Murshidabad University

FACULTY ACADEMIC PROFILE/ CV

Full name of the faculty member: **DR. BASIR AHAMED KHAN**

Designation: **ASSOCIATE PROFESSOR**

Contact information: bakphys@msduniv.ac.in

https://sites.google.com/view/basirkhan1/home?authuser=0 (under construction)

Academic qualifications:

Sl. No.	College/University from which the degree was obtained	Abbreviation of the degree
1.	**Ulsan National Institute of Science and Technology (UNIST), Ulsan, South Korea**	**Post-Doctorate (Supervisor: Prof. Kwang Soo Kim)**
2.	**Viswa Bharati University**	**Ph.D**
3.	**Viswa Bharati University**	**M.Sc**
4.	**Shambhunath College, Burdwan University**	**B.Sc (Hons.)**

Positions held/ holding: **HOD, Department of Physics, Murshidabad University**

Research interests:

- **Molecular Dynamics**
- **Singlet Fission**
- **Artificial Intelligence**

Research guidance: **One Part-time Scholar (Not registered yet)**

Projects: **Nil**

Select list of publications (Only number):

a) Journals: **14**
b) Books/ book chapters: **Nil**
c) Conference/ seminar volumes: **Nil**

Membership of Learned Societies: **Life member, Indian Science Congress**

Invited lectures delivered: **Two**

Awards:

- **National Scholarship under National Scholarship Scheme of the Government of India on the results of B. Sc. Examination (1999)**
- **NET(2002), GATE(2002)**

Other notable activities:

- **Joint Coordinator, Remedial Coaching Centre, Erstwhile Krishnath College**
- **Convenor, AQAR Committee, Erstwhile Krishnath College**
- **Ex-HOD, Department of Physics (Two terms)**
- **Served as member of Academic subcommittee, Purchase committee, IQAC**
- **Nodal Officer (at present), Post-metric minority Scholarship, UG Level**
- **Convenor (at present), Examination Committee, UG Level**
- **Served as Assistant Centre-In-Charge of different Examinations (e.g., JEE, TET, PSC, Dist. Librarian, Banking etc)**
- **Convenor, Purchase Committee, PG Level**
- **Act as Judge, District level Youth Science Fair 2024**

List of Journal Publication/ Conference Papers: (Last ten years)

[1] Sampad Mandal, **Basir Ahamed Khan** and Pranab Sarkar. 2D lead free Ruddlesden-Popper phase perovskites as efficient photovoltaic materials: A first-principles investigation. *Computational Materials Science,* 211, 111545, (2022).

[2] **Basir Ahamed Khan**, Supriya Chatterjee, Sekh Golam Ali and Binoy Talukdar. Inverse Variational Problem for Nonlinear Dynamical Systems. *Acta Physica polonica A*, 141(1), 64-73 (2022).

[3] **Basir Ahamed Khan**, Supriya Chatterjee, Sekh Golam Ali and Binoy Talukdar. Integrable systems: From inverse spectral transform to zero curvature condition. *Lat. Am. J. Phys. Educ.*, 16(1), 1601, (2022).

[4] Biplab Goswami and **Basir Ahamed Khan**. Understanding the photovoltaic performances of ZnSe quantum dot-fullerene nanocomposites: A computational study. *Computational and Theoretical Chemistry*, 1206, 113463 (2021).

[5] Biswajit Ball, **Basir Ahamed Khan**, Biplab Goswami and Pranab Sarkar. Conductanes switching of a gold-covalent organic framework nanojunction via proton transfer. *Physics Letters A*, 389, 127100 (2021).

[6] **Basir Ahamed Khan**. Hilbert Space: Perspective of quantum mechanics. *Journal of Emerging Technologies and Innovative Research (JETIR)*, 5(4), 1328-1332 (2018).

[8] Hirak Kumar Chandra, Shahnewaz Mondal and **Basir Ahamed Khan**. Magnetic properties of Mn δ- doped GaAs. *Journal of Emerging Technologies and Innovative Research (JETIR)*, 5(1), 1686-1694 (2018).

[8] **Basir Ahamed Khan**, Subhankar Sardar, Pranab Sarkar and Satrajit Adhikari. Multi-surface multimode molecular dynamical simulation of naphthalene and anthracene radical cations by using nearly linear scalable Time-Dependent Discrete Variable Representation method. *Journal of Physical Chemistry A*, 118, 11451 - 11470 (2014).

[9] **Basir Ahamed Khan**. Photodissociation dynamics of triatomic molecule in presence of pulsed and bichromatic laser field. *Mol. Phys.*, 112, 1094 - 1101 (2014).

[10] **Basir Ahamed Khan**, Subhankar Sardar, Tapas Sahoo, Pranab Sarkar and Satrajit Adhikari. Nearly Linear Scalability of Time Dependent Discrete Variable Representation (TDDVR) Method for the Dynamics of Multi-Surface Multi-Mode Hamiltonian. *Journal of Theoretical and Computational Chemistry*, 12, 1350042(1) - 1350042(27) (2013).

[11] Pranab Sarkar and **Basir Ahamed Khan**. The Fourier Grid Hamiltonian Method for Calculating Vibrational Energy Levels of Triatomic Molecules. *International Journal of Quantum Chemistry*, 111, 2268 - 2274 (2011).