

Dr. KRISHNAKANT DHAKAR

1. Personal Information

(i)	Name	Dr. KRISHNAKANT DHAKAR	
(ii)	Qualification	Ph.D.	
(iii)	Designation	Assistant Professor	
(iv)	Email-id	Krishnakant.dhakar@gmail.com	
(v)	Employee No.	0600699	
(vi)	Department	Industrial & Production Engg.	
(vii)	Experience	8 years 6 months	

2. Educational Qualification

S. No.	Degree	Specialization	Year	University/Board
1.	Ph.D.	Advanced Machining	2016	IIT Roorkee
2.	M.E.	Production Engineering	2009	PEC Chandigarh
3.	B.E.	Industrial & Production Engg.	2007	JEC Jabalpur

3. Work Experience

S. No.	Post	Institute	Year
1.	Assistant Professor (on contract)	NIT Jalandhar	Jan 2010 to June 2012
2.	Assistant Professor (on contract)	MANIT, Bhopal	July 2016 to Oct. 2018

4. Research Interests

Advanced Machining, Composite Materials, Non-traditional machining processes, Optimization

5. Project/Consultancy

S.No.	Project Title	Name of Sponsoring Agency	Amount Sanctioned
1.	Evaluation and Characterization of Strength of Indian Wood by Densification	DST SERB-SURE	26,20,720/-
2.	Development and Experimental Investigation of micro-ultrasonic Form Machining	MPCST	4,95,000/-
3.	AICTE IDEA Lab	AICTE	1,10,00,000/-
4.	Development of Portable Near-dry Electric Discharge Machining	MHRD, NPIU	8,95,000/-
5.	Investigation of Mechanical and Environmental Properties of Bamboo Fibre Reinforced Polymer Matrix Composites Fabricated by Compression Molding and Injection Molding Process	MHRD, NPIU	11,42,000/-
6.	Fretting Fatigue and Fretting Wear Behaviour of Titanium Foam Under Simulated Body Fluid Environment	MHRD, NPIU	15,38,000/-

