

List of the accepted abstracts for the SERBIATRIB '25 conference

No.	Title	Authors	Country
1	Development of vacuum plasma strengthening hard and ultra hard 3D avinit coatings	Oleksii Sagalovych Vlad Sagalovych Stanislav Dudnik	Ukraine
2	Mechanical and abrasion resistance of poly (vinyl chloride)/nitrile butadiene rubber (PVC/NBR) Thermoplastic vulcanizates	Ahmad Mousa	Jordan
3	Journal bearings lubrication aspect analysis using power law fluid model	Maamar Malki Sid Ali Boubendir Salah Larbi Nasreddine Sakhri	Algeria
4	Flexural, compressive and fracture toughness of delonix regia pod-eggshell particle reinforced virgin low-density polyethylene nanocomposites	Sefiu Adekunle Bello Maruf Yinka Kolawole Adijat Ashifat Davina Ajetomobi Suleiman Danjuma Daudu Mohammed Kayode Aisha Mayowa Akintola	Nigeria
5	Research progress on key technologies of high-end lubricating oils in China	Jian Xu Wenjing Hu Dandan Li JiuSheng Li	China
6	The Influence of grit size and fiber length on the frictional performance of coir fiber-reinforced polymer composite	Abdullah Shalwan Saad Alsubaie B. F. Yousif	Kuwait Australia
7	Performance evaluation and lubrication characteristics of a single-cylinder compression ignition engine using giant palm biodiesel blends	Rasheed Amao Busari Raheef Kekinde Adebayo Adeshina Fadeyibi	Nigeria
8	Performance characteristics of eco-friendly agrobio-wastes as mold additives on mechanical properties of aluminum alloys	Maruf Yinka Kolawole Sefiu Adekunle Bello	Nigeria
9	Numerical determination of the heating and wear of brake pads on the basis of experimental researches	Nadica Stojanovic Ali Belhocine Oday Abdullah Zeljko Djuric Ivan Grujic	Serbia Algeria Iraq BiH
10	The numerical investigation of the wear and heating of engine piston and cylinder for the case of tribological inserts application	Ivan Grujic Zeljko Djuric Nadica Stojanovic	Serbia BiH
11	Methodological approach to the development process of sintered friction materials	Aliaksandr Ilyushchanka	Belarus

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12	Modelling and statistical analysis of flank wear during turning of Co-Cr-Mo alloy	Aleksandar Milosevic Sanda Simunovic Mario Sokac Zeljko Santosi Vladimir Kocovic Djordje Vukelic	Serbia Croatia
13	Friction-induced growth of thin solid films for selective area additive micro-manufacturing/re-manufacturing	Yang Song Chenxu Liu Yonggang Meng	China
14	Tribological examination of anodized Al-356	Alexandra Musza Tamás Molnár Sándor Kovács Nguyen Quang Chinh Ádám Vida	Hungary
15	Water-Assisted Lubrication Mechanism of a Ti-Based Metal-Organic Framework (COK-47)	Hanglin Li Xudong Sui Jiusheng Li Carsten Gachot	China Austria
16	Structural-energy constants of the evolution of the friction contact	Fedorov Sergey	Russia
17	Wear in restorative dentistry/teeth and dental materials	Kivanc Dulger Gencaga Purcek	Turkey
18	Effect of additive elements on abrasion wear of AA7075 based ZrO ₂ /GNP added hybrid composites	Şükran Katmer Muharrem Pul Ulvi Şeker	Turkey
19	Effects of aging and severe plastic deformation on tribological behavior of Al 7075 alloy	Melih Ustalar Muhammet Uzun Harun Yanar Muhammet Demirtas Gencaga Purcek	Turkey
20	Viscometry on synthetic and fullerene based oils and a CFD investigation on compression piston ring	Elias Tsakiridis Alexandra Anyfanti Pantelis Nikolakopoylos	
21	Behavior of the erosive wear of a steel pipeline section API 5L-X52 by solid particle of aluminum oxide (Al ₂ O ₃)	Javier A. Frias-Flores Manuel Vite-Torres Ezequiel A. Gallardo-Hernández	Mexico
22	Study of tribological behavior in extreme pressure test on SAE lubricating oil and regenerated ATF oil	Miguel A. García – Maldonado José F. Márquez- Santiago Manuel Vite – Torres Ezequiel A. Gallardo - Hernández	Mexico

