

Bio-Data



Prof. Raghvendra Kumar Mishra, Professor

Department of Mechanical Engineering, Shri Mata Vaishno Devi University, Katra (Jammu & Kashmir)

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Personal Profile

Father's name	Late Shri Vinod Kumar Mishra	Date of birth	11 th February 1972	Sex	Male
Nationality	Indian	Marital Status	Married		
Address	Type VI, A-13, Gautam Buddha University, Greater Noida, Gautam Buddha Nagar -201310 (U.P)				

Educational Qualifications

Ph.D. (2003-2007): Mechanical Engineering Department, Birla Institute of Technology, Mesra Ranchi (Jharkhand), Awarded on 18th March 2009

M. Tech (July1997-Jan1999): Mechanical Engineering Department, IIT Kharagpur (WB) INDIA, **FIRST CLASS**

B.E (1989-1993): Mechanical Engineering Department, Nagpur University (M.S) INDIA-**FIRST CLASS**.

M.E. Thesis:

Title: “Analysis of four bar mechanism using CAD package”.

Supervisor: Prof. (Dr.) C. S. Kumar, Mechanical Engineering Deptt, IIT Kharagpur

Ph.D. Thesis:

Title: “Analysis of Mechanical Behavior of Composites using Multiquadric Radial Basis Function”.

Supervisor: Prof. (Dr.), Ashok Misra, Mechanical Engineering Deptt, Birla Institute of Technology, Mesra Ranchi (Jharkhand), India

Academic Experience

Position held	Name of Organization	Period		Pay	Nature of work
		From	To		
Professor	Shri Mata Vaishno Devi University, Katra	1 st March 2020	Till Date	PB 14, AGP 10,000	Teaching, Research, lab development, guiding various B. Tech and M. Tech thesis, coordinate M. Tech Programme and admn. Work

Associate Professor	Shri Mata Vaishno Devi University, Katra	1 st March 2017	28 th February 2020	Associate Professor, (37400-67000) AGP 9000/-	Teaching, Research, lab development, guiding various B. Tech and M. Tech thesis, coordinate M. Tech Programme and admn. Work
Assistant Professor	Gautam Buddha University, Gautam Buddha Nagar (U.P)	7 th December 2010	28 th February 2017	Assistant Professor, (15600-39100) AGP 8000/- Basic 37400/-	Teaching, Research, lab development, guiding various M. Tech thesis, coordinate M. Tech Programme and admn. Work
Professor	KIIT University, Bhubaneswar (Orissa)	2 nd June 2009	1 st December 2010	Professor (37400-67000 + 10000(AGP))	Teaching, Research, guiding B. Tech & M. Tech M. Tech thesis, coordinate M. Tech Programme
Reader	Birla Institute of Technology, Mesra, Ranchi	18th March 2009	28th May 2009	Reader (12000-18300)	Teaching, Research, guiding B. Tech & M. Tech M. Tech thesis,
Lecturer	Birla Institute of Technology, Mesra, Ranchi	11 th July 2003	18th March 2009	Lecturer (8000-13500)	Teaching & Teaching, Research
Lecturer	BITS, Pilani, Rajasthan	7 th April 1999	7 th September 2001	Lecturer (8000-13500)	Teaching & Teaching, Research

Industrial Experience

Position Held	Name of Organization	Period	
		From	To
Production Engineer	Roto Pumps Ltd. Kanpur	July 1993	June 1997

Research Experience

- July 1998 – Jan 1998, I.I.T. Kharagpur, “Analysis of four bar mechanism using CAD package”.
- October 2001-June 2003 I. I. T, Delhi and University of Kaiserslautern, Germany, “Homogenization of composite materials”.
- July 2003 - May 2009 BIT, Mesra, Ranchi, Meshless Multiquadric radial basis function method for analysis of composite plates and laminates.

Editor in Chief

- Material Science, Engineering and Applications Journal (publishes original research articles on the latest developments in materials science and engineering) *Published by JVE International*

Workshop/ Conference/Seminar/FDP Participated

- ANSYS India Advanced workshop was held “between 29th November-2nd December 2005”, in Bangalore.
- Workshop on personality development organized by Qualified Learning Systems Co. Inc., (USA) by SHIV KHERA held “29th to 31st Aug, 2006” in Ranchi.
- Seminar on “Finite Element Analysis-Application and trends” was held 1st –2nd June 2006 in IIT Kharagpur.

- Workshop on “Effective Teaching” organized by the Birla Institute of Technology, Mesra, Ranchi from 25-08-08 to 29-08-08.
- FEA Training Workshop organized by Altair Engg Pvt. Ltd. and School of Mechanical & Production Engineering, KIIT University, held 17 -18 July 2009.
- National Seminar on Industry Institute Interface organized by KIIT University was held 13th December 2009.
- 3rd International Conference on Materials Processing and Characterization was held 8th – 9th March 2014 in Gokaraju Rangaraju Institute of Engineering and Technology (GRIET), Hyderabad (AP).
- Two-day workshop on “Introduction to Robotics” conducted on 27th and 28th October, 2017 held at Bhargava College of Engineering and Technology, Samba.
- TEQIP-III sponsored Workshop on NBA Accreditation organized by The Institution of Engineers (India) from 08-10 December 2017.
- TEQIP-III sponsored Professional Development Training organized by IIM Raipur from January 29-February 02, 2018.
- Faculty Development Program on “Sustainable Design and Manufacturing” which was held on 12th Feb 2018-16th Feb 2018 in School of Mechanical Engineering, Shri Mata Vaishno Devi University.
- Faculty Development Program on “Best Manufacturing Practices in Industries” which was held on 17th Dec.2018-21st Dec.2018 in School of Mechanical Engineering, Shri Mata Vaishno Devi University.
- National workshop on Advances in Clean Energy Conversion Technologies and Materials for Energy Storage Application organized by School of Mechanical Engineering, Shri Mata Vaishno Devi University Katra and Jawaharlal Nehru Technological University Hyderabad, sponsored by Department of Science and Technologies, Science and Engineering Research Board (SERB) and TEQIP-III on 24th and 25th January 2019.
- One week workshop on “Professional Ethics & Human Value-A Gandhian Perspective” organized by Faculty Development Centre in Shri Mata Vaishno Devi University, Katra on 11th -15th March 2019.
- Faculty Development Program on “Universal Human Value” from 21st June- 25th June 2021.

Short term course

- Short term course on design and development of Advance materials was held 23rd ---- 27th March 2009 in Birla Institute of Technology, Mesra, Ranchi.
- One week Training on Ultrasonic Testing Level-II organized by MSME-Technology Development Centre, Agra was held on 13/12/2017 to 17/12/2017 in School of Mechanical Engineering, SMVDU, Katra, Jammu & Kashmir State.
- AICTE Recognized Short Term Course on “Nanotechnology: Development and Challenges” Conducted by Applied Science Department from 27/05/2019 to 31/05/2019 (One Week) at NITTTR, Chandigarh.
- One week workshop on “Professional Ethics & Human Values-A Gandhi Perspective” was held 11th March-15th March 2019 in SMVDU, Katra, Jammu & Kashmir State.

Student activity Participation

- EFFI CYCLE-2013, SAE India, Northern Section was held 5th – 6th July 2013 in Jamia Millia Islamia University, New Delhi.
- Virtual Round of Eco-Kart 2014 was held in October 11, 2013 in Gautam Buddha University.
- EFFI CYCLE-2015, SAE India, Northern Section was held 4th – 5th July 2015 in KIET, Ghaziabad.
- SAE-Baja-2018, SAE India, Northern Section was held 7th-11th March 2018, IIT Ropar, Punjab.
- Faculty Convener, Titiksha Annual Technical Fest-2023 organized on 20th and 21st May,2023 at Shri Mata Vaishno Devi University.

Workshop/ Conference/Seminar Organized

- National Conference on “Innovative Trends in Mechanical Engineering -2017” in Department of Mechanical Engineering, Shri Mata Vaishno Devi University, Katra 3-4 March, 2017.
- National Seminar on Mechanical Engineering- Research opportunities and Challenges organized by Department of Mechanical Engineering; Shri Mata Vaishno Devi University was held 8th April 2017.
- Member of the organizing team of Faculty Development Program on “Best Manufacturing Practices in Industries” which was held on 17th Dec.2018-21st Dec.2018 in School of Mechanical Engineering, Shri Mata Vaishno Devi University.
- Member of the INDO-U.S. Science and Technology Forum (IUSSTF) on “Next Generation Logistics Supply Chain & CEO Workshop which was held on 5th August, 2019 to 10th August 2019 in Shri Mata Vaishno Devi University.

