18th International Conference on Tribology 17-19 May 2023, Kragujevac, Serbia



List of the accepted abstracts for the SERBIATRIB '23 conference

No.	Title	Authors	Country
1	The ability of spectrometric oil analysis diagnostic method results to enhance method credibility and useful data acquisition against equipment failures	Polychronis Dellis	Greece
2	Nanocomposite coatings for tribological applications	Zulfiqar Khan	United Kingdom
3	The influence of ceramic additives on the tribological and rheological properties of vegetable lubricating greases	Rafal Kozdrach	Poland
4	Calculation of Lancaster Coefficient of Electro- Spark Deposited Alumina/MoS2 Nanocomposite Coating	Mohammad Roostaei Arvin Taghizadeh Tabrizi Hossein Aghajani	Iran
5	Influence of Profile Geometry on Frictional Energy Dissipation in a Compliant Steel-on-Steel Fretting Contact: Macroscopic Modelling and Experiment	Emanuel Willert	Germany
6	Analysis of n-alkanes concentration in soil for estimating the time of diesel fuel spillage	Sreten Perić Radovan Radovanović Bogdan Nedić Mladen Vuruna Mihael Bučko	Serbia
7	Contact of an elastic quarter space with freely sliding side	Qiang Li	Germany
8	Investigation of the wear of aluminium-silicon alloys tribosystems under reversible friction with lubrication	Mara Kandeva Boyan Dochev Desislava Dimova Mihail Zagorski Plamen Kasabov Ivan Panov	Bulgaria
9	Investigation of the effect of heat treatment on the microhardness and wear resistance of an alloy AlSi18Cu3CrMn	Desislava Dimova Ivan Panov Boyan Dochev Mara Kandeva	Bulgaria
10	Investigation of the microgeometry of the surfaces of AlSi25Cu4Cr and AlSi25Cu5Cr alloys after turning	Plamen Kasabov Boyan Dochev Desislava Dimova Mihail Zagorski Georgiya Kamburova	Bulgaria
11	Application of fuzzy logic artificial intelligence in modelling bevel angle response in plasma manufacturing process	Ivan Peko Boris Crnokić Igor Planinić	Croatia BiH



No.	Title	Authors	Country
12	Fuzzy logic modelling of surface roughness in plasma jet cutting process of shipbuilding aluminium alloy 5083	Ivan Peko Dejan Marić Tomislav Šolić Bogdan Nedić Mario Dragičević	Croatia Serbia Switzerland
13	Simulation of mechanical processes at the contact region of a dental implant with bone tissues under shock wave treatment	Alexey Smolin Galina Eremina Irina Martyshina	Russia
14	Design, Fabrication, and Study of Droplet Tube Based Triboelectric Nanogenerators	Yana Xiao	Austria
15	Investigation of the surface tribology before and after graphene oxide deposition on ultra-high molecular weight polyethylene films	Vladimir Pakhaliuk Victor Vasilets Aleksandr Poliakov Yuri Velyaev	Russia
16	The influence of the temperature of disc brakes on the vehicle stopping efficiency	Nadica Stojanovic Ivan Grujic Ali Belhocine	Serbia Algeria
17	Tribological aspects of polymers and their composites used in additive manufacturing – Case based stydies and some review	Abhijit Mukhopadhyay Sounak Banerjee	India
18	Effects of surface texture on the wettability, droplet impact, and anti-frosting performances	Qingwen Dai Jingqiu Wang Wei Huang Xiaolei Wang	China
19	Effects of Applied Loads and Aluminium Nanoparticle Additions on Wear Resistance Properties of Particle Reinforced Epoxy Nanocomposites	Sefiu Bello Maruf Kolawole Sunday Balogun Johnson Agunsoye Suleiman Hassan	Nigeria
20	Role of Particle Shape in Slurry Erosion Wear of AA6063	Bhushan Nandre Girish Desale	India
21	Adhesion and friction in hard and soft contacts	Valentin L. Popov Qiang Li Iakov Lyashenko	Germany
22	Effect of chemical inhomogeneities and hard particles on adhesion between hard indenters and soft rubber layers	lakov A. Lyashenko Qiang Li Valentin L. Popov	Germany
23	Articular Cartilage Growth and Self- Maintenance – Biological Background and Mechanical Modelling	Jean-Emmanuel Leroy	Germany
24	Technology of obtaining coatings by detonation spraying on parts of power equipment of thermal power plants	Merkhat Dautbekov Bauyrzhan Rakhadilov Aidar Kenesbekov Laila Zhurerova	Kazakhstan