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23	Influence of continuously variable lateral force on thickness of the material during strip thinning	Slaviša Djačić Srbislav Aleksandrović Dušan Arsić Marko Delić Milan Djordjević Djordje Ivković	Serbia
24	The influence of the hard-faced layers pattern on the wear resistance of the wheel loader's bucket teeth	Djordje Ivković Dušan Arsić Vukić Lazić Marko Delić Anđela Ivković Milan Djordjević	Serbia
25	Mechanochemical/Tribochemical approach toward efficient and sustainable recycling and reuse of EoL Nd-Fe-B permanent magnets	Zara Cherkezova-Zheleva Daniela Paneva Radu-Robert Piticescu Guido Heunen Olivier Jay	Bulgaria Romania Belgium
26	Step waves in flowing films	Ignat Shishkin Alexander Beloglazkin Victor Shkadov	Russia
27	Numerical analysis of the ironing process under conditions of variable lateral force	Marko Delić Slaviša Đačić Srbislav Aleksandrović Vesna Mandić Dušan Arsić Đorđe Ivković	Serbia Montenegro
28	Effect of W, Ni, and Co doping on the microstructure, corrosion resistance, and wear behavior of iron-based alloys processed by solid-state sintering	Lahcene Mebarki Hammoudi Abderazek Hassan Guendouz Ivana Atanasovska	Algeria Serbia
29	Hybrid metaheuristic algorithm: A novel approach for industrial optimization challenges	Hammoudi Abderazek Aissa Laouissi Mourad Nouioua Ivana Atanasovska	Algeria Serbia
30	Analysis of the influence of hot forging process parameters on tool wear using the finite element method	Marko Delić Miloš Delić	Serbia
31	Contact analysis of cycloidal reducers	Milan Vasić Mirko Blagojević	Serbia

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32	Advanced ceramic multilayer coatings for increasing the lifespan of cutting tools: A hybrid CVD-PVD approach	João P. Arrobas Ferreira Teodor C. Codău Cristina M. Fernandes Daniel Figueiredo Bruno Guimarães Ana V. Girão Rui Ramos Ferreira e Silva Filipe J. Oliveira	Portugal
33	Contact, friction and seismic waves during seismotectonic processes in the Earth's crust	Emilia Assenova Evgenia Kozhoukharova	Bulgaria
34	Wear and soldering performance of bare, nitrided and PVD coated hot-working tool steel in contact with Al-alloy casting	Pal Terek Lazar Kovačević Vladimir Terek Zoran Bobić Branko Škorić Marko Zagoričnik Aljaž Drnovšek	Serbia Slovenia
35	Dynamics of Pb separation to the surface in self-lubricating composite materials at elevated operating temperatures	Petya Tabakova Anna Petrova Korneli Grigorov Hristo Kolev Georgi Avdeev	Bulgaria
36	Tribological performance evaluation of grey cast iron with phosphonium-based ionic liquids	Muhammad Usman Bhutta Chaudhry Kashif Iqbal Muhammad Usman Abdullah Rehman Latif Akbar Khan Zada Rehan Zahid Jawad Aslam Mian Ashfaq Ali Riaz Ahmad Mufti	Pakistan
37	Wear and friction performance analysis of polyalphaolefin with TO2 nano additives under reciprocating motion	Chaudhry Kashif Iqbal Muhammad Usman Bhutta Muhammad Usman Abdullah Jawad Aslam Rehan Zahid Mian Ashfaq Ali Riaz Ahmad Mufti	Pakistan

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38	Elucidation of changes in the microstructure of vegetable lubricants based on analysis of rheological parameters determined from the MSD correlation function carried out by DWS diffusion spectroscopy and spectra carried out by Raman spectroscopy	Rafal Kozdrach Jolanta Drabik	Poland
39	Impact of magnesium on the characteristics of rapidly solidified aluminium alloys	Adelinna Miteva Anna Petrova Georgi Stefanov	Bulgaria
40	The importance of substrate material in high temperature tribological testing of PVD coatings - a case study	Vladimir Terek Lazar Kovačević Aljaž Drnovšek Miha Čekada Branko Škorić Zoran Bobić Pal Terek	Serbia Slovenia
41	Non exhaust emissions resulting from wear of components on electric and hybrid vehicles	Saša Vasiljević Jasna Glišović Jovanka Lukić Danijela Miloradović Milan Đorđević	Serbia
42	Investigation of tribological properties of protic ionic liquids as versatile additives for environmentally friendly water-based lubricants	Raimondas Kreivaitis Artūras Kupčinskas Jolanta Treinytė Milda Gumbytė	Lithuania
43	Optimization of Classification of Wear Particles and Debris	Jiri Stodola	Czechia
44	Pressure drop analysis in solenoid-type valves: Discrepancies between experimental results and manufacturer data	Emanuel Alexander Moreno Aldana Maurício Nogueira Frota	Brazil
45	AlSi10Mg powder characteristics and wear mechanism of parts fabricated through laser powder bed fusion technique	Ram Krishna Upadhyay	India
46	Research progress of metal-organic framework in tribology	Hanglin Li Xudong Sui Pablo Ayala Carsten Gachot Jiusheng Li	China Austria
47	Effect of acetabular cup thickness on maximum contact pressures in hip endoprostheses Nitrided Grade2(TDN) - UHMWPE	Myron Czerniec Jurij Czerniec Zubrzycki Jarosław	Ukraine Poland