Sponsored Workshop/ Conference/Seminar/Refresher Program/Faculty Development Program/Short term Program

- TEQIP Workshop on Automobile Engineering Systems. Birla Institute of Technology, Mesra, Ranchi. Department of Mechanical Engineering. September 6-11, 2006 with the financial support **Rs.30,000/-**.
- TEQIP Workshop cum Training Programme on Automobile Engineering Systems (Under Service to Community). Birla Institute of Technology, Mesra, Ranchi. Department of Mechanical Engineering. June 4-6, 2007 with the financial support **Rs.30,000/-**.
- 2nd National Conference on Innovative Trends in Mechanical Engineering NCITME-2018 Sponsored by TEQIP-III and Organized by School of Mechanical Engineering, Shri Mata Vaishno Devi University, Katra, 23rd– 24th March- 2018 with the financial support **Rs.2,50,000/-**
- One Week Online AICTE-ISTE sponsored Induction/Refresher program on “Sustainable Product Design and Manufacturing (Phase I)” held online during March 18-24, 2021 with the financial support **Rs.93,000.00**
- One Week Online AICE- sponsored Induction/Refresher program on “Sustainable Product Design and Manufacturing (Phase II)” organized by School of Mechanical Engineering, Shri Mata Vaishno Devi University, Katra, held online during April 15-21, 2021 with the financial support **Rs.93,000.00**
- One Week Online AICTE-ISTE sponsored Induction/Refresher program on “Sustainable Product Design and Manufacturing (Phase III)” held online during May 21-27, 2021 with the financial support **Rs.93,000.00**
- One Week Online Faculty Development Program Organized by Faculty Development Centre (FDC)-SMVDU under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching of MOE, GOI, Shri Mata Vaishno Devi University, Katra, Jammu in Collaboration with School of Mechanical Engineering on “Sustainable Product Design and Manufacturing” held January 10-14, 2022 with the financial support **Rs.23,500/-**
- One day Workshop on "Celebration of Engineers Day 2023" organized by Dr. R. K. Mishra as a coordinator. The Financial assistance of Rs. 17,200/- (Rupees Seventeen Thousand Two Hundred only) for the said event from university funds and release of an advance amount of Rs. 12,200/- (Rupees Twelve Thousand Two Hundred only) in favour of Dr. R. K Mishra, Associate Professor, SoME.
- One Week Online Faculty Development Program Organized by Faculty Development Centre (FDC)-SMVDU under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching of MOE, GOI, Shri Mata Vaishno Devi University, Katra, Jammu in Collaboration with School of Mechanical Engineering on “Green Manufacturing” held on 4-8 March 2024 with the financial support **Rs.23,500/-**.
- One-week Online Short-Term programme Organized by Faculty Development Centre (FDC)-SMVDU under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching of MOE, GOI, Shri Mata Vaishno Devi University, Katra, Jammu in Collaboration with School of Mechanical Engineering on “Sustainable Product Design and Manufacturing” held on 22-27 July, 2024 with the financial support **Rs. 1,20,000/-**

Short Term Course Organized without sponsored

- Short Term Course on “Design and Analysis of Engineering Experiments” in School of Engineering, Gautam Buddha University, held 4– 8 July, 2011.

Session Chair in Conference

- National Conference on “Innovative Trends in Mechanical Engineering -2017” in Department of Mechanical Engineering, Shri Mata Vaishno Devi University, Katra, 3-4 March, 2017.
- 4th International Conference on Recent Trends and Advancements in Engineering and Technology (ICRTAET-2017) in Shri Mata Vaishno Devi University, Katra, 3-4 November, 2017.
- 5th International Conference on Recent Trends and Advancements in Engineering and Technology (ICRTAET-2018) in Shri Mata Vaishno Devi University, Katra, 25th ---- 26th October, 2018.
- TEQIP-III sponsored International Conference on Mechanical Engineering and Allied Sciences (ICMEAS-2018) in Shri Mata Vaishno Devi University, Katra, 14-15 September, 2018.
- 2nd International Conference on Computational & Experimental Methods in Mechanical Engineering (ICCEMME-2019) was held at Department of Mechanical Engineering, GLBITM Greater Noida on 3rd – 5th May, 2019.
- 6th International Conference on Recent Trends and Advancements in Engineering and Technology was held at Department of Mechanical Engineering, Shri Mata Vaishno Devi University, Katra, 17-18 January, 2020.
- Session Chair in the 2nd International Conference on Signals, Machines & Automation (SIGMA) 2022, held from 5th to 6th August 2022, at Netaji Subhas University of Technology, New Delhi, India.

Chairman

- TEQIP-III sponsored International Conference on Mechanical Engineering and Allied Sciences (ICMEAS-2018) in Shri Mata Vaishno Devi University, Katra, 14-15 September, 2018.
- TEQIP-III sponsored Faculty Development Program on “Best Manufacturing Practices in Industries” which was held on 17th Dec.2018-21st Dec.2018 in School of Mechanical Engineering, Shri Mata Vaishno Devi University.
- National workshop on Advances in Clean Energy Conversion Technologies and Materials for Energy Storage Application organized by School of Mechanical Engineering, Shri Mata Vaishno Devi University Katra and Jawaharlal Nehru Technological University Hyderabad, sponsored by Department of Science and Technologies, Science and Engineering Research Board (SERB) and TEQIP-III on 24th and 25th January 2019.
- TEQIP-III sponsored National Workshop on “3D Printing for New Product Development” on 13th September 2019 organized by School of Mechanical Engineering, Shri Mata Vaishno Devi University Katra.
- Chairman of the discipline committee and committee to provide student volunteers in 9th convocation of SMVDU.
- Chairman of the committee for collection of application fee and application forms in 9th convocation of SMVDU.
- Nomination as the Chairman of the Viva Voce Examination Committee, of Mr. Arun Bali, Ph.D. student of Mathematics (Entry No. 19DMT004) under the supervision of Dr. Uday Pratap Singh, Associate Professor, School of Mathematics, SMVD University (presently on EoL) is scheduled to be held on Friday, 15th December 2023 at 12.00 Noon in the Administrative Block Committee Room, SMVDU.

Convener

- 2nd National Conference on Innovative Trends in Mechanical Engineering NCITME-2018 Sponsored by TEQIP-III and Organized by School of Mechanical Engineering, Shri Mata Vaishno Devi University, Katra, 23rd– 24th March- 2018.

Organizing Secretary

- National workshop titled “Advances in clean energy conversion technologies & materials for energy storage applications” during 24th – 25th Jan. 2019 at SoME.

Nodal Officer

- Nodal officer of the Indian society for technical education (ISTE) chapter in Shri Mata Vaishno Devi University, Katra.

Visit with students

- Appointment of Dr. Raghvendra Kumar Mishra, Associate Professor, School of Mechanical Engineering as a “Faculty Mentor” for smooth conduct of college on wheels: JK Gyanodaya Express (CoWJKGE).

Sanctioned Induction/Refresher Program

- One-week AICTE-ISTE Induction/Refresher Programmes titled “**Sustainable Product Design and Manufacturing.**” The total sanction budget is Rs.3,00,000/- for 40 participants (budget should not exceed to Rs.3,00,000/- under any circumstances)
- One Week Online Faculty Development Program Organized by Faculty Development Centre (FDC)- SMVDU under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching of MOE, GOI, Shri Mata Vaishno Devi University, Katra, Jammu in Collaboration with School of Mechanical Engineering on “Sustainable Product Design and Manufacturing” held January 10-14, 2022 with the financial support Rs.23,500/-

MOOC Courses Development

- Developing MOOCS for UG/PG subjects in the curriculum.

