

# SHAHER AZAD

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## EDUCATIONAL QUALIFICATIONS

- **Master of Science in Physics (Thesis Group)** **2019**  
University of Dhaka, Dhaka 1000  
**Thesis:** *A comparative study of the structural, mechanical, electronic and optical properties between semiconducting transition metal nitride halides ZrNCl and HfNCl using Density Functional Theory (DFT)*  
**GPA:** 3.75 out of 4.00
- **Bachelor of Science (Honours) in Physics** **2018**  
University of Dhaka, Dhaka 1000  
**CGPA:** 3.85 out of 4.00 (2<sup>nd</sup> position)

## RESEARCH EXPERIENCE

- **Shaher Azad**, B. Rahman Rano, Ishtiaque M. Syed and S.H. Naqib  
*A comparative study of the physical properties of layered transition metal nitride halides MNCl (M = Zr, Hf): DFT based insights, (2022).* [arXiv:2209.04980](https://arxiv.org/abs/2209.04980)

### Semiconductor Technology Research Center, University of Dhaka

- **Research Fellow** January 2021 – June 2021

## WORK EXPERIENCE

### Bangladesh University of Engineering and Technology (BUET), Dhaka 1000

- **Lecturer** November 2022 – Present  
I am working as a full time lecturer at the Department of Physics, currently teaching the courses PHY 102 and PHY 114 to six sections.

### BRAC University, Dhaka 1212

- **Course Contract Faculty (Physics)** October 2022 – Present  
Working as a contractual lecturer teaching the courses PHY111: Fundamentals of Physics I and PHY203: Physics Lab II. Duties include delivering lectures, consulting students, setting question papers, grading answer scripts, assigning assignments, invigilating exams.
- **Teaching Assistant (Physics)** October 2021 – September 2022  
I taught the course PHY111 Lab. Took classes, set question papers, evaluated assignments and lab reports, invigilated exams.

### European Organization for Nuclear Research (CERN), Geneva 1211

- **Associated Member of the Personnel (Summer Student)** June 2018 – August 2018  
Worked as a summer student and engaged in day to day activities offered by the organization. I was affiliated with the NA61/SHINE experiment that analyzes data gathered from the SPS beam.

## RELATED EXPERIENCE

### Asian Science Camp 2017, Kampar, Perak, Malaysia

- **Bangladesh Delegate** August 2017  
Participated as one of the six delegates chosen to represent Bangladesh in the prestigious Asian Science Camp. I attended lectures given by leading academics, participated in Q/A sessions and a poster competition.

## SCHOLARSHIPS & AWARDS

- Ministry of Science and Technology, Dhaka  
**NST Fellowship** 2021
- Faculty of Science, University of Dhaka, Dhaka  
**Dean's Honor Award** 2018
- Directorate of Secondary and Higher Education  
**Government Honors Scholarship** 2018
- Rowshan Innas Ali Welfare Trust Fund, Dhaka  
**Rowshan Innas Ali Welfare Trust Fund Scholarship** 2018
- Dhaka Education Board, Dhaka  
**Higher Secondary School Certificate Scholarship** 2014

## POSTER PRESENTATION

### University of Dhaka, Dhaka 1000

- **Research-Publication Fair 2022** October 2022  
Presented a poster based on my research on DFT based study of layered semiconducting transition metal nitride halides.

## OUTREACH ACTIVITIES

### Community of Physics, Dhaka 1205

- **Speaker — “3rd Workshop on Differential Equations”** October 2019  
Lectured for two sessions, created an acting committee, gave logistic support and handled all issues.

### Bangladesh Physics Olympiad Committee, Dhaka 1209

- **Academic Volunteer** January 2015  
Evaluated answer scripts for Bangladesh Physics Olympiad.

## SKILLS

- Programming: C++ (Basic), Python (Basic)
- Proficient in MS Word, MS Excel, MS PowerPoint
- LaTeX Typesetting
- CASTEP

## LANGUAGE SKILLS

Bangla (Native)

English (Advanced)

Japanese (Beginner)

- **Junior Certificate in Japanese** 2020  
University of Dhaka, Dhaka 1000  
**Score:** 388 out of 400  
**Result:** First Division
- **JLPT N5 Score:** 167/180 (Vocabulary, Grammar and Reading 103/120, Listening 60/60, 98.6<sup>th</sup> Percentile)

## TEST SCORES

- **GRE:** 318 (Quantitative: 169, Verbal: 149, Analytical Writing: 3.0)
- **PGRE:** 860 (74<sup>th</sup> Percentile)
- **TOEFL IBT:** 106 (Listening: 28, Reading: 27, Writing: 26, Speaking: 25)