

*VII International Conference
«In-service Damage of Materials, its Diagnostics and Prediction»*

EUROPEAN STRUCTURAL INTEGRITY SOCIETY

**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
TERNOPIL IVAN PULUJ NATIONAL TECHNICAL UNIVERSITY**

UKRAINIAN SOCIETY ON FRACTURE MECHANICS

**KARPENKO PHYSICO-MECHANICAL INSTITUTE
OF THE NATIONAL ACADEMY OF SCIENCES OF UKRAINE**

**G.S. PISARENKO INSTITUTE FOR PROBLEMS OF STRENGTH THE NATIONAL
ACADEMY OF SCIENCES OF UKRAINE**

VII INTERNATIONAL CONFERENCE



**“IN-SERVICE DAMAGE OF MATERIALS, ITS DIAGNOSTICS AND
PREDICTION”**

"DMDP"

**October 18-20, 2023
Ternopil, Ukraine**

October 18-20, 2023, Ternopil, Ukraine

*VII International Conference
«In-service Damage of Materials, its Diagnostics and Prediction»*

International Scientific Committee

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Tadeusz	Lagoda	Opole University of Technology	Poland
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Oleg	Yasniy	Ternopil Ivan Puluj National Technical University	Ukraine
Olha	Zvirko	Karpenko Physico-Mechanical Institute of the NAS of Ukraine	Ukraine
Halyna	Krechkovska	Karpenko Physico-Mechanical Institute of the NAS of Ukraine	Ukraine



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CONFERENCE SCHEDULE

Date	Time	Event	Link
18 / 10 / 2023, Wednesday (by Kyiv, GMT+3)	13.30-13.50	Opening ceremony	Room A
	13.50-15.20	Session 1	
	15.20-15.40	Coffee break	
	15.40-16.55	Session 1	
19 / 10 / 2023, Thursday (by Kyiv, GMT+3)	10.00-11.30	TC10 Meeting and Minisymposium	Room A
		Session 2B	Room B
		Session 2C	Room C
	11.30-11.50	Coffee break	
	11.50-13.20	TC10 Meeting and Minisymposium	Room A
		Session 2B	Room B
		Session 2C	Room C
	13.20-14.20	Lunch	
	14.20-15.50	TC10 Meeting and Minisymposium	Room A
		Session 2B	Room B
		Session 2C	Room C
	15.50-16.10	Coffee break	
16.10-17.40	TC10 Meeting and Minisymposium	Room A	
	Session 2B	Room B	
	Session 2C	Room C	
20 / 10 / 2023, Friday (by Kyiv, GMT+3)	10.00-11.30	Session 3A	Room A
		Session 3B	Room B
		Session 3C	Room C
	11.30-11.50	Coffee break	
	11.50-13.20	Session 3A	Room A
		Session 3B	Room B
		Session 3C	Room C
13.20	Closing of the Conference	Room A	

VII DMDP 2023 is held online using the Google Meet platform.
 Participants will be able to join rooms 10 minutes before the scheduled start time


October 18-20, 2023, Ternopil, Ukraine



SESSION 1 (ROOM A)

