

Faculty Profile

Faculty Name	Rajat Gupta
Designation	Assistant Professor
Qualification	Ph.D (Pursuing NIT Kurukshetra), M.Tech (Y.I.E.T Yamuna Nagar) B.Tech (N.C.C.E Israna Panipat)
Email	rajat.mech@piet.co.in
Area of Interest	Friction Stir welding, Friction stir processing, Friction Surfacing and composite fabrication
Work Experience (Total)	10 years 7 months
<ul style="list-style-type: none"> • Teaching 	10 years 7 months
<ul style="list-style-type: none"> • Research 	-Nil-
<ul style="list-style-type: none"> • Industry 	-Nil-
<ul style="list-style-type: none"> • Others 	-Nil-
Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate Diploma Level	Fluid Mechanics, Thermodynamics, Operation Research, Material Science and Statistical Quality control & reliability
Membership of Professional Bodies	Associate member of The Institution of Engineers (IEI) India (AM 155856-3)
Research Publications	
<ul style="list-style-type: none"> • Research Papers UGC-CARE 	-Nil-
<ul style="list-style-type: none"> • Research Papers SCOPUS 	01
<ul style="list-style-type: none"> • Research Papers WoS/SCI/ABDC 	03
<ul style="list-style-type: none"> • List of Publications 	<p>1. Sumit Jain, Neeraj Sharma, Rajat Gupta (2018), Dissimilar alloys (AA6082/AA5083) joining by FSW and parametric optimization using Taguchi, grey relational and weight method, Engineering Solid Mechanics, Vol. 6 (1), pp. 51-66 (Scopus Indexed).</p> <p>2. Rajat Gupta, Lalit Thakur (2023), Development of an AA 7075 Wear-Resistant Coating on AA 6082 via Friction Surfacing: Optimization and Characterization, J. of Materi</p>

	<p>Eng and Perform, ASM international, Springer (SCI indexed).</p> <p>3.Sumit Jain, R.S Mishra, Husain Mehdi, Rajat Gupta & Amit Kumar Dubey (2023), Optimization of processing variables of friction stir welded dissimilar composite joints of AA6061 and AA7075 using response surface methodology: Journal of Adhesion Science and Technology, Taylor & Francis (SCI indexed).</p> <p>4. Rajat Gupta and Lalit Thakur (2023) “A study of parametric optimization, microstructure and wear behavior of an AA 7075-SiC composite coating developed by friction surfacing” Journal of Adhesion Science and Technology, Taylor & Francis (SCI indexed).</p>
Book and Chapter Publications	
<ul style="list-style-type: none"> Books Authored published by International Publishers 	-Nil-
<ul style="list-style-type: none"> Books Authored published by National Publishers 	-Nil-
<ul style="list-style-type: none"> Publication of Chapter in Edited Books 	01
<ul style="list-style-type: none"> Editor of Book by International Publishers 	-Nil-
<ul style="list-style-type: none"> Editor of Book by National Publishers 	-Nil-
<ul style="list-style-type: none"> Translation Work of Book 	-Nil-
<ul style="list-style-type: none"> List of Book and Chapter Publications 	1. Rajat Gupta , Kamal Kumar, Neeraj Sharma (2018), Multi-Performance Optimization in Friction Stir Welding of Aluminum Alloy using Response Surface Methodology,

	Predictive Modeling and Optimization Methods in Science and Engineering,240-263.DOI: 10.4018/978-1-5225-4766-2.ch011IGI Global:USA.(Scopus Indexed)
Patents	
<ul style="list-style-type: none"> Published 	01
<ul style="list-style-type: none"> List of published patent(s) 	01 Application Number-202311042296A Date of filling Application-23/06/2023 Publication Date-21/07/2023 Title of Invention-PROCESS PARAMETERS EVALUATION OF CNC TURNING MACHINE Name of Applicant-Amit Kumar Dubey, Kuldeep Singh, Dr. Mayaram Sahu, Dr. Vishal Dabra, Seone Sharma and Rajat Gupta
<ul style="list-style-type: none"> Filed 	-Nil-
<ul style="list-style-type: none"> List of filed patent(s) 	-Nil-
PhD Guidance	
<ul style="list-style-type: none"> Degree Awarded 	-Nil-
<ul style="list-style-type: none"> Thesis Submitted 	-Nil-
M.Tech. Guidance	
<ul style="list-style-type: none"> Degree Awarded 	-Nil-
<ul style="list-style-type: none"> Thesis Submitted 	-Nil-
Research Project	
<ul style="list-style-type: none"> List of Research project 	-Nil-
Consultancy	
<ul style="list-style-type: none"> List of Consultancy 	-Nil-
Awards & Honours	
<ul style="list-style-type: none"> List of Awards & Honours 	-Nil-
Invited lectures / Resource Person/ paper presentation in Seminars/ Conferences/full	

