



CURRICULUM VITAE Dr. NISHANT K. SINGH

Personal Details and Contact

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Educational Qualifications

- **Ph.D.** from Indian Institute of Technology (ISM), Dhanbad, India (March, 2017).
- **M. Tech.** (Mechanical Engineering) from Gautam Buddha Technical University, Lucknow (January, 2011)
- **B.Tech.** (Mechanical Engineering) from Delhi College of Engineering, Delhi (August, 2005)

Employment History

Organization	Designation	From	To
Harcourt Butler Technical University, Kanpur	Associate Professor	9 th June 2022	Till date
Hindustan College of Science and Technology, Mathura	Associate Professor	1 st April, 2022	8 th June 2022
Hindustan College of Science and Technology, Mathura	Assistant professor	September, 2010	31 st March 2022
Hindustan College of Science and Technology, Mathura	Lecturer	August, 2007	September, 2008
Sanjay Institute of Technology & Management, Mathura	Lecturer	September, 2006	July, 2007

Research Guidance

M. Tech. Projects: 5

B. Tech. Projects: 45

PhD: **01** (Two in progress)

Research Specialization

- Non-Conventional Machining
- Composite Materials
- Conventional Machining
- Tribology
- Alternative fuels

Subjects Taught

1. Kinematics of Machines
2. Dynamics of Machines
3. Manufacturing Science
4. Non Conventional Machining Process

Awards Received

- Shresth Shiksha Shamans 2009 by Sharda Group of Institution.
- Best Performer (Faculty) 2012 by Sharda Group of Institution.
- Best Performer (Faculty) 2014 by Sharda Group of Institution.
- Best Performer (Faculty) 2016 by Sharda Group of Institution.
- **“Best Research award”** from Hindustan College of Science and Technology, Mathura in the year 2018 and 2019.
- **“Best Teacher award”** from Dr. A.P.J. Abdul Kalam Technical University, Lucknow 2021.
- **“Rudra Ratan Award (Renowned Educationalist)”** from BrijBhoomi Foundation, Mathura, 2021.

Editor/Reviewer of Professional Societies

Materials Today Proceedings Journal, SCOPUS Indexed, (**Managing Guest Editor**); Part B: Journal of Engineering Manufacture (Sage), Materials and Manufacturing Process (Taylor and Francis), Part C: Journal of Mechanical Engineering Science (Sage), Journal of the Brazilian society of Mechanical Engineers (Springer), Journal of Fuel (Elsevier), Energy source part A (Taylor and Francis), Journal of Cogent Engineering (Taylor and Francis), Green Processing and Synthesis (Walter De Gruyter), Industrial Crops and Products (Elsevier), Process safety and Environmental Protection (Elsevier).

KEYNOTE SPEAKER

1. **Keynote Lecture on performance improvement of electrical discharge machining using innovative electrodes** at International Conference on Technological Advancements in Materials Science and Manufacturing, Graphic Era Deemed to be University, Dehradun from 19-02-2021 to 20-02-2021.
2. **Keynote Lecture on sustainable development of manufacturing process** at International Conference on Advances in Manufacturing Technologies and Application of Artificial Intelligence, Graphic Era Deemed to be University, Dehradun from 06-07-2021 to 07-08-2021.
3. **Keynote Lecture on Waste heat recovery: A green technology** at FDP on Energy Conversion Technologies, Hindustan College of Science and Technology, Mathura, 5th December 2018, Sponsored by AICTE-ISTE, Delhi.

4. **Keynote Lecture on Wind energy essence and Wind power system** at FDP on Renewable Energy Technologies, Hindustan College of Science and Technology, Mathura, 9th June 2018, Sponsored by Dr. A.P.J. Abdul Kalam Technical University Lucknow under TEQIP-III.
5. **Keynote Lecture on Sustainable Manufacturing Need of Hour** at FDP on Renewable Futuristic Trends in Energy, Material and Manufacturing Technology, Hindustan College of Science and Technology, Mathura, from 02-08-2021 to 06-08-2021.

