CURRICULUM VITAE

Dr. Jagdish Kumar Satyam,
Assistant Professor,
Department of Physics,
Govt. Mahaprabhu Vallabhachariya
PG College Mahasamund, C. G.,
493445, INDIA

CAREER OBJECTIVE

My goal is to conduct research in the fascinating field of Physics and build a career in a prestigious institution that fosters both personal and professional growth. I aspire to contribute meaningfully to the scientific community and establish myself as a valuable asset while thriving in a dynamic and innovative environment.

CAREER PROFILE

08 April, 2022-till date : Working as a **Assistant Professor** at the Department of Physics, Govt. Mahaprabhu Vallabhachariya PG College Mahasamund, C. G.

Sep, 2019-April, 2022 : Worked as a Junior Research Fellow at Department of Physics NIT Raipur C.G.

ACADEMIC PROFILE

- PhD Applied Physics (2024) from NIT Raipur, C.G.
- MSc Physics (2018) from Pt. R.S. University Raipur, C.G.
- BSc (2016) from N.P.G. Science College Raipur C.G.
- Higher Sec. School (2013) from J.N.V. Mahasamund (CBSE).
- High School (2011) from from J.N.V. Mahasamund (CBSE).

ACHIEVEMENTS & AWARDS

- Qualified for JRF and Assistant Professor in UGC-CSIR **National Eligibility Test (NET)** 2018.
- Qualified for Assistant Professor in CG-SET **State Eligibility Test (SET)** 2019.
- Qualified for Assistant Professor in CG-SET **State Eligibility Test (SET)** 2018.
- Qualified IIT-JAM 2016 for Physics.

RESEARCH EXPERIENCE

- Worked on PhD Thesis entitled "**Electronic structure and thermoelectric properties of rare-earth based half Heusler compounds**", under the supervision of Prof. S.M. Saini, Department of Physics National institute of technology Raipur, Raipur, C.G.

FELLOWSHIP

- **Junior Research Fellowship** awarded by the University Grant Commission, New Delhi during 17th September 2019 - 05th April 2022.

- COMPUTATIONAL SKILL

- Operating System- Linux, Windows
- Packages- WIEN2k.
- Plotting Software- Origin, Excel

PUBLICATIONS

(a) ***SCI Journals***

1. "Role of R-*f* states on electronic structure and thermoelectric performance of RNiSb (R = Gd, Er and Lu) half Heusler compounds: narrow gap thermoelectric materials" **Applied Physics A 127 (2021) 828,** by **J. K. Satyam** and S. M. Saini.
2. "Narrow gap electronic structure and thermoelectric performance of p-type Er*M*Sb (*M* = Ni, Pd) half Heusler compounds" **Physica B: Physics of Condensed Matter 631 (2022) 413709,** by **J. K. Satyam** and S. M. Saini.
3. Comprehensive investigation of electronic structure, phonon spectrum and thermoelectric performance of LuMSb (M = Ni, Pd, Pt) half Heusler compounds from first principles. **Journal of Computational Chemistry, 1 (2023) 10**, by **J. K. Satyam** and S. M. Saini.

(b) ***Scopus Indexed Journals/ International Conference Proceedings***

1. "Electronic structure and optical properties of Rare-Earth based ErPdSb half Heusler Compound: A GGA + U study" **Materials today: proceedings 44 (2021) 3040-3044**, by **J. K. Satyam** and S. M. Saini.
2. "Full potential study of electronic and thermoelectric properties of GdNiSb compound" **IOP conference series: materials science and engineering 1120 (2021) 012032** by **J. K. Satyam** and S. M. Saini.
3. "Structural, electronic, and optical properties of ternary rare-earth based GdPtSb half Heusler compound" **Materials today: proceedings 59 (2022) 1176-1780**, by **J. K. Satyam** and S. M. Saini.
4. "Electronic structure, magnetic and optical properties of ErPtSb half Heusler compound: Using GGA+U approximation" **Procedia environmental science, engineering and management 10 (2023) 147-154**, by **J. K. Satyam** and S. M. Saini.

(c) ***Book Chapter***

1. “The Electronic Structure and Thermoelectric Properties of Rare-Earth Based ErXSb (X= Pd and Pt) Half-Heusler Compounds Nova Science Publication USA, 2024”, **ISBN-13 979-8891132160,** by **J. K. Satyam** and S. M. Saini.