MOOC Courses

S. No.	Date of training	Course title	University / Institute	Outcomes	Implications
1.	2020	Equipment Design: Mechanical Aspects	IIT Roorkee, NPTEL	89% completed, understand to design the pressure and chemical vessel design	For teaching UG /PG courses
2.	2021	Accreditation and Outcome Based Learning	IIT Kharagpur, NPTEL	Elite	For NBA
3.	2023	Protecting the World: Introducing Corrosion Science and Engineering	University of Manchester	99.65%	Information about corrosion in materials, chemical and oil industry

Books

National

S. No.	TITLE with ISBN Number	Publisher	Year of Publication	Remarks (Whether authored or edited)
1.	Proceedings of the 2 nd National Conference on Innovative Trends in Mechanical Engineering NCITME-2018 ISBN: 978-93-86240-24-8	GUTENBERG	March 23-24, 2018	edited

Book chapter

Sr. No.	Author Name	Title of Book with ISBN/ISSN Number	Title of the Book Chapter	Publisher	Year of Publication
International					

1.	Apoorv Rathi, Joy Banerjee, Anurag Dixit, R. K. Misra, H. S. Mali	Lecture Notes in Mechanical Engineering, ISSN 2195-4356 ISSN 2195-4364 (electronic), ISBN 978-981-10-5848-6 ISBN 978-981-10-5849-3 (eBook) https://doi.org/10.1007/978-981-10-5849-3	Evaluation of Vibration of a Crankshaft and a Driveshaft Using FEM	Springer	2016
2.	Pawandeep Singh, R. K. Mishra, Balbir Singh, and Vivudh Gupta	Tribology and Sustainability (2021), pp. 65-71 ISBN 9780367551469 Published August 27, 2021 by CRC Press	Tribological Properties of Green Hybrid Metal Matrix Composites Reinforced with Synthetic and Industrial–Agricultural Wastes	CRC	2021
3.	Vivudh Gupta, Balbir Singh, R. K. Mishra, and Pawandeep Singh	Tribology and Sustainability pp. 323-332 ISBN 9780367551469 Published August 27, 2021 by CRC Press	Tribological Studies on Titanium Alloys for Biomedical Applications	CRC	2021

National

1	Dixit S., Mishra R.K., Ganguli B.	(eds) Advances in Micro and Nano Manufacturing and Surface Engineering. Lecture Notes on Multidisciplinary Industrial Engineering. Springer, Singapore	Numerical and Experimental Analysis of Plasma Nitrided XM-19 Stainless Steel. In: Shunmugam M., Kanthababu M.	Springer,	2019
2.	Vivudh Gupta, Balbir Singh, R. K. Mishra	Advance materials and manufacturing, ISBN: 978-93-89988-70-3	A critical assessment of electric discharge machining process: variants and hybrid approaches	Evince pub	2020

Patent/Copyright Filed/Case Study Filed or Accepted [Please Specify, with documentary proof]

1. Name of Inventor (Main Contact Person): Pawandeep Singh and R. K. Mishra

Title of the Innovation: “Reinforced Aluminium Matrix Composites and Method of Preparation Thereof”.

Application No: 202011052574.

Paper Publications (Journals /Conferences)

Journals

1. R.K. Misra, K. Sandeep, Ashok Misra, *Analysis of Anisotropic Plate Using Multiquadric Radial Basis Function*, International Journal of Engineering Analysis with boundary Elements, 31(1), (2007), 28-34.

2. Sandeep Kumar, R. K. Misra, *Analysis of Banana Fibers Reinforced Low-density polyethylene/poly (ϵ -caprolactone) Composites*, International Journal of soft materials, 4, (2007), 1-13.
3. R. K. Misra, Ashok, Misra, K. Sandeep, *Analysis of Cross-ply Laminate using Multiquadric Radial Basis Function*, International Journal of Computational Methods in Engineering Science and Mechanics, 8, (2007), 1-10.
4. Raghvendra Kumar Misra, Sandeep Kumar, Kumar Sandeep and Ashok Misra, *Dynamic Analysis of Banana Fibers Reinforced High-density Polyethylene/ Poly (ϵ -caprolactone) Composites*, Journal of Mechanics of Materials and Structures, 3 (2008), 107-126.
5. R. K. Misra, Sandeep Kumar, K. Sandeep, Ashok Misra, *Some Experimental and Theoretical Investigations on fire retardant coir/epoxy micro-composites*, Journal of Thermoplastic Composite Materials, 21 (2008), 71-101.
6. R. K. Misra, Chandan Datta, *Mechanical behavior of unidirectional glass fibers reinforced Resol/VAC-EHA Composites at different volume fraction of fibers*. International Journal of soft materials, 6 (2008), 99-118.
7. R. K. Misra, Chandan Datta, *Mechanical Behavior of Polyethylene Fibers Reinforced Resol/VAC-EHA*, Journal of Macromolecular Science, Part A: Pure and Applied Chemistry, 46 (2009) 425-437.
8. R. K. Misra, Sandeep Kumar, *Static and dynamic mechanical analysis of chemically modified randomly distributed short banana fiber reinforced high-density Polyethylene/ Poly (ϵ -caprolactone) Composites*, Journal of Polymer Engineering. 29 (2009), 213-247.
9. R.K. Misra and Chandan Datta, *Analysis of jute fiber reinforced Epoxy/VAC-EHA/HMMM IPN composite plate*, Composites: Mechanics, Computations, Applications, An International Journal, 1(4), (2010), 353-360.
10. R.K. Misra, Sudhir Kumar Saw, Chandan Datta, *The influence of fiber treatment on the mechanical behavior of jute-coir reinforced epoxy resin hybrid composite plate*, Mechanics of Advanced Materials and Structures, 18(6), (2011), 431-445.
11. R.K. Misra, P. C. Mishra, Sandeep Kumar, *Analysis of short banana fiber reinforced HDPE/Poly (ϵ -caprolactone) skew composite plate using multi quadric radial basis function method*, Composites: Mechanics, Computations, Applications, An International Journal, 2(3), (2011), 195-221.
12. R. K. Mishra and N.V. Rachchh, *Mechanical performance of coir fiber reinforced polyester composite*, International Journal of Advanced Materials Science, 1(1), (2011), 19-28.
13. N.V. Rachchh, R.K. Misra, P.K. Das, *Uses of Red Mud in Built Environment – An Indian Perspective*, International Journal of Business and Engineering Research, (4), (2011), 1-6.
14. R.K. Misra and N.V. Rachchh, *Comparative Analysis of Mechanical Behavior of Chemically Treated & Untreated Coir Fibers at Different Percentage of Coir Fibers*, International Journal of Applied Engineering Research, 6(4), (2011), 433-443.
15. R.K. Misra, *Mechanical behavior of short banana fiber reinforced epoxy composites using meshless multiquadric radial basis function method*, International Journal of Mathematical Modeling, Simulation and Applications, 5(2), (2012), 150-172.
16. N. V. Rachchh & R. K. Misra, *Failure Analysis of Rollers of Bloom Withdrawal Stand in Continuous Casting Machines at Visakhapatnam Steel Plant*, International Journal of Management, IT and Engineering, 2(8), (2012), 82-102.
17. R. K. Misra, *Static and Dynamic analysis of rectangular isotropic plate using multiquadric radial basis function*, International Journal of Management, IT and Engineering, 2(8), (2012), 166-178.
18. R.K. Mishra, *Free vibration analysis of isotropic plate using multiquadric radial basis function*, International Journal of Science, Environment and Technology, 1(2), (2012), 99 – 107.
19. R.K. Mishra, *Vibration analysis of glass fiber reinforced composites*, International Journal of Computational Engineering Research, 2(3), (2012), 776-789.
20. R. K. Mishra, *Determine the Fatigue behavior of engine damper caps screw bolt*, International Journal of Computational Engineering Research, 2 (4), (2012), 981-990.
21. Ajay Kumar Maurya, Yogesh K. Chauhan, R. K. Mishra, Twinkle, *Fuel Cell Integrated with Five Level VSI for Industrial Pump Applications*, International Journal of Renewable Energy Research 3(2), (2013) 388-394.

