

Dr. Sanjay Mohan

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Date of Birth: 5 March 1975, **Place of Birth:** Jammu, India

Professional Experience

Sept 2011 – Present	Assistant Professor , Department of Mechanical Engineering Shri Mata Vaishno Devi University, Jammu, India
August 2009 – Sept 2011	Lecturer , Department of Mechanical Engineering Shri Mata Vaishno Devi University, Jammu, India
June 2003 – July 2009	Senior Lecturer , Department of Mechanical Engineering Mahant Bachitter Singh College of Engineering & Technology Jammu, India
Dec 1998 – May 2003	Lecturer , Department of Mechanical Engineering Government College of Engineering & Technology (Jammu, India)
Jan 1998 – Dec 1998	Lecturer , Department of Mechanical Engineering Regional College of Engineering, Srinagar, India (Currently, NIT-Srinagar)

Education

- **Ph.D (2018)** **Mechanical Engineering**, Shri Mata Vaishno Devi University, Jammu, India
- **M.Tech (2010)** **Industrial Engineering**, Punjab Technical University, Punjab, India
- **B.E (1997)** **Mechanical Engineering**, Karnataka University, Karnataka, India
(Currently, Visveswaraiah Technological University)

Research Interests

- Tribology & Low Friction Materials Development
 - Solid lubricants, Self-lubricating Composites, Green Lubricants
- Development of Ferrous Composites, Light Metal/Alloys Composites
 - Processing by Powder Metallurgy & Casting, Process-Structure-Properties Correlation
- Industrial Engineering and Ergonomics
 - Application of Industrial engineering concepts to enhance the productivity of the Industry.
 - Cost-Effective Equipment Design Solutions for Social Welfare & Blue-Collar Workers

Teaching Interests & Courses Taught

Undergraduate Courses

- Engineering Mechanics
- Strength of Materials
- Mechanics of Materials
- Machine Design
- Industrial Engineering
- Mechanical Vibrations

Postgraduate Courses

- Work Study and Ergonomics
- Industrial Tribology

Completed Online Self-Learning Courses

Massive Open Online Course (MOOC)

- Material Science: 10 Things Every Engineer should know
Georgia Institute of Technology (January, 2023)
- Engineering Systems in Motion: Dynamics of Particles and Bodies in 2D Motion
Georgia Institute of Technology (February, 2022)
- Introduction to Engineering Mechanics
Georgia Institute of Technology (January, 2020)
- Mechanics of Materials III: Beam Bending
Georgia Institute of Technology (September, 2020)
- Mechanics of Materials II: Thin-Walled Pressure Vessels and Torsion
Georgia Institute of Technology (August, 2020).
- Mechanics of Materials I: Fundamentals of Stress & Strain and Axial Loading
Georgia Institute of Technology (July, 2017).

National Programme on Technology Enhanced Learning, (NPTEL) India

- Engineering Mechanics - Statics and Dynamics
National Programme on Technology Enhanced Learning Course (January-March, 2019)

International Research Collaborations

- University of Malaysia Sabah, Malaysia
- Wenzhou University, China
- Chemnitz University, Germany
- Ohio University

Signed MOU with:

- PSG College of Technology, Coimbatore
- Yalong Industries, Wenzhou, China
- Institute of Laser and Optoelectronic Intelligent Manufacturing, Wenzhou, China

Sponsored Projects

National

- Co-Investigator in Project: Range of Motions-Data Collection
Submitted to UGC-STRIDE- 2 Crores. (In process), 2019.
- Principal Investigator in Project: Ergonomic Apple Harvesting System
Sanctioned by PRISM-DST 2 lakhs (Completed).
- Member in the Project: "Training through Established Institutes"
Ministry of Human Resource Development (MHRD, India), 2010 (*Completed*)

International

- Co-PI, Project: Automobile-Functional and Experimental, Submitted to MARii Malaysia and Industry Trade Ministry, Malaysia. (Under Review), 2018.

Membership of Societies

- Life time member of Tribology Society of India
- Life time member of Indian Society for Technical Education

Student Projects Supervisor

PhD: 03 (On-going)

Postgraduate: 11

Undergraduate: more than 30

Awards & Achievements

Awards

- **Best Paper Award**
International Conference on Advances in Mechanical Engineering
Organized by University Technology Mara, 14-16 August, 2019, Kota Kinabalu, Malaysia.
- **Best Presenter Award**
International Conference on Advances in Mechanical Engineering
Organized by University Technology Mara, 14-16 August, 2019, Kota Kinabalu, Malaysia.
- **Best Paper Award**
National Conference on Advances in Mechanical Engineering
National Institute of Technology, 16 March, 2019, Delhi, India

Book Published

- Sanjay Mohan, **Engineering Mechanics**, Kirti Publishers (India) 2019, ISBN: 9789389411010.
- Mohd. Kamal ,Nahiyan Al Azad, Sanjay Mohan, **Advancements in Natural Fibre Composites for Industrial Applications**, Global Academic Excellence (M), SDN BHD, Malaysia EISBN:978-967-2426-46-2

Patents

- Sanjay Mohan and Nikhil Kumar, Title: "**Multitasking Mop Handle**"
Application No.201811038186 A, 33, 2020 Dt.14/8/20
Patent published in the Official journal of the Patent Office, India.