18 / 10 / 2023, Wednesday

Session 1: 13.50-17.10 Chairs: Prof. O. Yasniy and Prof. O. Zvirko

13.50	<i>B. Spisák, Sz. Szávai</i> ANALYTICAL DETERMINATION OF THE STRESS INTENSITY FACTOR OF A HYBRID CT SPECIMEN
14.05	<i>T. Łagoda, J. Malecka, S. Małys, S. Derda, P. Krysiński</i> FATIGUE LIFE-TIME AND FRACTURE CROSS-SECTION OF CYCLIC BENDING AND TORSION OF SAMPLES MADE OF ALUMINUM ALLOY 6060 T6 AND T64
14.20	<i>G. Bolzon, A. Collina, M. Hajjar, E. Zappa</i> BENDING TESTS OF PRE-STRESSED CONCRETE RAIL SLEEPERS
14.35	<i>O. Yasniy, V. Iasnii, O. Pastukh, I. Didych, S. Fedak, S. Fedak, L. Tsymbaliuk</i> ESTIMATION OF SHAPE MEMORY ALLOYS FUNCTIONAL PROPERTIES BY METHODS OF SUPERVISED MACHINE LEARNING
14.50	<i>J. Toribio</i> ON THE NOTCH TIP STRAIN RATE
15.05	<i>J. Toribio</i> ON THE CRACK TIP STRAIN RATE
15.20-15.40	 Coffee Break
15.40	<i>Ya. Dubyk, O. Zvirko</i> IN-VESSEL MELT RETENTION ANALYSIS OF WWER REACTOR WITH CONSIDERATION OF CORROSION PROCESSES
15.55	<i>L. Lobanov, D. Stelmakh, V. Savitsky, V. Diadin, O. Shutkevych</i> USING UNMANNED AERIAL VEHICLES (UAVS) AND PHOTOGRAMMETRY FOR DETECTION AND ANALYSIS OF DAMAGE IN LARGE STRUCTURES
16.10	<i>A. Kravchuk, E. Kondryakov, V. Kharchenko, P. Bulakh</i> EXPERIMENTAL AND CALCULATION METHODS FOR FRACTURE TOUGHNESS ESTIMATION USING DIFFERENT TYPES OF CT SPECIMENS


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| 16.25 | S. Motrunich, V. Berezos, V. Kostin, I. Klochkov, D. Akhonin
HIGH CYCLIC FATIGUE BEHAVIOR AND FRACTURE OF MEDICAL
TI-6AL-7NB TITANIUM ALLOY PRODUCED BY ELECTRON BEAM
MELTING |
| 16.40 | J. Gerlici, A. Lovska, G. Vatulia, J. Dizo
A STUDY OF THE TRANSVERSE LOADING OF AN OPEN WAGON
BODY WITH SANDWICH-PANEL WALLS |
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**TC10 MEETING AND MINISYMPOSIUM ON
ENVIRONMENTAL EFFECTS: HYDROGEN AND CORROSION (ROOM A)**

19 / 10 / 2023, Thursday


Chairs: Prof. J. Toribio and Prof. H. Nykyforchyn

10.00	<i>I. Dmytrakh, A. Syrotyuk, O. Hembara, M. Hrynenko</i> EFFECT OF HYDROGEN CONCENTRATION IN METAL ON RESIDUAL DURABILITY OF DEFECTED PIPELINES
10.15	<i>H. Nykyforchyn, O. Tsyrlunyk, O. Venhryniuk, O. Zvirko, O. Student, I. Dzioba, D. Demianchuk</i> HYDROGEN ROLE IN STRAIN AGING OF LOW ALLOY STEELS UNDER OPERATION
10.30	<i>J. Toribio</i> NOTCH TIP HYDROGEN DIFFUSION ASSISTED BY STRESS AND STRAIN FIELDS AND ITS ROLE IN HYDROGEN ASSISTED FRACTURE
10.45	<i>J. Toribio</i> CRACK TIP HYDROGEN DIFFUSION ASSISTED BY STRESS AND STRAIN FIELDS AND ITS ROLE IN HYDROGEN-ASSISTED CRACKING
11.00	<i>J. Toribio</i> ROLE OF DIFFUSION IN THE HYDROGEN TRANSPORT IN PEARLITIC STEEL: AND ALL IS ALWAYS NOW
11.15	<i>R. Hrabovskyy, O. Tuts, O. Mandruk, V. Tyrlych, V. Artym, Ya. Sapuzhak</i> IMPACT OF LONG-TERM OPERATION ON RELIABILITY AND DURABILITY OF NATURAL GAS PIPELINE: POTENTIAL ENVIRONMENTAL CONSEQUENCES OF ACCIDENTS
11.30-11.50	 Coffee Break
11.50	<i>O. Zvirko</i> DEVELOPMENT OF THE METHODOLOGY FOR ASSESSING THE SERVICEABILITY OF EXISTING GAS PIPELINES OF UKRAINE UNDER GREEN HYDROGEN TRANSPORTATION