SESSION CHAIR

1. 3rd International Conference on “Computational & Experimental Methods in Mechanical Engineering (ICCEMME-2021) Organised by, Department of Mechanical Engineering, G.L. Bajaj Institute of Technology & Management, Greater Noida, from February, 11-13, 2021.
2. International Conference on Technological Advancements in Materials Science and Manufacturing, organized by Mechanical Engineering Department, Graphic Era (Deemed to be University), Dehradun, Uttarakhand during 19th-20th February 2021.
3. International Conference on Recent Advances in Design, Materials and Manufacturing (ICRADEM 2020) held on 15th and 16th October 2020 at Amity School of Engineering and Technology, Amity University, Gwalior, Madhya Pradesh

CONSULTANCY

1. Prakash Cold Storage, Agra, 01 Lacs, March 2021.
2. JADE Enterprises, Faridabad, 50,000 Thousands, March 2021.
3. Wiscon Enterprises, Faridabad, 50,000 Thousands, April 2021.

Grants Received

S. No.	Nature of Project & Role	Title of Project	Amount	Sponsoring Agency	Current Status
1.	Development Project Co-Principal Investigator	Development of Electric Discharge Machining (EDM) Lab	Rs.6.5 Lac	AICTE, New Delhi	Project sanctioned in 2011 and completed in 2012.
2.	Development Project Co-Principal Investigator	Development of All Terrain Vehicle	Rs.2.5 Lac	R & D HCST Mathura	Project sanctioned in 2010 and completed in 2011.
3.	Development Project Co-Principal Investigator	Development of Automobile Engineering Laboratory	Rs.1.75 Lac	R & D HCST Mathura	Project sanctioned in January 2009 and completed in July 2009.

Conferences / Workshop Organized

Sr. No.	Conference/Workshop Title	Date	Worked As
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1.	National Conference on Nano-Bio-Information Technology Integration	23-26 July	Convener
2.	National Conference on Recent Advances in Mechanical Engineering	2006	
3.	(RAME- 2012)	8-9 May,	Secretary
4.	TEQIP sponsored one week FDP on Renewable Energy Technology	2012	
		4-9 June,	Coordinator
5.	AICTE sponsored one week FDP on Energy Conversion Technology	2018	
		3-8 Dec.	Coordinator
		2018	
6.	One week on line FDP on Futuristic Trends in Energy, Materials and Manufacturing Technology	2-6 August	Coordinator
		2021	

Short Term Courses/ Workshop/Seminar

- “AICTE sponsored one week FDP on Advanced Manufacturing and materials”. JSS Academy of Technical Education, Department of Mechanical Engineering, Noida, 23-28 Nov. 2020 **(Duration-5 days)**.
- “AICTE sponsored one week FDP on Advanced Manufacturing and materials (Series 2)”. JSS Academy of Technical Education, Department of Mechanical Engineering, Noida, 7-12 December, 2020 **(Duration-5 days)**.
- “AICTE sponsored one week FDP on Advanced Manufacturing and materials (Series 3)”. JSS Academy of Technical Education, Department of Mechanical Engineering, Noida, 21-28 December, 2020 **(Duration-5 days)**.
- “Advanced and Innovative Manufacturing Technologies (AIMT)” G L Bajaj Institute of Technology and Management, Greater Noida, UP, under the scheme of TEQIP-III, 2020 **(Duration-5 days)**.
- “*Modern Thermal Power Generation Technologies*”, G L Bajaj Institute of Technology and Management, Greater Noida, UP, under the scheme of TEQIP-III, 2019 **(Duration-5 days)**.
- “*Composite Materials: Research and Development*”, 2015 **(Duration-5 days)**.
- “*Impact Analysis of Nano Composites by LS-DYNA*” at Indian Institute of Mines (ISM), Dhanbad, India.
- “*Statistical Analysis using Taguchi Method*” at Gautam Buddha Technical University, Greater Noida, India **(Duration- One Week)**.
- “*Kinematics of Machines*” at HITM, Greater Noida, India
- “*Nano Materials*” Seminar at HCST, Mathura, India.
- “*Application of Latex Software for Research paper & Thesis writing*” at HIMCS, Mathura, India.

