

Profile Page



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Designation : Professor

Department : Industrial & Production Engg.

Qualification : PhD Mechanical Engineering (Kurukshetra University INDIA)
Master of Engineering Production Engineering (Panjab University INDIA)
Bachelor of Engineering Production Engineering (Shivaji University INDIA)
Post-Doctoral Fellowship Machining (ENSAM Cluny, FRANCE)

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Research Interests :

Additive Manufacturing/3D printing, Machining, Condition monitoring/IIOT/Industry 4.0

Journal Publications :

Year	Journal	Publication
2019	Progress in Additive Manufacturing, 4 , 1 ,3-12	Sharanjit Singh, Vishal S Sharma, Anish Sachdeva , Application of response surface methodology to analyze the effect of selective laser sintering parameters on dimensional accuracy
2019	The International Journal of Advanced Manufacturing Technology , 101, 1-4 , 55-69	Munish Kumar Gupta, Mozammel Mia, GurRaj Singh, Danil Yu Pimenov, Murat Sarikaya, Vishal S Sharma , Hybrid cooling-lubrication strategies to improve surface topography and tool wear in sustainable turning of Al 7075-T6 alloy
2018	Journal of Intelligent Manufacturing,1-16	Maraboina Raju, Munish Kumar Gupta, Neeraj Bhanot, Vishal S Sharma , A hybrid PSO–BFO evolutionary algorithm for optimization of fused deposition modelling process parameters
2018	International Journal of Materials and Product Technology,57,4,299-321	Munish Kumar Gupta, PK Sood, Gurraj Singh, Vishal S Sharma , Investigations of performance parameters in NFMQL assisted turning of titanium alloy using TOPSIS and particle swarm optimisation method
2018	International Journal of Machining and Machinability of Materials ,20,3,252-273	GurRaj Singh, Vishal S Sharma, Munish Kumar Gupta , Sustainable drilling of aluminium 6061-T6 alloy by using nano-fluids and Ranque-Hilsch vortex tube assisted by MQL: an optimisation approach
2018	Precision Engineering ,53,289-299	Mozammel Mia, GurRaj Singh, Munish Kumar Gupta, Vishal S Sharma , Influence of Ranque-Hilsch vortex tube and nitrogen gas assisted MQL in precision turning of Al 6061-T6

2018	The International Journal of Advanced Manufacturing Technology ,97,1-4,481-494	GurRaj Singh, Munish Kumar Gupta, Mozammel Mia, Vishal S Sharma , Modeling and optimization of tool wear in MQL-assisted milling of Inconel 718 superalloy using evolutionary techniques
2018	Journal of cleaner production , 197,281-231	Manu Dogra, Vishal S Sharma, Jasminder Singh Dureja, Simranpreet Singh Gill , Environment-friendly technological advancements to enhance the sustainability in surface grinding-A review
2018	Materials and Manufacturing Processes , 33,15, 1603-1640	Anil Kumar Singla, Jagtar Singh, Vishal S Sharma , Processing of materials at cryogenic temperature and its implications in manufacturing: A review
2017	The International Journal of Advanced Manufacturing Technology, Volume 88,2017, Issue 9–12, pp 2921–2928	Analyzing machining parameters for commercially pure titanium (Grade 2), cooled using minimum quantity lubrication assisted by a Ranque-Hilsch vortex tube
2017	Journal of Cleaner Production,147,2017,614-627	Sustainable Machining of Aerospace Material - Ti (grade-2) alloy: Modelling and Optimization
2017	Journal of Engineering & Materials Sciences;24, 2017,18-26	Performance Evaluation of Cubic Boron Nitride Tool in Machining of Titanium (Grade-II) Under Minimum Quantity Lubrication
2017	International Journal of Machining and Machinability of Materials; Accepted, 2017	Sustainable Drilling of Aluminum 6061-T6 alloy by using nano-fluids and Ranque-Hilsch vortex tube assisted by MQL: An optimization approach
2016	Journal of Cleaner Production;135,2016,1276-1288	Optimization of machining parameters and cutting fluids during nano-fluid based minimum quantity lubrication turning of titanium alloy by using evolutionary techniques
2016	Materials and Manufacturing Processes; 31/13, 2016, 1671-1682	Machining parameters optimization of titanium alloy using response surface methodology and particle swarm optimization under minimum-quantity lubrication environment
2016	Journal of Engineering Manufacture; 230/3, 2016, 389-404	A review of empirical modeling techniques to optimize machining parameters for hard turning applications
2015	International Journal of Material Forming; 8/1, 2015, 157-166	Influence of sintering parameters on dynamic mechanical properties of selective laser sintered parts
2015	Materials and Manufacturing Processes; 30/8, 2015, 935-953	A review on minimum quantity lubrication for machining processes
2014	Advances in Manufacturing; 2/1, 2014, 61-69	SCADA data based condition monitoring of wind turbines
2014	Bulletin of Materials Science; 37/2, 2014, 327-335	Effect of tempering after cryogenic treatment of tungsten carbide-cobalt bounded inserts
2014	The International Journal of Advanced Manufacturing Technology; 74/5-8, 2014, 963-971	Investigation of tool geometry effect and penetration strategies on cutting forces during thread milling
2013	Materials and Manufacturing Processes;28/2, 2013, 163-172	Optimization and analysis of mechanical properties for selective laser sintered polyamide parts
2013	The International Journal of Advanced Manufacturing Technology; 64/9-12, 2013, 1505-1516	Investigating surface roughness of parts produced by SLS process
2013	The International Journal of Advanced Manufacturing Technology; 65/5-8, 2013,667-678	Modelling the effects of cutting parameters on residual stresses in hard turning of AISI H11 tool steel
2012	Journal of Engineering Manufacture; 226/3, 2012, 431-444	Tool life and surface integrity issues in continuous and interrupted finish hard turning with coated carbide and CBN tools

