accompanied by a thorough examination comprising cost analysis, raw materials calculation, and an environmental impact assessment

PUBLICATIONS

- Mohammad Galib, Utsha Das, **Sovendo Talapatra**, Md Jannatul Ferdous Anik, Samiya Rahman Mim, Md Muktadir Billah **"Effect of Process Parameters and Substrate Material on Opto-Structural Properties of CuO Thin Film Prepared Following Sol-gel Spin Coating Technique"**, *International Conference on Chemical Engineering, 2023*
  Status– Under Review

EXPERIENCE

Trainee **April, 2022**
***Abul Khair Steel (AKS)**, Training Complex* *Sitakund, Chattogram*

- Worked as a trainee, where I got practical experience in steel making from scrap metal via Electric Arc Furnace (EAF), Ladle Refining, Continuous Casting, and Rolling. During this industrial attachment at AKS, Chattogram, I also learned about sheet metal forming process to produce corrugated sheets from cold-worked sheet metal.

Visitor **July, 2023**
Star Particle Board Mills Limited *Narayanganj*

- Explored their plants, research and development wing, product design and engineering section to gain insight into the industrial production of particle board.

SCHOLARSHIP & ACHIEVEMENTS

- **Board General (SSC):** Scholarship provided by Bangladesh Government. *2015 – 2016*

EXTRACURRICULAR ACTIVITIES

BADHAN, BUET Zone **BUET, Dhaka**
Executive *2018 – 2023*

- BADHAN is a voluntary blood donation organization. My main activities were managing donors, creating awareness among people regarding blood donation, and donating blood.

Material Advantage Society **BUET, Dhaka**
Member *2019 – 2021*

- Material Advantage Society is an international student program for students who are interested in the realm of materials science and engineering. As a member, I participated in and helped to arrange workshops and seminars in BUET.

Students Association of Materials and Metallurgical Engineering(SAMME) **BUET, Dhaka**
Publication Secratory *2020 – 2021*

- SAMME is a student organization that organizes, competitions and cultural activities to promote co-curricular activities among the students in the Department of Materials and Metallurgical Engineering, BUET

NOTABLE ONLINE COURSES

- Completed *Introduction to Programming with MATLAB* at Coursera. *July, 2020*
- Completed *Python Data Structures* at Coursera. *May, 2020*
- Completed *Programming for Everybody(Getting Started with Python)* at Coursera. *May, 2020*