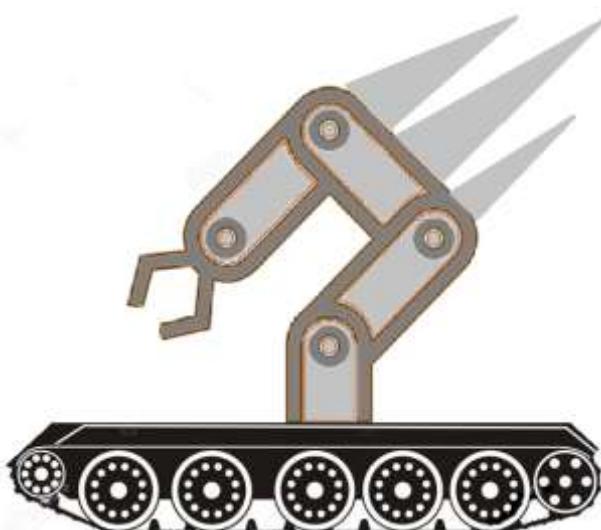


3RD INTERNATIONAL SCIENTIFIC CONFERENCE

**„Central Industrial District as the potential for
development and innovation in constructions
and technologies of special purpose”**

AGENDA



The Faculty of Mechanics and Technology

Rzeszow University of Technology

HSW S. A., Stalowa Wola

HOTEL DUO** SPA & WELLNESS, Rezydencja Sosnowa, Janów Lubelski**

7 – 9 June 2022

ORGANIZERS



Tuesday, June 7th 2022, WMT Stalowa Wola

9:00 – 10:00	Registration of participants – Lobby of the Faculty of Mechanics and Technology
10:00 – 10:30	Conference opening: Aula 111, WMT Stalowa Wola

SECTION I – Aula 111, WMT Stalowa Wola

10:30 – 12:10	Presidium: Mirosław TUPAJ DSc, PhD, Eng., Associate Prof., Jozef MAJERÍK PhD, Eng., Associate Prof.
10:30 – 10:40	Creation of the museum of central industrial region in Stalowa Wola – Aneta GARANTY
10:40 – 10:50	Design and numerical implementation of dedicated simulation systems for the armaments industry - selected issues – Marcin HOJNY, D. SZELIGA, A. G HANSSEN, L. OLOVSSON
10:50 – 11:00	Modeling of high mobility vehicle operating environment for mileage durability testing under contractual conditions – Mariusz KOSOBUDZKI
11:00 – 11:10	Presentation of the company HSW S.A.
11:10 – 11:20	Presentation of the company Autosan sp. z o.o.
11:20 – 11:30	Innovative solutions for on-board weighing systems of mobile working machines – Andrzej KOSIARA
11:30 – 11:40	Universal unmanned platform Rysiek 8x8 – Leszek GARDYŃSKI, Paweł KORDOS
11:40 – 11:50	Presentation of the company MZK sp. z o.o.
11:50 – 12:00	Presentation of ARP
12:00 – 12:10	Unconventional ways of joining materials in the automotive industry – Dušan SABADKA

12:10 – 12:30	Coffee break – Room 118
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SECTION II – Aula 111, WMT Stalowa Wola

12:30 – 14:10	Presidium: Marcin DRAJEWICZ DSc, PhD, Eng., Associate Prof., mjr. prof. Ing. Zdeněk POKORNÝ, Ph.D.
12:30 – 12:40	Selected properties of tungsten coating obtained in the ESD (Electro Spark Deposition) coating process – Wojciech DEPCZYŃSKI
12:40 – 12:50	Application of reverse engineering in the design of car components – Štefan KENDER
12:50 – 13:00	Strength of prototypes produced by FDM technology – Ema NOVÁKOVÁ - MARCINČÍNOVÁ
13:00 – 13:10	Prezentacja firmy Superior Industries Production Poland Sp. z o. o.
13:10 – 13:20	Effect of zeolite addition on the production of a cast porous composite based on an- AlSi11 silumin – Joanna BOROWIECKA-JAMROZEK, M. KARGUL, W DEPCZYŃSKI, Z ENGEL, S BOROWIECKI
13:20 – 13:30	Presentation of the company I-BS.pl sp. z o.o.
13:30 – 13:40	Application of the laser beam in materials science from macro to nanoscale – Agnieszka RADZISZEWSKA
13:40 – 13:50	Surface strengthening of technological equipment details – Ihor HUREY, Volodymyr HUREY, Tetyana HUREY, Weronika WOJTOWICZ
13:50 – 14:00	Multi-metallic composites by cold gas dynamic spray – Lukáš ŘEHOREK, Ivo DLOUHY, Jan VETISKA
14:00 – 14:10	Presentation of the company ITA spółka z ograniczoną odpowiedzialnością Sp. k.

