Curriculum Vitae

1) **Name:** Dr. Shikha Rani Sahu
2) **Date of Birth:** 10/06/1993
3) **Designation:** Assistant Professor
4) **E-mail:** ap_shikhas@dhsgsu.edu.in
5) **Academic Qualifications:**

Degree	Board/University	Year	Percentage
1. High School	CGBSE, Raipur	2008	93.33 % (5th rank in state merit list)
2. Higher Secondary	CGBSE, Raipur	2010	90.2 %
3. B.Sc.	Pt. Ravishankar Shukla University Raipur (C.G.)	2013	80.44 % (Gold medal)
4. M.Sc.	Pt. Ravishankar Shukla University Raipur (C.G.)	2015	78.83 % (Gold medal)
5. Ph.D.	UGC-DAE Consortium For Scientific Research/ DAVV Indore (M.P.)	2024	

6) **Research Area:** Experimental condensed matter physics

7) **Experimental skill:**
   - Thin film fabrication using pulsed laser deposition technique and spin coating.
   - Hands on experience in measuring electrical resistivity, thermo-power, spectroscopic ellipsometry, ultrafast transient reflectivity, photo-current spectroscopy.
   - Experience of analysing the experimental data such as Soft and Hard X-ray absorption spectroscopy, UV-Vis NIR spectroscopy, Atomic force microscopy**.**

8) **Awards and Achievements:**
   - **2023** Received "**International Travel Support**" by Science and Engineering Research Board (SERB), India
   - **2022** Received **"37th MP Young scientist award**" by MP Council of Science and Technology, Bhopal
   - **2017** NET-JRF, GATE
   - **2016** GATE, JEST
   - **2013** Best student Award
   - **2011** Central Scholarship by MHRD for Graduation and post-graduation studies

9) List of Publications:

1. **S. R. Sahu**, S.S. Majid, A. Tripathy, N. Bano, A. Ahad, Hyungwoo Lee, V. G. Sathe, D.K. Shukla, "Strain effects on insulator-to-metal transition and electronic structure in VO_2" ***Physical Review B*** **109, 155132 (2024)**.
2. A. Tripathy, K. Dey, **S. R. Sahu**, Najnin Bano, Vishal Kumar, P. Garg, Sanjay Singh, Vishnu Kumar, Martin v. Zimmermann, U. Deshpande, V. G. Sathe, and D. K. Shukla "Local structural disorder and charge inhomogeneity induced relaxor ferroelectricity in CuCrO2" ***Physical Review B*** **109, 134206 (2024).**
3. **S.R. Sahu**, S.S. Majid, *A*. Ahad, A. Tripathy, K. Dey, S. Pal, B.K. De, Wen-Pin Hsieh, R. Rawat, V.G. Sathe, D. K. Shukla, "Kinetically-decoupled electrical and structural phase transitions in VO_2" ***Physical Review B*** **107, 134106 (2023)**.
4. **S. R. Sahu**, S. Khan, A. Tripathy, K. Dey, N. Bano, S. Rajmohan, M. P. Joshi, S. Verma, B. T. Rao, V. G. Sathe, D. K. Shukla, "Multiple exciton generation in VO_2" ***Physical Review B*** **108, 125133 (2023)**.
5. A. Tripathy, K. Gautam, K. Dey, **S. R. Sahu**, A. Ahad, A. Upadhyay, A. Sagdeo, S. Francoual, P. J. Bereciartua, I. Gudim, J. Strempfer, V. G. Sathe, and D. K. Shukla "Symmetry lowering and multiferroicity in Ho0.5Nd0.5Fe3(BO3)4" ***Physical Review B*** **107, 214106 (2023).**
6. Sushmitha P. Rao, **Shikha Sahu**, Najnin Bano, D.K. Shukla, Vijaylakshmi Dayal, "Investigation of low-temperature thermoelectric properties of Si0.8Ge0.2 alloy irradiated by high energy electron beam", **Current Applied Physics 57, 33-41 (2023).**
7. Sudip Pal, Prakash Bahera, **S.R. Sahu**, Himanshu Srivastava, A.K. Srivastava, N.P. Lalla, Raman Sankar, A. Banerjee, S.B. Roy, "Charge density wave and superconductivity in 6R-TaSVO_2", ***Physica B: Condensed Matter*** **669, 415266 (2023).**
8. K. Dey, A. Tripathy, **S. R. Sahu** , H. Srivastava, A. Sagdeo, J. Strempfer, D. K. Shukla, "Monoclinic symmetry at the nanoscale in lead-free ferroelectric BaZrxTi1xO3 ceramics" ***Physical Review B*** **105, 174202 (2022)**.
9. Vivek Dwij , Binoy Krishna De, Sumesh Rana, Hemant Singh Kunwar, Satish Yadav , **Shikha Rani Sahu**, R. Venkatesh , N. P. Lalla, D. M. Phase, D. K. Shukla, and V. G. Sathe , "Optical control of domain configuration through light polarization in ferroelectric BaTiO3" ***Physical Review B*** **105, 134103 (2022).**
10. K. Dey, A. Tripathy, **S. R. Sahu** , H. Srivastava, A. Sagdeo, J. Strempfer, D. K. Shukla, "Monoclinic symmetry at the nanoscale in lead-free ferroelectric BaZrxTi1xO3 ceramics" ***Physical Review B*** **105, 174202 (2022)**.
11. S. S. Majid, **S. R. Sahu**, A. Ahad, K. Dey, K. Gautam, F. Rahman, P. Behera, U. Deshpande, V. G. Sathe, and D. K. Shukla, "Role of V-V dimerization in the insulator-metal transition and optical transmittance of pure and doped VO_2 thin films" ***Physical Review B*** **101, 014108 (2020).**
12. **S.R. Sahu**, S. S. Majid , K. Gautam , R.J. Choudhary , V.G. Sathe , D. K. Shukla, ***AIP Conference Proceedings*** **2162, 020103 (2019)**.