Session Chair in Workshop/Conferences

1. 2nd Virtual International Tribology Research Symposium (ITRS 2021) organised by SRM University held during 8th to 10th December 2021
2. International Tribology Research Symposium, Organised by SRM University, Chennai, SMVDU, Katra & CAS, Lucknow, 5th to 7th Nov 2020.
3. 6th International Conference on Recent Trends and Advancements in Engineering and Technology (ICRTAET), 17-18th January 2020
4. 1st International Conference on Advancement in Engineering Sciences, Shri Mata Vaishno Devi University, 28-29th September, 2019.
5. 6th International Conference on Advances in Mechanical Engineering, Kota Kinabalu, Malaysia, 14-16th August, 2019.
6. 5th International Conference on Recent Trends and Advancements in Engineering and Technology-2018, Shri Mata Vaishno Devi University, 25-26th October, 2018.
7. 2nd National Conference on Innovative Trends in Mechanical Engineering-2018, Shri Mata Vaishno Devi University, Katra, India, 23-24th March, 2018.

8. National Conference on Innovative Trends in Mechanical Engineering-2017, Shri Mata Vaishno Devi University, Katra, India, 3-4th March, 2017.
9. National Conference on Information Technology and Business Analytics-2017, Shri Mata Vaishno Devi University, 7-8th January, 2017.

Invited Talks/Expert Lecture

- **“Novel Fe-Cu-C based Self Lubricating Composites”** Global Webinar on Materials Science and Engineering, 29-30 August, 2022.
- **“Wear and Friction of Iron based Self Lubricating Composites”** Universidad Tecnica del Norte, 25th October, 2021
- **“Iron based Self Lubricating Composites: Green and Sustainable Materials”** Shri Mata Vaishno Devi University, Katra, India, 25th May, 2021
- **“Tribology and Manufacturing”** Universiti Malaysia Sabah, Sabah, Malaysia, 29th Dec. 2020
- **“The role of tribology in Manufacturing Technology”** Beyant College of Engineering and Technology, Gurdaspur, Punjab, India. 29th October.2020
- **“Iron based Self Lubricating Composites”** One week STC, Shri Mata Vaishno Devi University, Katra, 20-24th July 2020
- **“Applications of Engineering Mechanics”** Model Institute of Engineering and Technology, Jammu, India, 25 Sept. 2019.
- **“Industrial Engineering and Management”** Mahant Bachitter Singh College of Engineering & Technology, Jammu, India, 8th May, 2019.
- **“Engineering Mechanics”** Government Polytechnic, Doda, Jammu, India, 4th May, 2019.
- **“Role of Ergonomics in today’s life”** S.Sukhjinder Singh College of Engineering and Technology, Gurdaspur, Punjab, India. 27th April, 2019
- Expert Lecture on **“Design and Ergonomics”** Yogananda College of Engineering & technology, Jammu, India, 2nd Feb.2018
- **“Inventory Management Empirical Analysis”** EDP, Shri Mata Vaishno Devi University, 23rd Dec 2017.
- **“Laser and its applications in New Era”** Government Polytechnic, Jammu, India, 22nd Dec 2016.
- **“Engineering Mechanics and its Applications”** Government Polytechnic, Jammu, India, 15th Nov 2014.

Editorial Member/Reviewer of Journals

- Associate Editor of Journal of Transactions on Intelligent Welding Manufacturing, Springer.
- Member of Editorial Board of Journal of Polymer Science & Engineering, EnPress Publications, U.S.A.
- Member of the Steering Committee of The 2019 International Workshop on Intelligent Welding Manufacturing (IWIWM’2019)
- Reviewer of INSPIRE Awards-MANAK for the year 2020-21, National Innovation Foundation, India
- Reviewer of Springer, Elsevier, Wiley Online, Inderscience, MDPI Publications.

Laboratory and Teaching Aids Development

- Established Tribology Lab, Shri Mata Vaishno Devi University, Katra, Jammu, India.
- Development of Mechanical Vibrations Lab, Shri Mata Vaishno Devi University, Jammu, India.
- Development of Engineering Mechanics Lab, Shri Mata Vaishno Devi University, Katra, India.
- Development of Strength of Materials Lab, Shri Mata Vaishno Devi University, Jammu, India.

Short Term Course/FDP/Workshops/Webinars Attended (National & International)

