

CURRICULUM VITAE

Dr. Pankaj Kumar Gupta

Assistant Professor

Department of Mechanical Engineering

Malaviya National Institute of Technology Jaipur

Jaipur (Rajasthan), India-302017

E-mail ID: pankaj.mech@mnit.ac.in ,

+91-9759878050



Educational Qualifications

2016: Ph.D.

Indian Institute of Technology Roorkee, Uttarakhand, INDIA.

2007: Master of Engineering in Mechanical Engg. (Production & Industrial Engg.)

Engineering College Kota, University of Rajasthan. INDIA. Achievement: 74.05%

2000: Bachelor of Engineering in Production & Industrial Engg.

Engineering College Kota, University of Rajasthan. INDIA. Achievement: 68.65%

Teaching and Industrial Experience (Employment History)

National Institute of Technology Uttarakhand, Srinagar–Garhwal (Uttarakhand)

Duration: Jun, 2018 to March, 2019.

Designation: Assistant Professor, Department of Mechanical Engineering

Government Engineering College, Bikaner. Rajasthan.

Duration: January, 2006 to June, 2018.

Designation: Assistant Professor, Department of Mechanical Engineering

Government Engineering College, Kota (now, Rajasthan Technical University, Kota)

Duration: July 2001 to December 2005

Designation: Lecturer, Department of Mechanical Engineering

Supersonic Turners Pvt. Ltd., Jaipur

Duration: July 2000 to July 2001

Designation: Manufacturing and Quality Associate

Courses Teaching

Introduction to Mechanical Systems, Manufacturing Processes, Casting, Forming and Welding, Quality System Engineering, Composites Materials and Manufacturing etc.

Patent

A System and A Micromachining Process Using Cow Urine (Gau-Mutra)" (Reg/Ref No.201811040311 A) - Published Application by Intellectual Property India on 25-10-2018.

Research Interest

Hybrid Machining Process, Composites Materials, Additive Manufacturing

Publications-Journal

S. No	Yr of Pub	Title of Paper	Journal	DOI
1	2014	Developments on electrochemical discharge machining: A review of experimental investigations on tool electrode process parameters	Part B: Journal of Engineering Manufacture	doi:10.1177/0954405414534834
2	2014	A Study on the Phenomenon of Hole Overcut with Working Gap in ECDM	Journal of Production Engineering,	
3	2015	Effect of Electrolytes on Quality Characteristics of Glass during ECDM	Key Engineering Materials	doi:10.4028/www.scientific.net/KEM.658.141
4	2016	Effect of Pulse Duration on Quality characteristics of Blind Hole Drilled in Glass by ECDM	Materials and Manufacturing Processes	http://dx.doi.org/10.1080/10426914.2015.1103857
5	2018	Effect of Electrolyte Level during Electro Chemical Discharge Machining of Glass	Journal of the electrochemical society	doi:10.1149/2.1021807jes
6	2019	Electrochemical discharge machining of glass fiber-reinforced epoxy composites: a challenging approach	Journal of Physics	10.1088/1742-6596/1240/1/012044
7	2022	Synthesis and chemical resistance of aluminum oxide and silicon carbide (1:1) filled Bi-Directional woven E- glass fiber reinforcement epoxy polymer composites	Materials Today: Proceedings	https://doi.org/10.1016/j.matpr.2022.03.673
8	2022	Modeling and Simulation of Electrochemical Discharge Machining for Fabrication of Micro-Channel on Glass	Arabian Journal for Science and Engineering	https://doi.org/10.1007/s13369-022-06944-w
9	2022	Investigations on Tensile and Flexural Properties of Wheat Straw Fiber Reinforced Polymer Composite	Advances in Materials and Processing Technologies	https://doi.org/10.1080/2374068X.2022.2153523
10	2022	Wear Analysis and Microstructural Characterization of Al-MMC Manufactured by Stir Casting	Lecture Notes in Networks and Systems	https://doi.org/10.1007/978-3-031-22200-9

11	2022	Process Parameters and Their Effect During Electro-Chemical Discharge Machining: A Review	Lecture Notes in Mechanical Engineering	https://doi.org/10.1007/978-981-19-6945-4_42
12	2023	Effect of Operating Parameters of Hybrid TIG-MIG Welding on Mechanical Properties and Bead Quality: A Review	Materials Today: Proceedings	https://doi.org/10.1016/j.matpr.2023.01.325

