


Name	Dr Jaspal Singh				
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Contact Number	94780-11059				
Designation	Assistant Professor				
Subject	Physics				
Qualification	M.Sc., Ph.D.				
Experience	10 years				
<b>Research guidance</b>					
<b>Ph.D. Guided</b>			<b>Under Guidance</b>		
Nil			Nil		
Area of Research/Interest	Study of thermoelectric materials by Density Functional Theory				
Projects /Patents/Research grant	UGC Travel Grant in Oct. 2019				
<b>Number of Publications</b>					
<b>Books/Articles</b>	<b>International journals</b>	<b>National journals</b>	<b>International Conferences</b>	<b>National conferences</b>	
01 Text Book	11	1	4	6	
<b>Latest Publications(books,Articles, Expert Talk etc.)</b>					
1)Electronic structure, phonon stability, mechanical and high temperature thermoelectric properties of Li based quaternary Heusler alloys Current Applied Physics 50 161-167 2023					
2)LiNbCoX(X=Al,Ga) quaternary Heusler compounds for high temperature thermoelectric properties: A computational approach Bulletin of Materials Science 46 1-13 2023					
3)Electronic structure, elastic and transport properties of new palladium based half Huesler materials for thermoelectric applications.Materials Today Communications 36 106461 2023					
4)XO2 (X=Pt,Pd)Monolayers: A Promising thermoelectric materials Advanced Theory and Simulations 6 2300158 2023					
5)Tailoring the Inherent Magnetism and Thermoelectric Response of Pyrochlore Oxide:A Computational Approach Journal of Superconductivity and Novel Magnetism 36 1203-1215 2023					
6)Intrinsic and strain dependent ultra low thermal conductivity in novel AUX monolayers for outstanding thermoelectric applications Physical Chemistry Chemical Physics 25 21736-217472023					
7) First principles calculations on the electronic structure and thermoelectric properties of quaternary Heusler compounds: LiScPtSi and LiScPdGe Materials Today Communications ,32 ,103961 ,2022					
8)First principles calculations to investigate Li based quaternary Heusler compounds LiHfCoX(X=Ge,Sn) for thermoelectric applications Physica Scripta 97 105706 2022					
9)Computational prediction of thermoelectric properties of 2D materials Electronic Structure 4 023001 2022					
10)Exploring thermoelectric properties and stability of half Heusler PtXSn(X=Zr, Hf) semiconductors:A first principle investigation Computational Materials Science 188 110232 2021					
11)Internet of things (IOT)-Future Aspects and Challenges, Emerging trends in wireless communication Central West Publishing, ISBN(Print): 978-1-922617-22-4, <a href="https://centralwestpublishing.com">https://centralwestpublishing.com</a>					
12)Structural, electronic, mechanical,and thermoelectric properties of LiTiCoX(X=Si, Ge) compounds International Journal of Energy Research 45 16891-16900 2021					
13)Text Book of Applied Physics, ISBN: 978-81-8411-621-2 Jaspal Singh Sonali Publications, New Delhi 2017					
14)Electronic structure, phonon spectrum and effective mass related thermoelectric properties of PdXSn(X=Zr,Hf)half Heuslers Molecules 27 6567 2022					
<b>Recognition awards (any 5)</b>					
1)					
2)					
3)					
4)					
5)					