Curriculum Vitae

Dr. Suman Sardar

Academic Qualifications:

Nov. 2020 – Present	Assistant Professor, Department of Physics, Garhbeta College, Vidyasagar University
Dec. 2014 - Jul. 2022	Ph.D. in Experimental Physics, IISER Bhopal *Thesis title: Tuning extraordinary anisotropic magnetoresistance in $CaMnO_3/CaIrO_3$ superlattice thin films*
2012 – 2014	Master of Science in Physics, IIT Kharagpur **CGPA Obtained:** 7.73
2009 – 2012	Bachelor of Science in Physics Honours, Narendrapur Ramakrishna Mission Residential College (Autonomous), Calcutta University **Marks Obtained:** 72.25 %

Course Undertaken:

C5: Mathematical Physics – II

C8: Mathematical Physics – III

GE-3: Solid State Physics

C3, GE-4: Electricity and Magnetism

DSE-1: Special Theory Of Relativity

C14: Statistical Mechanics

Garhbeta College Responsibilities:

Member: Career Counselling, Internal assessment sub-committee, Research sub-committee, Academic sub-committee, Internet and Website Sub-committee, Computer and computer maintenance sub-committee, Hostel sub-committee, Games and sports subcommittee.

Program Attendance:

12th Faculty Induction Program, Jamia Millia Islamia, 1st Feb-28th Feb, 2023.

Seminars/Conference Coordinator: Garhbeta College - National Science Day Celebration in association with Breakthrough Science Society.

Research interests:

- Formation of novel interfaces phases of perovskite materials using RHEED assisted pulsed laser deposition method.
- Spintronics in condensed matter physics and its applications.
- Terahertz spectroscopy and its applications in condensed matter.

Special Skills: Matlab, Labview

Conference Attendance:

- 2nd Annual Meeting On Physics Of Strongly Correlated Electron Systems, IIT Delhi, March 6-8, 2019.
- International Conference on Thin Films, CSIR, New Delhi, 13th-17th November, 2017.
- Inhouse Symphosium, Department of Physics, IISER Bhopal 2018.

Publications: (Published work)

1. Megha Vagadia*****, **Suman Sardar***, Tejas Tank, Sarmistha Das, Brandon Gunn, Parul Pandey, R Hubner, Fanny Rodolakis, Gilberto Fabbris, Yongseong Choi, Daniel Haskel, Alex Frano, and **D. S. Rana** *"Extraordinary anisotropic magnetoresistance in $CaMnO_3/CaIrO_3$ heterostructures."* **Phys. Rev. B (Letter) 105, L020402 (2022). [*co-first authors]**

2. Rupali Rakshit, Santhosh Kumar Kadakuntla, Piyush Agarwal, **Suman Sardar**, Priyanka Saha, Kalyan Mandal, and **D. S. Rana**, *Surface Electronic States Induced High Terahertz Conductivity of Co_3O_4 Micro–Hollow Structure,* **ACS Appl. Mater. Interfaces 10, 22 (2018).**

3. **Suman Sardar**, Monu Kinha, Siddharth Sharma, Megha Vagadia, **D. S. Rana**, *Structural and transport properties of pulsed laser deposited SrIr0.5Rh0.5O3 thin films,* **AIP Conference Proceedings. (2019).**

4. Megha Vagadia, Jayaprakash Sahoo, Ankit Kumar, **Suman Sardar**, Tejas M. Tank, and **D. S. Rana**, *"Rashba spin-orbit coupling induced modulation of magnetic anisotropy in canted antiferromagnetic heterostructures."* **Phys. Rev. B 107, 064420 (2023).**

Contact:

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