22. Biren J. Saradava, Nikunj V. Rachchh, R. K. Misra, D. G. Roychowdhary, *Mechanical Characterization of Coir Fiber Reinforced Polymer Composite using Red Mud as Filler*, Journal of Information, Knowledge, and Research in Mechanical Engineering, 2(2), (2013), 472- 476.
23. Anurag Dixit, Harlal Singh Mali, R.K. Misra, *Unit cell model of woven fabric textile composite for multiscale analysis*, Procedia Engineering 68 (2013) 352 – 358.
24. R. K. Misra, and P. C. Mishra, *Utilization of waste coal dust of steel industry for power generation*, Int. J. Environment and Waste Management, 13(1), (2014) 50-66.
25. R. K. Misra and N. V. Rachchh, *Mechanical characterization and analysis of randomly distributed short banana fiber reinforced epoxy composites*, Iranian Journal of Materials Science & Engineering, 11(1), March 2014, 1-16.
26. Mayank Nirbhay, R. K. Misra, Anurag Dixit, *Finite element analysis of jute-coir fiber reinforced hybrid composite multi-panel plates*, Mechanics of Composite Materials, 51(4), September, (2015), 505-520.
27. R.K.Misra, Anurag Dixit, Harlal Singh Mali, *Finite Element (FE) Shear Modeling of Woven Fabric Textile Composite*, Procedia Materials Science 6, (2014), 1344-1350.
28. Anurag Dixit, R.K.Misra, Harlal Singh Mali, *Finite element compression modeling of 2x2 twill woven fabric textile composite*, Procedia Materials Science 6, (2014), 1143-1149.
29. N.V. Rachchh, P.S. Ujeniya and R. K. Misra, *Mechanical characterization of rattan fiber polyester composite*, Procedia Materials Science 6, (2014), 1396-1404.
30. Mayank Nirbhay, Anurag Dixit, R.K. Misra, Harlal Singh Mali, *Tensile test simulation of CFRP test specimen using finite elements*, Procedia Materials Science, 5, (2014), 267-273.
31. Anurag Dixit, Harlal Singh Mali, R. K. Mishra, *A Micromechanical Unit Cell Model of 2×2 Twill Woven Fabric Textile Composite for Multi Scale Analysis*, Journal of the Institution of Engineers (India): Series E, Springer, 95(1), April 2014, 1-9.
32. R. K. Misra and Sushil Kumar, *Multiquadric Radial Basis Function Method for Boundary Value and Free Vibration Problems*, Indian Journal of Industrial and Applied Mathematics, Taylor and Francis 4(2), 2013, 138-141.
33. Neeraj Kumar Sharma, R. K. Misra and Satpal Sharma, *Thermal expansion behavior of Ni-Al₂O₃ composites with particulate and interpenetrating phase structures: An analysis using finite element method*, Computational Materials Science, 90, July 2014, 130–136.
34. Shashi Prakash Dwivedi, Satpal Sharma, Raghvendra Kumar Mishra, *A356 Aluminum Alloy and applications- A Review*, Advance Materials Manufacturing & Characterization, 4(2), 2014, 81-86. Doi: <http://dx.doi.org/10.11127/ijammc.2014.08.01>
35. Anurag Dixit, R. K. Misra, Harlal Singh Mali, *Compression modeling of plain weave textile fabric using finite elements (Druckmodellierung von flächigen Textilgewebestrukturen mit Finiten Elementen)*, Mat. Wiss. U. Werkstofftech. 45(7), 2014, 600-610.
36. R.K. Misra and Sushil Kumar, *Analysis of fourth order partial differential equations using multiquadric radial basis function*, Mathematical Forum, 26, 2014.
37. Anurag Dixit, Harlal Singh Mali, R.K. Misra, *Investigation of the thermo mechanical behavior of a 2 × 2 twill weave fabric advanced textile composite*, Mechanics of Composite Materials, 51(2), 2015, 253-264.
38. Shashi Prakash Dwivedi, Satpal Sharma, Raghvendra Kumar Mishra, *Electromagnetic Stir Casting and its Process Parameters for the Fabrication and Refined the Grain Structure of Metal Matrix Composites– A Review*, International Journal of Advance Research and Innovation, 2(3), 2014, 639-649.
39. Mayank Nirbhay, Sagar Juneja, Anurag Dixit, R.K. Misra, Satpal Sharma, *Finite Element Analysis of All Composite CNG Cylinders*, Procedia Materials Science, (10), 2015, 507 – 512.
40. Srishti Mishra, Ajay Kumar, R K Mishra, Shristi Sharma, Sashwat Singh, *Structural health monitoring and Propagation of lamb waves to identification of crack*, Materials Today: Proceedings, 2(4-5), 2015, 1833-1840.
41. Nitin Jauhari, Raghvendra Mishra, Harishchandra Thakur, *Natural Fiber Reinforced Composite Laminates- A Review*, Materials Today: Proceedings, 2(4-5), 2015, 2868-2877.

42. Ajay Kumar, Pradeep Kumar, Srishti Mishra, R K Mishra, Tushar Srivastav, Sachin Mishra, Rajeev Kumar, *Experimental process of tungsten inert gas welding of a stainless-steel plate*, Materials Today: Proceedings, 2(4-5), 2015,3260-3267.
43. Akash Chaudhary Raghuvanshi, Tushar Srivastav, Raghvendra Kumar Mishra, *Design and Development of Foldable Kart Chassis*, Materials Today: Proceedings, 2(4-5), 2015,1707-1713.
44. Arjit Kumar Saxena, Raghvendra Kumar Misra, Anurag Dixit, *Numerical Analysis of Hip Joint Implant*, Materials Today: Proceedings, 2(4-5), 2015,1649-1656.
45. Nikunj V Rachchh, R.K. Misra, D.G. Roy Chowdhary, B.J. Saradava, *Effect of Red Mud Filler on Mechanical and Buckling Characteristics of Coir Fiber Reinforced Polymer Composites*, Iranian Polymer Journal, 24(3), 2015,253-265.
46. Satpal Sharma, R.K. Pandey, R.K. Mishra, Anurag Dixit, *Wear resistance study of thermal sprayed coating*, Powder Metallurgy and Metal Ceramics, Springer 54(11),2016,672-678.
47. R.K. Misra, *Analysis of the jute/glass fiber reinforced hybrid composites using combined radial basis function method*, Polymer Composites, Wiley, 38(9),2017, 1890–1901.
48. A. Dixit, R. K. Misra, H. S. Mali, *Finite element analysis of quasi-static indentation of woven fabric textile composites using different nose shape indenters*, Mat. -wiss. U. Werkstofftech, 46(9), 2015, 1-15.
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1. R. K. Mishra, *Application of Multiquadric radial basis function to structure analysis problems*, National Seminar on Achieving Technological Excellence in the New Millennium, Organized by Department of Mechanical engineering, Birla Institute of Technology, Mesra, Ranchi, January 23-24, 2007.

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Area of Interests and Research:

Specialization of the research areas are following:

- a. Composite Plates and Laminates
- b. Natural fibers and glass fibers reinforced composites
- c. Meshless methods (Multiquadric Radial Basis Function)
- d. Hybrid radial basis function
- e. Bio-diesel

Theses and Projects Supervising/supervised
PhD Thesis

Sr. No.	Name of the student	Year		Title of Thesis	Supervisor/ Co-Supervisor	Proof
		Registration date	Completed			
1.	Anurag Dixit Registration Number: Ph.D./ENGG/119	2011	15-07-2015 (awarded)	Experimental and Numerical Investigation on the Mechanical Behavior of Woven Fabric Carbon/Epoxy Composites	Supervisor	Yes
2.	Nikunj. V. Raccha Registration Number: ME1101	16.02.2011	07-08-2017 (awarded)	Experimental and Numerical Investigations of Red Mud Filled Polyester Composites	Co-supervisor	Yes
3.	Shashi Prakash Dwivedi Registration Number: 13/PhD/Engg/022	21.03.2015	01-09-2017 (awarded)	Synthesis and Characterization of Hybrid Metal Matrix Composites Reinforced with Eggshells and SIC for Enhanced Tribo-Mechanical Properties	Co-supervisor	Yes
4.	Neeraj Sharma Registration Number: 13/PhD/ENGG./018	21.03.2015	06-11-2017 (awarded)	Synthesis and characterization of Boron Carbide Reinforced MMC by FEA	Co-supervisor	Yes
5.	Bhanumati Panda Registration Number: 2011/VSAS/MAW 05	26.07.2013	22-02-2018 (awarded)	Dispersion in Curved Channel Flow using Multiquadric Radial Basis Function Method	Co-supervisor	Yes
6.	Nitin Johri Registration Number: 11/Ph. D/Engg./121	20.03.2015	15-03-2019 (awarded)	Synthesis and Characterization of Jute-Chicken Fiber Reinforced Polymeric Hybrid Composites	Co-supervisor	Yes
7.	Suraj Kumar Singh Roll No. 16PHDME010	11/11/2016	18/12/2023 (awarded)	Processing and characterization of plant Nano Fibers Reinforced Polymer composites	Co-supervisor	Yes
8.	Pawandeep Singh Registration Number: 17DME002	10/08/2018	21-06-22 (awarded)	Mechanical and Tribological Characterization of Eggshell Ash/B4C and Bone Ash/B4C Particulates Reinforced ZA-27 Composites	Supervisor	Yes
9.	Vivudh Gupta Registration	10/08/2018	7-10-2022 (awarded)	Characterization and Machinability Study of	Co-supervisor	Yes