No.	Title	Authors	Country
25	Design of the springs tightening for a double cartridge mechanical seal	Andrei Stanciu Costin Ilinca Razvan George Ripeanu	Romania
26	The mystery and clarity of Leonardo da Vinci's coefficient of friction	Sergey Fedorov	Russia
27	Tribological investigation of the effect of aluminum alloy in accordance with cast iron liner on engine wear	Emrullah Hakan Kaleli Baycan Ocak	Turkey
28	Polymer coatings to combat fretting corrosion	Albert Yakovlevich Bashkarev Viktoria Yurievna Bessonova Alexandra Vladimirovna Kuschenko	Russia
29	Control of Friction by Ultrasonic Oscillations	Jasminka Starcevic Valentin Popov	Germany
30	Surface characteristics, properties and wear resistance of TiB2 based hard-alloy coatings obtained by electrospark deposition at negative polarity on Ti6Al4V alloy	Todor Penyashki Georgi Kostadinov Mara Kandeva Antonio Nikolov Rayna Dimitrova Valentin Kamburov	Bulgaria
31	Study of the influence of coating roughness on the properties and wear resistance of electrospark deposited Ti6Al4V titanium alloy	Todor Penyashki Georgi Kostadinov Mara Kandeva Antonio Nikolov Rayna Dimitrova Valentin Kamburov Pancho Danailov Snezhan Bozhkov	Bulgaria
32	A comparative calculation of the efficiency of a classic and a non-pin wheel cyloidal reducer	Mirko Blagojevic Milan Vasić Miloš Matejić	Serbia
33	Increase of Wear and Heat Resistance of the AISI 304 Steel Surface Layer by Multi-pass Nanostructuring Burnishing	Viktor P. Kuznetsov Anna V. Kosareva	Russia
34	Effective strains determination in continuous constrained double bending with active friction forces	Valentin Kamburov Antonio Nikolov	Bulgaria
35	Influence of the Geometry and the In-Depth Grading on the Frictional Energy Dissipation in Partial Slip Contacts of Axisymmetric Power-Law Graded Elastic Solids under Oscillating Tangential Loads	Josefine Wilhayn Markus Heß	Germany



No.	Title	Authors	Country
36	On the Wear and Scuffing Properties of Lubricating Oil with Environmental Contaminants	Jin-Long Lin Jeng-Haur Horng Ming-Wei Huang Chun-Wei Kuo	Taiwan
37	Friction and wear behaviour of Cu-hBN nano composites	Smita Gupta Vivek Kumar Hemant Nautiyal Rajnesh Tyagi	India
38	Development of Wear Resistant Ceramic Coating on Steel using HVOF Thermal Spray	Abhijit Pattnayak Abhijith N.V Deepak Kumar Jayant Jain Vijay Chaudhry	India
39	Fabrication and characterization of aluminum- based powders multi-reinforced with nano- and microparticles for gas-dynamic spraying of tribological coatings	Artemiy Aborkin Dmitriy Babin Dmitriy Bokaryov	Russia
40	Some of the effects of the behavior of PTFE in boundary lubrication conditions based on experimental research on gas pipeline valves with the possibility of supplementary lubrication	Željko Aleksić Dušan Ješić	Serbia
41	Effect of in situ SiC addition on the wear behaviour of Cu- composites	Jyoti Smita Gupta Vinay Kumar Singh	India
42	Tensile testing of materials at elevated temperatures on a small laboratory device	Sonja Kostić Vladimir Kočović Dragan Džunić Suzana Petrović Savić Milan Stanojević Milan Đorđević Branko Tadić	Serbia
43	Shear stress, deformation and sliding between colliding plates in the subduction zone	Emilia Assenova Evgenia Kozhoukharova	Bulgaria
44	The modelling of surface roughness after the turning of Inconel 601 by using artificial neural network	Goran Jovicic Aleksandar Milosevic Mario Sokac Zeljko Santosi Vladimir Kocovic Goran Simunovic Djordje Vukelic	Serbia Croatia



