

Mohammad Abu Jasem

Physics Discipline, Khulna University, Khulna-9208, Bangladesh

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Website: [Visit my website](#)

RESEARCH INTERESTS

Research Areas:

- Spintronics
- Magnetization dynamics
- FM, SAF, nonlinear AFM
- Spin-Orbit Torque (SOT)

EDUCATION

Khulna University, Khulna, Bangladesh

2022–Present

Bachelor of Science in Physics

CGPA: 3.69/4.00 (till 6th term)

Relevant coursework: Physics (major), Mathematics I–III, Chemistry, Programming (C, MATLAB), Statistics, Economics, Sociology, and English.

Milestone College, Dhaka, Bangladesh

2020

Higher Secondary Certificate (Science)

GPA: 5.00/5.00

Ataturk Govt. Model High School, Feni, Bangladesh

2018

Secondary School Certificate (Science)

GPA: 5.00/5.00

RESEARCH PROJECTS

Field-free fast magnetization switching of a ferromagnetic nanodevice by a down chirped current pulse via spin-orbit torque

S. Parvin, M. A. Habib, M. T. Islam, Mohammad A. Jasem, et al.

Status: Ongoing

Field-free fast magnetization switching of a synthetic antiferromagnetic nanodevice by a down chirped current pulse via spin-orbit torque

M.N. Rifat, M. T. Islam, M. A. Habib, Mohammad A. Jasem, et al.

Status: Ongoing

CO-CURRICULAR ACTIVITIES

Internship Coordinator, Institution for Theoretical and Computational Physics Research (ITCPR) Feb 2025–Present

Volunteer, Bangladesh Astronomy and Astrophysics Olympiad ([BDOAA](#))
Organized Olympiad events in Khulna Region.

2024

Volunteer, Bangladesh Youth Environmental Initiative([BYEI](#))
Promoted environmental and science education events.

2023

Divisional coordinator, National Earth Olympiad([NEO](#))

2023

SEMINARS & WORKSHOPS

Attended “**3rd Workshop on Relativity**” University of Dhaka, organized by Community of Physics (Oct 2022)

Instructed “**Workshop on MATLAB and Python**” organized by Fermion Physics Club, Khulna University (Sept 2024)

National Conference on Physics for the 21th century. Hosted by Physics Discipline, Khulna University, Khulna-9808, Bangladesh.

EXPERIENCE

Instructor & Technician, [Fermion Physics Club](#), Khulna University.

Feb 2023–Aug 2024

Taught academic workshops and tutorials on:

- Vector Analysis
- Waves and Oscillations
- Mathematical Methods
- Ordinary Differential Equations
- Multivariable Calculus

SOFTWARE SKILLS

Operating Systems: Windows, Linux

Simulation: MuMax3 (micromagnetic), Vampire (atomistic)

Programming: Python, MATLAB, C, JavaScript, LaTeX

Data Analysis & Plotting: Matplotlib, Pandas, OriginLab, Gnuplot

Microsoft Office: MS Word, MS Excel, MS PowerPoint

Graphics & Visualization: VESTA, Blender, Adobe Illustrator (basic)

Web Development: HTML, CSS, JavaScript

See the projects on [GITHUB](#)

CERTIFICATES & AWARDS

- **Silver Honor** – International Astronomy and Astrophysics Competition 2023 [[Certificate](#)]
- **University Physics Competition** 2022 [[Certificate](#)]
- **University merit scholarship (4X)** 2022,23,24,25
- “From The Big Bang to Dark Energy” – **University of Tokyo** [[Certificate](#)]
- “Introduction to Programming with MATLAB” – **Vanderbilt University** [[Certificate](#)]
- “Getting Started with Python” and “Python Data Structures” – **University of Michigan** [1], [2]
- “Linear Algebra” – **Johns Hopkins University** [[Certificate](#)]

LANGUAGES

- Bengali (Native)
- English (Intermediate)

REFEREES

Dr. Md. Rashedur Rahman

Professor

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Signature

Date: _____