

# Journal papers (SCI Journals) & Conference papers 2016-2020

#### YEAR 2020-2021

- 1. Bisma Parvez and M F Wani, "Tribological behaviour of nano-zirconia reinforced Iron-Based Self-Lubricating Composites for bearing applications", Volume 159, Tribology International, July 2021. https://doi.org/10.1016/j.triboint.2021.106969.
- Jagtar Singh and M F Wani, "Perpetual effect of laser surface texturing on tribological properties of Ti3SiC2/GNP composite-A fretting wear study", Accepted in the International Journal of Applied Ceramic Technology, 2021. DOI: 10.1111/ijac.13810
- 3. A Kumar, GD Thakre, MF Wani Influence of load and speed on tribological performance of Cu nanofluids in EHL line contacts Materials Today: Proceedings, 2021, 41, 969-975.
- 4. S Saleem and M F Wani, "Effect of load on the behaviour of tribofilms formed at the interface of austenitic steel and ductile iron – a Raman spectroscopic study," Advances in Materials and Processing Technologies, 2020, https://doi.org/10.1080/2374068X.2020.1860591
- Syed Danish and M F Wani, "Insights into the tribological behavior of IF-WS2 nanoparticle reinforced mild extreme pressure lubrication for coated chromium/bulk grey cast iron interface" I.Mech E Journal of Tribology, 2020. https://doi.org/10.1177/1350650120964026
- 6. Jagtar Singh and M F Wani, "Fretting wear of spark plasma sintered Ti3SiC2/GNP ceramic composite against Si3N4," Ceramics International, November, 2020, https://doi.org/10.1016/j.ceramint.2020.10.150
- S. Saleem, M.F. Wani, M Jebran Khan, "Tribological investigations on tribofilm formation and retention under dry sliding conditions with increasing loads,", Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials Design and Applications, https://doi.org/10.1177/1464420720951835
- Ankush Raina, Mir Irfan Ul Haq, M J Mir, Ovais Gulzar & M.F Wani, "Snergism of TiO2 and Graphene as Nanoadditives in Bio-Based Cutting Fluid-An Experimental Investigation," Tribology Transaction, https://doi.org/10.1080/10402004.2020.1842953
- S. Saleem, M.F. Wani, M Jebran Khan, "Tribological investigations on tribofilm formation and retention under dry sliding conditions with increasing loads,", Proc.I. Mech E, Journal of Materials: Design and Applications, August 2020, https://doi.org/10.1177/1464420720951835
- 10. S Banday, MF Wani "Nanomechanical and nanotribological properties of self-lubricating Ti/MoS2 nanocoating at nanoscale level", International Journal of Surface Science and Engineering, 2020, Vol. 14 (2), pp- 89-104
- Qadri, S.I.A., Harmain, G.A. and Wani, M.F., "Influence of tool tip temperature on Crater wear of ceramic inserts during turning process of Inconel -718 at varying hardness," Tribology in Industry, 2020., Vol. 42 (2), pp. 310-326.
- Qadri, S.I.A., Harmain, G.A. and Wani, M.F., "The effect of cutting speed and work piece hardness on turning performance of Ni based super alloy-718 using ceramic cutting inserts", Engineering Research express, 2020., Vol. 2 (2), pp.01-21.
- A S Kalyanwat, S Sarkar, M Biswas, R Halder, S Bandyopadhyay, M F Wani, "Spark plasma-sintered MoSi 2reinforced Y- α- SiAlON ceramics: mechanical and high temperature tribological properties", Journal of the Australian Ceramic Society, 2020.,VOI. 56 (1), pp. 265-272,
- A Kumar, GD Thakre and M F Wani, "Influence of load and speed on tribological performance of Cu nanofluids in EHL line contacts," Materials today proceedings, 2020. https://doi.org/10.1016/j.matpr.2020.10.931

#### YEAR 2018-2019

- Syed Danish and M F Wani, 'Tribological behavior of chrome-deposited SAE9254 grade steel top compression piston ring under lubrication starvation and mild extreme pressure lubrication,' International Journal of Engine Research, 2019. SAGE publication https://doi.org/10.1177/1468087419890995
- 16. A S Kalyanwat, S Sarkar, M Biswas, R Haldar, S Bandyopadhya, M F Wani, 'SPS MoSi2-reinforced Y-Alpha-SiAlON ceramics: mechanical and high temperature tribological properties,' J of Australian ceramic society, pp.1-9, 2019