1. 1st Indo Russian International Symposium/FDP on Tribological Aspects of Smart Materials and Adaptive Coatings for Space/Industrial Applications, organised by National Institute of Technology, Srinagar, India and Russian Academy of Sciences, Russia, 3-7th October, 2022.
2. "Modern Trends in Manufacturing Processes and Control Techniques in Renewable Energy System", Faculty Development Programme organized by Department of Mechanical Engineering, National Institute of Technology Delhi, India during November 16th - 21st, 2021.
3. "Training on man-Machine System", 3 weeks training at J.K.Plastic Industry at Bari Brahmna, Jammu, 1-21st July, 2021.
4. "Sustainable Product Design and Manufacturing (Phase II)", AICTE-ISTE sponsored Induction/Refresher program on held online during April 15-21, 2021.
5. "Sustainable Product Design and Manufacturing (Phase I)", AICTE-ISTE sponsored Induction/Refresher program on held online during March 18-24, 2021
6. "Recent Advances in Tribology and Surface Engineering: Surface Characterization and Surface treatment in Tribology", AICTE sponsored Short Term Training Programme organised by Saintgits College of Engineering, Kerela, 23 – 28th Nov. 2020,
7. "Recent Advances in Tribology and Surface Engineering", Short Term Course, Sponsored by All India Council for Technical Education (AICTE), Saintgits College of Engineering, Kottayam, India, 14 - 19th September, 2020.
8. "Atmanirbhar Bharat: Environment Sustainability", One day webinar organised by NITTTR Kolkata, 16th August 2020.
9. "Hybrid Manufacturing Processes: Opportunities and Challenges", TEQIP-III sponsored one week online Short Term Course organised by National Institute of Technology, Jalandhar, 6-10th July, 2020.
10. "Reconfiguring the Mind: Post COVID Consciousness", Five days Faculty Development Programme, Jyoti Nivas College, Bengaluru, India, 23 - 27th June, 2020.
11. "Advanced Laser Manufacturing technology & Applications", International Workshop for Three weeks sponsored by Department of International Cooperation, Ministry of Science & Technology. Organised by Institute of Laser and Optoelectronic Intelligent Manufacturing, Wenzhou University, Wenzhou, China, 13 Oct 2019 – 1st Nov 2019.
12. "Professional Ethics and Human Values-A Gandhian Perspective", One week workshop conducted by FDC at Shri Mata Vaishno Devi University, Katra, 11-15 March, 2019.
13. "Advances in Clean Energy Conversion Technologies and Materials for Energy Storage Applications", National Workshop Sponsored by DST, SERB and TEQIP-III conducted at Shri Mata Vaishno Devi University, 24-25 January, 2019.
14. "Best Manufacturing Practices", TEQIP-III sponsored FDP organised by Shri Mata Vaishno Devi University, Katra, 17th – 21st Dec 2018.
15. "Professional Development Training", Sponsored by Technical Education Quality Improvement Programme (TEQIP III) Organized by Indian Institute of Management (IIM) Indore, 04 - 06th July, 2018.
16. "Active Learning Workshop", Summer Training Programme, Sponsored by Technical Education Quality Improvement Programme (TEQIP III) and conducted by Indian Institute of Technology (IIT) Bombay, India, 11 – 15th June, 2018.
17. "Information and Communication Technology (ICT) for Education", Foundation Programme, Conducted by Indian Institute of Technology (IIT) Bombay, India, 08 March -12th April, 2018.
18. "Electron Microscopy & Microanalysis of Materials", Short Term Course, Conducted by Indian Institute of Technology-Banaras Hindu University (IIT-BHU), India, 12 – 17th Feb, 2018.
19. "Workshop on NBA Accreditation", TEQIP-III Sponsored 3 days Workshop organised by The Institution of Engineers, 8-10th December, 2017.
20. "One day Workshop on Patent Drafting and Filing", organised by Department of Science and Tech, Govt Of India, 20th Oct, 2016.
21. "Recent trends in Automobile Engineering", Short Term Course, Conducted by (NITTTR), Chandigarh, India. 29 Feb – 04th March, 2016.
22. "Gender Studies (ID)", Refresher Course, conducted by Kashmir University, Kashmir, India, 25 May 2015 to 16 June 2015 .

23. "Two weeks Refresher Course on Experimental Physics" conducted by School of Physics sponsored by IASc, INSA, NASI, 10-25 Dec. 2014.
24. "General Orientation Course", conducted by University of Jammu, Jammu, India, 17 June 2014 - 14th July 2014.
25. "Coordinators Workshop on Engineering Mechanics", One week Continuing Education Programme (CEP) conducted by Indian Institute of Technology (IIT) Bombay, India, 16 – 20th Sept, 2013.
26. "Processing and Fabrication of Metal Matrix Composites", Short term course, conducted at Indian Institute of Technology (IIT) Roorkee, India, 1 - 5th July, 2013.
27. "Two day ISTE WORKSHOP on Akash for Education", Conducted by IIT Bombay, MHRD, 10-11th Nov 2012.
28. "Introduction to Research Methodologies", Two week Workshop by Indian Society for Technical Education (ISTE) conducted by Indian Institute of Technology (IIT) Bombay, India 25th June – 4th July, 2012
29. "Staff Development Programme", Short term course, Sponsored by Sponsored by All India Council for Technical Education (AICTE) organised by Mahant Bachitter Singh College of Engineering & Technology (MBSCET) Jammu, India, 18th Feb - 1st March 2008.
30. "Advances in Manufacturing Technology", Short term course, Conducted at National Institute of Technical Teachers Training & Research (NITTTR), Chandigarh, India, 21st - 25th March 2005.
31. "CNC Turning and CNC Milling", conducted at MTAB-DENFORD TECHNOLOGY CENTRE, Chennai, India. 29th Dec. 2003 - 02nd Jan. 2004.
32. "CNC Programming", conducted at Department of Manufacturing Processes and Automation Engineering, Flexible Manufacturing Systems Lab, NSIT , New Delhi, 14-19 July, 2003

