



Boshir Ahmed Mishu

Date of birth: 20/11/2002 | **Nationality:** Bangladeshi | **Gender:** Male | **Phone number:** +918114809984 (Whatsapp) | **Email address:** boshirahmedmishu@gmail.com | **LinkedIn:** <https://www.linkedin.com/in/boshir-ahmed-mishu-9b8b4027a/> | **Marital Status:** Single
Address: Bhubaneswar, India (KIIT Campus)

WORK EXPERIENCE

20/08/2022 – CURRENT Bhubaneswar, India

UNDERGRADUATE RESEARCH ASSISTANT THIN FILM PHOTOVOLTAIC LAB, KIIT UNIVERSITY

- Simulation of semiconductor device, photodetector, solar cell using WXamps and Scaps 1D.
- Deposition of Ga₂O₃ and other materials using DC/RF-Sputtering machine.
- Proficient in DC/RF sputtering techniques for thin film deposition.
- Annealing and analyzing of different materials using RTP Furnace.
- Experienced in measuring electrical properties such as Hall Effect.
- Measuring thickness using EDXRF machine.
- Skilled in analyzing materials using UV-Vis spectrophotometry specially measuring and analyzing transmittance and absorbance.
- Peak, grain size, crystallinity analysis using XRD.
- Data analysis using Origin Pro app.

RESEARCH PAPER PUBLICATION

Presented my research work titled "**Highly Efficient Double Graded CIGS Absorber Based Thin Film Solar Cell: A Numerical Study**" in AESPC 2024 IEEE International Conference. The paper explores the optimization of Copper Indium Gallium Selenide (CIGS) thin-film solar cells through numerical simulations, focusing on double grading of the absorber layer to enhance efficiency. The study finds that incorporating ZnMgO as the buffer layer and p-MoTe₂ as an intermediate layer improves power conversion efficiency to 36.05% with a fill factor of 77.82%. (**Impact Factor: 3.4**)

Link <https://ieeexplore.ieee.org/abstract/document/10872378>

POSTER PRESENTATION ALL INDIA SCIENCE CONGRESS

Presented a poster titled Theoretical Investigation to boost the efficiency of CIGS solar cell using Wxamps.

EDUCATION AND TRAINING

07/2021 – CURRENT Bhubaneswar, India

BACHELOR OF TECHNOLOGY Kalinga Institute of Industrial Technology

Field of study Electronics and Electrical Engineering | **Final grade** CGPA 7.65 out of 10 till 7th semester

NANOTECHNOLOGY AND NANOSENSORS, PART1 Technion - Israel Institute of Technology and Coursera

Link <https://coursera.org/share/aed0fb7d6ae8de12eaa7894d49d07a5a>

NANOTECHNOLOGY AND NANOSENSORS, PART2 Technion - Israel Institute of Technology and Coursera

Link <https://coursera.org/share/b732a5056e7e482097ffb8469990ae44>

INTRODUCTION TO MATERIALS SCIENCE Arizona State University and Coursera

Link <https://coursera.org/share/855df28def644bca477c41aef626235b>

2024 ASPIRE LEADERS PROGRAM Aspire Institute

Successfully completed the 2024 Aspire Leaders Program, an intensive 6 month 30-hour leadership development course.

Website <https://www.aspireleaders.org/>

Link https://drive.google.com/file/d/1l_0kw7baMvq_8621NuEbd8MYMmh4dcVD/view?usp=sharing

LANGUAGE SKILLS

Mother tongue(s): **BENGALI**

Other language(s): **HINDI | ENGLISH**

HONOURS AND AWARDS

26/01/2025

Student Achievers Award – Kalinga Institute of Industrial Technology

The KIIT Student Achievers Award recognizes outstanding students who have excelled in various fields, including academics, extracurricular activities, and innovation, showcasing their achievements and dedication.

Link <https://drive.google.com/file/d/1s462us4xdITfTXf2RAY8SGT-DsAA3rAB/view?usp=sharing>

FMAE MotoGP Student India Season 3 – FMAE

I, along with my team named Ketav, participated in the Asia's 2nd largest and India's largest vehicle manufacturing competition named FMAE MotoGP Student India in EV-Racing Motor cycle and won the overall runners-up award along with runners-up in design evaluation, first in endurance, and runners-up and auto cross segment. I was the electrical head in the team.

Links <https://drive.google.com/file/d/1-HE8KJv-LUXy3PlemijXMaLO-EGUCQvI/view> | https://drive.google.com/file/d/1Wv9v7jyXrTjIGZOm40mCfdOp9_h06NQC/view?usp=sharing

SII and KUISP Scholar – Study in India (SII) and KIIT University India Scholarships Program (KUISP) – Study In India and Kalinga Institute of Industrial Technology

Received the Study in India Scholarship in 2021 through IndSAT, and also granted the KIIT University Scholarship Program (KUISP) as a Study in India (SII) Scholar for fully funded studies at Kalinga Institute of Industrial Technology (KIIT University).

EXTRA-CURRICULAR ACTIVITY

Electrical Head- ASME KIIT Chapter-Society

We, the ASME KIIT chapter students, made an electric vehicle from scratch. I have done all the electrical analysis, and component selection along with the lead roles, designed and established all the wiring connections.

Co-Founder- Nobopushpo Foundation

This is a non-profit organization, we help needy people, and we the members put some money in the fund, collect funds from others, and donate it to the needy people. We have also successfully completed more than 500+ bags of blood donation till now.

Technical Skills

Wxamps | Scaps-1D | Origin software (data processing and analysys) | Microsoft Powerpoint | Microsoft Excel | TinkerCAD | Microsoft Word | Google Docs

RECOMMENDATIONS

Dr. Arindam Basak Associate Professor

Currently doing major project titled Development and characterization of Gallium oxide based thin film for gas sensing application under his guidance.

Email abasakfet@kiit.ac.in

Udai P. Singh Senior Professor

Currently doing major project titled Development and characterization of Gallium oxide based thin film for gas sensing application under his guidance.

Email singhup@kiit.ac.in