Publications

INTERNATIONAL JOURNAL:

Year-2022

1. Optimization of biodiesel synthesis from Jojoba oil via supercritical methanol: A response surface methodology approach coupled with genetic algorithm Biomass and bioenergy (Accepted), **(SCI, Impact Factor: 5.061)**.

2. Production and feasibility characterization of bio-oil from jojoba seed-based biomass through Solar thermal energy pyrolysis process. *Biomass Conversion and Biorefinery* (Accepted), **(SCI, Impact Factor: 4.987)**.
3. Effect of nanoparticles as additives to the biofuels and their feasibility assessment on the engine performance and emission analysis-A review. Part E: *Journal of Process Mechanical Engineering*. <https://doi.org/10.1177/09544089221109723> **(SCI, Impact Factor: 1.606)**.
4. Combined effect of phosphonium ionic liquid and copper oxide nanopowder as additives to the bio-based lubricant during tribological analysis. *Waste and Biomass Valorization* (Accepted), **(SCI, Impact Factor: 3.69)**.

Year-2021

5. Study the effect of optimized input parameters on a CRDI diesel engine running with waste frying oil methyl ester-Diesel blend fuel with ZnO nanoparticles - A Response surface methodology approach. *Biomass Conversion and Biorefinery* (Accepted), **(SCI, Impact Factor: 4.987)**.
6. Rheological characteristics and tribological performance of Neem biodiesel based nano oil added with MWCNT. *Biomass Conversion and Biorefinery* (Accepted), **(SCI, Impact Factor: 4.987)**.
7. Performance of CuO nanoparticles as an additive to the chemically modified Nicotiana Tabacum as a sustainable coolant-lubricant during turning EN19 steel. *Wear* (Accepted), **(SCI, Impact Factor: 3.89)**.
8. Development of epoxidized Moringa Oleifera nano lubricant with CeO₂ nanoparticles as an additive for improving the lubrication characteristics. *Biomass Conversion and Biorefinery* (Accepted), **(SCI, Impact Factor: 4.987)**.
9. Effect of Process Parameters on the Diesel Engine Performance Fuelled With Prosopis Juliflora Biodiesel-RSM Approach. Part E: *Journal of Process Mechanical Engineering*. (Accepted), **(SCI, Impact Factor: 1.65)**.
10. Brucea Javanica: A novel non-edible feedstock for bio based lubricant application with effect of ZrO₂ nanoparticles, *Environmental Progress* (Accepted), **(SCI, Impact Factor: 2.19)**.
11. Tribo mechanism analysis of epoxidized Putranjiva oil (Putranjiva Roxburghii) and understanding lubricity with SiO₂ nanoparticles addition. Part J: *Journal of Engineering Tribology* (Accepted), **(SCI, Impact Factor: 1.69)**.
12. Tribological characteristics of TiO₂ nanoparticles as an additive to the Chemically Modified Nicotiana Tabacum, *Journal of Bio-and Tribo-Corrosion* (Accepted). **(Scopus Indexed)**
13. Performance of castor based biodiesel during tribological characterization at different load. *Materials Today: proceedings, Elsevier (Scopus), 2021*(Accepted). **(Scopus Indexed)** <https://doi.org/10.1016/j.matpr.2021.04.146>
14. Effect of SiO₂ Nanoparticles on the Tribological Behavior of Balanites Aegytiaca (Desert date) Oil-Based Biolubricant. *J Bio Tribo Corrosion* 7, 16 (2021). <https://doi.org/10.1007/s40735-020-00451-x>. **(Scopus Indexed)**
15. Influence of carbon nanotubes on tribological performance of GFRP composites in different environments, *Materials* **2021**, 14, 2965. <https://doi.org/10.3390/ma14112965>. **(SCI, Impact Factor: 3.057)**.
16. Analysis of the Influence of Turning Factors on the Hardness of the Work Material using the Taguchi Method, *Annual Technical Volume of Production Engineering Division*(The Institution of Engineers, India), pp.24-30.