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48	The influence of oxygen on corrosion and tribocorrosion of low carbon steel in hydrogen sulfide environment	Myroslav Khoma Marian Chuchman Chrystyna Vasyliv Vasyllvashkiv Nadija Ratska OlehVasyliv	Ukraine
49	Tribometer construction and testing Pin on Disc	Anđela Perović Mirjana Piskulić Stefan Čukić Miloš Matejić Blaža Stojanović	Serbia
50	Modification of gate valve sealing element to enhance the wear resistance	Khalig Mammadov Jamaladdin Aslanov	Azerbaijan
51	Analysis of pressure distribution in 3d-printed sliding bearings using hertzian contact theory	Ivan Simonovic Aleksandar Marinkovic	Serbia
52	Design and Synergistic Interaction of Etheramine-Based Ash-Free Organic Friction Modifiers with ZDDP	Wenjing Hu Jiusheng Li	China
53	Influence OF B4C content and processing conditions on wear resistance of aluminum	Sandra Gajević Slavica Miladinović Onur Güler Serdar Özkaya Lozica Ivanović Jelena Jovanović Blaža Stojanović	Serbia Turkey
54	Tribocorrosion of aluminum alloy in a chloride-containing environment inhibited by a maltodextrin-based composition	Sergiy Korniy Marjana Tymus IvanZin	Ukraine
55	Influence of operating conditions on the power losses of the worm gearbox	Aleksandar Skulić Sandra Gajević Saša Milojević Milan Bukvić Igor Lavrnić Blaža Stojanović	Serbia
56	Applicability of wear models for material parameter prediction based on pin-on-disc wear data	Shivasharanappa Gubbewad Amaresh Raichur	India
57	Case study on suitability of rail grease performance for light rail transit (LRT) Kelana Jaya, Malaysia	Mohamad Ali Ahmad Nadia Nurul Nabihah Ahmad Fuad Wan Ahmad Syahmiwan Amir Zaki Sabrina Karim	Malaysia

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58	Castor oil based eco-friendly lubricating oil additives - Castor oil based terpolymer with styrene and α -olefin as biodegradable additive in lube oil	Sayak P Ghosh Pranab Ghosh	India
59	Finite element analysis of stress and contact pressure in steel plates under varying friction coefficients	Vladimir Milovanović Miloš Pešić Snežana Vulović Živana Jovanović Pešić Miroslav Živković	Serbia
60	The influence of soil abrasive mass pH on steel wear processes	Marcin Kowalewski Jerzy Napiórkowski Łukasz Konat	Poland
61	Experimental study on rubber-granite friction in dry and contaminated contact	Ionut Marius Nazarie Ilie Musca Ionut Cristian Romanu Irin aBesliu - Bancescu	Romania
62	Effect of heterogeneous anisotropic material on thermal EHL in simple sliding line contact	Jing Wang Huanian Liu Cornelis Venner	China Netherlands
63	Classification of Tribological Units: Influence of Materials and Operating Conditions	Gabriela Kotseva Nikolay Stoimenov	Bulgaria
64	Comparative analysis of data processing methods for insights into nanoscale friction multidimensional experimental data	Marko Perčić Luka Cvijović	Croatia
65	Life prediction for reciprocating seals under velocity profile based on specific sealing pressure model	Yunhao Zhang Chao Zhang Shaoping Wang Rentong Chen Jiashan Gao	China
66	Effect of cavitation erosion on material mechanical properties and machine element performance	Pavle Ljubojevic Tatjana Lazović Marina Dojčinović Jovana Antić	Serbia
67	Analysis of some influential factors in the deep drawing process under the action of a continuously variable lateral force	Slaviša Djačić Srbislav Aleksandrović Dušan Arsić Vukić Lazić Marko DeliĆ Milan Djordjević	Serbia
68	Influence of surface structure on the generation intensity of wear particles of polymer materials for sliding bearings	Wojciech Tarasiuk Aleksandar Kosarac Tomasz Węgrzyn Bożena Szczucka-Lasota Jan Piwnik	Poland BiH