- 17. Syed Danish, G. A Harmain and M F Wani, 'Evaluating scuffing failure in dry sliding conditions of monolayer chromium piston ring/bulk grey cast iron liner interface,' Tribology Online, 2019. DOI: 10.2474/trol.15.9
- S Banday, M.F.Wani, "Nanoscratch Resistance and Nanotribological Performance of Ti/MoS2 Coating on Al-Si alloy deposited by Pulse Laser Deposition Technique," Trans. ASME, J. of Tribology, 2019 https://doi.org/10.1115/1.4041366
- S Banday, M.F.Wani, "Nanomechanical and Nanotribological Characterization of multilayer self lubricating /MoS2/Si/MoS2nanocoating on Al-Si substrate.," DOI:10.1002/sia.6631, 2019.
- 20. S Banday, M.F.Wani, "Nanomechanical and Nanotribological properties of self lubricating Ti/MoS2 nanocaoting at nanoscale level," International J. of Surface science and engineering, 2019.
- 21. D Kumar, B Lal, M F Wani, J T Philip, B Kuriachen, "Dry sliding wear behaviour of Ti-6Al-4V pin against SS316L disc in vacuum condition at high temperature", Tribology-Materials, Surfaces and Interfaces, 2019
- S Mushtaq1, M F Wani, M Nadeem, K Najar and M Mursaleen, 'A study on friction and wear characteristics of Fe-Cu-Sn alloy 4 with MoS2 as solid under dry conditions,' Academy Proceedings of Engineering Science, 2019, https://doi.org/10.1007/s12046-019-1208-8
- Harinder Singh Manmeet Singh Jagtar Singh Babankumar S. Bansod Tejbir Singh Anup Thakur M. F. Wani Jeewan Sharma, "Composition dependence study of thermally evaporated nanocrystalline ZnTe thin films." Journal of Materials Science: Materials in Electronics . https://doi.org/10.1007/s10854-018-00627-9. (2019)
- 24. G Khajuria, M. F. Wani, S Mushtaq and Rakesh Sehgal, "Optimization of the effect of indentation load and dwell time on micro hardness values using fuzzy logic predictive model" Jurnal of Physics: Conference Series, Volume 1240, 2019.
- 25. M Jebran Khan, Himanshu Gandotra, S Shahid Saleem and M F Wani," Correlating the effect of material hardness, counterface hardness and load on the friction and wear of virgin and glass filled Polytetrafluoroethylene (PTFE) using Taguchi approach and statistical analysis" Jurnal of Physics: Conference Series, Volume 1240, 2019.
- M Jebran Khan, M F Wani and Rajat Gupta," Friction and wear characterization of graphite/Polytetrafluoroethylene composites against stainless steel: A comparative investigation under different environments", Jurnal of Physics: Conference Series, Volume 1240, 2019.
- Bisma Parveez, M F Wani, Summera Banday, M.Junaid Mir, M.F. Ali and S. Mushtaq," Tribological Characterization of Iron Based Ceramic Reinforced Self- lubricating Material" Journal of Physics: Conference Series, Volume 1240, 2019.
- M. Junaid Mir, M F Wani, Summera Banday and Bisma Parveez, "Influence of cutting fluid conditions on Tool wear and Surface roughness in hard turning AISI-D2 Steel using mixed ceramic tools Journal of Physics: Conference Series, Volume 1240, 2019.
- Kumar, Vinod, M. F. Wani, Jagadeesh K. Mannekote, and Satish V. Kailas. "Tribological Properties of Some Fatty Acids." In Journal of Physics: Conference Series, vol. 1240, no. 1, p. 012133. IOP Publishing, 2019.
- Sanjay Kumar, M F Wani, Rakesh Sehgal and S. Mushtaq, "Friction and Wear Properties of Si3N4/TiC Ceramic Composite under Nano Lubrication" Journal of Physics: Conference Series, Volume 1240, 2019.
- 31. M.F. Ali, M F Wani, Summera Banday, Bisma Parveez and M. Junaid Mir, "Tribological Characterization of Cu-Ni Metal Matrix Composites Using MoS2 Nano- lubricant" Journal of Physics: Conference Series, Volume 1240, 2019.
- 32. S I Qadri, G A Harmain and M F Wani. "A study on effect of tool tip temperature on wear of ceramic cutting tools," IOP Publication, Journal of Physics: Conference Series, Volume 1240, 2019.
- 33. S I Qadri, G A Harmain and M F Wani, "Assessment of machinability of super alloy Inconel 718 using aluminium oxide and mixed oxide ceramic cutting tool" IOP Conference Series: Materials Science and Engineering 2019
- Qurat-ul-Ain, M F Wani, R Sehgal, Analyzing structural and tribological characteristics of different materials at micro- and nano-level using molecular dynamics simulations: An overview" IOP Conference Series: Materials Science and Engineering 2019
- 35. J Singh, M F Wani, S Banday. C Shekhar, G Singh "Nano scratch and Nanoindentation: An approach to understanding the tribological behaviour of MAX phase material Ti2AlC" IOP Conference Series: Materials Science and Engineering 2019
- Ashraf, Umair, S. Shahid Saleem, M. F. Wani, and M. Jebran Khan. "Effect of load on the tribo-performance of 23-8N valve steel against GGG-60 seat material." Materials Today: Proceedings (2019).
- Shahid Manzoor, M F Wani and Sheikh Shahid Saleem, "Effect of load on the friction and wear behaviour of Silicon Nitride and Silicon Nitride- Titanium Carbide ceramic composite", Materials Today: Proceedings, 2019



