

Curriculum Vitae

Name: SRIDHAR SAHU

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Personal Data

Date of Birth: 15th August 1976

Nationality: Indian

Gender: Male

Educational Qualifications

- **Ph. D.** (2010) Indian Institute of Technology Bombay, Mumbai, India
- **M. Sc.** (2001), Ravenshaw University, Odisha,
- **B. Sc.** (1996), Sambalpur University, Odisha

Professional Status

- Associate Professor, Dept. of Physics, IIT (ISM), Dhanbad (2021-)
- Assistant Professor, Dept. of Applied Physics, IIT (ISM), Dhanbad (2012-2021)
- Visiting Scientist (2011-2011), Max-Planck Institute for Complex System, Dresden,
- Post-doctoral Fellow (2010-2011), Division of Chemical and Biological Sciences, NTU, Singapore
- Research Associate (2010—2010), Physics Department, Indian Institute of Technology Bombay, (DST project)

Research Visit/Membership/Fellowship/Award

- INSA Visiting Scientist Programme 2020 (FY2020-21) Fellowship
- Life Member, Indian Physical Society, IACS, Kolkata
- Life Member, Odisha Physical Society, Odisha
- Visiting Research Scholar (under Visitor's Program) at Max-Planck Institute fur Physik Complex System, Dresden, Germany (Sep 1. 2007 to Dec 31, 2007).

Reviewer of journals/books

- Computational Material Science
- International journal of Hydrogen Energy
- Journal of Energy Storage
- Scientific Report
- Journal of Physical Chemistry

Research Interests

- Hydrogen/Gas storage in nanoclusters and porous materials
- Organic semiconductors and photovoltaics.
- Organic and inorganic Battery applications
- Atomic and molecular clusters.
- Atomistic simulation, development of computer programs for electronic structure calculations.

Research Projects Investigation

- DST(SERB)-CRG: DST(SERB)(392)/2023-2024/1021/PHYSICS: Storage of hydrogen-methane mixture in porous aromatic frameworks (PAFs): A multi-scale computational investigation.
Cost: Rs. 13,42,000.00, 2023-2026
- SERB (DST) project under extra-mural grant, Govt. of India; DST(117)/2015-16/421/APH: Atomistic simulations of boron nanoclusters for hydrogen storage and electro-optical applications.
Cost: 25.23 Lakhs, July 2015- July 2018.
- SERB-OVDF: DST(SERB)(281)/2020-2021/787/PHYSICS(OVDF): Atomistic Simulations of -Conjugated Organic Compounds for Electronic and Photovoltaic Applications.
Cost: Rs. 11,99,440.00, 2020-2021
- FRS grant sanctioned by IIT(ISM), Dhanbad: Hydrogen storage and electro-optical properties of silicon-based clusters.
Cost: 9.15 Lakhs, 2013-2016
- TEQUIP-III: Hydrogen storage in carbon based materials and fullerenes
Cost: 2.0 Lakhs, 2018-2020

Ph.D./Postdoc Supervision

PhD Supervision

- 08 (Eight) completed
 1. Dr. Saroj K. Parida
 2. Dr. Smruti R. Sahoo
 3. Dr. Rudranarayan Khatua
 4. Dr. Labanya Bhattacharya
 5. Dr. Suryakanti Debata
 6. Dr. Rakesh K Sahoo
 7. Dr. Shakti Shankar Ray
 8. Dr. Ankita Jaiswal
- 06 (Full-time) On-going + 01 Part-Time

Postdoc Supervision

1. Dr. Soumya Ranjan Das

M.Sc./B.Tech. Student Guidance (Curricular Projects)

- 18 (Eighteen) M.Sc. student guided +02 (on-going)
- 03 (Three) B.Tech. (Engg. Phys.)

Teaching Experiences

Taught graduate (including foreign students) and post-graduate students different topics of physics, such as

Theory Classes:

Under Graduate course:

- Physics-I, II (Classical Mechanics, Electrodynamics)
- Electricity and Magnetism (Preparatory classes)
- Quantum Mechanic
- Wave and Acoustics

Post-Graduate course:

- Quantum Mechanics-I, II
- Advanced Quantum Mechanics
- Advanced Condensed Matter Physics,
- Quantum Computation and Information.

Practical Classes:

Experimental Physics for B. Tech, M.Sc. and M.Sc. Tech

New course/experiment developed/introduced

- Quantum Mechanics-I, II
- Advanced condensed matter physics
- Quantum computation and Information
- Introduction to Quantum Mechanics
- Theoretical Physics
- Viscosity measurement using Searle's method (Lab exp)

Conference/Workshop

- Refresher Course in Physics: Special focus on material science and biophysics
Funded by: TEQUIP-III
Role: Coordinator

Administrative duties

- Chief Warden (Emerald Hostel, June 2020-)
- Warden (Jasper Hostel (June 2018- June 2020)
- Department Time-Table In-charge, 2020-
- Member, DPGC (19th July 2018 till date)
- Member, Library Advisory Committee (From 2013 Phase-2 to Till date)
- Department Moodle Coordinator, August 2020-
- Faculty-in-Charge, Departmental Library, Applied Physics
- Member, Anti-Ragging Squad
- Tabulation Duty (From Monsoon Semester of 2013 to 2015).
- Organizing Secretary of conferences, Q-PaCE, 2016.
- Board Member, Selection Committee for ISM-JRF 2014, 2020