No.	Title	Authors	Country
45	Analysis of surface roughness and static friction coefficient of Co-Cr-Mo alloy for removable partial deture framework	Natasa Puskar Milica Puskar Mario Sokac Zeljko Santosi Milos Kuzmanovic Igor Budak Djordje Vukelic	Serbia
46	Working out the processes of deposition "metalmetal" multi-layer coatings (Cu-Mo, Cu-MoN, Cu-C) and studying the tribological characteristics of friction pairs	Olexiy Sagalovych Vladislav Sagalovych Stanislav Dudnik Viktor Popov Oleksandr Oleynik	Ukraine
47	Experimental Investigations on Wear Phenomena Specific to Rotary Dryer Flights (Blades)	Andrei Burlacu Marius Gabriel Petrescu Răzvan George Rîpeanu Teodor Dumitru Eugen Victor Laudacescu Ibrahim Naim Ramadan Adrian Niță	Romania
48	Development of biodegradable lubricant oil based on components of plant origin	Feodor Grigoriev Nikolai Myshkin	Belarus
49	Nanomaterials: Effective and economically viable solutions of Engineering and technological issues	M A Shah	India
50	Optimization of the micro-cutting process in order to reduce the surface roughness	Vladimir Kočović Sonja Kostić Dragan Džunić Suzana Petrović Savić Ivan Bijelić Dragomir Miljanić Djordje Vukelić	Serbia Montenegro
51	Tribological response of zirconium alloys towards different conditions	Bharat Kumar Deepak Kumar Vijay Chaudhry	India
52	Tribological Behavior of Cast Aluminum Matrix Composites After Multiple Remelting	Evgeny Prusov Artemiy Aborkin Vladislav Deev Dmitriy Bokaryov Dmitriy Babin	Russia
53	Investigation of tribological characteristics of ferrite nodular cast	Dušan Ješić Pavel Kovač Borislav Savković Dražen Sarjanović Sandra Sovilj-Nikić	Serbia
54	Dynamical system in fiction model linking micro to macro scale fiction	Motohisa Hirano	Japan



No.	Title	Authors	Country
55	Microstructural and tribological properties of thermally sprayed high entropy alloys coating	Abhijith N. V. Abhijit Pattnayak Deepak Kumar	India
56	Investigation of wear resistance of polyamide PA6 based composite materials for metal - polymer plain bearings and gears	Myron Chernets Yuriy Chernets Yuriy Skvarok Jarosław Zubrzycki	Ukraine Poland
57	Foundry coatings - Review	Gergana Milanova	Bulgaria
58	Triboelectric Nanogenerators Based on 2D Graphitic Carbon Nitride Doped Composites	Yana Xiao	Austria
59	Static and kinetic friction of 3D printed polymers and composites	Nikolay Stoimenov Mara Kandeva Mihail Zagorski Peter Panev	Bulgaria
60	Influence of contact conditions on the process of the thin sheet sliding during the flat die	Milan T. Đorđević Srbislav Aleksandrović Tomislav Vujinović Dušan Arsić Aleksandar Todić Dragan Čukanović Marko Delić	Serbia
61	Simulation of the mechanical behavior of the degradation L4-L5 lumbar spine	Galina Eremina	Russia
62	The technological factors and operating conditions influence on the molybdenum disulfide coatings tribological properties	Maksim Prozhega Egor Reschikov Egor Konstantinov	Russia
63	Enhanced Mechanical and Wear Properties of Ceramic Reinforced Ni-W-P Coatings	Humaira Kausar Malik Adeel Umer Khuram Shahzad Abdul Basit	Pakistan
64	Abrasive wear performance of coir fiber reinforced polymer composite	A. Shalwan S. Mallampati B. F. Yousif	Kuwait Australia
65	Research progress of surface textured drill bearing lubrication wear reduction	Gang Wei Guorong Wang Lin Zhong	China
66	Study on Wear Resistance of Piston Ring- Cylinder Liner under Combined Action of Laser Shock Strengthening and Bionic Texture	Yang Wang Guo rong Wang Lin Zhong Gui rong Kang Gang Wei	China



