

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

FACULTY PROFILE

1. Name : Dr. Parveen Goyal
 2. Designation : Associate Professor –cum-
Programme Coordinator, NSS
 3. Department : Mechanical Engineering
 4. Address : # 553, Phase 1, Mohali
 5. Phone/Mobile : 9815896823
 6. Email-Id : pgoyal@pu.ac.in
 7. Education :



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

8. Research Areas : Manufacturing and Surface Alloying
 9. Experience:

| S. No. | Period | | Organization / Institution | Position Held |
|--------|----------|----------|-------------------------------|------------------------|
| | From | To | | |
| | Sep 2022 | continue | UIET | Associate Professor |
| 1. | Feb 2008 | Sep 2022 | UIET | Assistant Professor |
| 2. | Jan 2006 | Feb 2008 | 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 | Low Cost Joining of Inconel 625 and 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, Impact Factor 1.758 | Refereed, SCI Indexed | 1.758 |
| 5 | Design and heat transfer performance analysis of mini-channel heat sink with water, EG and EG20 based nanofluids-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 producing Inconel 625 (UNS N06625) joints through the use of microwave radiation energy | Indian Journal of Engineering & Materials Sciences SCI, Impact Factor 0.615 | Refereed, SCI Indexed | 0.615 |

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| 8 | Investigation of micro-hardness of H11 die steel using composite material electrodes in EDM | Indian Journal of Engineering & Materials Sciences | Refereed, SCI Indexed | 0.615 |
| 9 | Low Cost Joining of Inconel 625 and Super Duplex Stainless Steel 2507 through Novel Technique | Journal of Materials Engineering and Performance | 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 Engineering Science | Refereed, SCI, Indexed | 1.758 |
| 12 | Design and heat transfer performance analysis of mini-channel heat sink with water, EG and EG20 based nanofluids-computational approach | International Journal on Interactive Design and Manufacturing (IJIDeM) | Refereed, Scopus Indexed | - |
| 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 Inconel 625 (UNS N06625) joints through the use of microwave radiation energy | Indian Journal of Engineering & Materials Sciences | Refereed, SCI Indexed | 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 silico 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 | Development of novel experimental procedure for microwave hybrid heating based joining using graphite rods | Elsevier Journal, Materials Today: Proceedings | 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 of buildings with light colored exterior materials | Elsevier Journal, Materials Today: Proceedings | Referred, Scopus indexed | - |

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|----|---|--|--------------------------|---|
| 24 | Effect of peri-implantitis 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 | |

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

| S.N. | Title with page no. | Book Title & Publisher with Date of Publication | Whether author or editor | ISSN/ISBN No. | 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 Volume 45, Part 6, Pages 4377-5834 (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 Efficient Buildings | Artificial Intelligence, Machine Learning, and Data Science Technologies, CRC Press (12 October 2021) | Author (Book Chapter) | 9781003153405 | International |
| 4 | Review on Surface Modifications of the Workpiece by Electric Discharge Machining | Advances in Materials Processing, Lecture Notes in Mechanical Engineering. Springer, (23 June 2020) | Book Chapter | 978-981-15-4748-5 | International |
| 5 | Environment Education Programme , 2023-24 | Ministry of Environment, Forest & Climate Change, Govt. Of India | Project | | National |

12. List of Patents:

| S.N | Title | Agency (International/ National) | Details of patent |
|-----|--|-------------------------------------|-------------------|
| 1. | A microwave spark joining system | German Patent (International) | 202022 101790 |
| 2. | A system for fabricating copper-tungsten-carbon nanotubes composite material electrode for edm process | Indian Patent (National) | 202211043134 |
| 3. | A rescue device for children trapped in borewell and its working methode 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, Materials Today: Proceedings(ELSEVIER) (ICAMSE 2021 & 2022)
- Programme Coordinator, NSS, Panjab University, Chandigarh w.e.f. 18.08.2023
(Additional Charge)