2012	International Journal of Precision Engineering and Manufacturing; 13/8, 2012, 1295-1302	Influence of cutting parameters on tool wear and surface roughness in hard turning of AISI H11 tool steel using ceramic tools
2012	Materials and Manufacturing Processes; 27/6, 2012, 583-598	Residual stresses, surface roughness, and tool wear in hard turning: a comprehensive review
2012	Materials and Manufacturing Processes; 27/6, 2012, 707-714	Optimization and analysis of shrinkage in selective laser sintered polyamide parts
2012	Materials and Manufacturing Processes; 27/5, 2012, 523-530	Finish hard turning of continuous and interrupted surfaces with cubic boron nitride (CBN) and coated carbide tools
2012	Materials and Manufacturing Processes; 27/10, 2012, 1110-1117	Machinability and surface quality issues in finish turning of hardened steel with coated carbide and CBN tools
2012	International Journal of Materials Engineering Innovation; 3/3-4, 2012, 295-315	Modelling, optimisation and experimental validation of cutting parameters to achieve minimum tool wear and surface roughness in hard turning of AISI H11 tool steel
2011	Journal of Manufacturing Science and Engineering; 133; 2011; 41014	Effect of thread milling penetration strategies on the dimensional accuracy; Fromentin, Guillaume
2011	The International Journal of Advanced Manufacturing Technology; 57/9, 2011, 957-967	A statistical analysis of rotary friction welding of steel with varying carbon in workpieces
2011	The International Journal of Advanced Manufacturing Technology; 57/5, 2011, 541-553	Performance evaluation of CBN, coated carbide, cryogenically treated uncoated/coated carbide inserts in finish-turning of hardened steel
2011	International Journal of Machining and Machinability of Materials; 9/1-2, 2011, 131-148	Modelling and optimisation of tool acceleration, surface roughness, acoustic emission and flank wear during turning of Al-Si-SiC composite
2011	Journal of Engineering Science and Technology Review; 4/1, 2011, 1-13	Effect of tool geometry variation on finish turning - A review
2010	Materials and Manufacturing Processes; 25/10, 2010, 1077-1100	Cryogenic treatment of tool materials: a review
2010	Materials and Manufacturing Processes; 25/10, 2010, 1077-1100	Cryogenic treatment of tool materials: a review
2010	International Journal of Precision Engineering and Manufacturing; 11/2, 2010, 341-358	Tool wear, chip formation and workpiece surface issues in CBN hard turning: A review
2010	Journal of Engineering Manufacture; 224/4, 2010, 553-566	Wear mechanisms of TiN-coated CBN tool during finish hard turning of hot tool die steel
2010	Journal of Mechanical Engineering Science; 224/1, 2010, 183-193	Wear mechanisms of coated mixed-ceramic tools during finish hard turning of hot tool die steel
2010	The International Journal of Advanced Manufacturing Technology; 50/5, 2010, 611-624	Review of research work in sinking EDM and WEDM on metal matrix composite materials
2010	International Journal of Precision Engineering and Manufacturing; 11/2, 2010, 341-358	Tool wear, chip formation and workpiece surface issues in CBN hard turning: A review
2009	Journal of Engineering Manufacture; 223/11, 2009, 1441-1453	Design optimization of cutting conditions and analysis of their effect on tool wear and surface roughness during hard turning of AISI-H11 steel with a coated—mixed ceramic tool
2009	International Journal of Machine Tools and Manufacture; 49/6, 2009, 435-453	Cooling techniques for improved productivity in turning