17. Improvement of process performance of powder mixed electrical discharge machining by optimization-A Review. *Advances in Materials and Processing Technologies*. (*Taylor and Francis*), Accepted. (**Scopus Indexed**)

Year-2020

18. Experimental Investigation on electric discharge drilling of Titanium Alloy (Ti-6Al-4 V) with gas aided rotary tool. *Sadhana* (Accepted) (**SCI, Impact Factor: 0.940**). <https://doi.org/10.1007/s12046-020-01497-w>
19. Effect of ZnO nanoparticles concentration as additives to the Epoxidized Euphorbia Lathyris oil and their tribological characterization. *Fuel Volume 279*, 118571. (**SCI, Impact Factor: 6.60**).
20. Application of Taguchi and RSM Approach to a Sustainable Model Developed for a CI Engine using Polanga Biodiesel/Diesel Blends. Part I: *Journal of Systems and Control Engineering Vol. 235(6)* 854-868. (**SCIE, Impact Factor: 1.71**). <https://doi.org/10.1177/0959651820965301>
21. Friction and wear behavior of chemically modified Sal (Shorea Robusta) oil for bio based lubricant application with effect of CuO nanoparticles *Fuel Volume 282*, 118762. (**SCI, Impact Factor: 6.60**). <https://doi.org/10.1016/j.fuel.2020.118762>
22. Diesel engine performance and emission analysis running on jojoba biodiesel using intelligent hybrid prediction techniques. *Fuel Volume 279*, 118571. (**SCI, Impact Factor: 6.60**). <https://doi.org/10.1016/j.fuel.2020.118571>
23. Prediction of Performance and Emission Parameters of Kusum Biodiesel based diesel engine using Neuro-Fuzzy Techniques combined with Genetic Algorithm. *Fuel Volume 280*, 118629. (**SCI, Impact Factor: 6.60**). DOI: [10.1016/j.fuel.2020.118629](https://doi.org/10.1016/j.fuel.2020.118629)
24. Experimental investigation and statistical modeling of air-assisted EDM of Al-SiC composite with an improvised tool. *J Braz. Soc. Mech. Sci. Eng.* **42**, 312. (**SCI, Impact Factor: 1.92**). <https://doi.org/10.1007/s40430-020-02404-4>
25. Effect of SiC nanoparticles concentration on novel feedstock Moringa Oleifera chemically treated with Neopentylglycol and their tribological behavior. *Fuel Volume 280*, 118630. (**SCI, Impact Factor: 6.60**). <https://doi.org/10.1016/j.fuel.2020.118630>
26. Effect of design parameters on performance and emissions of DI diesel engine running on biodiesel-diesel blends: Taguchi and Utility Theory *Fuel Volume 281*, 118765. (**SCI, Impact Factor: 6.60**). <https://doi.org/10.1016/j.fuel.2020.118630>
27. Electric discharge drilling with gas-assisted multi-hole slotted tool. *International journal of Science and Technology, Scientia Iranica*, doi:10.24200/SCI.2020.55017.1030. (**SCI, Impact Factor: 0.55**).
28. Chemical modification of Julifora oil with trimethylprpone (TMP) and effect of TiO₂ nanoparticles concentration during tribological investigation. *Fuel Volume 280*, 118704. (**SCI, Impact Factor: 6.60**). DOI: [10.1016/j.fuel.2020.118704](https://doi.org/10.1016/j.fuel.2020.118704)
29. Effective Utilization of tobacco (*Nicotiana Tabaccum*) for Biodiesel Production and its Application on Diesel Engine Using Response Surface Methodology Approach. *Fuel Volume 273*, 117793. (**SCI, Impact Factor: 6.60**). <https://doi.org/10.1016/j.fuel.2020.117793>
30. Development of Bio-Based Lubricant from Modified Desert Date Oil (*Balanites Aegyptiaca*) with Copper Nanoparticles Addition and their Tribological Analysis *Fuel, Volume 259*, 116259. (**SCI, Impact Factor: 6.60**). <https://doi.org/10.1016/j.fuel.2019.116259>
31. A Mathematical Model to Assess the Material Removal Rate during Gas-Assisted Electrical Discharge Drilling Process. *International Journal of Mathematical, Engineering and Management Sciences* (Accepted). (**Scopus Indexed**)
32. Shorea Robusta (Sal): A novel feedstock for bio based lubricant application with effect of SiO₂ nanoparticles, *Journal of Bio-and Tribo-Corrosion* (Accepted). (**Scopus Indexed**)

