Profile Page

Name	:	Dr. Narendra Kumar
Designation	:	Assistant Professor Grade-i
Department	:	Industrial & Production Engg.
Qualification	:	Ph.D. Mechanical Engineering (PDPM Indian Institute of Information Technology, Design and Manufacturing Jabalpur) M.Tech Mechanical Engineering (PDPM Indian Institute of Information Technology, Design and Manufacturing Jabalpur) B.Tech Mechanical Engineering (Uttar Pradesh Technical University, Lucknow)
Address	:	Assistant Professor Department of Industrial and Production Engineering, NIT Jalandhar Jalandhar, Punjab - 144011
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Research Interests :

Additive Manufacturing, CNC Machining, Hybrid Manufacturing

Other Profile Links :

Google Scholar Link :

Dr. Narendra Kumar Click Here

Personal Web Link :

Dr. Narendra Kumar Click Here

Journal Publications :

Year	Journal	Publication
2022	Polymer-Plastics Technology and Materials, 1-38 (2022)	Advances in transparent polymer nanocomposites and their applications: A comprehensive review
2022	Sustainable Operations and Computers 3, 17-21	Fabrication of personalized lithophane via additive manufacturing
2021	Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 0954406219889076 (SCI Indexed-Impact Factor-1.359).	"Analysing the influence of raster angle, layer thickness and infill rate on the compressive behaviour of EVA through CNC-assisted fused layer modelling process"

2021	World Journal of Engineering, https://doi.org/10.1108/WJE-03-2021-0179	Investigation into rotary mode ultrasonic drilling of bioceramic: an experimental study with PSO-TLBO based evolutionary optimization
2021	World Journal of Engineering ISSN: 1708-5284	Three dimensional modelling of aluminum foam through computed tomography scan technique
2019	International Journal of Materials and Product Technology 59, no. 3 (2019): 194-211. (SCI Indexed-Impact Factor-0.802).	"Investigations on the melt flow behaviour of aluminium filled ABS polymer composite for the extrusion-based additive manufacturing process."
2018	Material Today Proceedings (Elsevier), 9, no. 3 (2018): 18532-18539, (Scopus Indexed).	“Shrinkage compensation study for performing machining on additive manufactured parts"
2018	Materials Today: Proceedings 5, no. 2 (2018): 4118-4127, (Scopus Indexed).	Experimental investigations on suitability of polypropylene (PP) and ethylene vinyl acetate (EVA) in additive manufacturing"
2018	Journal of Manufacturing Processes 35, (2018): 428-436, (SCI Indexed-Impact Factor-3.462).	"Investigation on the effects of process parameters in CNC assisted pellet based fused layer modeling process."
2018	Journal of Manufacturing Processes 35, (2018): 317-326, (SCI Indexed-Impact Factor-3.462).	"The effect of process parameters on tensile behavior of 3D printed flexible parts of ethylene vinyl acetate (EVA)"
2018	Journal of the Brazilian Society of Mechanical Sciences and Engineering 40, no. 4 (2018): 175, (SCI Indexed-Impact Factor-1.743).	"Additive manufacturing of flexible electrically conductive polymer composites via CNC-assisted fused layer modeling process."
2018	Journal of the Brazilian Society of Mechanical Sciences and Engineering 40, no. 3 (2018): 143, (SCI Indexed-Impact Factor-1.743).	"Extrusion-based additive manufacturing process for producing flexible parts."
2018	Materials Physics and Mechanics 37 no. 2 (2018): 124-132, (Scopus and ESCI Indexed).	"3D printing of flexible parts using EVA material."
2018	International Journal of Manufacturing Technology and Management (In Press), (Scopus Indexed).	“Extrusion-Based Additive Manufacturing Systems: Current State, Parameters Optimization, Materials, Research Gap, Challenges and Future Potential”
2015	International Journal of Rapid Manufacturing 5, no. 2 (2015): 186-198	"Effect of fractal curve based toolpath on part strength in fused deposition modeling."

Conference Publications :

Year	Conference	Publication
2022	International Conference on Materials for Emerging Technologies, LPU Phagwara	Ashutosh Kaushik, Atish Kumar, Narendra Kumar, Shailendra Singh Bhadauria: Recent Progress in 4D Printing: A Review
2021	International Conference on Industrial and Manufacturing Systems (CIMS-21), PEC Chandigarh	Atish Kumar and Narendra Kumar: Parametric Investigations on transparency of PLA Parts