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69	Functional analysis of surface roughness	Suzana Petrovic Savic Milos Zivanovic Marko Pantic Dragan Dzunic Vladimir Kocovic Zivana Jovanovic Pesic Aleksandar Djordjevic	Serbia
70	Evaluation of datasets generated during tribological tests at nanotribometer by using nonlinear regression analysis	Petar Todorović Nikola Kotorčević Fatima Živić	Serbia
71	Physics-based simple analytical model of water flow through micro-porous filter	Nikola Kotorcevic Fatima Zivic Strahinja Milenkovic Nenad Grujovic Nikola Milivojevic	Serbia
72	Effect of laser processing parameters on the surface roughness of titanium samples	Živana Jovanović Pešić Aleksandra Vulović Strahinja Milenković	Serbia
73	Investigation of shielded metal arc welding (SMAW) weld integrity on a low- carbon steel pipeline using destructive mechanical testing technique	Emmanuel Abejirin Ossia Chinwuba Victor	Nigeria
74	Tribological behavior and wear resistance of Ni60WC alloy coating deposited by surfacing welding on the flight lands of injection molding machine screws	Wangping Wu Sheng Lin Yang Yang	China
75	The influence of cutting depth on surface roughness of 3d printed parts	Strahinja Djurović Milan Ivković Nikolaj Velikinac Dragan Lazarević Milan Mišić Bojan Stojčetočić Stefan Miletić	Serbia
76	Influence of cutting conditions on surface roughness of PA and PA15	Milan Ivković Stefan Mihailović Strahinja Djurović Stefan Miletić Bogdan Zivković Bogdan Nedić Suzana petrović savić	Serbia

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77	Impact tests for two composites for marine applications	Ioana Gabriela Chiracu Constantin Georgescu George Cătălin Cristea George Ghiocel Ojoc Mihail Boțan Alexandru Viorel Vasiliu Lorena Deleanu	Romania
78	Investigation of the tribological characteristics of polymer materials (PLA, PLA+copper, and abs) under lubricated and dry sliding conditions	Stefan Miletić Slobodan Mitrović Dragan Džunić Marijana Savković Živana Jovanović Pešić Milan Ivković	Serbia
79	Mechanical interlocking enables adhesion control under unfavourable environmental conditions	Marco Bruno Luigi Portaluri Massimo De Vittorio Stanislav Gorb Michele Scaraggi	Italy Germany
80	Lifetime prediction model of reciprocating seal considering variable speed profile	Yunhao Zhang Chao Zhang Shaoping Wang Rentong Chen Jiashan Gao	China Italy
81	Analysis of rolling resistance parameters in gravity flow racks for heavy-duty applications	Mirjana Piskulić Rodoljub Vujanac Nenad Miloradovic	Serbia
82	Analysis of datasets generated during tribological tests at nanotribometer by using nonlinear regression analysis	Petar Todorovic Nikola Kotorcevic Fatima Zivic	Serbia
83	Analysis of the effects of cutting speed and focus position on oxidation marks in fiber reactive laser cutting	Miloš Madić Dušan Petković Miroslav Mijajlović Milan Banić Milan Trifunović	Serbia
84	The role of tribology in improving the performance of machinery systems	Milica Utvic Bojan Stojcetovic Milan Mistic	Serbia
85	Impact of graphene on the properties of phase change material	Kapilan Natesan Sriram Mukunda P. Vidhya P K. Shivarishika K	India
86	Study on mechanical and microstructural properties of 7075Al/SiC metal matrix composites	Sriram Mukunda Kapilan Natesan	India

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88	Finite element investigation of the effect of friction conditions and cutting environment in turning of AISI H13 hardened steel	Nikolaos E. Karkalos Nikolaos A. Fountas Nikolaos M. Vaxevanidis	Greece
89	Tribological aspects of identification of the key causes of reduction in the efficiency of axial piston water hydraulic pumps	Nenad Todić Slobodan Savić Živojin Stamenković Blaža Stojanović	Serbia
90	Possibilities of applying artificial intelligence in the field of tribological research	Milan Erić Miladin Stefanović Slobodan Mitrović Dragan Džunić Vladimir Kočović Živana Jovanović Pešić Suzana Petrović Savić Aleksandar Đorđević Marko Pantić	Serbia