33. An Environmental-Friendly Electrical Discharge Machining Using Different Sustainable Techniques: A review. *Advances in Materials and Processing Technologies*. (*Taylor and Francis*), DOI: 10.1080/2374068X.2020.1785210. **(Scopus Indexed)**
34. Improved lubrication mechanism of the chemically modified mahua (*madhuca Indica*) oil with the addition of the copper oxide nanoparticles. *Journal of Bio-and Tribo-Corrosion*, 6:94. **(Scopus Indexed)**
35. Experimental investigation of flushing approaches on EDM machinability during machining of titanium alloy. *Materials Today: proceedings*, *Elsevier (Scopus)*, 2020(Accepted). **(Scopus Indexed)**
36. Intelligent hybrid approaches for ensuring better prediction of gas-assisted EDM responses. *SN Applied Sciences*, 2:914, (2020). **(Scopus Indexed)**.
37. Impact of powder additive in liquid and gaseous dielectric fluid on electrical discharge machining through aerospace region application- A review. *Materials Today: proceedings*, 25(4): 952-960. **(Scopus Indexed)**
38. Performance and emission characteristics of the diesel engine running on neem (*Azadirachta indica*) biodiesel with effect of exhaust gas recirculation at optimum injection strategies. *Pollution*, 6(3): 623-633. **(Scopus Indexed)**
39. Integration of GA and neuro-fuzzy approaches for the predictive analysis of gas-assisted EDM responses. *SN Appl. Sci.* **2**, 137 (2020) **Springer. (Scopus Indexed)**
40. Modeling and optimization of multi-hole rotary electrical discharge drilling of die steel. *Materials Today: proceedings*, <https://doi.org/10.1016/j.matpr.2020.02.539>. **(Scopus Indexed)**.
41. Comparative micro structural investigation of Al-SiC-Mg and Al-B4C-Mg particulate metal matrix composite. *Annales de Chimie-Science des Materiaux*. DOI: <https://doi.org/10.18280/acsm.440205>. **(Scopus Indexed)**.
42. *Moringa Oleifera*: Bio based lubricant development from a novel feedstock for tribological characterization. *Advances in Materials and Processing Technologies* <https://doi.org/10.1080/2374068X.2020.1829956> **(Scopus Indexed)**.
43. *Madhuca Indica* (*Mahua*): A novel feedstock for bio based lubricant application treated with trimethylolpropane and tribological analysis. *Australian Journal of Mechanical Engineering*. **(Scopus Indexed)**.
44. Comparative study of Rotary-EDM, Gas Assisted-EDM, and Gas Assisted Powder Mixed-EDM of the hybrid metal matrix composite. *Advances in Materials and Processing Technologies*. **(Scopus Indexed)**. <https://www.tandfonline.com/doi/abs/10.1080/2374068X.2020.1855398>
45. Experimental Investigation of Non-edible dielectric fluid (Bio-dielectric) in Electrical Discharge Machining process. *Materials Today: proceedings*, **(Scopus Indexed)**. doi.org/10.1016/j.matpr.2020.09.544
46. Effect of SiO₂ nanoparticles on the tribological behavior of *Balanites Aegytiaca* (*Desert date*) oil based biolubricant. *Journal of Bio-and Tribo-Corrosion*, (Accepted) **(Scopus Indexed)** DOI: [10.1007/s40735-020-00451-x](https://doi.org/10.1007/s40735-020-00451-x)
47. Experimental Investigation for Sustainable Electric Discharge Machining with *Pongamia* and *Jatropha* as dielectric medium. *Advances in Materials and Processing Technologies* **(Scopus Indexed)**. <https://doi.org/10.1080/2374068X.2020.1860499>
48. Control of elastic behavior in smart material integrated shallow spherical composite panel using HOSDT kinematics. *Journal of composite structure*, (Accepted), **(SCI, Impact Factor: 5.13)**.
49. Micro And Nano-Crystalline Diamond Coatings Of Co-Cemented Tungsten Carbide Tools With Their Characterization, *Journal of Bio-and Tribo-Corrosion* (Accepted). **(Scopus Indexed)** <https://doi.org/10.1007/s40735-020-00470-8>