	Number: 17DME001			Eggshell and Rice Husk Ash reinforced Composites AA7075		
10.	Pankaj Kumar (23DME001)	13/09/2023	-----	-----	Co-supervisor	Yes

Master's Theses

Sr.	Name of the student	Date and Year	Title of Thesis
1.	V.Vital.Rao (IE/Mech/24/2005)	5/5/2006	Failure analysis of continuous casting bloom withdrawal rollers (A case study of the Visakhapatnam steel plant)
2.	B. Balamurugan (IE/Mech/1022/06)	28/11/2007	Utilization of waste coal dust of steel industry for power generation
3.	K.C. Dudeja (IE/ME/1021/07)	8/5/2009	Determine the fatigue strength of engine damper caps screw bolt and observe the stress concentration due to various notches on a round bar
4.	J.C. Tak (IE/ME/1002/08)	15/5/ 2009	Predict the mechanical and thermal behavior of HE Ammunition shell at different loading conditions using finite element method
5.	Sunil Kumar (12/PIE/004)	22/5/2014	Application of Six Sigma Methodology in Private Engineering Colleges In NCR (India)
6.	Upendra Pratap Singh (12/PIE/003)	22/5/2014	Improvement of the quality using \bar{X} , R and U control charts in automobile industry
7.	Aanchal Yadav (10/IME/001)	21/5/2015	Computational Investigation of Effect of Vortex Generator on Hatchback Type Car and Varying Nose Shape on Bullet Trains
8.	Himant Sirohi (10/IME/022)	22/5/2015	Optimization of Wire Electric Discharge Machining Process using Response Surface Methodology on D-3 HCHCr Die Steel
9.	Gagneet Khurana (10/IME/020)	23/5/2015	Contact Stress Analysis, Life Determination and Optimum Design of Ball Bearings
10.	Vivek Kumar Gupta (10/IME/059)	23/5/2015	Experimental Investigation of Mechanical Properties of Glass-Bagasse Reinforced Epoxy Composite
11.	Pooja Rawal (10/IME/067)	21/5/2015	Analysis of Aerodynamics structure using Computational Fluid Dynamics
12.	Adarsh Kumar (10/IME/005)	22/5/2015	Failure Modes and Effect Analysis of Four-Wheeler Fuel Level Sensor Assembly Using Extended Vikor Methodology
13.	Kiran Ahirwar (10/IME/026)	20/5/2015	SCM Functioning of Retailing and the Behaviour of Consumer Towards the Private Label
14.	Arjit Kumar Saxena (10/IME/063)	23/5/2015	Experimental Studies of Glass Fibre Reinforced and Human Hair-Glass Fibre Reinforced Epoxy Resin Hybrid Composite
15.	Prashant Tripathi (10/IME/040)	23/5/2015	Development and Characterization of Low-Cost Jute Glass Fiber Based Hybrid Epoxy Composites
16.	Aditi Chauhan (13/PIE/001)	20/5/2015	Quality Improvement of a Manufacturing Process Using Six Sigma
17.	Sumit Bhati (10/IME/055)	19/5/2015	Vibration Analysis of Rolling Elements Bearing Defects
18.	Pradeep Kumar (10/IME/037)	21/5/2015	A Bio-Inspired Precision Air-Drop system
19.	Shivam Gupta (10/IME/050)	20/5/2015	Implementation of Weibull Distribution in Defect Data Analysis

20.	Manish Tomar (10/IME/029)	22/5/2015	Validation and Effectiveness of a Four-Wheel Steering in Comparison with Two Wheel Steering of Car using MSC's Adams Software
21.	Apoorv Rathi (11/IME/025)	1/6/2016	Studies on shear properties of cortical bone using finite element simulation of iosipescu test
22.	Abhijeet Lamoria (11/IME/003)	1/6/2016	Design, development, and slurry erosion analysis of particulate filled aluminium alloy composites
23.	Sarthak Kanungo (11/IME/047)	12/5/2016	Analysis of flow separation in annular diffuser and its application as an under body to study the aerodynamics of a simplified car model
24.	Ranjan Chaturvedi (11/IME/084)	5/6/2016	Synthesis, development, and characterization of composite from a hybrid geopolymer-epoxy resin and bamboo sawdust
25.	Shristi Sharma (11/IME/101)	1/6/2016	Development of chitosan based anti-microbial leather with enhanced mechanical properties
26.	Ranu Swaroop (11/IME/085)	1/6/2016	Mechanical characterizations of jute fabric and human hair reinforced hybrid epoxy composites
27.	Deepak Kumar (11/IME/037)	1/6/2016	Study of mechanical and microstructure properties of water-soluble flux and flux cored wire on aluminium brazing joints
28.	Pradeep Kumar (11/IME/075)	5/6/2016	Enhancement of aerodynamic efficiency of truck-trailer
29.	Rajnish kumar (11/IME/083)	5/6/2016	Study of mechanical, morphological and dynamic mechanical properties of kenaf epoxy composites
30.	Sachin Sharma (11/IME/030)	5/6/2016	Design and optimization of reconfigurable manufacturing system
31.	Vishnu Raj (11/IME/118)	10/6/2016	Optimization of mechanical behaviour of hybrid joints of stainless steel 304
32.	Srijan Pratap Singh (11/IME/110)	5/6/2016	Design and Development of Pneumatic Circuit simulator
33.	Shivani (11/IME/069)	10/06/2016	Design and Thermal Analysis of cold plate in Active Phased Array Radar
34.	Ruchi Yadav (11/IME/091)	10/06/2016	Fabrication and Characterization of Jute/Human Hair Fiber Reinforced Polyester Hybrid Composite
35.	Raman Bhati (11/IME/026)	12/06/2016	Study the Effect of Current on Pitting Corrosion and Mechanical Properties of TIG welded Austenitic steel 304
36.	Preyansh Mishra (11/IME/080)	12/06/2016	Study of Supply Chain Sustainability Issues in Indian Fertilizer Manufacturing Sector by Case Study and Modelling Approach
37.	Ayush Verma (11/IME/031)	31/05/2016	Experimental Studies on Rice Husk/Glass Fibre Reinforced Epoxy Resin Hybrid Composites
38.	Gaurav Singh (11/IME/044)	31/05/2016	Analysis of Glass Fibre/Chicken Feathers Reinforced Hybrid Composite
39.	Ajay Kumar (10/IME/008)	5/06/2016	Nanoparticles- Based and Bioengineered (SPION) Probes for early detection of Alzheimer disease
40.	Mahima Dua (11/IME/058)	1/06/2016	3D Parametric Modeling and 2D designing of Francis Turbine Components
41.	Suraj Kumar Singh (11/IME/107)	1/06/2016	Development Lightweight Material for Vehicle Frontal Bumper Beam Design
42.	Srishti Mishra (11/IME/104)	1/06/2016	Non-Destructive Evaluation of Residual Stresses in Rail Steel

43.	Abhinav Kumar (11/IME/002)	1/06/2016	Determination of Shear Behavior of Cortical Bone using Small Punch Test and Finite Element Method
44.	Kuldeep Gurjar (11/IME/055)	5/06/2016	Experimental Study of Jute Fibre/Wool Fibre Reinforced Polyester Resin Hybrid Composite
45.	Mayank Agarwal (11/IME/060)	5/06/2016	Experimental and Comparative Study of Glass Fibre/Sawdust Reinforced Epoxy Resin Hybrid Composite
46.	Jasbeer Singh 16MMA002	7/5/2018	Development of waste egg shell and rice husk powder reinforced aluminum metal-matrix composite for aerospace industry
47.	Pranav Kumar 17MMA009	2019	Experimental Investigation of Rice Husk Ash (RHA) & Zirconium Dioxide (ZrO ₂) Reinforced in Aluminium Alloy 6082 Hybrid Metal Matrix Composite
48.	Adarsh Sharma 18mma014	2020	Study of mechanical and corrosive properties of SiC nanoparticles reinforced AA6101-T6 Aluminium alloy metal matrix composite using Taguchi method
49.	Shezan Malik 20mmn018	2022	Tribological investigation of Jute fiber reinforced Epoxy with Pistachio Vera nut shell powder as a Filler

Projects (Prepared / Submitted/Ongoing) Granted

Sr.	Recog nition	Title of Project	Year of funding	Sponsoring Organization	Amount of Grant (In Lacs)	Co- Investi gators (if any)	Institut e
1.	Co-PI	Developing a hybrid nanocomposite material using SiC & Bio-waste Nano fillers in ZA-27 matrix material	25th April, 2023	Gujarat Council on Science & Technology (GUJCOST), Gandhinagar	Rs. 24,37,200/- (Rupees Twenty-Four Lakh Thirty-Seven Thousand Two hundred only)	Dr. Raghendra Kumar Misra	Shree Mata Vaishno Devi University

Professional Societies and Services

1. Member (Life), International Association of Engineers (IAENG). IAENG membership number is 108493.
2. Member (Life), Indian Society of Technical Education, Membership Number is LM136829.
3. Member (Life), Tribology Society of India Membership Number is LM#6103.

