



Table of contents

Editorial	i
Table of contents	iii
1. Tribological performance of novel modified Calophyllum Inophyllum nano-fluid from Pahang, Malaysia Amiril Sahab Abdul Sani, Zubaidah Zamri, Radhiyah Abd Aziz, Ainaa Mardhiah Sabri, Norfazillah Talib	1
2. A brief review of ultrasonic assisted milling of Inconel 718 Norsilawati Ngah, Mohd Shahir Kasim, Hema Nanthini Ghanesan, Siti Nurul Akmal Yusof, Saiful Bahri Mohamed, Zammeri Abdul Rahman, Raja Izamshah, Ahmad Anas Yusof, Muhammad Akmal Mohd Zakaria	14
3. Elastohydrodynamic analysis of composite material with roughness effect on multistep journal bearing tribological performance Muchammad Muchammad, Mohammad Tauviqirrahman, Saverio Farhansyah, Muhammad Iqbal, Budi Setiyana, J. Jamari	39
4. Friction and wear behavior of short carbon fibers milled polyphenylene sulfide composites Rupesh Roshan, Avin Ganapathi, Suresha Bheemappa	61
5. Effect of multi-geometrical laser pattern of Ti6Al4V on frictional wear behaviour Mohd Harizan Zul, Mahadzir Ishak, Ramdziah Md Nasir, Aiman Mohd Halil, Moinuddin Mohammed Quazi	78
6. Multi-objective optimization of multi-stage Wind Turbine Gearbox (WTG) with macro-geometry and scuffing constraint Ashish Kumar, Ramkumar Penchaliah, Shankar Krishnapillai	95
7. Taguchi and morphological analysis on the lubricated friction and wear of titanium alloy Ti10V2Fe3Al under CNT nano-lubricant Abdul Munir Hidayat Syah Lubis, Poppy Puspitasari, Avita Ayu Permanasari, Muhammad Ilman Hakimi Chua Abdullah, Diki Dwi Pramono	120

8. **Enhancing wear resistance in blanking and punching of stainless-steel sheets under dry friction and solid lubrication conditions using single-layer ceramic- and carbon-based hard coatings**
Muhammad Shuhaimi Ibrahim, Mohd Hafis Sulaiman, Mohd Idris Shah S. Ismail 139
9. **Wettability characterization of 3D printed polymer membranes with candle soot coating**
Nurul Afiqah Arbain, Nurul Hilwa Mohd Zini, Fadhilah Shikh Anuar,
Mohd Fadzli Bin Abdollah, Mohd Idain Fahmy Rosley 148
10. **A study of nonlinear transient behavior of worn out 3-lobe nonrecessed journal bearing**
Prashant B. Kushare, Satish C. Sharma, Vilas K. Matsagar 164
11. **Tribological properties of graphite particles as an anti-friction and anti-wear additive in lithium soap grease**
Shahira Liza Kamis, Bakhit I. Yusoff, Kanao Fukuda, Noor Ayuma Mat Tahir,
Ikmal Alif Ahmad Sukri, Mohamad Ali Ahmad 179
12. **Investigations into friction, film thickness and heat generation of water-based lubricants containing nanoparticles, surfactant and dispersant in hydrodynamic journal bearing**
M.A.H. Azizan, Nur Hidayatul Ezzaty Mohd Fadhli, Muhammad Adam Kamarudin,
Muhammad Faris Idrus, Mohd Hafis Sulaiman 199
13. **Experimental investigation on the physical, mechanical, and tribological behavior of brake friction composites for railway application**
Sindhu Budati, Mohd Hafis Sulaiman, Zulkifli Leman, Mohd Zuhri Mohamed Yusoff,
Edi Syams Zainudin 212
14. **Machining analysis of S45C carbon steel using finite element method**
Jaharah A Ghani, Muhammad Asyraf Ismanizan, Haniff Abdul Rahman,
Che Hassan Che Haron, Afifah Zakriyah Juri, Mohd. Shahir Kasim, Muhammad Rizal 226
15. **Effect of solid lubricant particles on the tribological behavior of grease**
Abhinav Manoj, Piyush Chandra Verma, Pradnyesh Satardekar, Prabakaran Saravanan,
Suresh Kumar Reddy Narala 247