



Balkan Tribological
Association



Society of Bulgarian
Tribologists



Technical University
Sofia

BALKANTRIB'24

ONLINE SESSIONS

Note: The order of presentation may be changed due to the no-show of a participant or if another participant in the conference wishes to give a presentation online

Session 1 – 13:00 – 14:00

<https://teams.live.com/join/9426576761642?p=rGUxejUCdyt2lwVn73>

1. **Development of FDM additive production technique for metal production and investigation of mechanical properties**
Mohamad Saber Hereh, Cem Sinanoğlu, Turkey
2. **Tribology and informatics**
Lachezar Grigorov, Bulgaria
3. **Taber Rotary Abrasion Properties of Mg Matrix SiC, B4C Reinforced Composites Prepared by Ball Milling**
Esen DAĞAŞAN BULUCU, Serdar AKAY, Turkey
4. **Prediction of instantaneous friction along the tooth of a gear in mixed lubrication**
A. Bouzana, F. Belarifi, T.DA Silva Botelho, Algeria, France
5. **Considerations on the use of din 2696/1996 compared to other rules on metal gaskets**
M. M. Istrate, N. Popa, V.D. Popescu, M.T. Popescu, Romania



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Session 2 – 14:00 – 15:00

<https://teams.live.com/meet/9457781289025?p=TEpQv5SUgPFR8W3DLY>

6. **Effect of post-processes on tribological behavior of additively manufactured PA12 parts**
Binnur Sagbas, Beyza Gavcar, Turkey
7. **Considerations concerning the calculation of sealing forces in a lenticular gasket joint**
Maria Mihaela Istrate, Nicolae Popa, Valentin Dumitru Popescu, Marian-Teodor Popescu, Romania
8. **Considerations concerning the calculation of sealing forces in a biconical gasket joint**
Maria Mihaela Istrate, Nicolae Popa, Marian-Teodor Popescu, Valentin Dumitru Popescu, Romania
9. **Design and construction of a test stand for experimental research of the hydro-abrasive wear of surface welded dredger ship's cutter tools in underwater operation)**
Kalin Georgiev Lyutskanov, Bulgaria
10. **Surface roughness of ultrafine-grained Ti-13Nb-13Zr alloy induced using anodic oxidation**
Dragana Mihajlović, Sanja Stevanović, Veljko Đokić, Serbia

Session 3 – 15:00 – 16:00

<https://teams.live.com/meet/9475233487714?p=Yl0caB8eB9fztQE8Le>

11. **Effect of graphite powder and oil impregnation on alumina layer wear**
A. Adjeloua, ELHADI Zoubai, N. Boualem, A. Raid, Algeria
12. **Impact of regular relief patterns on the tribological properties of shaft surfaces**
Oleksandr Valentinovich Markov, Bulgaria
13. **Microstructure, hardness and wear behavior of plasma nitrided R260 grade rail steels under different N₂+H₂ gas mixtures**
Ahmet Deveci, Harun Mindivan, Turkey
14. **Improving impact sliding wear resistance of R260 grade rail steel subjected to plasma nitriding process**
Ahmet Deveci, Harun Mindivan, Turkey
15. **Antifrictional effect of laser surface texturing on titanium alloy in the biological environment**
Tadas Matijošius, Aušra Selskienė, Pavels Onufrijevs, Juozas Padgurskas, Lithuania, Latvia



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Session 4 – 16:00 – 17:00

<https://teams.live.com/meet/941866814591?p=DsoYjsB7UsS3bnhOcl>

16. **Mathematical modelling of corrosion behaviour of aluminium alloys EN AW-2011 and EN AW-2024 under different environmental parameters**
Iva Naydenova, Kalina Kamarska, Radoslava Terzieva, Bulgaria
17. **Effect of plasma nitriding process on dry sliding wear behaviour of HVOF-sprayed AISI 316L and AISI 420 stainless steel coatings using preliminary statistical analysis**
Züleyha Taskan, Elif Ozturk , Selman Tezcan, Harun Mindivan, Turkey
18. **Effect of low temperature pack aluminizing process on wear behaviour of Ti6Al4V alloy using Taguchi method**
Aysenur Egercioglu Yazici, Selman Tezcan, Harun Mindivan, Turkey
19. **Enhancing tribological properties of transmission fluids with SiO₂ nanoparticles**
María J.G. Guimarey, Francisco Gallástegui, Óscar Giner-Rajala, Alejandro Varela, Alfredo Amigo, Spain
20. **Effect of TiN coated and uncoated carbide end mills on the machining of ST52 steel**
Sengul Danisman, Emin Ersoy, Ahmet Öngen, Mehmet Şahin, Ahmed Cagri Sayin, Cagatay Yilmaz, Sinan Kesriklioglu, Turkey

Session 5 – 17:00 – 18:00

<https://teams.live.com/meet/9416433674282?p=N2v88Xn7TVIRVEBD6Q>

21. **A model for studying the viscosity of Newtonian fluids**
Georgi Dobrev, Bulgaria
22. **Investigation of the tribological characteristics of surface-welded aluminium-bronze layers after dry, semi-dry and liquid friction**
Nikolay Valchev, Tatyana Mechkarova , Apostol Ucherdzhiev , Yaroslav Argirov, Bulgaria
23. **Tribological analysis of engine oils of different viscosity**
Dragan Dzunic, Zivana Jovanovic Pesic, Vladimir Kocovic, Slobodan Mitrovic, Serbia
24. **Modelling the erosion wear of materials specific to progressive cavity pumps and piston pumps used in petroleum industry**
Aristia-Ioana Popovici, Mohamed Iyad Al Naboulsi, Ammar Mulla, Nicolae Napoleon Antonescu, Romania
25. **Design and construction of test benches for gas-diesel cycle engines,**
Atanasi Tashev, Bulgaria