12.05	H. Nykyforchyn, O. Tsyurulnyk, O. Venhryniuk, O. Zvirko TECHNIQUES FOR INVESTIGATION OF HYDROGEN INFLUENCE ON FRACTURE TOUGHNESS AND EMBRITTLEMENT OF PIPELINE STEELS
12.20	J. Toribio HELP VERSUS HEDE IN PROGRESSIVELY COLD DRAWN PEARLITIC STEEL: A DETAILED ANALYSIS OF HYDROGEN-PLASTICITY INTERACTIONS
12.35	J. Toribio CRACK TIP HYDROGEN ASSISTED MICRODAMAGE IN FULLY PEARLITIC STEEL: THE TEARING TOPOGRAPHY SURFACE (TTS)
12.50	J. Toribio NOTCH TIP HYDROGEN ASSISTED MICRODAMAGE IN FULLY PEARLITIC STEEL: THE TEARING TOPOGRAPHY SURFACE (TTS)
13.05	M. Hredil, O. Tsyurulnyk, I. Shtoyko, O. Zvirko INFLUENCE OF GASEOUS HYDROGEN ON CORROSION OF PIPELINE STEEL
13.20-14.20	 Lunch

Chairs: Prof. I. Dmytrakh and Prof. O. Zvirko


14.20	L. Poberezhnyi, S. Kessler, I. Okipnyi MODELING OF CORROSION OF WIND POWER FACILITIES WELDED JOINTS
14.35	O. Palii, B. Belletti, A. Sirico, P. Bernardi BUILDING A SUSTAINABLE FUTURE: DATABASE OF CONCRETE WITH RECYCLED AGGREGATES FROM CONSTRUCTION AND DEMOLITION WASTES
14.50	M. Karuskevich, S. Ignatovich, V. Krasnopol'skii, Ie. Gavrylov, I. Dzhavadova ACTUALITY AND RISKS OF THE CORROSION PREVENTIVE COMPOUNDS APPLICATION IN AVIATION
15.05	I. Stadnyk, V. Piddubnyi, I. Okipnyi, T. Hushtan, V. Vovk, V. Lazaryuk EFFECT OF INHIBITOR EXTRACT ON RESISTANCE TO CORROSION-FATIGUE FRACTURE OF STEEL 20
15.20	I. Stadnyk, I. Okipnyi, V. Piddubnyi, P. Havrylko, A. Chahaida, O. Pylypets EFFECT OF THE INHIBITOR ON THE DURABILITY OF CORROSIVE WEAR OF METALS


15.35	A. Klymenko, M. Byk, A. Shapiro, S. Kovalenko, G. Polishko, A. Tunik, O. Buket CORROSION BEHAVIOR OF AISI 316L STEEL IN STATIC LEAD MELT AT 450°C AND 650°C
15.50-16.10	 Coffee Break
16.10	O. Andreykiv, I. Dolinska, S. Nastasiak, O. Svirchevskiy PROPAGATION OF HIGH-TEMPERATURE CREEP CRACKS IN METALS UNDER THE INFLUENCE OF HYDROGEN AND NEUTRON IRRADIATION
16.25	O. Hembara, A. Syrotyuk, O. Chepil, Ya. Sapuzhak, N. Hembara EVALUATION OF INCREASED LOCAL HYDROGEN CONCENTRATION IN THE VICINITY OF VARIOUS TYPES DEFECTS IN LOW-ALLOYED STEELS
16.40	J. Toribio ROLE OF HYDROSTATIC STRESS IN HYDROGEN DIFFUSION AND EMBRITTLEMENT OF PEARLITIC STEEL IN THE PRESENCE OF CRACKS AND NOTCHES: IN THE NAME OF J.S. BACH
16.55	J. Toribio INFLUENCE OF RESIDUAL STRESSES ON THE HYDROGEN EMBRITTLEMENT OF HIGH STRENGTH PEARLITIC STEEL
17.10	TC 10 Meeting