2020	International Conference on Industrial and Manufacturing Systems (CIMS-20), NIT Jalandhar	Sagar Kailas Gawali, Narendra Kumar and Prashant Kumar Jain. “Experimental Investigations of Additive Manufacturing of Large-size Parts on the Retrofitted Three-Axes CNC Machining Center”.
2020	International Conference on Industrial and Manufacturing Systems (CIMS-20), NIT Jalandhar	Adarsh Kumar Singh, Ankit Nayak, Narendra Kumar and Prashant Kumar Jain. “On 3D Printing of 2D Digital Image”
2020	International Conference on Industrial and Manufacturing Systems (CIMS-20), NIT Jalandhar	Vishal Francis and Narendra Kumar. “Investigations on the effect of nanoclay reinforced ABS/Nylon blended copolymer filament for extrusion-based 3D printing”
2020	International Conference on Industrial and Manufacturing Systems (CIMS-20), NIT Jalandhar	Sonika Sahu, Piyush D. Ukey, Mohd. Zahid Ansari and Narendra Kumar. “Reverse Engineering: Generating Cellular Structure Foam Model through Computer Tomography Technique”
2020	International Conference on Industrial and Manufacturing Systems (CIMS-20), NIT Jalandhar	Yash Soni, Narendra Kumar, Mohit Tyagi and Prashant K. Jain. “Feasibility study of the hybrid Pellet-Based Additive Manufacturing Extruder with commercial 3D FFF printer”
2020	CAD'20 Conference, Barcelona	Mayur Vispute, Narendra Kumar, and Prashant K. Jain. “On reduction of data redundancy in STL file by Generating Higher Order Polygons”
2020	International Conference on Advances in Sustainable Technologies (ICAST - 2020), LPU Phagwara	Sourabh Chasta, Narendra Kumar, Vishal Francis and Prashant K Jain. “STL generation from point cloud data with user-controlled triangulation for additive manufacturing
2019	6th International Conference on Production and Industrial Engineering (CPIE-2019), Dr. B. R. Ambedkar National Institute of Technology Jalandhar, 08-10 June 2019	Jaki Jain, Narendra Kumar and Prashant K. Jain. “A novel approach of generating toolpath for performing additive manufacturing on CNC machining center”
2019	6th International Conference on Production and Industrial Engineering (CPIE-2019), Dr. B. R. Ambedkar National Institute of Technology Jalandhar, 08-10 June 2019	Sagar Gawali, Narendra Kumar and Prashant K. Jain. “Investigations on the development of heated build platform for additive manufacturing of large-size parts”
2019	6th International Conference on Production and Industrial Engineering (CPIE-2019), Dr. B. R. Ambedkar National Institute of Technology Jalandhar, 08-10 June 2019	Anand Singh Yadav, Narendra Kumar and Prashant K. Jain. “On the numerical investigation of material deposition in fused filament fabrication”
2016	CAD/CAM, Robotics and Factories of the Future, Springer, New Delhi	"Hilbert curve based toolpath for FDM process"

Book/Chapter Publications :

Type	**Title**	**Publisher**	**Authors**	**ISBN/ISSN No.**	**Year**
Book Chapter	Additive Manufacturing of Large Size Parts Through Retrofitment of Three-Axes CNC Machining Centre	Springer, Cham	Sagar Kailas Gawali, Narendra Kumar, Prashant Kumar Jain	978-3-030-73495-4	2022

Book Chapter	STL Generation from Point Cloud Data with User-Controlled Triangulation for Additive Manufacturing	Recent Trends in Industrial and Production Engineering, Springer	Sourabh Chasta, Narendra Kumar, Vishal Francis, and Prashant K. Jain	978-981-16-3135-1	2022
Book Chapter	A Novel Approach of Generating Toolpath for Performing Additive Manufacturing on CNC Machining Center	Optimization Methods in Engineering, pp. 151-167. Springer, Singapore	Jaki Jain, Narendra Kumar and Prashant K. Jain	9789811545498	2020
Book Chapter	Investigations on the Development of Heated Build Platform for Additive Manufacturing of Large-Size Parts	Manufacturing Engineering, pp. 1-17. Springer, Singapore	Sagar Gawali, Narendra Kumar and Prashant K. Jain	9789811546181	2020
Book Chapter	On the Numerical Investigation of Material Deposition in Fused Filament Fabrication	Manufacturing Engineering, pp. 19-36. Springer, Singapore	Anand Singh Yadav, Narendra Kumar and Prashant K. Jain	9789811546181	2020
Book Chapter	On the surface finish improvement in hybrid additive subtractive manufacturing process	Innovative Design, Analysis and Development Practices in Aerospace and Automotive Engineering (I-DAD 2018), Springer	Mayur Vispute, Narendra Kumar, Prashant K. Jain, Puneet Tandon, and Pulak M. Pandey	9789811326967	2019
Book Chapter	An Image-Based Approach of Generating Automatic Toolpath for Profile Milling	Advances in Industrial and Production Engineering, Springer, Singapore	Vishal Agrawal, Avinash Kumar, Narendra Kumar, and Prashant K. Jain	9789811364112	2019
Book Chapter	Toolpath generation for additive manufacturing using CNC milling machine	3D Printing and Additive Manufacturing Technologies, Springer	Narendra Kumar, Prashant K. Jain, Puneet Tandon, and Pulak M. Pandey	9789811303043	2018

Research Projects :