Technical Publications

Book Chapters

1. Singh, K., **Mohan, S.**, Konovalov, S., & Graf, M. (2023). Effect of nano-hydroxyapatite and post heat treatment on biomedical implants by sol-gel and HVOF spraying. In *Nanomaterials for Sustainable Tribology* (pp. 257-285). CRC Press.
2. **Mohan, S.**, Anand, A., Kumar, R., Kamal, M. (2022). The Role of Postural Assessment Techniques in Different workplaces—A Review. In: Chakrabarti, D., Karmakar, S., Salve, U.R. (eds) *Ergonomics for Design and Innovation*. HWWE 2021. Lecture Notes in Networks and Systems, vol 391. Springer, Cham. https://doi.org/10.1007/978-3-030-94277-9_149
3. Wani, S. N., **Mohan, S.**, & Kamal, M. (2022). Engineering and Ergonomics—An Important Aspect in Fruit Harvesting Systems. In *Advances in Mechanical and Materials Technology* (pp. 1453-1461). Springer, Singapore.
4. Sharma, S., Mahajan, P., & **Mohan, S.** (2022). Study of High-Velocity Oxy-fuel Coating Technique and Fe-Based High-Velocity Oxy-fuel Coatings. In *Advances in Mechanical and Materials Technology* (pp. 649-661). Springer, Singapore
5. Gurpreet Singh Bali, S., Singh, G., Singh, B., & **Mohan, S.** (2022). Improvement in Overall Equipment Effectiveness in Manufacturing Industry Using Autonomous Maintenance. In *Advances in Mechanical and Materials Technology* (pp. 455-468). Springer, Singapore.
6. Kumar, R., Haq, M. I. U., Raina, A., **Sharma, S. M.**, Anand, A., & Abdollah, M. F. B. (2021). Tribological Behaviour of Natural Fibre Based Polymer Composites. In ***Tribology of Polymer and Polymer Composites for Industry 4.0*** (pp. 55-69). Springer, Singapore

7. Raina, A., Haq, M. I. U., Mohan, S., Anand, A., & Graf, M. (2021). Materials for Tribological Applications: An Overview. *Tribology and Sustainability*, 3-22.
8. Mir Irfan UI Haq, S. Jayalakshmi, R. Arvind Singh, **Sanjay Mohan**, Ankush Raina, Xizhang Chen, Sergey Konovalov and Manoj Gupta Mechanical and Tribological Properties of Aluminium Based Metal Matrix Nanocomposites Book: **Encyclopaedia of Materials: Composites, By Elsevier** (Accepted, 2021).
9. S. Jayalakshmi, R. Arvind Singh, **Sanjay Mohan**, Sankaranarayanan Seetharaman, Xizhang Chen, S.V. Konovalov, and M. Gupta, 'Mechanical Properties and Tribological Behaviour of Magnesium Metal Matrix Composites with Nano-Sized Reinforcements', Section 1: Light Alloys and Metal Matrix Composites, **Encyclopaedia of Materials: Metals and Alloys, Reference Module in Materials Science and Materials Engineering**, Elsevier Publication (January 2020) DOI: 10.1016/B978-0-12-819726-4.00045-4.
10. **Mohan, S***, Anand, A., Haq, M. I. U., Raina, A., & Kumar, R. (2020). Calcium Fluoride a Potential Solid Lubricant for Green Tribology and Sustainability. *In Recent Advances in Mechanical Engineering* (pp. 587-595). Springer, Singapore.
11. Slathia, S., Anand, R., Haq, M. I. U., Raina, A., **Mohan, S.**, Kumar, R., & Anand, A. (2020). Friction and Wear Behaviour of AA2024/ZrO₂ Composites: Effect of Graphite. *In Recent Advances in Mechanical Engineering*, pp. 597-601. Springer, Singapore.

Journal Publications (SCI-E/SCOPUS)

1. Gupta, A., Pattnayak, A., Abhijith, N. V., Kumar, D., Chaudhry, V., & Mohan, S. (2023). Development of alumina-based hybrid composite coatings for high temperature erosive and corrosive environments. *Ceramics International*, 49(1), 862-874.
2. Farooq, S. A., Raina, A., Haq, M. I. U., Rajabi, A., Mohan, S., & Anand, A. (2022). Tribo-corrosion behaviour of composites and coatings: An overview of influencing factors, evaluation methods and inhibitors. *Jurnal Tribologi*, 35, 92-116.
3. Javaid, M., Haleem, A., Khan, I. H., Singh, R. P., Suman, R., & Mohan, S. (2022). Significant features and applications of Drones for Healthcare: An overview. *Journal of Industrial Integration and Management*.
4. Zhao, S., Xin, D., Chen, X., Stasic, J., Trtica, M., Siddiquee, A. N., & Mohan, S. (2022). Microstructure and enhanced tensile properties of AlCo_xCrFeNi high entropy alloys with high Co content fabricated by laser melting deposition. *Journal of Alloys and Compounds*, 165403.
5. Parshant Kumar, Vijay Kumar Srivastav, Deepak Kumar, **Sanjay Mohan Sharma**. Self and Complementary Mating Of Carbon-Carbon and Carbon-Carbon-Silicon Carbide Composites in Reciprocating Tribo-Interactions, *Tribology in Industry* (online, May 2022)
6. Sheikh Aamir Farooq, Ankush Raina, Mir Irfan UI Haq, **Sanjay Mohan**, R Arvind Singh, S Jayalakshmi. Nanostructured Coatings: Review on Processing Techniques, Corosion Behaviour and Tribological Performance. *Nanomaterials*, 2022, 12(8), 1323.

