## **UNIVERSITY INSTITUTE OF ENGINEERING & TECHNOLOGY** PANJAB UNIVERSITY, CHANDIGARH - 160014

#### FACULTY PROFILE

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- 1. Name :Dr.Parveen Goyal Associate Professor 2. Designation :Mechanical Engineering 3. Department :#553,Phase1,Mohali
- 4. Address
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- 7. Education



S.No	Degree	University/	YearofPass	Class
		Institution		
1.	B.Tech	REC Kurukshetra	2002	st 1
2.	M.E.	PEC Chandigarh	2007	st 1
3.	Ph.D.	Panjab University, Chandigarh	2018	

8. Research Areas

: Manufacturing and Surface Alloying

9. Experience:

S.No.	Period		Organization/	Position Held
	From	То	Institution	
1.	Sep2022	continue	UIET	Associate Professor
2.	Feb2008	Sep2022	UIET	Assistant Professor
3.	Jan2006	Feb2008	CCET	Assistant Professor

### 10. List of Publications:

S.No.	Name of Publication	Name of publisher, Indexing,Impact factor	Refereed/ Reputed	Imapct Factor
1	Investigation of micro-hardness of H11 die steel using composite material electrodes in EDM	Indian Journal of Engineering& Materials Sciences SCI, Impact Factor 0.615	Refereed, SCI Indexed	0.615
2	LowCostJoiningofInconel625and Super Duplex Stainless Steel 2507 through Novel Technique	Journal of Materials Engineering and Performance SCI, Impact Factor 2.036	Refereed, SCI Indexed	2.036
3	Optimization of mechanical properties of high strength dual phase steel through thermo- mechanical simulation	International Journal on Interactive Design and Manufacturing (IJIDeM)Scopus	Refereed, Scopus Indexed	-
4	Analysis of additive manufacturing techniques used for maxillofacial corrective surgeries	Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science SCI,ImpactFactor1.758	Refereed, SCI Indexed	1.758
5	Design and heat transfer performance analysis of mini- channel heat sink with water, EG and EG20 based nano fluids- computational approach	International Journal on Interactive Design and Manufacturing(IJIDeM)Scopus	Refereed, Scopus Indexed	-
6	Thermal performance evaluation of cellulose fiber as building insulation material	Indian Journal of Engineering & Materials Sciences SCI, Impact Factor 0.615	Refereed, SCI Indexed	0.615
7	Application of graphite rods in producingInconel625(UNSN06625) joints through the use of microwave radiation energy	Indian Journal of Engineering& Materials Sciences SCI, Impact Factor 0.615	Refereed, SCI Indexed	0.615

8	Investigationofmicro-hardnessofH11dieIndian Journal of Engineering&Steel using composite material electrodes inMaterials SciencesEDMEDM		Refereed, SCI Indexed	0.615
9			Refereed, SCI, Indexed	2.036
10	Optimization of mechanical properties of high Strength dual phase steel through thermo- mechanical simulation	International Journal on Interactive Design and Manufacturing (IJIDeM)	Refereed, Scopus Indexed	-
11	Analysis of additive manufacturing techniques used for maxillofacial corrective surgeries	Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical	Refereed, SCI, Indexed	1.758
12	Design and heat transfer performance analysis of mini-channel heat sink with water, EG and EG20based nano fluids-computational approach	Engineering Science International Journal on Interactive Design and Manufacturing (JJIDeM)	Refereed, ScopusIndexed	-
13	Thermal performance evaluation of cellulose fiber as building insulation material	Indian Journal of Engineering& Materials Sciences	Refereed, SCI, Indexed	0.615
14	Application of graphite rods in producing Inconel625(UNSN06625)joints through the use of microwave radiation energy	lication of graphite rods in producing Indian Journal of Engineering& Indian Journal of Engineering& Materials Sciences		0.615
15	Major Developments in EDM Surface Alloying using Composite Material Tool Electrode International Journal of Innovative Technology and Exploring Engineering(IJITEE)		Referred, Scopus Indexed	-
16	Electronic and material realizations of fractional-order elements	Elsevier Journal, , Materials Today: Proceedings	Referred, Scopus indexed	-
17	Analysis of approximation methods and fractional-order circuit	Elsevier Journal, , Materials Today: Proceedings	Referred ,Scopus indexed	-
18	Effect of vertical bone loss on stress distribution at the bone-implant interface Around implants of varying diameters—an in silicon 3D finite element analysis	Elsevier Journal, Materials Today: Proceedings	Referred, Scopus,	
19	Experimental investigations on brass material and pin-fin based heat transfer system and its Modeling by using adaptive neuro-fuzzy inference system	Elsevier Journal , Materials Today: Proceedings	Referred,Scopus Indexed	
20			Referred,Scopus indexed	-
21	Effect of cellulose fibre based insulation on thermal performance of buildings	Elsevier Journal, Materials Today: Proceedings	Referred,Scopus indexed	-
22	Analysing the effects of solar insolation and temperature on PV cell characteristics	Elsevier Journal, , Materials Today: Proceedings	Referred,Scopus indexed	-
23	Thermal performance ofbuildings with light colored exterior materials	Elsevier Journal, Materials Today: Proceedings	Referred,Scopus indexed	-

