

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 $\text{CaMnO}_3/\text{CaIrO}_3$ 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 %

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

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*

CaMnO₃/CaIrO₃ 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 Co₃O₄ 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 SrIr_{0.5}Rh_{0.5}O₃ thin films*, **AIP Conference Proceedings. (2019).**

Papers to be published:

1. Megha Vagadia, Jaya Prakash Sahoo, Ankit Kumar, **Suman Sardar**, Tejas Tank, and D. S. Rana, “*Rashba spin-orbit interaction induced modulation of magnetic anisotropy.*” **arXiv:2205.10859 (2022).**

Course Undertaken:

C5: Mathematical Physics - II

GE-3: Solid State Physics

DSE-1: Special Theory Of Relativity

Garhbeta College Responsibilities:

Head, Department of Physics, Garhbeta College

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.

Contact:

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