Name: Dr. Rajeev Ranjan

Department: Mechanical Engg.

Contact Nos.: 8016981214

Qualifications: Ph. D.

Designation: Asst. Professor

VIDWAN ID: 187462

Experience (Teaching / Research / Industry, in years): 9 years (Teaching)

Date of Joining at the Present Institution: 06 February 2016

Examinations Cleared: GATE

Qualifications Summary (Reverse chronological order**):**

Degree	Institute	Year	Subjects
Ph. D.	B.R. Ambedkar Bihar University, Muzaffarpur	2021	Mechanical Engineering
M.Tech.	N.I.T.T.T.R. Kolkata	2012	Manufacturing Technology
B.Tech.	W.B.U.T. Kolkata	2010	Mechanical Engineering

Experience Summary (In chronological order):

Designation	Organization/Institute	From	To
Asst. Professor	Haldia Institute of Technology, Haldia	01.08.2012	05.02.2016
Asst. Professor	Dr. B.C. Roy Engg. College, Durgapur	06.02.2016	Till now

Specialization/Research Interest: Manufacturing Technology, Welding Processes, Non-conventional machining, Machining Optimization

Courses taught:

B.Tech: Manufacturing Technology, Adv. Welding Technology, Materials Handling, Metrologyand Measurement, Engineering Mechanics, Engineering Thermodynamics and Fluid Mechanics, Manufacturing Technology Lab, Workshop Practices Lab, Engineering Graphics & Design Lab.

Online Mode of Teaching:

1. https://lecturenotes.in/m/25265-engineering-graphics-design-esme191-esme-291-by-rajeev-ranjan
2. https://archive.org/details/MechanicalEngineeringWorkshopPracticeLaboratoryManual

Publications:

Journals:

1. **Rajeev Ranjan** & N K Mandal, "Study of vibration characteristics of a multi cracked rotating shaft using piezoelectric sensor", Sensors & Transducers Journal (2012) 147: 45-52, ISSN 1726- 5479.Link: https://www.sensorsportal.com/HTML/DIGEST/P_1094.htm.
2. **Rajeev Ranjan**, " Parametric Optimization of Shielded Metal Arc Welding Processes by Using Factorial Design Approach ", International Journal of Scientific and Research Publications, Volume 4, Issue 9, September 2014, ISSN 2250-3153. Link: http://www.ijsrp.org/research-paper-0914.php?rp=P333180.
3. **Rajeev Ranjan** & Saurav Sarkar, "Vibration Analysis techniques for faults detection of multi-cracked rotor system. Journal of Material Science and Mechanical Engineering (2015) Volume 2, No. 1, pp. 29-33, Print ISSN:2393-9095;OnlineISSN:2393-9109. Link:https://www.krishisanskriti.org/vol_image/07Jul201504072910%20%20%20%20%20%20RAJEEV%20RA NJAN%20%20%20%20%20%20%20%20%20%20%20%20%2029-33.pdf.
4. **Rajeev Ranjan** & Saurav Sarkar, "Optimization of machine process parameters on material removal rate in EDM for AISI P20 tool steel material using RSM. *Journal of Material Science and Mechanical Engineering (*2015*)* Volume 2, No. 2, pp. 117-122, ISSN 1726- 5479. Print ISSN: 2393-9095; Online ISSN: 2393-9109.
5. **Rajeev Ranjan**, "Dynamic Behaviour and Crack Detection of a Multi Cracked Rotating Shaft using Adaptive Neuro-Fuzzy-Inference System. International Journal of Manufacturing, Materials, and Mechanical Engineering,Volume 6, Issue 4, October-December 2016, ISSN: 2156-1680, DOI: 10.4018/IJMMME.2016100101. **Link:** https://www.igi-global.com/article/dynamic-behaviour-and-crack-detection-of-a-multi-cracked-rotating-shaft-using-adaptive-neuro-fuzzy-inference-system/163302

Conference:

1. **Rajeev Ranjan**, AK Das, Research findings in surface modification by laser cladding technique: A review and Reflection, 1st International Conference on Materials and Manufacturing Engineering-2021 (ICMME-2021). HRM Institute of Technology and Management, Delhi, India, October- 2021.
2. **Rajeev Ranjan** & R P Singh**,** " A Study to Achieve Multi Response Optimal Conditions for Wire Electrical Discharge Machining through Genetic Algorithm", Proceedings of 6th International & 27th All India Manufacturing Technology, Design and Research Conference (AIMTDR-2016), Pune, Maharashtra, India.
3. **Rajeev Ranjan** & Saurav Sarkar, " Vibration Analysis techniques for faults detection of multi-cracked rotor system", International Conference on " Mechanical, Material, Industrial, Automotive, Aeronautical and Nano - Technology (MIANT), Jawaharlal Nehru University, New Delhi, 28th February and 1st March, 2015.