7. Sheikh Aamir Farooq, Ankush Anand, Ankush Raina and Mir Irfan UI Haq, **Sanjay Mohan**. Tribocorrosion Behaviour of Composites and Coatings: An Overview of Influencing Factors, Evaluation and Methods and Inhibitors. *Jurnal Tribologi* (Accepted, 2022)
8. Javaid, M., Haleem, A., Rab, S., Singh, R.P., Suman, R. and **Mohan, S.** (2022), "Progressive schema of 5G for Industry 4.0: features, enablers, and services", *Industrial Robot*, 49/3 (2022) 527–543.
9. Sharma, A., Mehtab, R., **Mohan, S.**, & Shah, M. K. M. (2021). Augmented reality—an important aspect of Industry 4.0. *Industrial Robot*: 49/3 (2022) 428–441
10. Gagandeep Singh, Hartaj Singh, Kapil Singh, Sachit Vardhan, **Sanjay Mohan**, (2021). Mechanical characterization of the fractured AA 6061 based composites reinforced with B₄C particulates. *Materials Today Proceedings*, vol.60(2),1086-1089.
11. Singh, H. Singh K., Vardhan, S., **Mohan, S.** (2022). A comprehensive review on the new developments consideration in a stir casting processing of Aluminium Matrix Composites. *Materials Today Proceedings*, vol.60(2), 974-981
12. Kapil Singh, Hartaj Singh, Sachit Vardhan, **Sanjay Mohan**, (2021). An overview on the synthesis of aluminium matrix composites using stir casting technique. *Materials Today Proceedings*, vol.60(2), 868-872.
13. Kumar, R., UI Haq, M. I., **Sharma, S. M.**, Raina, A., & Anand, A. (2021). Effect of water absorption on mechanical and tribological properties of Indian ramie/epoxy composites. Proceedings of the Institution of Mechanical Engineers, *Part J: Journal of Engineering Tribology*, 13506501211005635.
14. Raina, A., Irfan UI Haq, M., Anand, A., **Mohan, S.**, Kumar, R., Jayalakshmi, S., & Arvind Singh, R. (2021). Nanodiamond Particles as Secondary Additive for Polyalphaolefin Oil Lubrication of Steel–Aluminium Contact. *Nanomaterials*, 11(6), 1438
15. S Jayalakshmi, R Arvind Singh*, **Sanjay Mohan**, S Sankaranarayanan, Vasco Machembo Gomano, Xizhang Chen & Manoj Gupta. Microstructure and Mechanical Properties of Magnesium-Aluminium (Mg-Al) Alloys with High Aluminium Content (Al =10, 15, 20 wt. %), *Indian Journal of Pure and Applied Physics* vol. 59, pp. 184-189, March 2021.
16. Mohd Kamal Mohd Shah, **Sanjay Mohan***, Irma Othman, M Zakrymizam Yusuf & Alexander C. Investigation of Tensile properties of Bambusa Vulgaris Reinforced Unsaturated Polyester Resin. *Indian Journal of Pure and Applied Physics*, vol. 59, , pp. 190-196, March 2021.
17. Mir Irfan UI Haq , Ankush Raina , **Sanjay Mohan Sharma***, Ankush Ananda & Mohd Fadzli Bin Abdollah, Potential of AA7075 as a Tribological Material for Industrial Applications -A Review, *Indian Journal of Pure and Applied Physics*, vol. 59, pp. 197-201, March 2021.
18. Singh H*. Singh, K., Vardhan, S., **Mohan, S.**, & Singh, V. A. (2021). A Comprehensive review of aluminum matrix composites reinforcement and fabrication methodologies, *Functional Composites and Structures*. vol. 3, 015007.
19. Singh, K., Singh, H., Vardhan, S., & **Mohan, S.** (2021). Mechanical study of Al 7050 and Al 7075 based metal matrix composites: A review. *Materials Today: Proceedings*. vol. 43(1), 673-677
20. Hartaj Singh, Kapil Singh*, Sachit Vardhan, **Sanjay Mohan** (2021). Study on the wear performance of AA 6061 and AA 6082 based metal matrix composites, *Materials Today Proceedings*, vol. 43(1), 660-664