No.	Title	Authors	Country
67	MXene nanosheets as novel materials for improving machine elements properties	Ivan Simonović Aleksandar Marinković Carsten Gachot Pavle Ljubojević	Serbia
68	Numerical analysis of a viscous transmision	Andrei-Iancu Stoicescu Adrian Predescu	Romania
69	The tribological and rheological properties of vegetable lubricating grease modified of TiO2 nanoparticles	Rafal Kozdrach	Poland
70	Research and application exploration on wear resistance and drag reduction performance of bionic texture on surface interface of oil and gas equipment	Guorong Wang Lin Zhong Gang Wei Yang Wang Xia He	China
71	Research progress on drag reduction of riser surface groove texture	Lin Zhong Guorong Wang	China
72	Tribo-corrosion of pipeline steel in chloride- acetate environments at the different concentrations of hydrogen sulfide and carbon dioxide	Myroslav Khoma Vasyl Vynar Marian Chuchman Chrystyna Vasyliv	Ukraine
73	A review on mechanical and tribological properties of aluminium based metal matrix nanocomposites	Sandra Gajević Aleksandar Vencl Slavica Miladinović Dragan Džunić Blaža Stojanović	Serbia
74	Deterministic model of elastic rough contact taking into account the mutual influence of asperities	Anastasiya Yakovenko Irina Goryacheva	Russia
75	Lubrication of Radial Loaded Tapered Roller Bearings Under High Rotational Speeds	Marcus Gärtner Christian Brecher Stephan Neus	Germany
76	The influence of the phase arrangement of ATZ composites on their wear rate under ball-on- disc tests	Marek Grabowy Agnieszka Wojteczko Piotr Osada Grzegorz Wiązania Zbigniew Pędzich	Poland
77	Effect of Cross-Sectional Profile of Circular Dimples on Hydrodynamic Lubrication Characteristics of Thrust Bearings	Ryota Ishii Reo Miwa Norifumi Miyanaga Jun Tomioka	Japan
78	Evaluation of wear model equations through analysis of experimental wear data of materials from literature	Shivasharanappa Gubbewad Amaresh Raichur	India



79	Analysis of static friction of solid and viscoelastic	Milan Nikolić	Carlaia
			Serbia
	bodies	Dušan Stamenković	
		Milan Banić	
80	Increasing the wear resistance of Ni3Al-	Muhammet Demirtas	Turkey
	15vol.%TiC composite via high current pulsed	Konstantin V. Ivanov	Russia
	electron beam irradiation	Gencaga Purcek	
0.4		Harun Yanar	-
81	Correlating tribological and electrochemical characteristics of stainless steels in a basic media	Kaouthar Bouguerra Caroline Richard	France
	Characteristics of Stainless Steels in a pasic media		
		Yan Ming Chen Nadege Ducommun	
		Alexandre Romaine	
		Pierre-François Cardey	
82	Standardization in tribology	Lorena Deleanu	Romania
02	Standardization in tribology	Constantin Georgescu	Romania
		George Catalin Cristea	
		Traian Florian Ionescu	
		Dionis Guglea	
		George Ghiocel Ojoc	
		Dumitru Dima	
		Iulia Paduraru	
83	Mechanical and tribological properties of	Asad Malik	Pakistan
	microstructure tailored secondary carbide	Abdul Basit	
	reinforced NbC-Ni Cermets	Adeel Umer	
84	Modeling the effect of wear debris film (third	Alexey Shpenev	Russia
		•	
85	Tribology of electric vehicles - a review		Romania
86	. .		Hungary
	· ·		
07	·		
8/	, , ,		Komania
	steer	_	
		_	
		•	
88	Effects of surface roughness on results of scratch		Serbia
	_		
			2.0.0
		Branko Škorić	
		Miha Čekada	
		Pal Terek	
	microstructure tailored secondary carbide reinforced NbC-Ni Cermets	Dumitru Dima Iulia Paduraru Asad Malik Abdul Basit Adeel Umer Alexey Shpenev Pavel Bukovskiy Iulian Păduraru Iulia P. Graur Lorena Deleanu Ádám István Szabó Álmos Dávid Tóth Hajnalka Hargitai Lorena Deleanu Alina Cantaragiu Ceoromila Constantin Georgescu Larisa Chiper Titire Ioana Gabriela Chiracu Zoran Bobic Lazar Kovačević Vladimir Terek Dragan Kukuruzović Branko Škorić Miha Čekada	