24	Effect of peri-implant it is associated horizontal bone loss on stress distribution around dental implants–A 3D finite element analysis	Elsevier Journal, Materials Today: Proceedings	Referred, Scopus Indexed	
25	Review of joining inconel alloys through microwave hybrid heating and other techniques	Elsevier Journal, Materials Today: Proceedings	Referred, Scopus Indexed	-
26	Evolution of PV technology from conventional to nano-materials	Elsevier Journal, Materials Today: Proceedings	Referred, Scopus Indexed	
27	Flow behaviour kinetics of Inconel 600 superalloy under hot deformation using gleeble 3800	Elsevier Journal, Materials Today: Proceedings	Referred, Scopus Indexed	
28	The Machining and Surface Modification of H13 Die Steel via the Electrical Discharge Machining Process Using Graphite Mixed Dielectric	Journal of Manufacturing and Material Processes	Refereed, SCI, Indexed	3.3
29	Design and development of strain gauge for biomedical applications: State of the art review	Innovation and Emerging Technologies An International Journal on Innovative Applied Sciences, Engineering and Biomedical Research	Refereed, SCI, Indexed	2.4
30	Mechanical Behavior of PU/MWCNT Composite Materials Under Tensile Lloading Conditions Using FEA	ECS Journal of Solid State Science and Technology	Refereed, SCI, Indexed	1.8
31	Synthesis, characterization and in-vitro study of hydroxyapatite, silver substituted hydroxyapatite and iron substituted hydroxyapatite for bone tissue engineering applications	Results in Chemistry	Refereed, SCI, Indexed	2.3

# 11. Books/Chapter authored/Chapter in Edited Books/Editorship of Books:

S.N.	Title	Book Title& Publisher with Date of Publication	Whether author or editor	ISSN/ISBNNo.	International /National Publisher
1	International Conference on Aspects of Materials Science and Engineering (ICAMSE 2021)	International Conference on Aspects of Materials Science and Engineering (ICAMSE 2021) Elsevier Publisher Volume45,Part6, Pages4377-5834(2021)	Editor (Book)	2214-7853	International

2	International Conference on Aspects of Materials Science and Engineering (ICAMSE 2022)	International Conference on Aspects of Materials Science and Engineering Volume 57, Part 2, Pages:329-988(2022)	Editor (Book)	2214-7853	International
3	Thermal Performance of Natural Insulation Materials for Energy Efficent Buildings	Artificial Intelligence, Machine Learning, and Data Science Technologies, CRCPress (12October2021)	Author (Book Chapter)	9781003153405	International
4	Review on Surface	Advances in Materials	Book	978-981-15-	International
5	Modifications of the Workpiece by Electric Discharge Machining	Processing, Lecture Notes In Mechanical Engineering. Springer, (23June2020)	Chapter	4748-5	
6	Environment Education Programme , 2023-24	Ministry of Environment, Forest & Climate Change, Govt.Of India	Project		National
7	Molecular Determinants and Regulatory Mechanism of nutrient exchange between plant and AMF	Arbuscular Mycorrhizal Fungi in Sustainable Agriculture: Nutrient and Crop Management	Chapter	978-981-97-0299-2	International
8	Environment Education Programme , 2024-25	Ministry of Environment, Forest & Climate Change, Govt.Of India	Project		National

### 12. List of Patents:

S.N	Title	Agency(International/	Details of patent
		National)	
1.	A microwave spark joining system	German Patent (International)	202022 101790
2.	A system for fabricating copper-tungsten- Carbon nano tubes composite material electrode for edm process	Indian Patent (National)	202211043134
3.	A rescue device for children trapped in borewell and its working method thereof	Indian Patent (National)	202211054121

### **13.** Other Achievements

- > Elected member of Senate, Panjab University from 2016 onwards.
- Elected member of Syndicate, Panjab University.
- > Elected member of Academic Council, Panjab University from 2018 onwards.
- > Elected member of Board of Finance, Panjab University in 2022.
- Elected member of PUTA Executive.
- Coordinator of International Conference, (ICAMSE2020, 2021, 2022)
- Guest Editor, MaterialsToday: Proceedings (ELSEVIER) (ICAMSE2021 & 2022)
- Programme Coordinator, NSS, PanjabUniversity, Chandigarh (Additional Charge)