21. Subramanian, J., Ramachandra, A. S., Raina, A., UI Haq, M. I., **Sharma, S. M.**, & Chen, X. (2021). Polymeric nanostructures for prospective tribological application in miniaturized devices: a review. *Current Nanomaterials*, 6(2), 85-89.
22. **Sanjay Mohan***, Ankush Anand , Mir Irfan UI Haq , Ankush Raina , Rajiv Kumar & Mohd Kamal (2020). Development of a NIOSH based software tool for musculoskeletal disorders. *Indian Journal of Engineering & Materials Sciences*, 27, 860-865.
23. Subramanian Jayalakshmi, Ramachandra Arvind Singh, **Sanjay Mohan***, Xizhang Chen & Manoj Gupta (2020). Mechanical and tribological properties of aluminium incorporated with amorphous Ni₆₀Nb₄₀ particles. *Indian Journal of Engineering & Materials Sciences*, 27, 844-852.
24. Haq, M. I. U*, Raina, A., Anand, A., **Sharma, S. M.**, & Kumar, R. (2020). Elucidating the Effect of MoS₂ on the Mechanical and Tribological Behavior of AA7075/Si₃ N₄ Composite. *Journal of Materials Engineering and Performance*, 29(11), 7445-7455.
25. Shah, M. K. M., Beng, Y. K., **Mohan, S***, Husen, M. N., Othman, I., & Tan, Y. P. (2020). Experimental and numerical study of the crushing behavior of pultruded composite tube structure. *Journal of Polymer Engineering*, 40(7), 615-627.
26. Gupta, Avi, **Sanjay Mohan***, Ankush Anand, Mir Irfan UI Haq, Ankush Raina, Rajiv Kumar, R. Arvind Singh, S. Jayalakshmi, and Mohd Kamal. "Tribological behaviour of Fe–C–Ni self-lubricating composites with WS₂ solid lubricant." *Materials Research Express* 6, no. 12 (2019): 126507.
27. Katoch, V., & **Mohan, S***. (2019). Design and fabrication of a safety frame for workers carrying out head lifting at construction sites. *Journal of Engineering, Design and Technology*, vol.17, pp.1250-65
28. **Sharma, S. M***, & Anand, A. (2018). Effect of Speed on the Tribological Behavior of Fe–Cu–C Based Self Lubricating Composite. *Transactions of the Indian Institute of Metals*, 71(4), 883-891.
29. **Sharma, S.M***. and Anand, A., (2017), Friction and wear behaviour of Fe-Cu-C based self lubricating material with CaF₂ as solid lubricant. *Industrial Lubrication and Tribology*, 69(5), pp.715-722.
30. Anand, A., & **Sharma, S. M***. (2017). High Temperature Friction and Wear Characteristics of Fe–Cu–C Based Self-Lubricating Material. *Transactions of the Indian Institute of Metals*, 70(10), 2641-2650.
31. Anand, A., Haq, M. I. U., Raina, A., Vohra, K., Kumar, R., & **Sharma, S. M.** (2017). Natural Systems and Tribology-Analogies and Lessons. *Materials Today: Proceedings*, 4(4), 5228-5232.
32. Singh, N., Mir, I. U. H., Raina, A., Anand, A., Kumar, V., & **Sharma, S. M.** (2017). Synthesis and tribological investigation of Al-SiC based nano hybrid composite. *Alexandria Engineering Journal*, vol.57(3), 1323-1330.
33. **Sharma, S. M***, & Anand, A. (2016). Solid Lubrication in Iron Based Materials--A Review. *Tribology in Industry*, 38(3).

34. **Sharma, S. M***, Singh, S., Singh, B., Javaid, M., & Asjad, M. (2016). Some investigations on low back pain amongst workers involved in lifting tasks. *International Journal of Procurement Management*, 9(6), 659-683.

Conference Presentations/Publications

International

1. Khushneet Singh, **Sanjay Mohan**, Influence of alloying elements in magnesium to enhance its biocompatibility and tribological performance: A Review, 12-13 November, ICAME-2022, NIT Delhi, India
2. **Sanjay Mohan**, Ankush Anand, Rajiv Kumar, Mohd Kamal, The role of Postural Assessment Techniques in different workplaces- A Review", HWWE 2021, 1-3 December, 2021, IIT Gowhati.
3. Khushneet Singh, **Sanjay Mohan**, "Analysis of Optimized Parameters of HVOF Spray Coating by Taguchi Method and ANOVA Analysis in Coatings", 2nd Virtual International Tribology Research Symposium (ITRS 2021), held during 8th to 10th December 2021.
4. Raied Mehtab, **Sanjay Mohan**, "New Methods for Fe Based Coatings; Process Parameter, Influence on Tribological Properties and Challenges", 2nd Virtual International Tribology Research Symposium (ITRS 2021), held during 8th to 10th December 2021.
5. **Sanjay Mohan***, Ankush Anand, Mir Irfan Ul Haq, Ankush Raina, Rajiv Kumar, Marcel Graf, High Temperature Tribological Behavior of Fe-Cu-C based Self-lubricating composites for High Speed Applications, **International Tribology Research Symposium** held during 5th to 7th November 2020, Organised by SRM, Chennai, SMVDU, Katra & CAS, Lucknow, India.
6. Mohamad Kamal Mohamad Shah, **Sanjay Mohan**, Irma Othman, M. Zakrymizam Yusuf and Alexander C, Investigation of Tensile properties of Bambusa Vulgaris Reinforced Unsaturated Polyester Resin, **1st International Conference on Energy, Materials Sciences and Mechanical Engineering (EMSME - 2020)**, National Institute of Technology Delhi, Delhi, India held during October 30th - November 01st, 2020
7. **S Mohan***, A. Anand, R. A Singh, S. Jayalakshmi, X. Chen, S. Konovalov, Friction and wear study of Fe-Cu-C-CaF₂ self-lubricating composite at high speed and high temperature, **International Conference on Advances in Mechanical Engineering**, Kota Kinabalu, organized by University Technology Mara, 14-16 August, 2019, Malaysia.
8. Sukesh Gupta, Mir Irfan Ul Haq, **Sanjay Mohan Sharma**, Ankush Anand, Ankush Raina, Varun Dutta, Karan Vohra, Rajiv Kumar, Evaluation of mechanical properties of ramie/banana reinforced hybrid composites, **International Conference on Advances in Mechanical Engineering**, Kota Kinabalu, organized by University Technology Mara, 14-16 August, 2019, Malaysia
9. Rahul Sethi, **Sanjay Mohan***, R. Arvind Singh, S. Jayalakshmi, Synthesis and Characterization of Fe-Mo-BaF₂ Self-Lubricating Composites Prepared by Powder Metallurgy, 161-167, **27th International Conference on Processing and Fabrication of Advanced Materials**, Sweden.
10. **Sanjay Mohan Sharma***, Ankush Anand, "Self Lubricating Materials and Sustainability- A Review", **5th International Conference on Recent Trends and Advancements in Engineering and Technology (ICRTAET)**, 25-26th October 2018, Shri Mata Vaishno Devi University, Katra, India.
11. Sidhant Gandotra, **Sanjay Mohan Sharma***, "Self Lubricating Materials and Sustainability- A Review", **International Conference on Mechanical Engineering and Allied Sciences (ICMEAS)**, 14-15th September, 2018, Shri Mata Vaishno Devi University, Katra, India.
12. Mandeep Singh, Balbir Singh, **Sanjay Mohan Sharma***, "Recent Development in the Fabrication of Composites using Powder Metallurgy Technique: A Review", **International Conference on Mechanical Engineering and Allied Sciences (ICMEAS)**, 14-15th September, 2018, Shri Mata Vaishno Devi University, Katra, India.
13. **Sanjay Mohan Sharma*** and Ankush Anand, Effect of high speed on the tribological behavior of Fe-Cu-C based self lubricating composite, **International Conference on Emerging Trends in Engineering Innovations & Technology Management (ICET: EITM-2017)**, 16th- 18th December 2017 NIT Hamirpur, Himachal Pradesh, India.