## राष्ट्रीय प्रौद्योगिकी संस्थान श्रीनगर NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR (An autonomous Institute of National Importance under the aegis of Ministry of HRD, Govt. of India) हजरतबल, श्रीनगर, जम्मू-कश्मीर, 190006, भारत

Hazratbal, Srinagar Jammu and Kashmir, 190006, INDIA

### यांत्रिकी अभियांत्रिकी विभाग

**Department of Mechanical Engineering** 

- Omar Hussain, Babar Ahmad, Shahid Saleem, M.F. Wani and M. Jebran Khan, "Effect of counter-face material on the tribological characteristics of UHMW polyethylene under synovial fluid lubrication, Materials Today: Proceedings, 2019
- 39. Qadri, S.I.A., Harmain, G.A. and Wani, M.F., 2019. An experimental study on investigation of machining of nickel based super alloy 718. Materials Today: Proceedings, 19, pp.541-545.
- Qadri, Syed Irshad Ahmad, G. A. Harmain, and M. F. Wani. "The effect of cutting speed and work piece hardness on turning performance of nickel based super Alloy-718 using ceramic cutting inserts." Engineering Research Express, 2, 2019. Doi.org/10.1088/2631-8695/ab40f0
- Qadri, Syed Irshad Ahmad, G. A. Harmain, and M. F. Wani. "Influence of Tool Tip Temperature on Crater Wear of Ceramic Inserts During Turning Process of Inconel-718 at Varying Hardness". "Tribology in Industry DOI: 10.24874/ti.776.10.19.05".
- 42. Kumar P, Wani MF. Effect of Temperature on the Friction and Wear Properties of Graphene Nano-Platelets as Lubricant Additive on Al-25Si Alloy. Materials Research Express. 2019
- 43. Summera Banday, M F Wani, M.Junaid Mir and Bisma Parveez," Adhesion Property of Self-lubricating Si/MoS2 Nanocoating at Nano-scale Level" NFEST 2019, 18-22 Feb. 2019.
- 44. Himanshul, Soumya Sarkar, Rupa Halder, Mita Biswas, Siddhartha Bandyopadhyay, M. Farooq Wani, 'SPS processed tib2 reinforced y-α-sialon composites: high temperature tribomechanical properties,' Polish Society of Composite Materials, 19: 3, 95-99,2019.
- 45. Mohammad Jebran Khan, M. F. Wani and Rajat Gupta, "Tribological Performance Evaluation of PTFE Composites Under Dry Sliding and Aqueous Environments Using Taguchi Approach and Grey Relational Analysis: Effect of Material, Test Environment and Load", Polymer Composites, Nov- December 2018
- 46. S Saleem and M F wani, "Effect of load on the retention of tribofilms at the contact interface under dry sliding conditions at 500 0C," Journal of Material Science and Engineering Technology, 2018.
- 47. S Mushtaq and M F Wani, 'High-Temperature Friction and Wear Studies of Fe-Cu-Sn Alloy Containing Graphite as Solid Lubricant under Dry Sliding Conditions,' Material Research Express 2018.
- 48. S Mushtaq and M F Wani, "Tribological characterization of Fe-Cu-Sn alloy with graphite as solid lubricant," Industrial lubrication and tribology 2018
- 49. J Mir and M F Wani, "Influence of cutting fluid and machining speed on cutting performance and wear mechanism of coated carbide tool", Jurnal of Tribologi 2018.