Publications- Conferences

S. No.	Title of Paper	Conference	Date	Venue	ISBN/ISS N/ (DOI)
1	Impact of Pulse Width on Hole Overcut in an Electrochemical Discharge Machining of Blind Holes	XXIII International Conference on Processing and Fabrication of Advanced Materials	5-7 Dec. 2014	IIT Roorkee	ISBN: 978-93-84588-17-5 ©
2	Effect of Duty Ratio at Different Pulse Frequency during Hole Drilling in Ceramics Using Electrochemical Discharge Machining	3rd International Conference on Mechanics and Mechatronics Research (ICMMR 2016)	15-17, Jun 2016.	Chongqing, China	(http://dx.doi.org/10.1051/mateconf/20167710004 .)
3	Experimental Investigations on Electro Chemical Discharge Machining for Micro fabrication of Micro Channels on Glass	XXV International Conference on Processing and Fabrication of Advanced Materials.	22-25 Jan 2017	The University of Auckland, New Zealand	
4	Effect of Different Photovoltaic Materials on Energetic and Exergetic Performance of Photovoltaic Thermal Arrays	3rd International Conference on Mechatronics and Mechanical Engineering (ICMME 2016)	Oct 21, 2016 - Oct 23, 2016	Shanghai, China	(doi:10.1051/mateconf/20179501006)
5	Performance evaluation of solar photovoltaic panel driven refrigeration system	International Conference on Recent Advances in Materials, Mechanical & Civil Engineering (ICRAMMCE-2017)	1-2 June, 2017,	M. L. R. Inst. Of Tech. and Management Hyderabad.	(doi:10.1088/1757-899X/330/1/012133)

6	Experimental Study on Electro Chemical Discharge Machining of Sustainable Materials	III - ISEES International Conference On Sustainable Energy and Environmental Challenges (III SEEC)	18th Dec 2018 - 21st Dec 2018	IIT Roorkee+N ITUK	
7	CO2 Emission Reduction Potential of a Typical Indian Village	2nd International Conference on Mechanical Materials and Renewable Energy (ICMMRE-2019)	6th-7th Dec, 2019	SMIT, Sikkim, India.	(https://doi.org/10.1063/5.0024548)
8	Solution of KdV and Coupled Burger's Equation via Mahgoub H'Omotopy Perturbation Transform Scheme	2nd International Mechanical Engineering Congress (IMEC 2019)	29th Nov-1st Dec 2019	NIT - TIRUCHIR APPALLI	
9	An Influence of Pulse Frequency on Hole-Making Performance of Ceramics by ECDM	International Conference on Advancements in Mechanical Engineering (ICAME-2020)	16th – 18th Jan, 2020	Aliah University Kolkata, India.	e-ISBN: 978-81-943641-6-0
10	A Review on Theories and Discharge Mechanisms in Electro-Chemical Discharge Machining	International Conference on Advanced Manufacturing and Materials Processing (CAMMP 2021)	24th – 25th Jul 2021	MNIT Jaipur	
11	Natural Fiber-Reinforced Polymer Composite: A Review	International Conference on Advanced Manufacturing and Materials Processing (CAMMP 2021)	24-25th July 2021	MNIT Jaipur	
12	A review on mechanical properties and flammability of animal fibers reinforced composites for sustainability	1st 2022 International Conference on Sustainable Environment, Development and Energy (CONSER 2022)	5 - 6 Decem ber 2022	Institut Teknologi Nasional Yogyakarta , Denpasar (Indonesia)	

Publications- Book Chapters

S. No.	Ch ap. No.	Year of Pub.	Title of Chapter	Book Name	Publisher	doi
1	18	2020	Performance Enhancement of Electro-Chemical Discharge Machining by Process Variants: A Review	Optimization of Industrial and Manufacturing Systems and Applications	Springer	https://link.springer.com/chapter/10.1007/978-3-030-73495-4_18
2	16	2022	Impact of Water Particles on Fly Ash-Filled E-Glass Fiber Reinforced Epoxy Composites	Advanced Materials and Manufacturing Processes	CRC Press	https://doi.org/10.1201/9781003093213
3	36	2022	Performance Analysis of Semi Transparent Photovoltaic Thermal Module with Single and Double Pass Configuration	Optimization of Industrial Systems	Scrivener Publishing	https://www.wiley.com/en-us/Optimization+of+Industrial+System
4	37	2022	Mechanical and Corrosion Behavior of Al5083 Processed by Multi Directional Forging at Cryogenic Temperature	Optimization of Industrial Systems	Scrivener Publishing	https://www.wiley.com/en-us/Optimization+of+Industrial+System
5	34	2022	Thermomechanical Analysis of Pulsed Laser Welded Thin Aluminium Alloy Sheets	Optimization of Industrial Systems	Scrivener Publishing	
6	35	2022	A Comprehensive Review on Modeling and Simulation Studies in Electro-Chemical Discharge Machining	New Frontiers in Communication and Intelligent Systems	SCRS, India.	https://doi.org/10.52458/978-81-95502-00-4-69

