

Profile Page



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Research Interests :

Analytical, Experimental and Computational Fracture Mechanics, Stress Corrosion Cracking, Optimization Techniques

Other Profile Links :

Google Scholar Link :

Google Scholar ID [Click Here](#)

Personal Web Link :

Orcid ID [Click Here](#) Publons Researcher ID [Click Here](#) Scopus ID [Click Here](#) Microsoft Academic ID [Click Here](#)

Journal Publications :

Year	Journal	Publication
2020	Mechanics of Advanced Materials and Structures; DOI: https://doi.org/10.1080/15376494.2020.1758257	Millan Kumar, Pramod Kumar & Shailendra Singh Bhadauria, Numerical simulation of delamination growth in fibre reinforced polymer laminates using cohesive zone modeling
2020	Polymer-Plastics Technology and Materials, DOI: https://doi.org/10.1080/25740881.2020.1719142	Millan Kumar, Pramod Kumar & Shailendra Singh Bhadauria, Interlaminar fracture toughness and fatigue fracture of continuous fiber-reinforced polymer composites with carbon-based nanoreinforcements: a review
2019	Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science; ; https://doi.org/10.1177/0954406219827337	Ruchin Kacker and Shailendra Singh Bhadauria, Investigations on critical anisotropic triaxiality at the crack tip under mixed-mode (I+II) fracture

2019	Journal of Bio- and Tribo-Corrosion, 5:91 https://doi.org/10.1007/s40735-019-0283-z	Surinder Pal and Shailendra Singh Bhadauria, (2019), Pitting Corrosion Behavior of Austenitic F-304 Stainless Steel under the Exposure in Ferric Chloride Solution
2019	Journal of Physics: Conf. Series 1240 doi:10.1088/1742-6596/1240/1/012074	A Jagotra, D.K Singh, S.S Sandhu, S.Kango and S S Bhadauria, (2019) Experimental investigation on performance and emission characteristics of single cylinder CI engine using waste cooking oil (WCO) with diethyl ether (DEE), IOP Conf. Series
2018	International Journal of Applied Mechanics and Engineering, Vol. 23, (04), pp 941-961	A.K. Sharma, P. Sharma, P.S. Chauhan, S.S. Bhadoria; Study on Harmonic Analysis of Functionally Graded Plates using FEM
2018	Elsevier Materials Today: Proceedings	K. Gowtham Kumara , V. J. K. Silpab , B.V.S.Raghu Vamsic , Dr. S. S. Bhadauriad, Studies on the Critical Size of the Plastic Zone in Pure Mode-I and Mixed Mode (I/II) Fracture
2017	Mechanics Based Design of Structures and Machines, http://dx.doi.org/10.1080/15397734.2017.1357476	Ruchin Kacker, Shailendra Singh Bhadauria and Raghupati Talwar; Investigation on Triaxiality along the Yield Loci at the Crack Tip under Mixed Mode (I/II) Fracture
2016	Mechanics of Advanced Materials and Structures	Ruchin Kacker, Shailendra Singh Bhadauria; Triaxiality at crack tip for combined Lankford's coefficient and degree of anisotropy subjected to mixed-mode (I/II) fracture
2016	Journal of Solid Mechanics	Ruchin Kacker, Shailendra Singh Bhadauria; Crack Tip Constraint for Anisotropic Sheet Metal Plate Subjected to Mode-I Fracture
2015	International Journal of Mechanical and Production Engineering	Effect of Strain Ratio on Stress Triaxiality subjected to Mode I Fracture
2015	International Journal of Mechanical and Production Engineering	Optimization of Surface Roughness using Taguchi method in End Milling of Steel Grade EN19 with Tin coated carbide tool
2015	Academic Journal of Science	Mathematical Modeling for CTOD based M-Criterion for the Determination of Triaxiality Under Mixed Mode (I/II) Fracture
2012	Journal of Material Science – Poland	Determination of Critical Stress Triaxiality on Yield locus of Isotropic Ductile Materials under Plane Strain Condition
2012	Journal of Mechanical and Civil Engineering	Analysis of Crack Tip Opening Displacement under Mixed Mode Fracture Using FEM Technique
2010	Journal of Solid Mechanics	Finite Element Modeling of Crack Initiation Angle under Mixed Mode (I/II) Fracture
2009	Journal of Solid Mechanics	Effect of Stress Triaxiality on Yielding of Anisotropic Materials under Plane Stress Condition

Conference Publications :

Year	Conference	Publication
2019	Conference on Production and Industrial Engineering	Ankit Thakur, Varun Sharma and Shailendra Singh Bhadauria, Investigating the Mechanical Properties and Pitting Potential of Heat Treated AISI 4340 Steel in Various Corrosive Environment
2019	Conference on Production and Industrial Engineering	Shailendra Singh Bhadauria, Varun Sharma and Ajay Gupta, Effect of cutting parameters on MRR and Surface Roughness in Turning of AISI 1018 and AISIP 20 using Taguchi Method