Year-2019

50. A semi-empirical model to predict material removal rate during air-assisted electrical discharge machining Journal of the Brazilian Society of Mechanical Sciences and Engineering, Vol. 41 (3) pp. 122 (SCI, Impact Factor: 1.98).
51. Predictive analysis of surface finish in gas assisted electrical discharge machining using statistical and soft computing techniques” published in *Surface Review and Letters*. (SCI, Impact Factor: 1.15).
52. “Sustainability of jojoba/diesel blends for DI diesel engine applications-taguchi and response surface methodology concept” published in *Industrial Crops and Products (Elsevier)*. Vol. 139, Issue 1, 111857. (SCI, Impact Factor: 5.64).
<https://doi.org/10.1016/j.indcrop.2019.111587>
53. “Response Surface Approach to Optimization of Direct Injection Diesel Engine Parameters fuelled with Pongamia Biodiesel Blends” accepted for publication in *Renewable Energy (Elsevier)*. (SCI, Impact Factor: 4.981).
54. “Application of Response Surface Methodology to Optimize Diesel Engine Parameters fuelled with Pongamia Biodiesel/Diesel Blends” published in *Energy Sources Part A: Recovery, Utilization and Environmental Effects (Taylor and Francis)*. (SCI, Impact Factor: 3.44).
55. “Experimental Investigation and Modeling of Surface Finish in Argon-Assisted Electrical Discharge Machining Using Dimensional Analysis” published in *Arabian Journal for Science and Engineering (Springer)* with DOI: <https://doi.org/10.1007/s13369-019-03738-5>. (SCI, Impact Factor: 2.52)
56. Experimental studies on performance and exhaust emission characteristics of a diesel engine fuelled with diesel-linseed oil methyl ester (LOME) blends” published in *Energy Sources Part A: Recovery, Utilization and Environmental Effects (Taylor and Francis)*. (SCI, Impact Factor: 3.44).
57. “Effect of Addition of Copper Nanoparticles on the Tribological Behavior of Macadamia Oil at Different Sliding Speeds” published in *Energy Sources Part A: Recovery, Utilization and Environmental Effects (Taylor and Francis)* with DOI: <https://doi.org/10.1080/15567036.2019.1582734>. (SCI, Impact Factor: 3.44)
58. “Effect of alumina nanoparticles as additive on the friction and wear behavior of polanga-based lubricant” published in *SN Applied Sciences (Springer)*, Vol. 1:281. (Scopus Indexed)
59. Sustainability of the Polanga Biodiesel Blends during the Application to the Diesel Engine Performance and Emission Parameters-Taguchi and RSM Approach. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 42(1):14. (SCI, Impact Factor: 1.92)
60. Predictive analysis of surface roughness in argon-assisted EDM using semi empirical and ANN techniques. SN Appl. Sci. 1: 995. Springer. <https://doi.org/10.1007/s42452-019-1032-0> (Scopus Indexed)
61. Experimental investigation and effects of process parameters on EDM of Al7075/SiC composite reinforced with magnesium particles. Published in *Materials Today: Proceedings (Elsevier)*, DOI: [10.1016/j.matpr.2019.11.069](https://doi.org/10.1016/j.matpr.2019.11.069). (Scopus Indexed)
62. Comparative study of statistical and soft computing based predictive models for material removal rate and surface roughness during helium assisted EDM of D3 die steel. SN Applied Sciences (2019) 1:529, Springer. <https://doi.org/10.1007/s42452-019-0545-x>. (Scopus Indexed)