Computer Experience

Programming Language	C, C++ and MATLAB	CAD Software package	Pro/e
Operating Systems	Windows (98, 2000, XP, NT)	FEA Software package	ANSYS

Administrative Experience

Period		Organization	Designation	Responsibilities
From	To			
28/12/2010	Feb 2017	Gautam Buddha University.	Faculty In-charge School Stores and Assets, School of Engineering	Look after maintenance black board, white board, projector, AC etc. work. Maintain supply chalk, marker & attendance. Any maintenance work related to School of Engg.
07-01-2011	Feb 2017	Gautam Buddha University	Members for technical scrutiny of technical bids	Opening of Technical bids of tenders for engineering workshop.
14-08-2012	2013	Gautam Buddha	Coordinator, PhD	Conduct SRC & RDC in School

		University.	Programme	of Engineering.
13-12-2012	Feb 2017	Gautam Buddha University.	Member central purchase committee	Taking Part on decision matters regarding purchase.
29-07-2013	Feb 2017	Gautam Buddha University	Member of the anti-ragging committee	To control ragging in campus
07-02-2014	2014	Gautam Buddha University	Member of the committee	To remove General Proficiency marks from the course curriculum
30.07.2015	Jan 2017	Gautam Buddha University.	Coordinator of Time Table in School of Engineering	Prepare Time Table of School of Engineering
07.08.2015	Feb 2017	Gautam Buddha University.	Coordinator of Maintenance Committee	To complete maintenance work in School of Engineering
12.10.2015	Feb 2017	Gautam Buddha University	Member of the Proctorial Board	To maintain the discipline
25.01.2016	Feb 2017	Gautam Buddha University	Member of the NIRF ranking framework	How to increase the NIRF ranking of the university
07.11.2016	Feb 2017	Gautam Buddha University	Member of the NAAC committee	To prepare and document for Accreditation
27 th April, 2017	10/10/2018	Shri Mata Vaishno Devi University	Chairman of B. Tech / B. Arch. Admission committee	Admission committee will complete the B. Tech /B. Arch related process
11/10/2018	1 st April 2021	Shri Mata Vaishno Devi University	Member of the University admission Committee	Committee is empowered to take all decision regarding admission process /advertisement in the newspaper & other medium for UG, PG and PhD programs.
09.08.2017	September 2020	Shri Mata Vaishno Devi University	Warden of the Vindyalal Hostel	Warden has to look after the welfare of the students, to check the room and visit the students at any time. Warden is custodian and in-charge of all the hostel properties. Warden has to verify the stock periodically.
29 th March, 2017	April 2021	Shri Mata Vaishno Devi University	Member of the Departmental Research Committee of Department of Mechanical Engineering	DRC is responsible for the conduct and monitoring of all matters of DOME relating to research, consultancy and PhD program.
26 th April, 2017	March 2021	Shri Mata Vaishno Devi University	Member of the committee for handling matters repair of non-working laboratory equipment	Member of the committee for handling matters repair of non-working laboratory equipments
10 th August, 2017	2022	Shri Mata Vaishno Devi University	Member of IP Management Standing Committee	Implementation of the IPR policy of SMVDU
15 th September, 2017	2019	Shri Mata Vaishno Devi University	Member of the Committee to review e-mail /net facility in the campus	Member of the committee to review e-mail /net facility in the campus
27 th February,	2020	Shri Mata	Member, School Purchase	Purchase the items for school of

2018		Vaishno Devi University	Committee	Mechanical Engineering
02.04.2018	02.04.2021	Shri Mata Vaishno Devi University	Head of the School of Mechanical Engineering	To look after departmental academic and administrative activity
13.11.2019	2020	Shri Mata Vaishno Devi University	The National Innovation and startup policy 2019 for students and faculty of Higher Education Institutions.	Member of the committee
23.09.2019	2020	Shri Mata Vaishno Devi University	Committee for auction of scrap material/ items/ equipment	Member of the committee
28.11.2019	2021	Shri Mata Vaishno Devi University	TEQIP-III Expert Committee Meeting to review available Swayam/MOOC courses	As an Expert
9.05.2022	19 th April 2023	Shri Mata Vaishno Devi University	SMVDU CCMT/CCMN PI	Coordinator for M. Tech and MSc admission through CCMT and CCMN
20.04.2023	-----	Shri Mata Vaishno Devi University	SMVDU CCMT/CCMN PI	Coordinator for M. Tech and MSc admission through CCMT and CCMN
9.09.2021	Till date	Shri Mata Vaishno Devi University	Member, School Purchase Committee	Purchase the items for school of Mechanical Engineering
7.10.2022	Till date	Shri Mata Vaishno Devi University	Internal Member	School academic integrity Panel
17.03.2023	2023	Shri Mata Vaishno Devi University	Flying Squad	For carrying out surprise checks during the conduct of Minor/Major examinations in the university
15.07.2022	9.08.2023	Shri Mata VaishnoDevi University	B. Tech Project coordinator	For assigning project guide to students and arranging project presentation of students Infront of external examiner
23.03.2023	2023	Shri Mata VaishnoDevi University	Chairman of the SoME FEST 2023 project Proposal	Preparation of FEST 2023 Proposal
15.11.2022	9.08.2023	Shri Mata VaishnoDevi University	PhD coordinator SoME	To take test and conduct interview for admission in PhD programme.
8.08.2023	Till date	Shri Mata VaishnoDevi University	Faculty Coordinator, 7 th Semester, SoME	Mentoring, registration etc work
9.08.2023	Till date	Shri Mata VaishnoDevi University	M. Tech Project coordinator	For assigning project guide to students and arranging project presentation of students Infront of external examiner

9.08.2023	Till date	Shri Mata VaishnoDevi University	Coordinator Sponsored research and Consultancy, SoME	Promote research and consultancy work in the department
23.08.2023	Till date	Shri Mata VaishnoDevi University	Member of the Institution Innovation Council	NIRF and research related work
06.09.2023	Till date	Shri Mata VaishnoDevi University	Dean of Students Welfare, SMVDU	To work for welfare of students.
25.07.2023	Till date	Malaviya Mission Teacher Training Centre, SMVDU	Co-coordinator	To organize FDC programme
30.11.2023	29.12.2023	SMVDU	Member of the Committee for identifying students eligible for awards of medal/certificate	Identifying students eligible for awards of medal/certificate
29.02.2024	Till date	SMVDU	Chairman	Constitution of committee for formulating a policy for providing financial assistance to the students of SMVDU

Additional work

In GBU

- Development of Mechanical workshop.
- Incharge of Dynamics of Machine Lab /Mechanical Vibration
- Involvement in M. Tech counseling held 26th June, 2011 in Gautam Buddha University
- Involvement in the counseling of integrated dual degree B. Tech / M. Tech + M.B.A counseling held 5-8th July, 2011, in Gautam Buddha University.
- As a Coordinator in Engineering Mechanics Subject in Gautam Buddha University.
- Preparation of machine dynamics lab specifications and experiments.
- Preparation of Applied Thermodynamics lab specifications and experiments.
- As a Observer in GPTU 2012-2016 examinations
- Preparation of Mechanical vibration lab specifications and experiments.
- Helping make virtual round of “Eco Kart-2014” a Success was held in October 11, 2013 in Gautam Buddha University.
- Represented **GBU Team** in SAEINDIA northern section EFFI-CYCLE 2013 virtual round hosted at Jamia Millia Islamia from 5 to 6th July 2013.
- Represented **Team Desert Eagle** from GBU in SAEINDIA northern section EFFI-CYCLE 2015 virtual round hosted at KIET Ghaziabad from 4-5 July, 2015.

Technical evaluation of bidding process

- Fluid Mechanics laboratory on 22nd June, 2011 in Gautam Buddha University.
- Machine Dynamics laboratory, 2011 in Gautam Buddha University.

Academic

- Summer course for back students in BIT Mesra, Ranchi on strength of materials subject.
- Summer course for back/repeat students in Gautam Buddha University, on engineering graphics subject in 2011.