2015	Conference of the International Journal of Arts and Sciences (IJAS)	Mathematical Modeling for CTOD based M-Criterion for the Determination of Triaxiality under Mixed Mode (I/II) Fracture
2015	International Conference on Recent Innovations in Science, Engineering and Technology, organized by Institute of Research and Journals, Panjim Goa	Effect of Strain Ratio on Stress Triaxiality subjected to Mode I Fracture
2015	International Conference on Recent Innovations in Science, Engineering and Technology, organized by Institute of Research and Journals, Panjim Goa	Optimization of Surface Roughness using Taguchi method in End Milling of Steel Grade EN19 with Tin coated carbide tool
2013	International Conference on Mechanical Engineering: Theory and Application, WASET Singapore	Investigation of Anisotropic Mode I Fracture in Plane Stress Condition
2009	3rd International Congress on Computational Mechanics and Simulation IIT Bombay	Optimization of Stress Triaxiality Factor – Effects on Yielding of Isotropic Ductile Materials under Plane Strain Condition
2007	International and INCCOM-6 Conference on Future Trends in Composite Materials and Processing, Organized by IIT Kanpur India	Stress Analysis of Tensile Loaded Thin Plate with Central Hole
2007	International and INCCOM-6 Conference on Future Trends in Composite Materials and Processing, Organized by IIT Kanpur India.	Two Dimensional Linear Elastic Fracture Analysis Of A Finite Rectangular Plate With A Central Crack
	International Conference on Production and Industrial Engineering, Organized by NIT Jalandhar, Punjab	Non Linear Optimization of Parameters of Wire Electric Discharge Machining with MATLAB
	International Conference on Production and Industrial Engineering, Organized by NIT Jalandhar, Punjab.	Non-Linear Optimization of Parameters of Wire Electric Discharge Machining using Artificial Neural Network with MATLAB
	International Conference On Productivity And Quality Research (ICPQR) organized at IIT Delhi in association with International Society for Productivity and Quality Research, Miami USA	Impact of Simulation and Modeling Software on productivity improvement

Research Projects :

Role	Project Type	Title	Funding Agency	From	To	Amount	Status	Co-Investigator
Principal Investigator	TEQIP-II Sponsored	Stress Corrosion Cracking of gas nitrocarburising head treating AISI 4340 Steel at different R-Ratios	TEQIP-II	January 2017	June 2017	50,000	Completed	NIL
Principal Investigator	TEQIP-II Sponsored	Stress corrosion cracking behaviour of heat-treated gas nitrocarburising AISI 4340	TEQIP-II	January 2017	June 2017	50,000	Completed	NIL

Events Organized :

Category	Type	Title	Venue	From	To	Designation
Faculty Development Program	National	Introduction and Application of Finite Element Method	National Knowledge Networks (NKN), NIT Jalandhar Centre	13-06-2016	17-06-2016	Coordinator
Short Term Course	National	Skill Development Program on Ansys – A FEA Package	IT Park, NIT Jalandhar	28-03-2016	30-03-2016	Coordinator
Training Program	National	Introduction to Abaqus – A FEA Package	T&P Hall, NIT Jalandhar	25-06-16	27-06-16	Coordinator
Training Program	National	Design & Assembly with Solid Works	T&P Hall, NIT Jalandhar	13-08-16	14-08-16	Coordinator
Workshop	National	Workshop on e-Foundry: Casting Design and Simulation	NKN Centre, NIT Jalandhar	9-04-2014	9-04-2014	Coordinator
Workshop	National	Modeling of Metal Forming and Machining Processes	NKN Hall NIT Jalandhar	17-07-17	22-12-17	Assistant Professor

PhD Supervised :

Scholar Name	Research Topic	Status	Year	Co-Supervisor
Ruchin Kacker	Investigation on Stress Triaxiality for Anisotropy and Unified Strength Theory under Mixed Mode (I/II) Fracture	Completed	2018	Sole Supervisor
Surinder Pal	Experimental Investigation of Stress Corrosion Cracking (SCC) on Gate Valve Disc	Undergoing	---	Dr. Pramod Kumar, Dept. of Mechanical Engg
Kamleshwar Verma	Investigation of Stress Corrosion Cracking of 316L Austenitic Stainless Steel Subjected to Various Configuration of Protective Coatings	Undergoing	---	Dr. Abhinav Pratap, Dept. of Physics
Milan Kumar	Fracture of Carbon Nano Tube Composites	Undergoing		Dr. Pramod Kumar, Dept. of Mechanical Engg

Admin. Responsibilities :

Position Held	Organization	From	To
Boy's Hostel Warden No. 02	NIT Jalandhar	2012	2016
Coordinator Campus Amenities	NIT Jalandhar	2015	2016
Member of NSS	NIT Jalandhar	2012	2013
Warden, Boy's Hostel No. 03	NIT Jalandhar	01-03-17	Feb 2018
Senior Warden of First Year Boy's Hostel No. 1 and 2	NIT Jalandhar	Feb 2018	May 2018

Award and Honours :

Title	Activity	Given by	Year
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Outstanding Research Presentation award	International Conference on Academic Disciplines, organized at Florence, Italy	Chairman of Conference	2015
Best Teacher award	Confederation of Education Excellence, New Delhi	Chairman	2015
Excellent paper award	International Conference on Recent Innovations in Science, Engineering and Technology, Goa	Chairman	2014