- Mohd Junaid MİR, M. F. Wani. "Hard turning of high-carbon high chromium tool steel using cbn tools under different lubricating/cooling conditions," Eskişehir Technical University Journal of Science and Technology B- Theoritical Sciences 2018, 6(2), pp. 108 - 123, DOI: 10.20290/aubtdb.390999
- 51. Jebran Khan, M F Wani, Rajat Gupta. "Tribological properties of Bronze filled PTFE under dry sliding conditions and aqueous environments distilled water and Sea Water, International Journal of Surface Science and Engineering, 2018
- 52. Jebran Khan, M F Wani, Rajat Gupta. "Tribological properties of glass fiber filled polytetrafluoroethylene sliding against stainless steel under dry and aqueous environments: Enhanced tribological performance in sea International Journal of Materials Research Express, 2018
- Deepak Kumar, K. B. Deepak, S. M. Muzakkir, M. F. Wani & K. P., "Enhancing tribological performance of Ti-6Al-4V by sliding process", J.of Tribology - Materials, Surfaces & Interfaces. 2018 hhttps://doi.org/10.1080/17515831.2018.1482676
- 54. Parveen Kumar and M. F. Wani, "Tribological Characterization of Hypereutectic Al-25Si Alloy under Dry and Lubricated Sliding Conditions," Trans. ASME , J. of Tribology, 2018. doi: 10.1115/1.4036918
- 55. Parveen Kumar and M. F. Wani, "Tribological Characterization of Graphene Oxide as Lubricant Additive on Hypereutectic Al-25Si/Steel Tribopair," Tribology Transaction, 2018, http://dx.doi.org/10.1080/10402004.2017.1322735
- 56. H. K. Pant, D. Debnath, S. Chakraborty ,M. F. Wani, P. K. Das, "Mechanical and Tribological properties of spark plasma sintered SiC/TiB2 and SiC/TiB2/TaC composites: Effects of sintering temperatures (2000°C & 2100°C),". Trans. Of ASME, J. of Tribology, 2018. doi: 10.1115/1.4037068
- M. Junaid Mir, M. F. Wani, "Modelling and analysis of tool wear and surface roughness in hard turning of AISI D2 steel using response surface methodology," International Journal of Industrial Engineering Computations, vol. 9 (2018)



# राष्ट्रीय प्रौद्योगिकी संस्थान श्रीनगर NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR (An autonomous Institute of National Importance under the aegis of Ministry of HRD, Govt. of India) हजरतबल, श्रीनगर, जम्मू-कश्मीर, 190006, भारत

Hazratbal, Srinagar Jammu and Kashmir, 190006, INDIA

## यांत्रिकी अभियांत्रिकी विभाग

**Department of Mechanical Engineering** 

- 58. S Mushtaq, M F Wani, S Saleem and J Mir, "Tribological and Mechanical properties of PM Fe Cu Sn alloy containing graphite as solid lubricant, World review of science technology and sustainable development World Review of Science, Technology and Sustainable Development 14.2-3 (2018): 119-134
- Raof Ahmad Khan , Ankush Anand, Mohd. Farooq Wani, "A holistic framework for environment conscious based product risk modeling and assessment using multi criteria decision making" Journal of cleaner production 174 (2018): 954-965
- 60. Qadri, Syed Irshad Ahmad, G. A. Harmain, and M. F. Wani. "A study on wear analysis of mixed ceramic cutting tool," J of Material Sc. and Mechanical Engineering, 172-176, Vol 5 (4), 2018.