Role	Project Type	Title	Funding Agency	From	To	Amount	Status	Co-Investigator

Principle Investigator	TEQIP Funded	Development of Cost-effective COVID Medical Protective Face Shield using Additive Manufacturing	TEQIP-III	01-06-2020	31-03-2021	1.90 Lacs	Completed	Dr. Ravi Pratap Singh, Prof. RK Garg, Prof Anish Sachdeva
Principal Investigator	Externally Funded	Development of a UV-assisted 3D Printing System for PCB Manufacturing	ISRO	2022	2024	18.88 Lacs	Ongoing	Dr Ravi Pratap Singh, Dr Vishal Francis, Dr Mohammad Taufik
Principal Investigator	Externally Funded	Development of Automated Deposition Head for 3D Printing of Continuous Fibre Reinforced High-Performance Polymer Composites	CRG-SERB	2023	2026	62.48 Lacs	Ongoing	Dr Ghanshyam Neje and Dr Ravi Pratap Singh

Events Organized :

Category	Type	Title	Venue	From	To	Designation
FDP	National	AICTE-ATAL Sponsored "3D Printing and Design"	Dr. B. R. Ambedkar National Institute of Technology Jalandhar	14-12-2020	18-12-2020	Coordinator
Conference	International	Conference on Industrial and Manufacturing Systems (CIMS-20)	Dr. B. R. Ambedkar National Institute of Technology Jalandhar	09-10-2020	11-10-2020	Convener
STC	National	Industry 4.0 & Smart Manufacturing: Opportunities and Challenges	Dr. B. R. Ambedkar National Institute of Technology Jalandhar	20-07-2020	24-07-2020	
STC	National	Hybrid Manufacturing Processes: Opportunities and Challenges	Dr. B. R. Ambedkar National Institute of Technology Jalandhar	06-07-2020	10-07-2020	Coordinator

STC	National	Additive Manufacturing with Interdisciplinary Applications	Dr. B. R. Ambedkar National Institute of Technology Jalandhar	29-06-2020	03-07-2020	Coordinator
Webinar	National	Indo-German Bilateral Funding Programmes for Advanced Industrial Research	Dr. B. R. Ambedkar National Institute of Technology Jalandhar	25-06-2020	25-06-2020	Coordinator
FDP	National	ATAL Sponsored FDP on "Hybrid Manufacturing"	NIT Jalandhar	01-02-2021	05-02-2021	Coordinator
FDP	National	AICTE-ATAL Sponsored "Additive Manufacturing: Programming, Operations and Applications"	NIT Jalandhar	20-09-2021	24-09-2021	Coordinator

Professional Affiliations :

Designation	Organization
Member	American Society of Mechanical Engineers (ASME)
Life Member	Additive Manufacturing Society of India (AMSI)
Life Member	Institution of Engineers (India)

PhD Supervised :

Scholar Name	Research Topic	Status	Year	Co-Supervisor
Suraj Vairagade	Additive Manufacturing	Ongoing	2021	Dr. Ravi Pratap Singh
Rohitash Singh	Industrial Perspectives of Additive Manufacturing	Ongoing	2021	Dr. Mohit Tyagi
Swapnil Deokar	Additive Manufacturing	Ongoing	2021	Dr. Ravi Pratap Singh
Atish Kumar	Additive Manufacturing	Ongoing	2020	
Piyush D. Ukey	Additive Manufacturing	Ongoing	2020	Dr. Ravi Pratap Singh
Raman Sharma	Additive Manufacturing	Ongoing	2020	Dr. Rajeev Trehan

PG Dissertation Guided :

Student Name	Dissertation Title	Status	Year	Co-Supervisor
Ashutosh Kaushik	Additive Manufacturing	Completed	2022	Dr Shailendra Singh Bhadauria
Varun Kumar	Additive Manufacturing	Completed	2022	Dr LP Singh
Rohit Kumar Gupta	Additive Manufacturing	Completed	2022	Dr LP Singh
Mausoof Shaikh	Advanced Manufacturing	Completed	2021	Dr. Ravi Pratap Singh
Amit Kumar	Additive Manufacturing	Completed	2021	Dr. Ravi Pratap Singh

Admin. Responsiblities :

Position Held	Organization	From	To
Co-Coordinator	National Service Scheme (NSS), NITJ	02-03-2021	Till Date
Coordinator	Department Time Table	19-03-2021	Till Date
Assistant Proctor	Proctorial Cell, NITJ	06-02-2023	Till Date

Faculty incharge/Coordinator	Social Work Club	16-01-2023	Till Date

Award and Honours :

Title	Activity	Given by	Year
Best paper award	for paper presentation titled “On 3D Printing of 2D Digital Image” in CIMS 2020, NIT Jalandhar.	CIMS-20	2020
Project shortlisted among the 700 Projects	TITAN Tune 2.0	TITAN Watch Manufacturing Co.	2019
Outstanding reviewer award	For reviewing the manuscripts for Journal of manufacturing processes	Elsevier	2018
JENESYS program	Selected for visiting Japan for a week	Ministry of Foreign Affairs, Japan	2016