

Books:

1. **T. Pratap***, P. Sahoo. **Edited Book Title:** Micro-Manufacturing: Fundamentals, Applications and Future Research Prospects (2026). CRC Press: Taylor & Francis Group, (Accepted, Under Publication Phase). [\[SCOPUS\]](#).

Book Chapters:

1. Y. Singh, **T. Pratap**, A. Rai, A. K. Tiwari*. Advancements in Cardiovascular Assistive Devices and Future Innovations for Post-COVID Care, Book: Biological Flow Modelling (2025). CRC Press: Taylor & Francis Group, (Editors: S.C. Saha, A.R. Paul). **ISBN 9781032263113**. [\[SCOPUS\]](#).
2. G. Murari, B. Nahak, **T. Pratap***. Effect of Nanoparticles on Emission Control of IC Engine - a review, Book: Recent Advances in Material, Manufacturing and Machine Learning (2024). CRC Press: Taylor & Francis Group, (Editors: B. Schuller, R. Gupta, R. Mote, A. Sharma, J. P. Giri, R. B. Chadge). **eBook ISBN 9781003450252**. **DOI: 10.1201/9781003450252-62**. [\[SCOPUS\]](#).
3. R.N. Gupta, A.P. Harsha, **T. Pratap**. Effect of Surface-Treated Calcium-Copper-Titanate as a Lubricant Additive in Cottonseed Oil on Tribo Performance in Sliding Contacts, Book: Recent Trends in Design, Materials and Manufacturing (Lecture Notes in Mechanical Engineering Book Series) (2022), pp: 555-563. Springer Nature Singapore Pte Ltd., (Editors: M.K. Singh, R.K. Gautam). **eBook ISBN: 978-981-16-4083-4**. **DOI: 10.1007/978-981-16-4083-4_44**. [\[SCOPUS\]](#).
4. R.N. Gupta, A.P. Harsha, **T. Pratap**. Nano-technology-driven Interventions in Bio-lubricants Tribology for Sustainability, Book: Green Tribology: Emerging Technologies and Applications (Emerging Materials and Technologies Series) (2021), pp: 99-128. CRC Press: Taylor & Francis Group, (Editors: T. V. V. L. N. Rao, S. B. Kasolang, X. Guoxin, J. K. Katiyar, A. M.A. Rani). **eBook ISBN 9781003139386**. **DOI: 10.1201/9781003139386**. [\[SCOPUS\]](#).
5. S.K. Patel, A. Pratap, P. Sahoo, B. Nahak, **T. Pratap***, Cutting Force Analysis in Micromilling of Al6061-SiCp Composite, Book: Next Generation Materials and Processing Technology-its Advances and Constraints (2021), pp: 285-295. Springer Nature Singapore Pte Ltd., (Editors: S. Bag, C.P. Paul and M. Baruah). **eBook ISBN: 978-981-16-0182-8**. **DOI: 10.1007/978-981-16-0182-8_22**. [\[SCOPUS\]](#).
6. **T. Pratap***, K. Patra, Micro-nano Surface Texturing, Characterization and Their Impact on Bio-interfaces, Book: Advanced Machining and Finishing (Series Handbook: Advanced Manufacturing), (2021), pp: 577-610. Elsevier Inc. (Series Editor: J. P. Davim; Book Editors: K. Gupta and A. Pramanik). **ISBN: 9780128174524**. **DOI: 10.1016/C2018-0-00908-1**. [\[SCOPUS\]](#).
7. P. Sahoo, **T. Pratap**, K. Patra, Prediction of Cutting Forces in Micro Milling of P-20 Steel by TiAlN Coated WC Tool: An Analytical Approach, Book: Advances in

Simulation, Product Design and Development (Lecture Notes on Multidisciplinary Industrial Engineering), (2020), pp: 93-105. Springer Nature Singapore Pte Ltd., (Series Editor: J. P. Davim; In: M. S. Shunmugam and M. Kanthababu (eds.)). **eBook ISBN: 978-981-32-9487-5. DOI: 10.1007/978-981-32-9487-5_8. [SCOPUS].**

Journals:

1. G. Murari, **T. Pratap***. Laser-induced texturing of grey cast iron for enhanced tribological performance, Surface Engineering. (2025). **DOI: 10.1177/02670844251365930. [Q1, SCIE, Impact Factor: 2.6].**
2. G. Murari, B. Nahak, **T. Pratap***. Fabrication of protruded laser textures on grey cast iron for enhanced tribological performance under SAE 10W-30 lubrication, Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering. (2025). **DOI: 10.1177/09544089251313703. [Q2, SCI, Impact Factor: 2.2].**
3. C.K. Yadav, G.L. Samuel, **T. Pratap***. Laser-induced protruded bioinspired texturing of Ti-6Al-4V for controlled wettability in biomedical application, Journal of Micromanufacturing. (2024). **DOI: 10.1177/25165984241263148. [Q2, SCOPUS].**
4. D. Dubey, A. Mishra*, H.C. Shriyan, **T. Pratap**, R. Pandey. Improved Thermal Management of Lithium-Ion Battery Module through Microtexturing of Serpentine Cooling Channels, Energy Technology. 12 (5), (2024) 2301253. **DOI: 10.1002/ente.202301253. [Q2, SCIE, Impact Factor: 3.6].**
5. G. Murari, B. Nahak, **T. Pratap***. Hybrid surface modification for improved tribological performance of IC engine components - a review, Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering. 239 (3), (2023) 1103-1115. **DOI: 10.1177/09544089221150718. [Q2, SCI, Impact Factor: 2.2].**
6. V. Diwakar, A.K. Dubey, **T. Pratap***. Prediction of crater shape with different heat flux and parametric simulation in electro-chemical discharge machining, Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering. 237 (4), (2023) 1546-1556. **DOI: 10.1177/09544089221119342. [Q2, SCI, Impact Factor: 2.2].**
7. G. Murari, A. Maurya, B. Nahak, **T. Pratap***. Surface Modification Strategies for Enhanced Morphological Performance in Biomedical Implantation: Recent Developments, Challenges, and Future Scope in the Health Sector, Critical Reviews™ in Biomedical Engineering. 50(6), (2022) 13-43. **DOI: 10.1615/CritRevBiomedEng.2022045153. [Q3, SCOPUS].**
8. **T. Pratap***, K. Patra. Tribological performances of symmetrical micro-textured Ti-6Al-4V alloy for hip joint, International Journal of Mechanical Sciences. 182, 105736 (2020) 1-16. **DOI: 10.1016/j.ijmecsci.2020.105736. [Q1, SCIE, Impact Factor: 9.4].**

9. P. Sahoo, **T. Pratap**, K. Patra. A hybrid modeling approach towards prediction of cutting forces in micro-end milling of Ti-6Al-4V titanium alloy, International Journal of Mechanical Sciences. 150, (2019) 495-509. DOI: [10.1016/j.ijmecsci.2018.10.032](https://doi.org/10.1016/j.ijmecsci.2018.10.032). [Q1, SCIE, Impact Factor: 9.4].
10. **T. Pratap**, K. Patra. Direction dependent dynamic wetting of semi-hemispherical end micro-groove textured Ti-6Al-4V surface, Surface and Coatings Technology. 356 (2018) 138-149. DOI: [10.1016/j.surfcoat.2018.09.037](https://doi.org/10.1016/j.surfcoat.2018.09.037). [Q1, SCIE, Impact Factor: 6.1].
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14. **T. Pratap**, P. Sahoo, K. Patra. Fabrication of circular end micro slots using micro ball-end milling, IOP Conference Series: Materials Science and Engineering. 377 (2018) 012131. DOI: [10.1088/1757-899X/377/1/012131](https://doi.org/10.1088/1757-899X/377/1/012131). [SCOPUS].
15. P. Sahoo, **T. Pratap**, K. Patra, A.A. Dyakonov. Size effect in micro-end milling of hardened P-20 steel, Materials Today: Proceedings. 5(11) (2018) 23726-23732. DOI: [10.1016/j.matpr.2018.10.163](https://doi.org/10.1016/j.matpr.2018.10.163). [SCOPUS].
16. **T. Pratap**, K. Patra. Finite element method-based modeling for prediction of cutting forces in micro-end milling, Journal of The Institution of Engineers (India): Series C. 98 (2017) 17-26. DOI: [10.1007/s40032-016-0232-2](https://doi.org/10.1007/s40032-016-0232-2). [Q3, SCOPUS].
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Conference Proceedings:

1. G. Murari, A. Goel, **T. Pratap***. Influence of high temperature DLC/AlCrN coated grey cast iron on anti-corrosive structural integrity and morphology, International Conference on Advanced Material for Sustainable Future (ICAMSF-2025), Mar. 28-29, 2025. Centre for Research Impact and Outcome (CRIO), Chitkara University, Punjab, India.
2. R.N. Gupta, **T. Pratap**. Role of Fatty Acid Composition of Green Oils on Tribo-performance in Boundary Lubrication: An Experimental Study, 2nd International Conference on Recent Innovations & Developments in Mechanical Engineering (ICRIDME 2024), Nov. 14-16, 2024. National Institute of Technology Meghalaya, India.
3. G. Murari, B. Nahak, **T. Pratap***. Tribological behavior of DLC/AlCrN coatings on heat-treated grey cast iron under 10W-30 lubrication, International Conference on Next Generation Technologies: Design and Manufacturing (ICNGT-2024), Nov. 13-15, 2024. Centre for Outreach and Digital Education, Indian Institute of Technology Madras, India.
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6. C.K. Yadav, G.L. Samuel, **T. Pratap***. Laser Surface Texturing of Ti-6Al-4V to Control Wettability for Biomedical Applications, International Conference on Material Processing using Lasers, and Surface Engineering (IMPULSE 2023), December 14-15, 2023. Centre of Excellence for Advanced Laser Material Processing and Surface Engineering, Indian Institute of Technology Madras, India.
7. A. Maurya, A. K. Dubey, **T. Pratap***. Modelling and Simulation of Friction Stir Welding of the Two Dissimilar Metal, 1st International Conference on Mechanical Design and Manufacturing (ICMDM 2023), April 27-28, 2023. Indian Institute of Engineering Science and Technology, Shibpur, India.
8. G. Murari, B. Nahak, **T. Pratap***. Effect of nanoparticles on emission control of IC Engine - a review, International Conference on Recent Advances in Materials, Manufacturing and Machine Learning (RAMMML-2023), February 2-4, 2023. Yeshwantrao Chavan College of Engineering, Nagpur, India & NTPC Group of Colleges, United Kingdom.
9. **T. Pratap***, N. Singh, Y. Singh, S. Kumar. Structural Design, Simulation and Fabrication of Energy Efficient Nozzle Shaped Cooler, 2nd International Conference

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10. A. Kumar, A. Kumar, R.N. Gupta, **T. Pratap***. Thermo-Mechanical Modeling of Friction Stir Welding Process Using Different Pin Shapes and Shoulder Profiles, 2nd International Conference on Future Trends in Materials and Mechanical Engineering (ICFTMME 2022), August 19-20, 2022. SRM Institute of Science and Technology, Ghaziabad, India.
11. G. Murari, B. Nahak, **T. Pratap***. Surface Modification for Biomedical Implantation: Possibilities, Challenges and Future Scope in Health Sector, International Conference on Advancements in Interdisciplinary Research (AIR-2022), May 6-7, 2022. Motilal Nehru National Institute of Technology Allahabad, India.
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14. S.K. Patel, A. Pratap, P. Sahoo, B. Nahak, **T. Pratap***, Cutting force analysis in micromilling of Al6061-SiCp Composite, National Conference on Research and Development of Materials Processing, Modelling and Characterization (RDMPMC-2020), August 26-27, 2020. National Institute of Technology Jamshedpur, India
15. P. Sahoo, **T. Pratap**, K. Patra, Prediction of cutting forces in micro milling of P-20 steel by TiAlN coated WC tool: an analytical approach, 7th International and 28th All India Manufacturing Technology, Design and Research Conference (AIMTDR-2018), December 13-15, 2018. College of Engineering Guindy, Anna University, India.
16. **T. Pratap***, K. Patra, P. Sahoo, Fabrication of circular end micro slots using micro ball-end milling, International Conference on Mechanical Materials and Renewable Energy (ICMMRE-2017), December 8-10, 2017. Sikkim Manipal Institute of Technology, India.
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