Books:

1. **Rajeev Ranjan**, "Cracks in the Rotor: Non-Destructive Testing for Cracks in the Rotor", *LAP LAMBERT Academic Publishing, Germany*, 2015, ISBN: 978-3-659-79975-4.
2. **Rajeev Ranjan**, "Savonius Wind Turbine: Application in the Highway Power Generation", *LAP LAMBERT Academic Publishing, Germany*, 2016, ISBN: 978-3-659-82335-0.
3. **Rajeev Ranjan**, " Optimization of Wire Electrical Discharge Machining: An Overview on Research Trends", *LAP LAMBERT Academic Publishing, Germany*, 2016, ISBN: 978-3-659-88968-4.
4. Arka Banerjee & **Rajeev Ranjan**, "Cyclic Plasticity in Superalloys: An Experimental Approach", *LAP LAMBERT Academic Publishing, Germany*, 2018, ISBN: 978-613-9-82109-9.
5. Arka Banerjee & **Rajeev Ranjan**, "Glass Fibre Reinforced Composite: Fabrication and Experimental Analysis of Mechanical Properties", *LAP LAMBERT Academic Publishing, Germany*, 2019, ISBN: 978-3659161339.
6. **Rajeev Ranjan** & Subhas Chandra Moi, "Parametric optimization of turning operation using taguchi method", *LAP LAMBERT Academic Publishing, Germany*, 2019, ISBN: 978-6200264176.

Book Chapter:

1. **Rajeev Ranjan**, "Dynamic Behaviour and Crack Detection of a Multi Cracked Rotating Shaft using Adaptive Neuro-Fuzzy-Inference System", (Fuzzy Systems: Concepts, Methodologies, Tools, and Applications), ISBN13: 9781522519089, DOI: 10.4018/978-1-5225-1908-9.ch062.

Link:https://www.igi-global.com/chapter/dynamic-behaviour-and-crack-detection-of-a-multi-cracked-rotating-shaft-using-adaptive-neuro-fuzzy-inference-system/178450.

Supervision of B.Tech Projects:

Name of the students(University Roll)	Name of the supervisor/s	Title of the Project / thesis	Year
Aakash Kumar(12000713001)	**Rajeev Ranjan**	Multi-response Optimization of Dry Turning Operations using Orthogonal Array with Grey Relational Approach	2017
Abhishek Kumar(12000713002)			
Abhishek Kumar(12000713003)			
Abhishek Laha(12000713004)			
Spandan Bhattacharyay(12000113106)			
Subhajit Patra(12000712231)			
Jitendra Prasad Mahto(12000715132)	Subhas Chandra Moi & **Rajeev Ranjan**	Multi Objective Optimization of Machining Parameters in Turning Operation of Stainless Steel 202 Using Taguchi Method with Grey Relational Analysis	2018
Kaustab Mondal(12000715133)			
Madhushree Pal(12000715134)			
Partha Sarathi Dey(12000715135)			
Pronoy Ghosh(12000715136)			
Punam Kumari(12000715137)			
Rahul Kumar Dubey(12000715138)			
Rajat Subhra Nayek(12000715139)			
Rajib Gorai(12000715140)			
Ravi Shankar Kr Mishra(12000715141)			
Sagar Kumar(12000715092)	Subhas Chandra Moi & **Rajeev Ranjan**	Optimization of Cutting Parameters in Turning Operation Using Taguchi Method	2019
Sahil Tabrez(12000715093)			
Sarvjeet Kumar(12000715095)			
Satyajeet Kumar Jha(12000715096)			
Saurav Kumar(12000715097)			
Saurav Kumar(12000715098)			
Shirsendu Ray(12000715099)			
Shivam(12000715100)			
Shubham Kumar(12000715101)			
Shubham Kumar(12000715102)			
Shubham Kumar(12000715103)			
Shubham Kumar(12000715104)			
Minhaz Khan(12000716107)	Subhas Chandra Moi & **Rajeev Ranjan**	Analysis of the Effect of Various Welding Parameters in TIG Welding of Aluminium Plate	2020
Md. Junaid Akhtar(12000716108)			
Md. Aamir Ahmed(12000716109)			
Mayank Kumar Mithu(12000716110)			
Manish Kumar(12000716111)			
Mahtab Alam(12000716112)			
Kumar Sourav(12000716113)			
Kr Saurabh Shandilya(12000716114)			
Keshav Kumar(12000716115)			
Karan Raj(12000716116)			
Jamini Mahato(12000716117)			
Hrishab Kumar Saha(12000716118)			
Haider Ansari(12000716119)			
Gouranga Charan Bera(12000716120)			
Dipayan Seal(12000716121)			
Dipanjan Maji(12000716122)			
Subham Singh(12000717039)	Subhas Chandra Moi & **Rajeev Ranjan**	Study the Effects of Welding Parameters of GMAW on Stainless Steel Cladding	2021
Somnath Banerjee(12000717048)			
Sharjeel Anwar(12000717057)			
Sawan Kumar Mishra(12000717060)			
Premjit Murmu(12000717074)			
Prasanjit Bid(12000717075)			
Prahalad Singh(12000717076)			
Nirad Prabhas(12000717081)			
Suraj Das(12000718004)			
Ritesh Kumar (12000718015)			
Nishant Kumar(12000718018)			
Arnab Chatterjee(12000718029)			
Arkaprova Mukherjee(12000718030)			