Courses Attended

Course Title	Venue / Sponsoring Agency	Duration
Finite Element Techniques	Engineering College, Kota	20 th -25 th Dec., 2004
CAM using Pro-Manufacturing	NITTTR, Chandigarh	11 th -15 th Sept., 2006
Project Planning and Execution	Engineering College, Bikaner	20 th -24 th Nov., 2006

Micromachining	IIT Kanpur	18 th -23 rd June, 2007
Mechatronics	Engineering College, Bikaner	21 st -25 th Oct., 2007
CAD/CAM & Robotics	NIT Hamirpur	7 th -11 th Jan., 2008
Solid works	IGTR Indore	7 th -26 th July, 2008
Challenges for Engineers towards the Development of the Nation	Engineering College, Kota	20 th Dec, 2008 - 03 rd Jan., 2009
CAD in Mechanical Engg Curriculum	IIT Roorkee	21 st -25 th Dec., 2009
Advances in Manufacturing & Materials	IIT Roorkee	14 th -18 th June, 2010
Research and Data Analysis using SPSS	RTU, Kota	28 th April, 2011
A Novel Approach to Processing of Green Composites	IIT Roorkee	9 th March, 2013
Finish Machining : A State of The Art	IIT Roorkee	2 nd - 6 th Sept., 2013
Applied Research : Design and Execution	IIT Roorkee	15 th - 19 th June, 2015
Introduction to Robotics	ERTS Lab, IIT Mumbai	25 th -26 th Apr, 2016
Effective office Administration & Financial Management	NPC Portblair	7 th -11 th Nov., 2016
Sustainable Manufacturing	BITS Pilani	17 th -18 th Sept 2016
Machinery Condition Monitoring	IIT Kharagpur	20 th -23 rd March, 2017
Sustainable Environmental Management Through ICT	Engineering College, Bikaner	27 th Feb.-3 March, 2017
MATLAB & LABVIEW with its Hardware Interface Through ICT	Engineering College, Bikaner	29 th Jan – 2 nd Feb, 2018
Advance Structural Analysis and Finite Element Methods	MNIT Jaipur / TEQIP- III	8 th -12 th April 2019
Quality Management & Business Process Reengineering	IIT Roorkee	07 th to 18 th Dec. 2020
Empowering the Moral Values, Ethics and Behavioral Attitude in Teaching Skills among Teachers	Dr. N.G.P. Institute of Technology, Coimbotore	18 th to 23 rd Jan 2021

Workshop / Seminar / Conference Organized

Role	Workshop / Seminar / Conference	Sponsoring Agency	Duration
Convener	National Workshop on Computer Aided Designing & Computer Aided Mfg.	AICTE, Delhi	19 th -20 th Dec., 2008
Organizing Secretary	National Conference on Energy Management	DST & MNRE, Delhi	20 th -21 st Nov., 2009
Convener	National Seminar on Industrial Engineering & Management	DST & CSIR, Delhi	12 th March, 2011
Convener	National Seminar on Advances in Materials & Manufacturing	DST, Delhi	17 th March, 2012
Convener	Advanced Materials Processing	TEQIP-II	22 nd -23 rd Apr 2016
Convener	“Futuristic Tools for Improving Competitiveness in Manufacturing Technology (FTICMT-2016)”,	TEQIP-II	13 th -17 th Oct. 2016
Organizing Secretary	International Conference on Advanced Manufacturing and Materials Processing (CAMMP 2021)	SFS/MNIT	24 th – 25 th July 2021
Organizing Secretary	International Conference on Energy Conversion and Thermo-fluid Systems (I-CONNECTS21)	SFS/MNIT	19 th -20 th Nov. 2021

Academic Development Experience

Role	Academic Activity	Organizing Agency	Duration
Faculty In-charge	Course on Competency Certificate in Welding	Construction Industry Development Council	4 th Jun - 5 th Sept., 2007
Course-coordinator	Course on Basic Introduction to Construction Equipment's	Simplex Infrastructure Limited	9 th -16 th July, 2007
Course-coordinator	Student Workshop on CAD/CAM	Engineering College, Bikaner	10 th -15 th Nov., 2008
Co-Editor	Proceeding of National Conference on Energy Management (ISBN : 81-88858)	Engineering College, Bikaner, sponsored by DST, MNRE, New Delhi.	20 th -21 st Nov., 2009

Master Trainer	Competency Certificate in Web Designing	Rajasthan Mission on Livelihoods	22 nd Jan. - 5 th May, 2010
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Administrative Responsibilities

Designation	Duration
Officer In charge (Machine & Welding Shop)	6 Semester
Lab In charge (CAD/CAM)	7 Semester
Assistant Workshop Superintendent	1 Semester
Workshop Superintendent	4 Semester
Head (Central Store)	1 Semester
Nodal Officer (TEQIP-II: Finance)	1 Semester
Training & Placement Officer	3 Semester
Coordinator (TEQIP-II: IIC)	2 Semester
Nodal Officer (TEQIP-III: Academic)	1 Semester
Head of Deptt (Mech. Engg)	1 Semester
Associate Dean (Consultancy)	1 Semester
Faculty In charge (Fitting Shop)	4 Semester
Faculty In charge (Metal Cuttine Lab)	4 Semester

Co-curricular Activities Organized

- Worked as Co-convenor of State Level Model Exhibition cum Competition “ABHIVYAKTI-2005” held at Engineering College, Kota.
- Worked as Convener of Samartha event (Robotic competition) in National level Techno-Management Festival (SAKSHAMA NEW-10) organized by ECB society, Bikaner.