7.	Investigating the Effect of Temperature, Humidity and Particulate Matter on Corrosion in Galvanized Sheet Metal at Indian Atmosphere	PANASONIC	15,00,000/-
8.	Entrepreneurship Awareness Camp (EAC)	DST-NIMAT	20,000/-
9.	Visualization of Industry Requirement for Tool Room Facilities	PAC- INDORE	80,000/-
Consultancy			
1.	Biotech Era Transforming India (BETI)		
2.	DSAND Animal Nutrition Pvt. Ltd.		
6. Patent (IPR)			
1.	Title of invention – “System of modular unit attachment for performing dry and near-dry Electric Discharge Machining”. (EDM) Patent number: 202121051703		
2.	Title of invention – “A smart device for maintain greenhouse controlling environments parameters”. Patent number: 2021102000		
3.	Title of invention - “A system and a micro-machining process using cow urine (Gau-Mutra)” Journal No. 46/2018		
7. Research Paper Publications			
(I) International/National Journal Publications			
1.	Dhakar K., Kumar R., Katheria A., Nagdeve L., Kumar H., (2022) “Effect of various dielectric fluids on electric discharge machining (EDM): a review” Journal of the Brazilian Society of Mechanical Sciences and Engineering 10.1007/s40430-022-03778-3 (I.F. 3.6)		
2.	Rajak U., Chaurasiya P., Verma T., Dhakar K., Nagdeve L. (2021) “Numerical Study on the Effect of Engine Characteristics by Using Ethanol-Moringa-Diesel Fuel” Kuwait Journal of Science https://doi.org/10.36909/jer.EMSME (I.F. 0.65)		
3.	Nagdeve L., Dhakar K., Kumar H. (2020) “Development of novel finishing tool into Magnetic Abrasive Finishing process of Aluminum 6061” Materials and Manufacturing Processes, Vol. 35 (10); pp. 1129-1134 (I.F. 3.35) .		
4.	P Chaurasiya, P Pandey, U Rajak, K Dhakar, M Verma, T Verma “Epidemic and challenges of coronavirus disease-2019 (COVID-19): India response” https://dx.doi.org/10.2139/ssrn.3569665		
5.	Dhakar K., Kumar A., Mishra P. M., and Soda S., (2019) “Green Supply Chain Barriers Analysis using Interpretive Structure Modelling (ISM)” International Journal of Logistics Systems and Management Vol. 39 (3); pp. 390-408 DOI:10.1504/IJLSM.2020.10025356. (SCOPUS)		
6.	Dhakar K., Chaudhary K., Dvivedi A. and Bembelge O. (2019) “An Environment Friendly and Sustainable Machining Method: Near-dry EDM” Materials and Manufacturing Processes, Vol. 34 (12); pp. 1307-1315 (I.F. 3.35) .		
7.	Rohilla V., Dhakar K., Sharma R., Singla Y., (2019) “Experimental Evaluation of Magnetic Abrasive Finishing Process with Diamond Abrasive” International Journal of Materials and Product Technology, Vol. 58 (1); pp. 55-70 (I.F. 0.67) .		
8.	Dhakar K., Dvivedi A. and Dhiman A., (2016) “Experimental Investigation on Effects of Dielectric Mediums in Near-dry Electric Discharge Machining” Journal of Mechanical Science and Technology, Vol. 30 (5); pp. 2179-2185. (I.F. 1.22)		
9.	Dhakar K., and Dvivedi A., (2015) “Parametric Evaluation on Near-Dry Electric Discharge Machining” Materials and Manufacturing Processes, Vol. 31 (4); pp. 413-421 (I.F. 3.35) .		
10.	Pandey H., Dhakar K., Dvivedi A., and Kumar, P., (2015) “Parametric Investigation and Optimization of Near-Dry Electrical Discharge Machining” Journal of Scientific and Industrial Research, Vol. 74 (9); pp. 508-511 (I.F. 0.77)		
11.	Dhakar K., Pundir, H., Dvivedi, A., and Kumar, P., (2015) “Near-dry electrical discharge machining of stainless steel” International Journal of Machining and Machinability of Materials, Vol. 17 (2); pp. 127-138. (SCOPUS)		
12.	Dhakar K., Pundir, H., and Dvivedi, A., (2014) “Optimization and Comparison of Near-dry EDM and Dry EDM of Inconel 718” Journal of Production Engineering, Vol. 17 (2); pp. 25-29.		
13.	Dhakar K., and Dvivedi A., (2017) “Experimental Investigation on Near-dry EDM using Glycerin-Air Mixture as Dielectric Medium” Materials Today, Vol. 4 (4), pp. 5344-5350. (SCOPUS)		

14. **Dhakar K.**, and Dvivedi A. (2017) "Influence of Glycerin-air Dielectric Medium on Near-dry EDM of Titanium Alloy" International Journal of additive and subtractive materials manufacturing Vol. 1 (3/4); pp. 328-337.