Participation in seminar/conference/symposium/workshop/discussion meeting

Program Name	Duration	Year	Organized by
National workshop on "Academia to industry: Challenges and Opportunities"	1 week	2020	KEC, Katihar
Online Seminar on "Advances in Manufacturing & Characterization Process"	1 week	2020	KEC, Katihar
Virtual Tribology Lab & Live Data	One day	2020	SIST, Chennai
Scope in Administrative Jobs After Engineering	One day	2020	NSHM Knowledge Campus, Durgapur
Learning Physics Through Simple Experiments	8 weeks	2020	IIT, Kanpur
Advanced Course on Special theory of Relativity	12 weeks	2020	IIT, Kanpur
Basics of Special Theory of Relativity	10 weeks	2019	IIT, Kanpur
Basics of Quantum Mechanics	10 weeks	2019	IIT, Kanpur
Physics of Semiconductors	12 weeks	2017	IIT, Kanpur
Learning Physics through Simple Experiments	8 weeks	2016	IIT, Kanpur
International Conference on "Mechanical, Mat erial, Industrial, Automot ive, Aeronautical and Nano-Technology"	2days	2015	Krishi Sanskriti Publication, New Delhi

Participation in faculty development programmes

Name of the FDP programmes	Duration	Year	Organized by
FDP on "Advancement in Mechanical Engineering (AME-2021)"	One week	2021	RKGIT, Ghaziabad
FDP on "Challenges and Opportunities with Industry 4.0 for Mechanical Engineering"	One week	2021	RGPV, Bhopal
Online STC on "Aspects of Modern Optimization Techniques in Science and Engineering"	One week	2020	NIT, Arunachal Pradesh
Online FDP on " Mechatronics, Automation & Robotics"	One week	2020	OP Jindal University
Online STTP on " Research Methodology "	One week	2020	MGR University, Chennai
FDP on "Product Development & Industrial Research"	One week	2020	GCE, Aurangabad
Online International FDP on "Importance of Mathematics in Science and Technology"	One week	2020	GMRIT, Rajam
FDP on "Moodle- An ICT based learning Management system (LMS) to Conquer the academic lock down"	One week	2020	BCREC, Durgapur
FDP on "Inculcating Universal Human Values in Technical Education"	One week	2020	AICTE, New Delhi
Moodle Learning Management System	One month	2020	IIT, Bombay
Contemporary Engineering Practices	One week	2015	HIT, Haldia
Bridging Gap between Academia & Industry	One week	2015	HIT, Haldia

Invited Lectures:

Topic	Name of the event	Organized by	Date
Weld cladding techniques to improve metal surface properties	Webinar	Dept. of Mechanical Engg., BCREC, Durgapur	16.01.2021

Participation in administrative committees (selected)

Name of the post: Departmental Co-ordinator, Training & Placement, 2018 to till now.

Project Ideas Submitted to Govt. Agencies/ On-going Projects / Research Ideas under preparation & execution

Membership of professional body: Member of International Association of Engineers (**IAENG**).