

LIST OF PUBLICATIONS

1. **Rupesh Kumar**, Gautam RK. Investigation of sliding wear, electrochemical corrosion, and biocompatibility of Ti-Nb alloys for biomedical applications. *Materials Today Communications*. 2024 Sep 7:110365.
2. **Rupesh Kumar**, Sharma A, Pandey AK, Gautam RK. Vacuum sealing-assisted processing of titanium–zirconium alloys: synthesis, microstructure, hardness, friction, wear, and corrosion studies for biomedical application. *Journal of Materials Science*. 2024 Apr 10:1-9.
3. **Rupesh Kumar**, Gautam RK. Development of Ti-10Nb alloy by powder metallurgy processing route for dental application. *Journal of Biomedical Materials Research Part B: Applied Biomaterials*. 2024 Jan;112(1): e35338.
4. **Rupesh Kumar**, Gautam RK. Tribological investigation of sunflower and soybean oil with metal oxide nano additives. *Biomass Conversion and Biorefinery*. 2024 Jan;14(2):2389-401.
5. Pandey AK, Kumar A, **Rupesh Kumar**, Gautam RK, Behera CK. Tribological performance of SS 316L, commercially pure titanium, and Ti6Al4V in different solutions for biomedical applications. *Materials Today: Proceedings*. 2023 Jan 1;78: A1-8.
6. Kumari S, Mishra RK, Parveen S, Avinashi SK, Hussain A, Kumar S, Banerjee M, Rao J, **Rupesh Kumar**, Gautam RK, Gautam C. Fabrication, structural, and enhanced mechanical behavior of MgO substituted PMMA composites for dental applications. *Scientific Reports. Nature Portfolio*. 2024 Jan 25;14(1):2128.
7. Mayank Singh, Ritendra Yadav, **Rupesh Kumar**, Srihari Dodla and Rakesh K. Gautam, “Development and characterization of hybrid polymer composite

materials with reinforcement of glass/carbon fibers for enhanced mechanical properties: an experimental and numerical approach". *The journal of the Textile Institute*: (2024)

CONFERENCES

1. An oral presentation on "Antifriction and Antiwear behaviour of Ti-xZr alloy under simulated body fluid for biomedical application" at IndiaTrib-2022, 11th International Conference on Industrial Tribology (ICIT) "Tribology for Energy, Environment and Society" 12-14 December 2022 | New Delhi, India
2. An oral presentation on "Tribological behaviour of Ti-xNb alloys developed by powder metallurgy in dry and simulated body fluid conditions for dental implant application" at TriboIndia-2023, 12th International Conference on Sustainable Development through Tribology, Environment and Society" 5 - 7 October 2023 | NIT Srinagar, Jammu and Kashmir, India
3. An oral presentation on "Comparative Tribo-Corrosion Resistance of SS316L, cpTi, and Ti-6Al-4V for Biomedical Implant Applications" at IndiaTrib-2024, 12th International Conference on Industrial Tribology (ICIT) "Tribology for Sustainable growth" 19-21 December 2024 | Kolkata, India

WORKSHOP/STTP/SEMINAR/FDP/COURSES

1. Participated in 16th Summer School in Tribology (16th SST) organized by Tribology Society of India during 24th to 28th June 2024 at CSIR - Indian Institute of Petroleum, Dehradun.
2. Participated in MATLAB Software training programme organized by DesignTech Systems Pvt. Ltd. scheduled on 06th - 10th February 2023 at Indian Institute of Technology (BHU), Varanasi.
3. Workshop on Smart Manufacturing and Industry 4.0 sponsored by the Ministry of Heavy Industries (MHI), Government of India, IIT (BHU), 11th -15th October 2022.
4. 6-Day (One Week) All India Council for Technical Education (AICTE), New Delhi sponsored online Short-Term Training Programme (STTP) Series on RECENT ADVANCES IN TRIBOLOGY AND SURFACE ENGINEERING: series 4 of 4 – Surface Characterization and Treatments in Tribology during 23-28 November 2020 organized by the Department of Mechanical Engineering of Saintgits College of Engineering, Kottayam.
5. 6-Day (One Week) All India Council for Technical Education (AICTE), New Delhi sponsored online Short-Term Training Programme (STTP) Series on RECENT ADVANCES IN TRIBOLOGY AND SURFACE ENGINEERING: series 3 of 4 – Introduction to Special Topics like Nanotribology, Bio-tribology, Space Tribology, Biomimetics and Tribology in Industry during 12-17 October 2020 organized by the Department of Mechanical Engineering of Saintgits College of Engineering, Kottayam.
6. 6-Day (One Week) All India Council for Technical Education (AICTE), New Delhi sponsored online Short-Term Training Programme (STTP) Series on

RECENT ADVANCES IN TRIBOLOGY AND SURFACE ENGINEERING:
series 2 of 4 – Tribology of Machine Components and Applied Tribology
during 14-19 September 2020 organized by the Department of Mechanical
Engineering of Saintgits College of Engineering, Kottayam.

7. 5 Days virtual International Short-Term Course on Tribology & Sustainability during 24 to 28th August 2020 organised by SRM Institute of science and technology, Tamilnadu, India.
8. One Day Workshop on Powders for Additive Manufacturing" as a part of DRDO DIA- Centre of Excellence, IIT (BHU) Varanasi, organized by the Department of Mechanical Engineering, IIT (BHU) Varanasi on 11 December 2023.
9. SERB Sponsored One Day National Workshop on “Wear, Corrosion, and Biocompatibility of Ta-coated 316L stainless steel for orthopedic applications” organized by Department of Metallurgical Engineering, IIT (BHU), Varanasi on November 10, 2022.
10. SERB Sponsored One Day National Workshop (Online-Mode) on “Development of Ti alloy-based composites by mechanical alloying and stir casting route for dental applications” organized by Department of Mechanical Engineering, IIT (BHU), Varanasi on February 23, 2022.
11. SERB Sponsored One Day Research Facility Training Programme (Hybrid Mode) on “Development of Ti alloy-based composites by mechanical alloying and stirrer casting route for dental applications” organized by Department of Mechanical Engineering, IIT (BHU), Varanasi on February 12, 2022.
12. International Webinar on Development of Advanced Materials and their Characterizations (IWDAMC 2021) held on 15th September 2021 at Amity

School of Engineering and Technology, Amity University Madhya Pradesh, Gwalior.

- 13.** Workshop on "How to Publish in Academic journals and Succeed with your Publication?" organized by Taylor & Francis group on July 21, 2021.
- 14.** Webinar on "Indigenous Knowledge System for Sustainable Rural Development" held on 11th July 2020 by Department of Mechanical Engineering, National Institute of Technology Silchar.
- 15.** Two days Workshop on "NanoMechanics and Biotribology" organized by the Advanced Center for Materials Science during Sept 15-16, 2019, at Indian Institute of Technology Kanpur.
- 16.** Participated in one day workshop program on "LaTeX for Beginners", jointly organized by IEEE IAS student chapter on 06th October 2018.
- 17.** Workshop on Bio-greases and lubricants jointly organized by NLGI and IIT (BHU), Varanasi during 18-19 October, 2024 at Department of Mechanical Engineering, IIT (BHU), Varanasi, India
- 18.** Workshop on Materials Tribology organized by IIT (BHU), Varanasi as a part of Sparc project during 8-9 November, 2024 at Department of Mechanical Engineering, IIT (BHU), Varanasi
- 19.** Workshop on Advance materials for defence applications organized by chitkara university on 7th November 2024.
- 20.** Workshop on Wonders of advance materials processing for biomedical applications organized by chitkara university

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