(II) International/National Conference Publications

1. Katheria A., Nagdeve L., Kumar H., Dhakar K. (2022) "Experimental investigation into portable near-dry EDM" 12th International Conference on Precision, Meso, Micro and Nano Engineering (COPEN 2022), 8-10 December 2022, IIT Kanpur
2. Singhai A., **Dhakar K.**, Gupta P.K., (2021) "Multi-Response Optimization of Input Parameters in End Milling of Metal Matrix Composite Using TOPSIS Algorithm" International conference on Advanced Manufacturing and Materials Processing (CAMMP-2021), 24th – 25th July 2021, NIT, Jaipur.
3. Singh S., Nagdeve L., Kumar H., **Dhakar K.** (2021) "Rice Straw Based Natural Fiber Reinforced Polymer for Sustainable Bio-Composites: A Systematic Review" 6th International conference on Advanced Production and Industrial Engineering (ICAPIE-2021), 18th-19th June 21.
4. Patel M., Sangral S., Jayprakash M., Yadav R., **Dhakar K.** (2021) "Mechanical behaviour of titanium foam fabricated using NH₃HCO₃ space holder through powder metallurgy route" 6th International conference on Advanced Production and Industrial Engineering (ICAPIE-2021), 18th-19th June 21.
5. Verma T. N., Chaurasiya P. K., Rajak U., **Dhakar K.**, Nagdeve L. (2020) "A Numerical Study on the Effect of Engine Characteristics by Using Ethanol-Moringa-Diesel Fuel" International Conference on Energy, Materials Sciences & Mechanical Engineering (EMSME-2020), 30th Oct. - 1st Nov. 2020, NIT Delhi
6. Gupta P. K., **Dhakar K.**, Rajoria C. S. (2020), "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
7. Nigam A., Makwana A., Sharma R., Nagdeve L., **Dhakar K.** (2019) "Preliminary Experimental investigations into Magnetic Abrasive Finishing of Aluminum Shaft" 11th International Conference on Precision, Meso, Micro and Nano Engineering (COPEN 2019), IIT Indore
8. **Dhakar K.**, Dandekar M. and Paliwal D. (2019) "An Overview on Recent Advancements in Electrical Discharge Machining Methods" 6th International Conference on Production & Industrial Engineering, (6th CPIE 2016) NIT Jalandhar.
9. **Dhakar K.**, and Dvivedi A. (2018) "A Comparative Experimental Investigation of Electric Discharge Machining Process Variants" TMS Annual Meeting & Exhibition Materials Science and Technology (MS&T 2018), Columbus, Ohio, USA.
10. **Dhakar K.**, Chaudhary K., Dvivedi A. and Kumar P. (2017) "Green Machining Process: Near-dry Electric Discharge Machining" TMS Annual Meeting & Exhibition, Pan American Materials Congress, Florida, USA.
11. Bhagoria P. and **Dhakar K.**, (2017) "Parametric study of Electric Discharge Machining of HSS" International Conference on Mechanical, Energy & Power Systems (ICMEPS), Oriental, Bhopal.
12. **Dhakar K.**, and Dvivedi A. (2016) "Experimental Investigation on Near-dry EDM using Glycerin-Air mixture as Dielectric Medium" 6th International Conference on Materials Processing and Characterization (6th ICMPC-2016), Victoria University, Melbourne Australia.
13. **Dhakar K.**, and Dvivedi A. (2016) "Influence of Glycerin-air Dielectric Medium on Near-dry EDM of Titanium Alloy" 4th International Conference on Production & Industrial Engineering, (4th CPIE 2016) NIT Jalandhar.
14. Kumar R., **Dhakar K.**, Singh K., Singh I. and Dvivedi A. (2015) "Parametric investigation of Electric Discharge Sawing process for MMCs" 24th International Conference on Processing and Fabrication of Advanced Materials (PFAM) Kansai University Osaka, Japan, pp. 448-457.
15. **Dhakar K.**, and Dvivedi A., (2014) "Experimental Investigation on Near-dry Electric Discharge Machining" 5th International & 26th All India Manufacturing Technology, Design and Research Conference (AIMTDR) IIT Guwahati, pp. 404-1-6
16. **Dhakar K.**, and Dvivedi A., (2014) "Study of the Near-dry Electric Discharge Machining" 23rd International Conference on Processing and Fabrication of Advanced Materials (PFAM) IIT Roorkee, pp. 499-504.
17. **Dhakar K.**, Arora P., and Dvivedi A., (2014) "Effect of Process Parameters of Near-dry EDM on Machining of a Conductive Material" 23rd International Conference on Processing and Fabrication of Advanced Materials (PFAM) IIT Roorkee, pp. 511-517.
18. **Dhakar K.**, and Dvivedi A., (2013) "Experimental Investigation of Green Electric Discharge Machining of Al-SiC Metal Matrix Composites" International Conference on Smart Technologies for