Keynote / Invited Talk Delivered

Event Organizing Institute	Title of keynote/ Invited Talk
Dr. B. R. Ambedkar National Institute of Technology Jalandhar, Punjab	“Hybrid Machining : A new Approach & Challenges
Dr. B. R. Ambedkar National Institute of Technology Jalandhar, Punjab	Parametric Optimization in a Hybrid Machining Process
UCET, Bikaner Technical University, Bikaner, Rajasthan	Robotics : Fundamentals and Scope
Engineering College, Bikaner, Rajasthan	Advancements in Newer Machining Methods : Hybrid Machining Process

JIET Group of Institutions, Jodhpur, Rajasthan	Micro-fabrication on Glass by Hybrid Machining
G B Pant Institute of Engineering & Technology Pauri Garhwal , U.K.	Electro Chemical Discharge Machining and Eco-friendly electrolytes
Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur, Rajasthan	Hybrid Machining Process: A Step Ahead in Newer Machining Methods
Dr.KN Modi University, Newai, Rajasthan	Design and Development of High Temperature Resistant Hybrid Natural Fiber Reinforced Polymer Composite
Dr.KN Modi University, Newai, Rajasthan	Advance Manufacturing Technologies
Bhartiya Institute of Engineering & Technology, Sikar, Rajasthan	Technical Writing and Research Methodology

Session Chaired in Conferences

Name of Conference	Organizing Institute
XIII-PFAM-2014	IIT Roorkee
2nd NFEST-2019	NIT Kurukshetra
2nd ICMRE-2019	SMIT, Sikkim
CIMS-2020	NIT Jalandhar
iCADMA-2020	MNIT Jaipur
CAMMP-2021	MNIT Jaipur
ICONECTS-2021	MNIT Jaipur
ICSEEGT-2021	PCE Jaipur
PRIME-2021	NIT Patna
3rd ICMRE-2022	SMIT, Sikkim

Reviewed Journals

Name of Journal	Publisher
Chinese Journal of Aeronautics	Elsevier
Materials Today: Proceedings	Elsevier
Journal of Materials Engineering and Performance	Springer
Part C: Journal of Mechanical Engineering Science	Sage Publications
Journal of the Electrochemical Society	The Electrochemical Society
Int. J. of Technology Marketing	Inder science Publishers
Int. J. of Industrial and Systems Engineering	Inder science Publishers

Off Campus Assignments

- Observer of Rajasthan Pre-Engineering Test (RPET)-2007 & 2008.
- Member inspector for affiliated institutes of Rajasthan Technical University, Kota.
- Assessment officer of courses run by Rajasthan Mission on Livelihood, EMI, Jaipur.
- Guest lectures delivered at various Engineering Colleges in Rajasthan.
- Paper setter and subject evaluator of UG, PG, Ph. D. Exams of RTU-Kota, MPUAT-Udaipur, University of Rajasthan-Jaipur, JNV University-Jodhpur, MLSU-Udaipur, Institution of Mechanical Engineers-Bombay, IASE University, Sardarsahar, Jodhpur National University, Poornima University, JNU, PPSC etc.

Memberships

Member of Institution of Engineers (India), (M-154745-8).

Life Member of Indian Society of Technical Education (Membership No. 76867)

Member of VIBHA (Membership No. 1862)

Member of the Electrochemical Society (ECS)-405491.

Life Member of Tribology Society of India (LM-6025)

Life Member of Indian Welding Society (L-02023)

Member of DAAAM International: dpn60166.

Professional Life Member of Additive Manufacturing Society of India (AM/341/2023)

References

Dr. Pradeep Kumar

Professor, Mech. & Ind. Engg. Deptt.

Indian Institute of Technology Roorkee

ROORKEE-247667 (Uttarakhand)-INDIA

Email-kumarfme@gmail.com

Mobile No. +919837423860.

Dr. S. K. Rathore

Professor, Mechanical Engineering Department

UD, Rajasthan Technical University,

KOTA-320010 (Rajasthan) - INDIA

Email-rathore.sk@gmail.com

Mobile No. +919414485146

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(Pankaj Kr. Gupta)