No.	Title	Authors	Country
89	Tribological behavior of TiAIN and nanolayered TiAIN/TiSiN coating tested at high temperatures	Vladimir Terek Lazar Kovačević Zoran Bobic Branko Škorić Aljaž Drnovšek Miha Čekada Peter Panjan Pal Terek	Serbia Slovenia
90	Tribological performance analysis of grey cast iron with phosphonium-based ionic liquids	Muhammad Usman Bhutta Chaudhry Kashif Iqbal Rehman Latif Akbar Khan Zada Rehan Zahid Mian Ashfaq Ali Jawad Aslam Riaz Ahmad Mufti	Pakistan
91	Friction & Wear Performance Evaluation of Polyalphaolefin with Titanium Oxide Nano Additives under Reciprocating Point Contact	Chaudhry Kashif Iqbal Muhammad Usman Bhutta Rehman Latif Akbar Khan Zada Jawad Aslam Mian Ashfaq Ali Rehan Zahid Riaz Ahmad Mufti	Pakistan
92	Statistical Modeling and Optimization of Surface Roughness for PLA and PLA/Wood FDM fabricated items	Nikolaos Fountas John Kechagias Nikolaos Vaxevanidis	Greece
93	Selection of machine learning algorithms for nanocomposite ZA-27 material transfer prediction	Aleksandar Đorđević Dragan Džunić Marko Pantić Milan Erić Slobodan Mitrović Miladin Stefanović	Serbia
94	Empirical modeling methods of turning process: A review	Jelena Stanojković Miloš Madić Dragan Lazarević	Serbia
95	N-methyl-2-(1-(5-methylthiophen-2-yl)ethylidene)hydrazinecarbothioamide as corrosion inhibitor for mild steel in HCl solution: weight loss and DFT investigations	Ahmed Al-Amiery Waleed Al-Azzawi	Malaysia Iraq