Mechanical Engineering (STME) DTU Delhi, pp. 883-885.	
19.	Dhakar K. , and Dvivedi A., (2013) "Prediction of Material Removal Rate in Near-dry Electrical Discharge Machining Using Adaptive Neuro-Fuzzy Inference System" International Conference on Research and Innovations in Mechanical Engineering (ICRIME) GNDEC Ludhiana.
20.	Dhakar K. , and Belokar R., (2011) "JIT in Supply Chain Management" 4th International Conference on Management next: Paradigm and Innovation, Gyan Jyoti Mohali, Punjab.
21.	Dhakar K. , and Soda S., (2011) "The Evolution of Green Supply Chain Management and Trends Influencing Future Concepts" International Conference on Advances in Materials and Manufacturing Technology, Chitkara University, Punjab, pp. 150-154.
(III) Book Chapter	
1.	Bhargva S., Rohit K., and Dhakar K. "Extraction and Processing of Sisal Fibre Composites for Industry Applications: A Conceptual Review" Emerging Materials for Performance Specific Applications, CRC Press Taylor & Francis Group, New York. (Accepted)
2.	Dhakar K. , and Dvivedi A. "Dry and Near-dry Electric Discharge Machining" Advanced Manufacturing Technologies - Modern Machining, Advanced Joining, Sustainable Manufacturing, Springer International Publishing DOI: 10.1007/978-3-319-56099-1.
3.	K Dhakar , M Dandekar, M Tyagi "Advances in Electrical Discharge Machining: State-of-the-Art" Manufacturing Engineering, pp. 245-254.
8.	Administrative Responsibilities
	<ul style="list-style-type: none"> ● AICTE-IDEA Lab Coordinator ● IIC Coordinator for Start-up ● IIC Coordinator for Social Media (2019-2021) ● Co-coordinator for employability skill (2019-2021) ● Member of Core research group of Institute ● Department Coordinator for NBA ● Lab-in-charge of Advanced Manufacturing Lab ● Team member of UNNAT Bharat Abhiyan ● Team Member of Examination Control (2020-2022) ● Team Member of Counselling
9.	List of Conferences/Workshops/Seminars Organized
	<ol style="list-style-type: none"> 1. Conference on Internship Start-up and Incubation in Science and Technology (INSIST) 2. ATAL FDP on Smart Manufacturing (Hands on training) 3. ATAL FDP on Artificial Intelligence in Design and Manufacturing 4. AICTE-RGPV Online TTP on Processing and Characterization of Novel Materials. 5. Organized Entrepreneurship Awareness Camp 6. Convention on Making Policies for Promoting Innovation, Entrepreneurship and Start-ups
10.	Invited Lectures/Expert Talks/Chairmanships at Conferences
	<ol style="list-style-type: none"> 1. Expert talk Delivered at S.V. Polytechnic, Bhopal 2. Expert Lecture Delivered at SAGE University, Indore 3. Expert Lecture Delivered at S.V. Polytechnic, Bhopal 4. Session chaired in International Conference (COPEN) at IIT, Indore 5. Session chaired in International Conference (CPIE) at NIT, Jalandhar 6. Session chaired in International Conference (EMSME) at NIT, Delhi 7. Jury Member in State level Project Competition at SIRT, Bhopal 8. Jury Member in State level Project Competition at Vikrant group of Institute, Indore
11.	Editor/Reviewer in International Journal
	<ul style="list-style-type: none"> ● Guest Editor in Materials Today's ● WEAR

- Environmental Science and Pollution Research
- Journal of Machining Science and Technology
- International Journal of Precision Engineering and Manufacturing – Green Technology
- Proceedings of the Institution of Mechanical Engineers, Part B
- The Electrochemical Society Journals
- Journal of Advanced Manufacturing System
- International Journal of Advanced Manufacturing Technology
- Journal of Manufacturing Processes
- Journal of Materials Engineering and Performance

Dr. Krishnakant Dhakar