14:10 – 15:00	Lunch – Room 118
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TIME FOR SIGHTSEEING

15:00 – 16:45	COP MUSEUM, next to the WMT Stalowa Wola
15:00 – 16:45	EXHIBITION OF HISTORICAL VEHICLES, WMT Stalowa Wola

17:00– 18:00	Transfer Stalowa Wola – Janów Lubelski (WMT PARKING)
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20:00	Official dinner – HOTEL DUO**** SPA & WELLNESS
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Wednesday, June 8th 2022, Duo Spa Janów Lubelski

SECTION III – HOTEL DUO** SPA & WELLNESS**

10:00 – 11:40	Presidium: Agnieszka RADZIEWSKA DSc, PhD, Eng., Associate Prof. , Igor BARÉNYI PhD, Eng., Associate Prof.
10:00 – 10:10	The diffusion coatings for industrial tool application – Marcin DRAJEWICZ, Marek GÓRAL, Adrianna PRZYBYŁO, Barbara KOŚCIELNIAK
10:10 – 10:20	High temperature protective coatings for aeroengines application – Marek GÓRAL, Tadeusz KUBASZEK, Marcin DRAJEWICZ, Barbara KOŚCIELNIAK, Kamil GANCARCZYK, Kamil OCHAŁ, Paweł PĘDRAK, Andrzej GRADZIK
10:20 – 10:30	Characteristics of structure, antibacterial and antiviral properties of TiO₂:Ag, N coating, produced by magnetron sputtering and annealing, on glass glued to touch displays – Andrzej DZIEDZIC, Stanisław ADAMIAK, Bartosz ZDEB, Anna ŻACZEK, Andrzej WAL, Wojciech BOCHNOWSKI, Łukasz SZYLLER, Leszek POTOCKI, Patrycja SKAŁA
10:30 – 10:40	Application of software tool for time analysis of the assembly process – Albert MAREŠ
10:40 – 10:50	Presentation of the company ZWICK ROEL
10:50 – 11:00	Analysis of the results of non-contact coordinate measurement of a cutting tool – Anna BAZAN M. MAGDZIAK, B. JAMUŁA
11:00 – 11:10	IWAMET – dostawca kompleksowych rozwiązań
11:10 – 11:20	From hydrophore to hydrogen- composite pressure vessels for special applications – Michał KRYSZTOPORSKI, Wojciech BŁAŻEJEWSKI, Przemysław SOBKIEWICZ, Paweł STABLA, Krzysztof TOWARNICKI, Paweł BURY, Michał BARCIKOWSKI, Joanna WARYCHA, Grzegorz LESIUK, Michał STOSIAK
11:20 – 11:30	Presentation of the company Uni-Export Instruments Polska
11:30 – 11:40	Tribological Properties Of The Mo-N/Mo Nanocomposite Coating – Stanisław ADAMIAK

11:40 – 12:10	Coffee break – HOTEL DUO**** SPA & WELLNESS
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SECTION IV – HOTEL DUO** SPA & WELLNESS**

12:10 – 13:50	Presidium: Prof. Antoni ORŁOWICZ DSc, PhD, Eng., Prof. Ihor HUREY DSc, PhD, Eng.
12:10 – 12:20	Mechanical properties of antibacterial TiO₂:Ag,N coating produced by magnetron sputtering and annealing, on glass glued to touch displays – Andrzej DZIEDZIC, Stanisław ADAMIAK, Bartosz ZDEB, Anna ŻACZEK, Andrzej WAL, Wojciech BOCHNOWSKI, Łukasz SZYLLER, Patrycja SKAŁA
12:20 – 12:30	Adhesion to substrate of antibacterial TiO₂:Ag, N coating produced by magnetron sputtering and annealing, on glass glued to touch displays – Andrzej DZIEDZIC, Stanisław ADAMIAK, Bartosz ZDEB, Anna ŻACZEK, Andrzej WAL, Wojciech BOCHNOWSKI, Łukasz SZYLLER, Patrycja SKAŁA
12:30 – 12:40	Perspektywy procesu zgrzewania tarciowego z małą siłą docisku – Paweł ŻURAWSKI
12:40 – 12:50	Methodology of ensuring research consistency in reverse engineering – Sylwia SIKORSKA- CZUPRYNA
12:50 – 13:00	Method of measurement the temperature of the face gear rim of a spiroid gear – Aleksander MAZURKOW, Łukasz CHODOŁA
13:00 – 13:10	Analysis of the density degree of sand foundry forms in the tribological aspect – Marek SZEWCZYK, Krzysztof SZWAJKA
13:10 – 13:20	Assessment of the aging of materials used in technical sealing – Justyna GUMIENIAK, Agnieszka KRAMEK
13:20 – 13:30	Variability Of Barkhausen Noise As A Function Of The Set Parameters Of The Grinding Process – Paweł KUBIK, Anna BAZAN, A .KAWALEC
13:30 – 13:40	Modeling of the connecting rod inertia forces – Jan CZYŻEWSKI
13:40 – 13:50	Analysis of the methods used to measure the pressure of gunpowder gases in the cartridge chamber of the 155 mm cannon mounted in the Krab – Piotr BIENIEK, Mirosław TUPAJ