14. **Sharma, S.M***, & Anand, "Solid Lubrication in Metal Matrix Composites- A Review", **International Conference on Recent Trends and Advancements in Engineering and Technology (ICRTAET)**, Shri Mata Vaishno Devi University", 3-4th September, 2017, Shri Mata Vaishno Devi University, Katra, India.
15. Sachin, Ritender Sharma, Avi Gupta, **Sanjay Mohan Sharma***, "A review on Green Tribology: Elements, Principles and Perspectives", **International Conference on Renewable Energy for Sustainable Environment: Challenges and Remedies**, 20-21th March, 2017, Shri Mata Vaishno Devi University, Katra, India.
16. Balbir Singh, **Sanjay Mohan Sharma** and Varun Dutta, "Six Sigma and its application in service Sectors: Challenges and Opportunities", **2nd International Conference on Applied Economics and Business**, July 28-29, 2016, Shri Mata Vaishno Devi University, Katra, India
17. Ankush Anand, Mir Irfan Ul Haq, Ankush Raina, Karan Vohra, Rajiv Kumar, **Sanjay Mohan Sharma**, "Natural Systems and Tribology- Analogies and Lessons", International Conference on Materials Processing and Characterization, Victoria University, Melbourne Australia, 2014
18. Avi Gupta, Rahul Sethi, **Sanjay Mohan Sharma** and Balbir Singh, "Metal Matrix Composites and their Fabrication Routes- A Review", **International Conference on Newest Drifts in Mechanical Engineering**, December 20-21, 2014, Maharishi Markandeshwar University, Ambala, India.
19. Anush Charak, Vineet Dubey, Balbir Singh and **Sanjay Mohan Sharma**, "Study of Various Challenges in Machinability of Hard Materials using Abrasive Jet Machining", **International Conference on Newest Drifts in Mechanical Engineering**, December 20-21, 2014, Maharishi Markandeshwar University, Ambala, India.
20. Vineet Dubey, Anush Charak, Balbir Singh and **Sanjay Mohan Sharma**, "A study of Latest Trends in Hybrid Electro Chemical Machining Process-Review", International Conference on Newest Drifts in Mechanical Engineering, December 20-21, 2014, Maharishi Markandeshwar University, Ambala, India.