2009	International Journal of Machining and Machinability of Materials; 7-1/2, 2009, 129-147	Design optimisation of flank wear and surface roughness for CBN-TiN tools during dry hard turning of hot work die steel
2008	International Journal of Precision Engineering and Manufacturing; 9/2, 2008; 54-62	Assessment and optimization of cutting parameters while turning AISI 52100 steel
2008	Journal of Intelligent Manufacturing; 19/4, 2008, 472-483	Estimation of cutting forces and surface roughness for hard turning using neural networks
2008	Journal of Intelligent Manufacturing; 19/1, 2008, 99-108	Cutting tool wear estimation for turning
2008	Journal of Engineering Manufacture; 222/11, 2008, 1417-1442	Advances in the turning process for productivity improvement—a review
2007	Journal of Engineering Manufacture; 221/12, 2007, 1715-1723	Evaluating various factors for turning of Adamite

Conference Publications :

Year	Conference	Publication
2018	3rd International Conference on Design and Manufacturing Engineering (ICDME2018), Monash University, Melbourne, Australia	Vishal Santosh Sharma, Amit Kumar, Munish Kumar Gupta and Neeraj Bhanot, Process parameter optimization for Abrasive Water Jet machining of Titanium Alloy using Meta-Heuristic Algorithms
2016	International workshop of Advanced Manufacturing and Automation (IWAMA-2016), 10-11 November 2016, University of Manchester, Manchester, UK.	V S Sharma, G Singh, K Sorby Parametric Optimization Using The Particle Swarm Optimization (PSO) Technique for Minimizing Tool Wear While Milling Inconel 718 Alloy Assisted by Minimum Quantity Lubrication (MQL),
2012	International workshop of Advanced Manufacturing and Automation (IWAMA 2012), 21-22 June 2012, Trondheim, Norway	V S Sharma, J Singh, A Sachdeva ,Using Audible Sound Signals to evaluate various parameters during Turning process,
2006	International Conference on High Performance Cutting, 12-13 June, 2006, University of British Columbia University , Vancouver, Canada	V S Sharma, S K Sharma, A K Sharma, A Method for cutting Tool wear prediction,
2006	The 4th International conference on Manufacturing Research (ICMR 06), 5-7, September 2006, Liverpool John Moores University, Liverpool, UK	V S Sharma, H Singh , Development of automatic machine for filling of cement and embossing on cap for lighting industry

Book/Chapter Publications :

Type	Title	Publisher	Authors	ISBN/ISS N No.	Year
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Experimental Investigation and Optimization on MQL-Assisted Turning of Inconel-718 Super Alloy	Advanced Manufacturing Technologies, Materials Forming, Machining and Tribology	Springer International Publishing DOI 10.1007/978-3-319-56099-1_10	Munish K. Gupta, P.K. Sood, Gurraj Singh and Vishal S. Sharma	978-3319560984	2017
Grey-Based Taguchi Analysis: Approach for Optimization of Multi-Objective Problem	Analytical Approaches to Strategic Decision- Making: Interdisciplinary Considerations	IGI Global	N S Kalsi, Rakesh Sehgal, Vishal S Sharma	9781466659582	2014
Report	SCADA Data Mining for Wind Turbine Fault Diagnosis and Failure Prognosis	SINTEF,Norway	Wang Kesheng,Sharma Vishal S.Zhang Zhenyou	978-82-140549-6-5	2012

Events Organized :

Category	Type	Title	Venue	From	To	Designation
GIAN course	International	Manufacturing Automation - Robotics and Process integration by	DR BR Ambedkar NIT-J	17-12-18	22-12-18	Professor
GIAN course	International	Artificial intelligence techniques and their applications in design and manufacturing	DR BR Ambedkar NIT-J	11-11-18	16-11-18	Professor

PhD Supervised :

Scholar Name	Research Topic	Status	Year	Co-Supervisor
Jaivir Singh	Composites	In process	Jan18	Dr. NOE G ALBA BEANA
Ramesh Chand	Additive manufacturing	In process	Jan18	Dr Rajeev Trehan
Gurraj singh	MQL	Completed	2017	NA

Admin. Responsibilities :

Position Held	Organization	From	To
Head	Central Work shop	02/2/18	Till in service
Head	Department IPE	02/2/16	02/02/18