Year-2018

63. “Optimization of wear and friction characteristics of Phyllanthus Emblica seed oil based lubricant using response surface methodology”. Published in *Egyptian Journal of Petroleum*. Vol 27, issue 4, 1145-1155. (Scopus Indexed)

64. "Optimization of performance and emission parameters of direct injection diesel engine fuelled with with pongamia methyl esters-response surface methodology approach" Published in *Industrial Crops and Products (Elsevier)*, Vol. 126, 218-226. (SCI, Impact Factor: 5.64) doi.org/10.1016/j.indcrop.2018.10.035.
65. "Prospects of Inedible Plant Oil Driven Bio-lubricants for an Automotive Application-A Review" published in *International journal of ambient energy (Taylor and Francis)*. DOI: <https://doi.org/10.1080/01430750.2018.1517684>. (Scopus Indexed).
66. "Effect of alumina nanoparticles as additive on the friction and wear behavior of polanga based lubricant". Published in *International Journal of Engineering and Technology*. Vol 7, 4.39, 417-419. (Scopus Indexed)
67. Electrical Discharge Drilling of D3 Die Steel using Air Assisted Rotary Tubular Electrode. *Materials Today: proceedings*, 5(2): 4392-4401. (Scopus Indexed)
68. Comparison of Gas Assisted Hybrid EDM, Rotary EDM and Conventional EDM Processing of High Carbon High Chromium Die Steel. *International Journal of Engineering and Technology*, 7(3.12):1154. (Scopus Indexed)
69. Electrical Discharge Drilling of Al-SiC Composite using Air Assisted Rotary Tubular Electrode, *Materials Today: proceedings*, 5(11): 23769-23778. (Scopus Indexed)
70. Experimental study and parameter optimization of gas assisted electrical discharge machining. *International Journal of Engineering and Technology*, 7(3.12):1163. (Scopus Indexed)
71. Experimental investigation of process parameters in nitrogen assisted EDM of En19 steel" published in *International Journal of Applied Engineering Research* 13(6), 165-169

Year-2017

72. "Sustainability of polanga oil blended lubricant at different load and sliding distance" published in *Energy sources part a. recovery, utilization and environmental effects (taylor and francis publications)*. Vol. 39, 19, 1970-1977. (SCI, Impact Factor: 3.44)
73. Steps towards green manufacturing through EDM process: A review" *Journal of Cogent Engineering (Taylor and Francis)* DOI: 10.1080/23311916.2016.1272662. (Scopus and ESCI Indexed)

Year-2016

74. EDM with air assisted multi-hole rotating tool *Materials and Manufacturing Process (Taylor and Francis)*, DOI:10.1080/10426914.2015.1127954. (SCI, Impact Factor: 4.61)
75. Experimental Investigation and Analysis of Argon Assisted Perforated Electrodes" *Materials and Manufacturing Process (Taylor and Francis)*, DOI: 10.1080/10426914.2016.1221079. (SCI, Impact Factor: 4.61)

Year-2015

76. Review on Recent Development in Environmental-friendly EDM Techniques" *Acta Mechanica Slovaca*. Volume 19, Issue 3, Pages 54–66, ISSN 1335-2393

Year-2013

77. Forecasting of optimum Turning Parameter on Surface Roughness in Turning of Al-Al₂O₃ Metal Matrix Composite" Published in *International Journal of Engineering Science and Technology (IJEST)*, Vol. 5 No.02 February 2013

Year-2012

78. "Dirt Analysis on the Performance of an Engine Cooling" Published in *Journal of Energy in Southern Africa*, Vol. 24, Number 4, 44-50. (SCI, Impact Factor: 0.721)

Year-2011

79. "Impact analysis of Mini BAJA vehicle roll cage using finite element analysis" published in *International Journal of applied engineering research (Research India Publications)*, Vol. 6, No. 23-24, 2595-2600. (Scopus Indexed)
80. Performance analysis of supercharging of two wheelers. *International Journal of Mechanical Engineering and Technology*, Vol. 2, Issue 2 (May – July 2011).