Course Curriculum Preparation

- Syllabus Preparation of M. Tech Design in Department of Mechanical Engineering, Gautam Buddha University on 18.01.2014.
- Conducted BOS on 8th September 2018 in School of Mechanical Engineering in Shri Mata Vaishno Devi University and Prepared course structure and syllabus of 2018-19 Batches.

Edited Course

Undergraduate					
Sr. No.	Subject	Year	L-T-P	Credit	Institute
1.	Kinematics of Machines	2011	2-0-0	2	Gautam Buddha University
2.	Material Science	2011	2-0-0	2	Gautam Buddha University
3.	Internal Combustion Engine & Gas turbine	2012	3-1-0	4	Gautam Buddha University
4.	Dynamics of Machines	2012	3-1-0	4	Gautam Buddha University
5.	Mechanical Vibrations	2012	3-1-0	4	Gautam Buddha University
Postgraduate					
Sr. No.	Subject	Year	L-T-P	Credit	Institute
1.	Experimental Stress Analysis	2013	3-0-0	3	Gautam Buddha University
2.	Design of Pressure Vessels and Piping	2014	3-0-0	3	Gautam Buddha University
3.	Bearings and Rotor-dynamics	2014	3-0-0	3	Gautam Buddha University
4.	Mechanical Behavior of Materials	2014	3-0-0	3	Gautam Buddha University
5.	Design of Hydraulic and Pneumatic Systems	2014	3-0-0	3	Gautam Buddha University
6.	Design of Material Handling Equipments	2014	3-0-0	3	Gautam Buddha University
7.	Vibration Engineering	2014	3-0-0	3	Gautam Buddha University
8.	Mechatronics System Design	2014	3-0-0	3	Gautam Buddha University
9.	Design of Automotive Components	2014	3-0-0	3	Gautam Buddha University
10.	Engineering Fracture Mechanics	2014	3-0-0	3	Gautam Buddha University
11.	Theory of Elasticity	2014	3-0-0	3	Gautam Buddha University
12.	Theory of Plates and Shells	2014	3-0-0	3	Gautam Buddha University
13.	Analysis and Synthesis of Mechanisms	2014	3-0-0	3	Gautam Buddha University
14.	Reliability in Engineering Design	2014	3-0-0	3	Gautam Buddha University
15.	Advanced Mechanics of Solids	2014	3-0-0	3	Gautam Buddha University
16.	Design of Process Equipments	2014	3-0-0	3	Gautam Buddha University

Reviewer

- Journal of sound and vibration, Elsevier Publication
- Engineering analysis with boundary elements, Elsevier Publication
- Journal of Surface Science and Technology, Indian Society for Surface Science and Technology, Department of Chemistry, Jadavpur University, Kolkata - 700 032, W. B., INDIA
- Journal of Engineering and Technology
- International Journal of Energy research
- Composite Science and Technology
- Journal of Composite materials, SAGE

Invited Lectures in International Conference, Guest/Invited Lectures

1. Invited lecture on **“Analysis of composite using Meshless multi-quadric radial basis function method”** in International Conference & Exhibition on cutting Edge Technological Challenges in Mechanical Engineering Organized by Department of Mechanical Engineering, Noida Institute of Engineering and Technology (NIET) knowledge park-II, institutional Area, Greater Noida-201 306 U.P. (India) on 21st & 22nd March, 2015.
2. Delivered guest lecture on **“composite materials: synthesis and applications”** 11th November, 2009 in DRIEMS (Dhaneswar Rath Institute of Engineering & Management Studies), CUTTACK, ORISSA.

3. Invited lecturer on **“Analysis of the Natural Fiber Reinforced Composite Plates and Laminates Using Various Meshless Radial Basis Function Methods”** in ISTE sponsored one-week short term training program “Modeling and Simulation for Mechanical Engineering System-MSMES-2016” conducted between 06.06.2016 to 10.06.2016 by Department of Mechanical Engineering, in Noida Institute of Engineering and Technology (NIET) knowledge park-II, institutional Area, Greater Noida-201 306 U.P. (India).
4. Invited Guest Lecturer on **“Innovation in Design Engineering”** held on 29 September, 2016 in Mechanical Engineering Department, G.L. Bajaj Institute of Technology & Management, Greater Noida.
5. Invited lecture on **“Manufacturing of Polymer composite”** topic in Faculty Development Program on “Sustainable Design and Manufacturing” which was held on 12th Feb 2018-16th Feb 2018 in School of Mechanical Engineering, Shri Mata Vaishno Devi University.
6. Invited lecture on “Two weeks winter School for Engineering Stream as a Resource Person organized by Faculty Development Centre-HRDC SMVD University in March 2019.
7. Invited Lecture on **“Solve the differential equations using Multi quadric radial basis function method”** in Two-week short-term course (17th-29th Dec., 2018) on “Tools and Techniques for Modelling & Simulation (TTMS-2018)” on 24th December, 2018 in the Department of Instrumentation & Control Engineering at Netaji Subhas University of Technology, New Delhi.
8. Invited lecture on **“Predict the performance of Diesel Engine using Jatropha as a Biofuel”** topic in Faculty Development Program on Energy & Power Systems which was held on 5th to 9th August 2019 in School of Energy Management, Shri Mata Vaishno Devi University.
9. Invited lecture on **“Analysis of the composite structure using meshless methods”** in One Week Online Short-Term Course on “Tribology for Sustainable Development” held online 20th-24th July, 2020 hosted by Shri Mata Vaishno Devi University, Katra, Jammu and Kashmir.
10. Invited lecture on **“Analysis of the Glass Fiber/Chicken Feathers Reinforced Hybrid Composite”** topic in One Week Online AICTE-ISTE sponsored Induction/Refresher program on “Sustainable Product Design and Manufacturing (Phase I)” held online during March 18-24, 2021
11. Invited lecture on **“Plastics recycling: challenges and opportunities”** topic in One Week Online AICTE-ISTE sponsored Induction/Refresher program on “Sustainable Product Design and Manufacturing (Phase II)” held online during April 15-21, 2021
12. Invited lecture on **“Introduction to nano materials”** topic in One Week Online AICTE-ISTE sponsored Induction/Refresher program on “Sustainable Product Design and Manufacturing (Phase III)” held online during May 21-27, 2021.
13. Invited lecture on **“Nano materials”** topic dated 10th January 2021 in one week FDP on Sustainable Product Design and Manufacturing held online **January 10-14, 2022** organized by Faculty Development Centre (FDC)-SMVDU under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching of MOE, GOI, Shri Mata Vaishno Devi University, Katra, Jammu in Collaboration with School of Mechanical Engineering.
14. Invited lecture on **“Sustainable Development Introduction and Concepts”** in one week FDP on Sustainable Product Design and Manufacturing held online **January 10-14, 2022** organized by Faculty Development Centre (FDC)-SMVDU under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching of MOE, GOI, Shri Mata Vaishno Devi University, Katra, Jammu in Collaboration with School of Mechanical Engineering.
15. Invited lecture on **“Research and Development”** in 8-Days Online Training Program on NEP Orientation & Sensitization Program held on 11 to 20 December, 2023 organized by Faculty Development Centre (FDC)-SMVDU under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching of MOE, GOI, Shri Mata Vaishno Devi University, Katra.
16. Invited lecture on **“Research and Development”** in 8-Days Online Training Program on NEP Orientation & Sensitization Program held on 22 to 31 January 2024 organized by Faculty Development Centre (FDC)-SMVDU under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching of MOE, GOI, Shri Mata Vaishno Devi University, Katra.