#### YEAR 2016-2017

- S Saleem and M F Wani, "Tribological characterization of N 80A and 21-4N valve materials against GGG-40 seat material under dry sliding conditions at temperatures to 500 0C," Trans. ASME, J. of Tribology, 2017, doi:10.1115/1.4036273
- D. Khabale and M. F. Wani, "Fretting Wear Characterization of AZ91 and AE42 Magnesium Alloys Under Dry Sliding Conditions," Trans. Of ASME, J. of Tribology, 2018. doi: 10.1115/1.4036922
- 63. M Haneef and M F Wani, "Wear modeling revisited using electrical analogy," Trans. ASME , J. of Tribology, 2017, doi: 10.1115/1.4035780
- 64. G Khajuria and M F Wani, "High Temperature Friction and Wear Studies of Nimonic 80A and Nimonic 90 against Nimonic 75 under Dry Sliding Conditions," Tribol. Lett. 2017, 65-100, DOI :10.1007/s11249-017-0881-1
- 65. S. Mushtaq and M F Wani, 'Self lubricating tribological characterization of lead free Fe-Cu based bearing material,' J. Tribologi, Vol. 12, pp. 18-37, 2017.
- 66. Parveen Kumar and M. F. Wani, "Effect of load on the tribological properties of hypereutectic Al–Si alloy under boundary lubrication conditions," Mater. Res. Express ,4 (11) pp.116519, 2017
- 67. Parveen Kumar and M. F. Wani, "Friction and Wear Characterization of Hypereutectic Al-Si Alloy/steel Tribopair under Dry and Lubricated Conditions," J. of Tribologi, 2017.
- 68. Parveen Kumar and M. F. Wani, "Synthesis and Tribological Properties of Graphene: A Review," J. of Tribologi, 2017; 13:36-71.
- 69. M. Junaid Mir. And M. F. Wani, "Performance evaluation of PCBN, coated carbide and mixed ceramic inserts in finish-turning of AISI D2 steel," J. of Tribologi, 2017.
- Charoo M S and M.F Wani, M. Haneif, M A Rather, "Tribological Properties of MoS2 Particles as Lubricant Additive on EN31 Alloy Steel and AISI 52100 Steel Ball," Materials Today Proceedings, Volume 4, Issue 9, 2017, Pages 9967– 9971.
- A. Anand, K. Vohra, Mir Irfan Ul Haqa, Karan Vohraa, Ankush Rainaa, M. F. Wani, "Role of Green Tribology in Sustainability of Mechanical Systems: A State of the Art Survey," Materials Today: Proceedings, 2017, Vol 4 3659– 3665.
- 72. S Mushtaq and M F Wani, ' The study of Microhardness of powder metallurgy fabricated Fe\_cu alloy using Vickers indenter,' Advanced Material Proceedings 2 (4), pp. 259-263, 2017.
- M. F. Wani., High temperature tribological behavior of AISI D2 against AISI 52100 and alumina, Res. Rev. Journal of Mat. S. Vol. 5 (4) 2017
- M.S. Charoo, M. F. Wani, 'Tribological Properties of MoS2 Particles as Lubricant Additive on EN31 Alloy Steel and AISI 52100 Steel Ball,' 10.1016/j.matpr.2017.06.303
- 75. M F Wani, "High temperature sliding wear of Ti-6Al-4V against silicon nitride and alumina," Res. Rev. J Mat. Sci. 2017, DOI: 10.4172/2321-6212-C1-003
- 76. Charoo M S and M.F Wani, 'Tribological Properties of h-BN Nano-particles as lubricant Additive on cylinder liner and piston ring', Lubrication Science 29.4 (2016): 241-254.
- Ankush Anand , M. I. Ul Haq, K. Vohra , A. Raina , M. F. Wani, "Tribological consideration of cutting fluids in machining environment: A review," Tribology in Industry , Vol 38 (4), 2016, pp. 463-474.
- Ankush Anand, Raof Ahmad Khan, Mohd. Farooq Wani, Development of a sustainability risk assessment index of a mechanical system at conceptual design stage, Journal of Cleaner Production 174 (2016) pp.954-965
- M. Hanief and M.F. Wani, Artificial neural network and regression-based models for prediction of surface roughness during turning of red brass (C23000). Journal of Mechanical Engineering and Sciences, Volume 10, Issue 1, pp. 1835-1845, June 2016



