Faculty Profile

Name: **Dr. Manikonda Sainath**

Designation: Professor

Teaching Areas: Classical Electrodynamics, Condensed Matter Physics, Nuclear Physics, Spectroscopy and Instrumentation, Basic Electronics.

Research Interests:

Nuclear Electron – Gamma Spectroscopy, Spectroscopy Instrumentation, Theoretical Nuclear Structure studies, Ab-initio studies of pressure effects on selected crystal families.

Education:

1. Bachelor of Sciences (B.Sc.) – Sri Sathya Sai Institute of Higher Learning, Puttaparthi – Graduated in 1988 with I class.
2. Master of Sciences (M.Sc.) in Physics - Sri Sathya Sai Institute of Higher Learning, Puttaparthi – Graduated in 1990 with I class.
3. Doctor of Philosophy (PhD) in Nuclear Physics - Sri Sathya Sai Institute of Higher Learning, Puttaparthi – Awarded in 1995. Developed India's first mini-orange electron transporter for off line studies in nuclear spectroscopy.

Professional Experience: Total 25 years.

Research / Selected Publications:

1. *Pressure induced semimetallic B2 phase of alkaline earth tellurides*, Lavanya Kunduru, Suresh Sripada, S C Rakesh Roshan, N. Yedukondalu, M. Sainath Sainath, J. Phys, Conf Ser. 1495, 012041, (2020)
2. *Pressure driven topological semi metallic phase in SrTe,* Lavanya Kunduru, S C Rakesh Roshan, N. Yedukondalu, M. Sainath, AIP Conference Proceedings 1966, 020029 (2018).
3. *Assessment of band gaps for alkaline-earth chalcogenides using improved Tran Blahamodified Becke Johnson potential*, N. Yedukondalu, Lavayna Kinduru, S C Rakesh Roshan, M. Sainath, AIP Conference Proceedings 1942, 090030 (2018)
4. *Structure and Lattice Dynamics of Calcium Chalcogenides under High Pressure,* S C Rakesh Roshan, Lavanya Kunduru, N. Yedukondalu, M. Sainath., Materials Today: Proceedings 5 18874-18878 (2018).
5. *Nuclear Data Sheets for A = 227*, Philip Kondev, M. Sainath et.al., Nuclear Data Sheets **132,** 257 (2016).
6. *Design and Development of a Mini-Orange Magnetic Spectrometer with Multichannel Facility for Conversion Electron Spectroscopy,* M. Sainath, K. Vijay Sai, Dwarakarani Rao, Deepa Seetharaman and K. Venkataramaniah, J. Nucl. Phys. Mat. Sci. Rad. A Vol. 8(1), p.25 (2020); (EBSCO indexed), DOI: 10.15415/jnp.2020.81004

Conference Proceedings

1. *Low lying two-quasiparticle structures in odd-odd ^{182}Re,* S. C. Rakesh Roshan, Lavanya Kunduru, M. Sainath, Proc. DAE. Symp. Nucl. Phys. Volume 62 (2017) 320
2. *When Disruptive Innovations really disrupt – the impact of technological innovation on social, moral and ethical fabric of the society (Paper presented),* 22nd Annual Convention of Strategic Management Forum, December 21st, 2020, IIM – Ranchi, India.

Professional Affiliations:

1. Reading Committee member for PhD dissertations, Vrije Universiteit, Amsterdam.
2. Advisor, Startups and Entrepreneurship, Telangana IT Association.
3. Expert member on Technical Committee, Center for Gamma Irradiation Facility, AMTZ (Government of Andhra Pradesh), Visakhapatnam, India.
4. Fellow, Institute of Electronics and Telecom Engineers (IETE).
5. Life Member of Indian Physics Association (IPA).
6. Life Member of Indian Nuclear Society (INS).
7. Life Member of Indian Association of Physics Teachers (IAPT).