17. Invited lecture on **“Research and Development”** in 8-Days Online Training Program on NEP Orientation & Sensitization Program held on 12 to 22 February 2024 organized by Faculty Development Centre (FDC)-SMVDU under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching of MOE, GOI, Shri Mata Vaishno Devi University, Katra.
18. Invited lecture on **“Research and Development”** in 8-Days Online Training Program on NEP Orientation & Sensitization Program held on 3 to 12 June, 2024 organized by Faculty Development Centre (FDC)-SMVDU under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching of MOE, GOI, Shri Mata Vaishno Devi University, Katra.
19. Invited lecture on **“Plastics Recycling: Challenges and Opportunities”** in One Week Short Term Program on Sustainable Product Design and Manufacturing held on 22-27 July, 2024 organized by Faculty Development Centre (FDC)-SMVDU under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching of MOE, GOI, Shri Mata Vaishno Devi University, Katra, Jammu in Collaboration with School of Mechanical Engineering.
20. Invited lecture on **“Applications of Nanomaterial in Defense and Military”** in Faculty Development Program on Green Manufacturing held on 4 -8 March 2024 organized by Faculty Development Centre (FDC)-SMVDU under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching of MOE, GOI, Shri Mata Vaishno Devi University, Katra, Jammu in Collaboration with School of Mechanical Engineering.
21. Invited lecture on **“Performance Analysis of Circular and Non-Circular gas lubricated textured bearing”** in **International** Conference on Recent Trends in Art, Commerce, Science & Technology, held on 10-11th August 2024, organized by IQAC Initiative, M.G.V.C Arts, Commerce and Science College, Muddebihal, Vijayapur, Karnataka, India & RSP Conference Hub, Coimbatore, Tamil Nadu, India.
22. Invited lecture on **“Analysis of the Composite Plate using Meshless Hybrid Radial Basis Function of Multiquadric Radial Basis and Thin Plate Splines”** in International Workshop on Impact, Damage and Fracture of Composites, held on 12th – 13th December, 2024 jointly organized by IIT Jammu and IIT Delhi.
23. Invited lecture on **“Student Diversity and Inclusive Education”** in 8-Days Online Training Program on NEP Orientation & Sensitization Program held on 9th to 18th December, 2024 organized by UGC -MALAVIYA MISSION TEACHER TRAINING CENTRE - SMVDU.
24. Invited lecture on **“Storage of Hydrogen”** in One Week Workshop on Green Hydrogen: The Future of Clean Energy, organized by the Department of Mechanical Engineering, Birla Institute of Technology, Mesra, Ranchi, held from January 20 to 24, 2025.
25. Invited lecture on **“Research and Development-I”** in 8-Days Online Training Programme on "NEP Orientation & Sensitization Program," scheduled from 10th –19th February, 2025. This programme is proudly organized by the UGC -MALAVIYA MISSION TEACHER TRAINING CENTRE - SMVDU.
26. Invited lecture on **“Academic Integrity: Upholding Ethical Standards in Education”** in 8-Days Online Faculty Induction Programme scheduled from 17th February- 19th March, 2025. This programme is proudly organized by the UGC -MALAVIYA MISSION TEACHER TRAINING CENTRE - SMVDU.
27. Invited lecture on **“Research and Development-I”** in 8-Days Online Training Programme on "NEP Orientation & Sensitization Program," scheduled from 10th -20th March, 2025. This programme is proudly organized by the UGC -MALAVIYA MISSION TEACHER TRAINING CENTRE - SMVDU.

Experimental Projects: Name of the lab where experimental project added

A. Mechanical Vibration lab

Sr. No.	Institute	Year	Period	Manuals	Details of the project
1.	Gautam Buddha University, Greater Noida (U.P)	2015	Jan-May	Yes (Soft copy in PDF)	Experiment on Simple Pendulum & Compound Pendulum Aim of the experiment: <ul style="list-style-type: none"> • Validation of simple pendulum theory. • Determine the value of gravitational acceleration, g. • Validation of compound pendulum theory by

					determining the value of radius of gyration k , and value of gravitational acceleration, g .
2.	Gautam Buddha University, Greater Noida	2015	Jan-May	Yes (Soft copy)	Multi degree of freedom Aim: To verify the laws of multi-Degree of Freedom and find out the equation of motion of given system (two-degree freedom system).
3.	Gautam Buddha University, Greater Noida	2015	Jan-May	Yes (Soft copy)	Natural Frequency Aim: The Natural Frequency of spring mass system without damping. <ul style="list-style-type: none"> Determine the spring constant (k). Determine the natural frequency (f).
4.	Gautam Buddha University, Greater Noida	2015	Jan-May	Yes (Soft copy)	Experiment on Pendulum Waves Aim of the experiment: Determining the frequency of each pendulum.
5.	Gautam Buddha University, Greater Noida	2015	Jan-May	Yes (Soft copy)	Inclined spring mass system <ul style="list-style-type: none"> Aim: To find out the expansion of the springs made of different materials by varying the load at different angles
6.	Gautam Buddha University, Greater Noida	2015	Jan-May	Yes (Soft copy)	Experiment on Torsional Vibration Aim of the experiment: To study the Torsional Vibration (undamped) of single Rotor Shaft system.
7.	Gautam Buddha University, Greater Noida	2015	Jan-May	Yes (Soft copy)	Spring mass system Aim: To study and verify the law of stiffness in case of parallel and series arrangement of spring mass system.
8.	Gautam Buddha University, Greater Noida	2015	Jan-May	Yes (Soft copy)	Spring mass system Aim: <ul style="list-style-type: none"> Verification of the simple mass theory Determine the value of gravitational acceleration, g

M Tech/PhD thesis Examiner

Sr. No.	Stream	Name of the student	Thesis (MTech/PhD)	Name of Supervisor	University/ Institute	Year
1.	Master of Engineering (Design of Mech. Equipment)	Not required	M Tech	Not required	BIT Mesra	2012
2.	Investigation of Mechanical and Tribological Properties of Aluminum Matrix Hybrid Nano Composites	Shinde Shriyash Sunil	PhD	Prof. S. B. Barve	MIT World Peace MIT-WPU University, Pune	22/02/2023
3.	Formation and Characterization of Aluminium Metal Matrix Nanocomposites Using Graphene and Al ₂ O ₃ as Reinforcement Materials with Varying Weight Percentages Separately	Mr. Pankaj Phadnis Awate	PhD	Prof. Shivaprakash B. Barve	MIT World Peace MIT-WPU University, Pune	2023

Contributions (teaching) to Continuing Education Programmes

- Delivered lecture in National Thermal Corporation Ltd. (NTPC) through BITS, Pilani.

- Spent 6 month as a faculty in Indian Railway Institute of Electrical and Mechanical Engineering, (IRIEME) Jamalpur through BIT, Mesra.

Courses Taught

Sr. No.	Subject	L-T-P	Credit	Level (UG/PG)	Number of Times
1.	Manufacturing Process (MP)	3-0-0	3	UG	3
2.	Mechanics of solids/ Strength of materials (SOM-I)	3-1-0	4	UG	6
3.	Machine Design –I (MD-I)	3-1-0	4	UG	4
4.	Machine Design –II(MD-II)	3-1-0	4	UG	2
5.	Automobiles Engg (AE)	3-0-0	3	UG	8
6.	Workshop practice (WP)	3-0-0	3	UG	5
7.	Thermodynamics (TD)	3-1-0	4	UG	4
8.	Finite Element (FEM)	3-1-0	4	UG	1
9.	Fluid mechanics (FM)	3-1-0	4	UG	3
10.	Principal of mechanical Engg. Science (PMES)	3-0-0	3	UG	2
11.	Dynamics of Machines (DOM)	3-1-0	4	UG	4
12.	Mechanical Vibration (MV)	3-1-0	4	UG	2
13.	Material Science (MS)	2-0-0	2	UG	1
14.	Engineering Mechanics (EM)	2-1-0	3	UG	2
15.	Engineering Drawing (ED)/Engg Graphics	0-0-3	2	UG	4
16.	IC Engine & Gas Turbine (ICGT)	3-1-0	4	UG	2
17.	Advance Mechanics of Solids (AMOS)	3-1-0	4	PG	4
18.	Experimental Stress Analysis (ESA)	3-1-0	4	PG	4
19.	Composite Material (CM)	3-1-0	4	PG	2
20.	Foundry Technology	3-0-0	3	PG	1

Awards & achievements

- HAL (Koraput division) selected as a design engineer
- Associate Professor, Hindustan University, Chennai
- Associate Professor, Mody University, Sikar
- Awarded DAAD Scholarship

References

Sr. No	Designation	Name	Institute	Departmental Address	Phone No & Fax	E-mail
1.	Professor	Dr. Sandeep Kumar	IIT (BHU) Varanasi	Department of Mechanical Engineering, Institute of Technology, Banaras Hindu University, Varanasi, 221005	Mobile: 9616464864 /9452761925	sandeepkumar333@yahoo.com
2.	Professor	Dr. Arvind Kumar	BIT Mesra Ranchi	Department of Mechanical Engg, Birla Institute of Technology, Mesra-835215, Ranchi, Jharkhand, India	Mobile: 9431382609 Fax: 0651-2275401 /2275868	arbindkumar@bitmesra.ac.in
3.	Professor	Dr. S P Harsha	IIT Roorkee	Department of Mechanical & Industrial Engineering, Indian Institute of	Phone +91-1332-285891/28689	surajfme@iitr.ernet.in spharsha@gmail.com

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