- M. Haneef and M.F. Wani, "Effect of surface roughness on wear rate during running-in of En31-steel: Model and experimental validation." Materials Letters 176 (2016): 91-93.
- M. Haneef and M.F. Wani and M SW Charoo, "Modeling and prediction of cutting forces during the turning of red brass(C23000) using ANN and regression analysis Engineering science and technology, an international journal 20.3 (2017): 1220-1226.
- Charoo M S and M.F Wani, 'Tribological properties of IF-MoS2 nanoparticles as lubricant additive on cylinder liner and piston ring tribopair,' International J. of Tribology in Industry July, Vol. 38, No. 2 (2016) 156-162
- Charoo M S and M.F Wani, "Friction and wear properties of nano-Si3N4/nano-SiC composite under nanolubricated conditions', Intl.J. of Advanced Ceramics, 2016, vol. 5(2), 145-52
- M. F. Wani, J.Mukherji., B. Prakash., and S. Bandapadhya., "Friction and Wear behaviour of hot pressed Sialon-steel ball tribopair, under reciprocating sliding conditions," J. American Ceramic Society (J Am Cer. Soc.), Vol.72 (9), 1993, pp.83-89.

## Conference papers 2016-2020

- 85. S. I. A. Qadri,,G. A. Harmain, and M. F. Wani, Machinability of Inconel-718 at different levels of hardness using ceramic inserts, 2021 International Conference on Emerging Trends In Industry 4.0, IEEE Xplore. (Accepted)
- Summera Banday, M.F. Wani, M.Junaid Mir, Jagtar Singh, Shuhaib Mushtaq, Jebran Khan and S.S. Saleem, "Nanoscratch property of self-lubricating Ti/MoS<sub>2</sub> nanocoating at nano-scale level" Triboindia 2018, 13-15 December, 2018.
- Jebran Khan, M.F. Wani, Rajat Gupta, S.S. Saleem, Shuhaib Mushtaq, M.Junaid Mir, Jagtar Singh and Summera Banday, "Tribological performance of polytetrafluoroethylene (PTFE) in aqueous environments and dry sliding" Triboindia 2018, 13-15 December, 2018.
- Jagtar Singh, M.F. Wani, Summera Banday, M.Junaid Mir, Jebran Khan, Shuhaib Mushtaq, S.S. Saleem and Gurtej Singh

Nanomechanical Property of Max Phase Material Ti<sub>2</sub>AlC" Triboindia 2018, 13-15 December, 2018.

- Shuhaib Mushtaq, M.F.Wani, S.S.Saleem, Summera Banday, M. Junaid Mir, Jebran Khan and Jagtar Singh, "Tribological Characteristics of Fe-Cu-Sn Alloy with Molybdenum Disulfide as a Solid Lubricant under Dry Conditions" Triboindia 2018, 13-15 December, 2018.
- 90. S. Mushtaq and M F Wani, SS Saleem, M J mir, "Tribological and Mechanical properties of PM Fe-Cu-Sn alloys containing Graphite as Lubricant," Special Intl. Symposium on Energy Aspects of Tribology for Sustainable Development," ICE –SEM 2017, 16-19 October, 2017 Melaka, Malysia; Iceseam2017.utem.edu.my
- S. Saleem, M J Mir, M F Wani, S Mushtaq, "Experimental investigation and modeling of PMEDM Process with Aluminum powder suspended Dielectric on AISI-H11," ICE –SEM 2017, 16-19 October, 2017 Melaka, Malysia; Iceseam2017.utem.edu.my
- 92. International Conf. on Earth Science and Engineering, ICEE 2017,29th-31st August,2017
- 93. S Mushtaq and M F Wani, "The study of microhardness of powder metallurgy fabricated Fe Cu alloy using Vicker hardness," ICMTech 2016, New Delhi,