No.	Title	Authors	Country
96	Droplets can bounce on wetted cylinders	Chuchen Yue Qingwen Dai	China
		Jinqiu Wang Wei Huang Xiaolei Wang	
97	Tribological analysis of gear EP lubricant mixed with Al2O3/SiO2/ZrO2 composite additive	Tushar Gadekar Dinesh Kamble Nitin Ambhore	India
98	Triboinformatic modeling of wear in total knee replacement implants using machine learning algorithms	Vipin Kumar Ravi Prakash Tewari Ramesh Pandey Anubhav Rawat	India
99	Taguchi and Regression Analysis of Abrasive Wear Behavior of Carbon Epoxy Composite	Sudarshan Rao K	India
100	Characteristics of Al6061-SiC-Al2O3 Surface Hybrid Composites Fabricated by Friction Stir Processing	Muna Abbass Noor Alhuda Sharhan	Iraq
101	Heat treatment influence on the cavitational erosion Zn-Mg behavior used for biomedical applications	Alexandru Nicolae Luca Ilare Bordeasu Cristina Maria Iordache Gabriela Ciungu Brandusa Ghiban Marian Miculescu Lavinia Madalina Micu	Romania
102	Cavitational erosion behavior of a biodegradable alloy from the Zn-Mg system for biomedical applications	Cristina Maria Iordache Alexandru Nicolae Luca Ilare Bordeasu Gabriela Ciungu Brandusa Ghiban	Romania
102	Technical system conditions monitoring via the lubricating oil analysis	Gordana Globočki-Lakić Sreten Perić Mihael Bučko Bogdan Nedić	BiH Serbia
103	Recent computational approaches for the insilico wear determination in total hip replacements considering synovial lubrication effects and musculoskeletal dynamics	Alessandro Ruggiero	Italy
104	Application of the fractal geometry in wear volume calculations at micro scale	Nina Busarac Nikola Kotorčević Slobodan Mitrović Dragan Adamović Petar Todorović Nenad Grujović Fatima Živić	Serbia



No.	Title	Authors	Country
105	Texturing of a high-pressure fuel pump plunger pair for common rail fuel supply systems	Konstantin Gavrilov Vlad Hudyakov	Russia
106	Aggregation of micro-particles in microfluidic texture to improve tribological properties	Qi Liu Chunbiao Ruan Hengdi Yuan Nsilani Kouediatouka Ange Guangneng Dong	China
107	Optimization of input parameters in rotor bearing system: using Taguchy method and ANOVA	Sudheer Kumar Veernapu Nagaraju Cherukuri	India
108	Tribology and Industry 4.0	Bogdan Nedić Gordana Globočki-Lakić	Serbia BiH
109	Wear behavior of PEEK-based composites designed for water lubrication bearings	Vladislav O. Alexenko Dmitry G. Buslovich Sergey V. Panin	Russia
110	The experimental investigation of friction occurrence in grinding process with abrasive belts	Marija Matejic Milos Matejic Jovana Zivic Jasmina Skerlic Dragan Lazarevic Marko Pantic	Serbia
111	Research on tribological behavior of friction materials with identical and different crystal lattice on a model with ironing	Dragan Adamovic Fatima Zivic Tomislav Vujinovic Nada Ratkovic Marko Topalovic Nina Busarac	Serbia BiH
112	Development and Tribological Analysis of Bio- Based Lubricant using Two Non-Edible Oils: Castor Oil and Neem Oil	Ayan Bindra Dipali Yadav Manan Anand	India
113	Surface characterisation using image processing	Suzana Petrovic Savic Vladimir Kocovic Dragan Dzunic Marko Pantic Sonja Kostic Sasa Milojevic Tijana Prodanovic	Serbia



No.	Title	Authors	Country
114	Importance of tribological investigations in selecting the technology for reparation of working parts of construction mechanization	Đorđe Ivković Dušan Arsić Milan Mutavdžić Vukić Lazić Srbislav Aleksandrović Milan Đorđević	Serbia
115	Analysis of the influence of friction on the dimensional accuracy of the workpiece in the process of combined extrusion	Marko Delić Vesna Mandić Nenad Stanojlović	Serbia
116	Influence of the nozzle wear on 3D printing quality	Strahinja Milenković Živana Jovanović Pešić Nikola Palić Vukašin Slavković Nenad Grujović Fatima Živić	Serbia
117	Tribological behaviour and surface roughness	Strahinja Djurovic Dragan Lazarevic Milan Ivkovic Milan Misic Bojan Stojcetovic Zivce Sarkocevic	Serbia
118	Surface Morphology and its Studies of Al-17Si alloys during Friction Stir Welding Processes	Shailesh Rao	India
119	Influence of Cutting inserts in machining Al-Si alloy-based Metal Matrix Composites	Sudheer J Reddy	India
120	High velocity oxy - fuel coatings tribology: A critical review	Balachandra P Shetty G. J. Naveen Shailesh S Rao	India