14:00– 14:50	Lunch – HOTEL DUO**** SPA & WELLNESS
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SECTION V – HOTEL DUO** SPA & WELLNESS**

15:00 – 16:30	Presidium: Prof. Krzysztof NAPLOCHA DSc, PhD, Eng., pplk. doc. Ing. Zbyněk STUDENÝ, Ph.D.
15:00 – 15:10	Ocena mikrostruktury stali 800HT po wieloletniej eksploatacji – Damian SIERAKOWSKI, Lechosław TUZ, Sławomir KĄC
15:10 – 15:20	Modelling of indications of a measuring instrument with a linear processing function, taking into account the non-stationarity of its characteristics – Małgorzata KAWALEC
15:20 – 15:30	Characteristics of the abrasives used in the grinding process of spiral bevel gears – Kamil KUCHARSKI
15:30 – 15:40	Influence of the oxidized graphene additive on the diesel fuel quality parameters – Wioletta GÓRSKA-WŁODARCZYK
15:40 – 15:50	Ballistic resistance of composite materials tested by Taylor Anvil Test – Jindřich VILIŠ, Zdeněk POKORNÝ, Jan ZOUHAR, Miroslav JOPEK
15:50 – 16:00	Modification of diffusion layers by laser shock peening – Jiri PROCHAZKA
16:00 – 16:10	Changes in the properties of high strength steel sheet after mechanical bending stresses – Tomáš DRAŽAN
16:10 – 16:20	Opracowanie parametrów technologicznych spawania metodą TIG elementów stosowanych w przemyśle lotniczym, zapewniających minimalizację ich deformacji – Bartłomiej KUCIEL
16:00 – 16:30	The analysis of the lack of damping fluid in a viscous torsional vibration damper – Adam MICHAJŁYSZYN

Wednesday, June 8th 2022, Duo Spa Janów Lubelski

POSTER SECTION – HOTEL DUO** SPA & WELLNESS, Janów Lubelski**

Presidium: Marcin HOJNY, DSc, PhD, Eng., Associate Prof., Wojciech BŁAŻEJEWSKI, DSc, PhD, Eng., Associate Prof., Marek GÓRAL, DSc, PhD, Eng., Associate Prof., Andrzej DZIEDZIC DSc, PhD, Eng., Associate Prof., Wojciech DEPCZYŃSKI, DSc, PhD, Eng.,	
9:30 – 10:00 June 8th 2022	Installation of posters, Posters with the maximum size of A1, mounted to material boards with pins.
1	Application technology for wear-resistant rare earth-doped coatings – Justyna KASIŃSKA, Sławomir RUTKOWSKI
2	Selected problems of powering traction engines with alternative fuels – Grzegorz DZIENISZEWSKI, Joanna ZIELIŃSKA-SZWAJKA
3	Vision system for wound springs defect inspection – Marcin MARCINIĄK
4	Lifetime increase of valve sealing faces in internal combustion engines through microlaser cladded stellite coatings – Tomasz GALEK
5	Influence of the die shape on the material flow kinematics in the cold forward solid extrusion process – Tomasz MIĘEK
6	The problem of optimizing operating costs of spare parts – Leszek KLICH
7	Hybrid compositions of polyester powder paints – Wiesław PIETRYKA, Mariusz OLEKSY, Grzegorz BUDZIK, Rafał OLIWA
8	The comprehensive risk assessment of the foundry enterprises – Maryna BULAKH
9	New design of the load-bearing floor of the solid-body rail freight car – Denys BARANOVSKYI
10	Post-fire analysis of construction – Wojciech KIEŁCZYŃSKI, Maria GŁOWACKA, Michał LANDOWSKI
11	Cameras and lenses optical features exploration in order to develop system of video capturing and processing for virtual reality – Joanna GĄBKA, Radosław PORCZYŃSKI
12	Regenerative surfacing of the turbocharger shafts – Zenon OPIEKUN, Bogdan KUPIEC, Andrzej DEC
13	FMEA analysis of the spring manufacturing process – Kamil GORTYCH
16:30 - 17:00 June 8th 2022	Dismantling of posters

The International Scientific Committee will award the best poster and the best paper.

The results will be presented at an open-air dinner on Wednesday, June 8.

PANEL OF THE INTERNATIONAL SCIENTIFIC COMMITTEE – HOTEL DUO** SPA & WELLNESS**

16:30 – 17:00	Panel meeting of the International Scientific Committee of the Conference and invited guests.
20:00	Dinner in location. Presentation of awards for posters and papers.

Thursday, June 9th 2022, HSW Stalowa Wola

9:00– 10:00	Transfer Janów Lubelski – Stalowa Wola
10:00– 13:00	Visiting HSW S.A. Vehicle field tests
13:00– 14:00	Lunch – BISTRO HSW, Closing the conference