paper in Conference	
<ul style="list-style-type: none"> • International (Abroad) 	-Nil-
<ul style="list-style-type: none"> • International (Within Country) 	-Nil-
<ul style="list-style-type: none"> • National 	
<ul style="list-style-type: none"> • List of published paper 	<ol style="list-style-type: none"> 1. Rajat Gupta, Sumit Jain, Arvinder Chaini, Neeraj Sharma (2013), Friction Stir Welding: A Review, Journal of Engineering, Computer and Applied Science, Vol. 2(7), pp. 23-31. (ISSN: 2319-5606). 2. Neeraj Sharma, Rajat Gupta, Sumit Jain (2014), Parametric Optimization of Friction Stir Welded AA5083 using Response Surface Methodology, i-manager's Journal on Material Science, Vol. 1 (2), pp. 26-32. (ISSN: 2249-0744) 3. Arvinder Singh, Rajat Gupta, Neeraj Sharma, Amit Raman, Sumit Jain (2014), Influence of Tool Pin Profiles on UTS and % Elongation on Friction Stir Welded AA 5083, Yamuna Journal of Technology & Business Research, Vol. 4(1), pp 13.1-13.5. (National Conference on Advances and Research in Technology-ART 2014 (March 8-9, 2014). 4. Neeraj Sharma, Neeraj Ahuja, Rajat Gupta, Ankur Sharma, Mohit Kumar (2014), Morphological Analysis of Al 5083 and Al 6082 after Friction Stir Welding, All India Seminar on Advanced Research in Science, Engineering and Technology at R.P. Inderprastha Institute of Technology (Karnal), Haryana, 31 January-1 February.

- 5.** Rajat Gupta, Sumit Jain, Arvinder Singh, Neeraj Sharma (2014), Effect of tool Structure on the Friction Stir Welding Butt Joint, All India Seminar on Advanced Research in Science, Engineering and Technology at R.P. Inderprastha Institute of Technology (Karnal), Haryana, 31 January-1 February.
- 6.** Neeraj Sharma, Rajesh Khanna, Rajat Gupta, Deepak (2014), Morphological Characteristics and UTS of Al 5083 after FSW, International Journal of Engineering Research and Applications, (National Conference on Advances in Engineering and Technology-2014, M.M.U. Sadopur 29 march 2014).
- 7.** Rajat Gupta, Sumit Jain, Vindul Jain (2014), Influence of Tool Pin Profiles on UTS and % Elongation on Friction Stir Welded AA 6082. 2 Days National Conference on “Advancements in Energy, Environment and Materials” (Aeem-2014), RPIIT Technical Campus, Karnal, Nov. 13-14, 2014.
- 8.** Neeraj Sharma, Rajesh Khanna, Preeti, M.P Garg, Rajat Gupta, (2016), Surface Quality Analysis after EDM Drilling for AA 7075, IOSR Journal of mechanical and civil Engineering (IOSR-JMCE), (3rd National Conference on Advances in Engineering, Technology and Management-2016, M.M.U. Sadopur-Ambala 9 April 2016).
- 9.** Sumit Jain, Preeti Rani, Rajat Gupta, Neeraj Sharma, (2016), UTS Maximization In Solid

	<p>State Joining Process of AA 6082, IOSR Journal of mechanical and civil Engineering (IOSR-JMCE), (3rd National Conference on Advances in Engineering, Technology and Management-2016, M.M.U. Sadopur-Ambala 9 April 2016).</p> <p>10. Rajat Gupta, Dr. Lalit Thakur, (2017), Predictions of the optimized friction stir welding process parameters for the joining of AA5083 Aluminium alloy using RSM, 2 Days National Conference on “Recent Advances in Mechanical Engineering” (NCRAME 2017), NIT Kurukshetra June 02-03, 2017.</p> <p>11. Paper entitled “Influence of tool pin profiles on UTS and elongation on friction stir welded AA 6063” presented in National E-Conference on Recent Advancements in Science and Technology (NECRAST 2020) organized by Dr. Akhilesh Das Gupta Institute of Technology & Management, during 27th-28th July 2020. (ISBN No. 978-93-5408-327-3).</p>
<p>Organizing National Conference/ International Conference/ FDP/STTP</p>	
<ul style="list-style-type: none"> • List of Conference/FDP/STTP committee 	-Nil-
<p>Social Contributions and Sports</p>	
<ul style="list-style-type: none"> • List of Social Contributions and Sports 	-Nil-