National

1. Hartaj Singh, **Sanjay Mohan**, Kapil Singh, Sachit Vardhan, A Critical Review on the Fabrication of Aluminium Matrix Composites using Stir casting Route, 3rd National Conference on Recent Development in Automobile and Mechanical Engineering (RDAME 21), Dpartment of Automobile Engineering, Easwari Engineering College, 31/03/2021
2. **Sanjay Mohan**, Ankush Anand, Ergonomics - An Important Aspect in Today's World, TEQIP-III sponsored **National Conference on Engineering Science, Technology and Management**, 27-28 March, 2021, Indira Gandhi Institute of Technology, Odisha.
3. **Sanjay Mohan Sharma***, Ankush Anand, Mir Irfan Ul Haq, Ankush Raina, Rajiv Kumar, Calcium Fluoride a potential lubricant for Green Tribology and Sustainability, **National Conference on Advances in Mechanical Engineering**, National Institute of Technology, New Delhi, 16 March, 2019, India.
4. **Sharma, S.M***, Neeraj Pandita, Ashwani Koul, Importance of Ergonomics from past to present world- A Review, **2nd National Conference on Innovative Trends in Mechanical Engineering (NCITME-2018)**, Shri Mata Vaishno Devi University, 23-24 March, 2018, India.
5. **Sharma, S.M***, & Anand, A. Self Lubricating Materials-A Solution to Various Engineering Problems of 21st Century, **National Conference on Emerging Trends in Materials Science (NCETMS-2018)**, Shri Mata Vaishno Devi University, 7-8 Feb, 2018, India.
6. Anshul Gupta, **Sanjay Mohan Sharma***, "Mental Health amongst workers- A review", **National Conference on Innovative Trends in Mechanical Engineering**, 3-4th March, 2017, Shri Mata Vaishno Devi University, Katra, India.
7. Rahul Sethi, **Sanjay Mohan Sharma**, Ankush raina, Rajiv Kumar, "Engineering Materials and their Properties- Review", **National Conference on Innovative Trends in Mechanical Engineering**, 3-4th March, 2017, Shri Mata Vaishno Devi University, Katra, India.
8. Avi Gupta, Rahul Sethi, **Sanjay Mohan Sharma**, Ankush Anand, Mir Irfan-ul-Haq, "Strengthening Mechanisms for Single Phase Alloys- A Review", **National Conference on Innovative Trends in Mechanical Engineering**, 3-4th March, 2017, Shri Mata Vaishno Devi University, Katra, India.

9. Balbir Singh, **Sanjay Mohan Sharma**, “Study of various Challenges and Solutions in Maintenance of Critical Components” , Sept 7-8 ,2011, **International Conference on Recent Trends in Mechanical Engineering**, Lingaya’s University, Faridabad, India.
10. **Sanjay Mohan Sharma***, R.K Shahu and Yathesth Anand 2009 “Review of the NIOSH Lifting Equation” **National Conference on Advanced Manufacturing Techniques**, Shri Mata Vaishno Devi University, Nov 5-6 ,2009, Jammu, India
11. **Sanjay Mohan Sharma***, R.K Shahu and Yathesth Anand 2009 “Data Management System” **National Conference on Advanced Manufacturing Techniques**, Shri Mata Vaishno Devi University, Nov 5-6 ,2009, Jammu, India
12. **Sanjay Mohan**, Balbir Singh “Study of NIOSH Equation and its Application in Manual Load Lifting Jobs In Industries” **All India Seminar on Ergonomics for Improved Productivity**, Nov 21-22, 2009 at AMU, Aligarh, India

Other Academic Related Activities

Administrative Positions

- Expert for evaluating DST sponsored Projects.
- Batch Coordinator for UG students.
- Coordinator of M.Tech admissions, Shri Mata Vaishno Devi University (till date)
- Coordinator of Bachelors & Masters Project Work, Shri Mata Vaishno Devi University (till date)
- Board Member for Syllabus Revision, Department of Mechanical Engineering, Jammu University, Jammu, India.

Events Organised

1. **Organised National Engineers Day** at Shri Mata Vaishno Devi University, Katra, India
2. **Organised webinar**, on Social Initiatives for Financial Awareness, 17th Dec 2021.
3. **Organizing Secretary**, International Tribology Research Symposium, Shri Mata Vaishno Devi University Nov 2020, India.
4. **Coordinator**, Short term course on Engineering Optimization from 21-25th October, 2019, Shri Mata Vaishno Devi University, India.
5. **Coordinator**, National Workshop on 3D Printing for New Product Development, 13th September, 2019, Shri Mata Vaishno Devi University, India.
6. **Member of Organizing Committee**, Indo-US Workshop and CEO Conference, 5-10th August 2019, Shri Mata Vaishno Devi University, Katra, India.
7. **Coordinator**, 3rd Industry Academia Conclave on “Bridging gap between Industry & Academia”, 8-9th January, 2019, Shri Mata Vaishno Devi University, Katra, India.
8. **Organizing Secretary**, Faculty Development Programme on “Best Manufacturing Practices in Industries”, 17th – 21st December, 2018, Shri Mata Vaishno Devi University, Katra, India.
9. **Organised Expert Lecture** of Sr. Manager, VE Commercial Vehicles, **14th Dec 2018**.
10. **Convenor**, International Conference on Mechanical Engineering and Allied Sciences, Shri Mata Vaishno Devi University, India. 14-15th September, 2018.
11. **Member of Organizing Committee**, 2nd National Conference on Innovative Trends in Mechanical Engineering (NCITME-2018), Shri Mata Vaishno Devi University, 23-24th March, 2018.
12. **Member of Organizing Committee**, Faculty Development Program on Sustainable Design and Manufacturing, Shri Mata Vaishno Devi University, 12-16th February, 2018.
13. **Member of Organizing Committee**, National Seminar on Mechanical Engineering- Research Opportunities and Challenges, Shri Mata Vaishno Devi University, Katra, India. 8th April, 2017.
14. **Member of Organizing Committee**, National Conference on Innovative Trends in Mechanical Engineering, 3-4th March, 2017, Shri Mata Vaishno Devi University, Katra, India.(Co-Convener).
15. **Coordinator**, 2 weeks Workshop on Engineering Mechanics sponsored by IIT Bombay, 26-06th Dec 2013, India.