


STANDARD TEMPLATE OF FACULTY PROFILE FOR UPLOADING OF UNIVERSITY WEBSITE

Title	Dr.	First Name	Sonnathi	Last Name	Neeleshwar	
Designation		Assistant Professor				
School /Dept. Name		University School of Basic & Applied Sciences				
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Subjects Taught		<ul style="list-style-type: none"> • Graduation Courses <ul style="list-style-type: none"> 1. Physics -1 (B.Tech Ist Year BA-111) 2. Physics -2 (B.Tech Ist Year BA-110) 3. Material Science (B.Tech IInd Year BA-214) • Post Graduation Courses <ul style="list-style-type: none"> 1. Nano Science & Engineeringg (M.Tech –Engg Physics- BAEP705) 2. Advanced Nanomaterials (M.Tech -Nano Science & Technology-NST-201) 3. Nano Device and Nano Sensor (M.Tech -Nano Science & Technology- NST-106) 4. Elements of Material Science and properties of Nano Materials (M.Tech -Nano Science & Technology- NST107) • Pre PhD Courses <ul style="list-style-type: none"> 1. Characterization of Bulk & Nano Structure Materials 2. Nano structured thermoelectric materials 				
Areas of Interest/Specialization		<ul style="list-style-type: none"> • Synthesis of nanomaterials • Energy Harvesting: Thermoelectric Materials & Thermoelectric Device • High temperature of Superconductors • Quantum Size Effects : Magnetic Materials 				
Experience (in years)		Total	➤ 29 Years			
		Industry				
		Teaching	>16 Years			
		Research	>29 years			

<p>Educational Qualifications</p>	<p>UG</p>	<p>B.Sc. from Osmania University, Hyderabad India (1991)</p>
	<p>PG</p>	<p>M.Sc. from Osmania University, Hyderabad India (1993)</p>
	<p>Doctorate</p>	<p>Ph. D. from Osmania University, Hyderabad India (2001)</p>
	<p>Any other</p>	
<p>Research Publications in Journals (last 5 years)</p>	<p>(Details should be provided in APA/IEEE format)</p> <ol style="list-style-type: none"> 1. Wei, P. C., Bhattacharya, S., He, J., Neeleshwar, S., Podila, R., Chen, Y. Y., & Rao, A. M. (2016). The intrinsic thermal conductivity of SnSe. <i>Nature</i>, 539(7627), E1-E2. 2. Khasimsaheb, B., Singh, N. K., Bathula, S., Gahtori, B., Haranath, D., & Neeleshwar, S. (2017). The effect of carbon nanotubes (CNT) on thermoelectric properties of lead telluride (PbTe) nanocubes. <i>Current Applied Physics</i>, 17(2), 306-313. 3. Sonnathi, N., Panwar, A., Malik, V., & Bagga, A. (2018). Theoretical Investigations Of Interfacial Scattering Effects On Thermoelectric Properties Of Bulk Nanostructured PbTe System. <i>MRS Advances</i>, 3(24), 1329-1334. 4. Sharma, S. D., & Neeleshwar, S. (2018). Thermoelectric properties of hot pressed CZTS micro spheres synthesized by microwave method. <i>MRS Advances</i>, 3(24), 1373-1378. 5. Sharma, S. D., Khasimsaheb, B., Chen, Y. Y., & Neeleshwar, S. (2019). Enhanced thermoelectric performance of Cu₂ZnSnS₄ (CZTS) by incorporating Ag nanoparticles. <i>Ceramics International</i>, 45(2), 2060-2068. 6. Panwar, A., Malik, V., Neeleshwar, S., & Bagga, A. (2019). Probing the path for achieving a broad temperature plateau of the figure of merit in thermoelectric nanocomposite materials. <i>Nanotechnology</i>, 31(3), 035405. 7. Sharma, S. D., Bayikadi, K., Raman, S., & Neeleshwar, S. (2020). Structural, morphological and thermoelectric properties of self-decorated copper selenide nanosheets synthesized at room temperature. <i>Current Applied Physics</i>. 8. Sharma, S. D., Bayikadi, K., Raman, S., & Neeleshwar, S. (2020). Synergistic optimization of thermoelectric performance in earth-abundant Cu₂ZnSnS₄ by inclusion of graphene nanosheets. <i>Nanotechnology</i>, 31(36), 365402. 9. Basu, R., Mandava, S., Shenoy, U. S., Bhat, D. K., Khasimsaheb, B., Debnath, A. K., ... & Neeleshwar, S. (2021). Synergistic manifestation of band and scattering engineering in the single aliovalent Sb alloyed anharmonic SnTe alloy in concurrence with rule of parsimony. <i>Materials Advances</i>, 2(24), 7891-7906. 10. Mandava, S., Basu, R., Khasimsaheb, B., Bathula, S., Singh, A., & Neeleshwar, S. (2021). A synergistic approach to achieving the high thermoelectric performance of La-doped SnTe using resonance state and partial band convergence. <i>Materials Advances</i>, 2(13), 4352-4361. 11. Mandava, S., Bisht, N., Saini, A., Bairwa, M. K., Bayikadi, K., Katre, A., & Sonnathi, N. (2021). Investigating the key role of carrier transport mechanism in SnSe nanoflakes with enhanced thermoelectric power factor. <i>Nanotechnology</i>. 	

Papers Published in Conference Proceedings (last 5 years)	--			
Books Authored/Book Volume Chapters	1. "Major challenges toward development of efficient thermoelectric materials: From high figure-of-merit (zT) materials to devices", S. Neeleshwar, Anjali Saini, Mukesh Kumar Bairwa, Neeta Bisht, Ankita Katre, and G Narsinga Rao, Springer Nature, 2021{Accepted}			
No. of Conferences	National	Attended		Organized
		05		01
	International	35		03
Research Guidance	Awarded	PG	M. Phil	Doctorate
		19	-	04
	Undergoing	-	-	04
Research Projects	Completed	08		
	Undergoing	02		
Awards & Distinctions	Academia Sinica Fellow			
Administrative Assignments Handled	Assistant Program Coordinator for NSS (2018 to till date) Placement Officer for M.Tech (EP & NST) Program Coordinator for M.Tech Engg Physics (on going) Coordinator for IOP, Academia Sinica, Taiwan -GGSIPU Collaborative research program Coordinator for Personality Development Program for faculty and students Coordinator for Joint Assessment Committee Convener for Academic Audit Activity Convener for Academic Audit Activity Convener and Member of subject expert selection of School Teachers of Orissa			
Association with				

Professional Bodies	American Physical Society Chinese Physical Society International Thermoelectric Society Indian Physics Teachers Association
Any other Achievements	Advisor to Instapower Ltd