International Conferences

1. Effect of different tool geometry during EDM of hybrid composite. 6th *International Conference on Advanced Production and Industrial Engineering (ICAPIE-2021)*, Delhi Technological University, Delhi, 18-19th June 2021.
2. EDD of ceramic composite using modified tool. International Conference on Technological Advancements in Materials Science and Manufacturing. Department of Mechanical Engineering GRAPHIC ERA (Deemed to be University) Dehradun, 19-20 February 2021.
3. Design and Analysis of Steering Knuckle of Hybrid Metal Matrix Composite for the FSAE Vehicle. Department of Mechanical Engineering GRAPHIC ERA (Deemed to be University) Dehradun, 19-20 February 2021.
4. Performance Improvement of a Sugar Mill through Exergy Analysis. Department of Mechanical Engineering GRAPHIC ERA (Deemed to be University) Dehradun, 19-20 February 2021.
5. Biodiesel as an alternative fuel employed in CI engine to meet the sustainability criteria: a review. Department of Mechanical Engineering GRAPHIC ERA (Deemed to be University) Dehradun, 06-07 August 2021.
6. Effect of Addition of Nano Particles to the Kranja Oil during Tribological Investigation. *International Conference on future learning aspects of mechanical engineering*, Amity University, Gr. Noida August (5-7), 2020. ISBN: 978-81-951964-0-1
7. Performance Study of Gas Assisted Electric Discharge Machining on Carbon-Chromium Die Steel” *International Conference on future learning aspects of mechanical engineering*, Amity University, Gr. Noida June-2018.
8. Predictive analysis of surface roughness in EDM using semi empirical and ANN techniques: A comparative study. *International Conference on Computational and experimental methods in mechanical engineering*, GLB institute of technology, Gr. Noida May (3-5)2019.
9. Influence of Flushing Techniques on EDM Performance of Titanium Alloy (Ti-6Al-4 V) Workpiece. International Conference on Futuristic Trends in Materials & Manufacturing, Delhi Technical, Campus, 26-27 October 2018.
10. “Experimental investigation of effect of liquid-cum-gaseous dielectric on EDM performance” Published in *proceedings of International Conference on Production and Industrial Engineering*, Cpie-2016, at NIT, Jalandhar, 19-21 December, 2016.
11. “Effect of flushing on performance of EDM with multi-hole electrode” Published in *proceedings of International Conference on Agile Manufacturing Systems*, at KNIT, Sultanpur, December 28-29, 2015.

12. “An investigation of surface Roughness of En19 steel in Dry Turning Operation Using Taguchi Method” Published in *proceedings of International Conference on Agile Manufacturing Systems*, at IIT, BHU, Varanasi, India, 16-19 Dec. 2012.
13. “Forecasting of Optimum Drilling Parameter on Surface Roughness of Al-Al₂O₃ Metal Matrix Composite” Published in *proceedings of International Conference on Innovative Technologies in Mechanical Engineering at KIT, Ghaziabad, India, 24-25 August 2012*.
14. “Study of Effect of Turning Parameters on Workpiece Hardness using Taguchi Method” Published in *proceedings of International Conference on Agile Manufacturing Systems*, at DEI, Agra, India, 18-20 Dec. 2011.
15. “Production of Biodiesel and Exhaust gas Analysis on CI engines” 5th *International multiconference on intelligent systems, Sustainable New and Renewable Energy Technology and Nanotechnology* at ISTK, Khlawad, Haryana, India, February 2011.

National Conferences: 12

Book Published

1. Properties and Uses of Vegetables Oils, nova science publishers, USA, ISBN: 978-1-53619-207-0 (2021).
2. “Design of VAR system using Waste Heat Recovery of Diesel Genset” in Lambert Academic Publications, Germany with ISBN 978-3-8443-1803-6. (Edition-1, 2012).
3. Automobile Engineering, Unique Publication, India, ISBN: 978-93-91615-28-4 (2022).
4. **Advanced Manufacturing Processes.** CRC PRESS, (Taylor & Francis), ISBN: 978-1-003-22023-7
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