SESSION 2B (ROOM B)

19 / 10 / 2023, Thursday

Session 2B		Chairs: Prof. Y. Lapusta and Dr. I. Didych	
10.00	<i>O. Yasniy, S. Fedak, I. Didych, S. Fedak, N. Kryva</i>	METHODS OF JUMP- LIKE MODELING OF DISCONTINUOUS YIELD OF AMg6 ALLOY	
10.15	<i>S. Filipchuk, V. Karavan, O. Nalepa, O. Chapiuk, O. Pakholiuk</i>	STABILITY OF SLABS MADE OF HIGH-STRENGTH CONCRETE SUBJECTED TO DYNAMIC INFLUENCE	
10.30	<i>M. Karuskevich, T. Maslak, Yu. Vlasenko, Ł. Pejkowski</i>	BIAXIAL FATIGUE INDICATOR	
10.45	<i>H. Habrusiev, I. Habrusieva, B. Shelestovskyi</i>	STRENGTH ANALYSIS OF A PREDEFORMED PLATE IN CONTACT WITH A COMPLEX SHAPE INDENTER	
11.00	<i>I. Shatskyi, T. Dalyak, M. Makoviichuk, V. Perepichka</i>	A TACTIC OF TWO-SIDE ESTIMATES OF LIMITING BENDING LOADS FOR PLATES WITH CONTACT CRACKS	
11.15	<i>O. Derkach, V. Kobzar</i>	EXPERIMENTAL TECHNIQUES FOR STUDYING THE EFFECT OF LOCAL DAMAGE ON DAMPING PROPERTIES OF CFRP CANTILEVER BEAMS	
11.30-11.50	 Coffee Break		
11.50	<i>S. Donets, V. Lytvynenko, E. Prokhorenko, O. Startsev, V. Shatov</i>	THERMOGRAPHIC ANALYSIS OF DAMAGED AND POLLUTED WATER PIPE ENHANCED WITH FRACTAL METHODS	
12.05	<i>S. Bezhenov, R. Sukhonos</i>	FATIGUE DAMAGES EVALUATION OF THE NI-BASED ALLOY VIA AE MONITORING UNDER THE HIGH-CYCLIC LOADING	
12.20	<i>N. Imbirovych, O. Zvirko, O. Povstianoii, V. Tkachuk</i>	EVALUATION OF THE SURFACE CHARACTERISTICS OF VT8 TITANIUM ALLOY BIO-FUNCTIONALIZED THROUGH PLASMA ELECTROLYTIC OXIDATION	

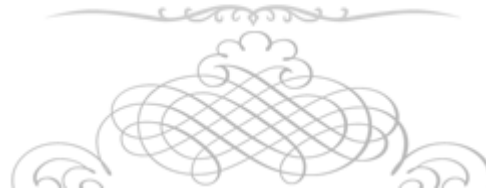
12.35	<i>P. Bulakh</i> EXPERIMENTAL VALIDATION OF THE ASSESSMENT OF THE LIMIT STATE OF HEAT-RESISTANT STEELS BY THE LM-HARDNESS METHOD
12.50	<i>V. Kovalov, G. Klymenko, Y. Vasylychenko, M. Shapovalov, A. Sherbakova, A. Kovalenko</i> METHODS OF INCREASING RELIABILITY OF CUTTING TOOLS FOR HEAVY MACHINE TOOLS
13.05	<i>S. Panchenko, J. Gerlici, A. Lovska, V. Ravlyuk, J. Harušinec</i> THE IMPACT OF EXCESSIVE WEAR OF BRAKE PADS IN FREIGHT WAGONS ON THEIR STRENGTH
13.20-14.20	 Lunch

Chairs: Prof. O. Yasniy and Dr. I. Pidgurskyi

14.20	<i>V. Kovalov, O. Berezshnaya, V. Kassov, Y. Vasylychenko, S. Maluhina, M. Berezshniy</i> INFLUENCE OF HEAT TREATMENT OF RESTORED SHAFTS ON RESISTANCE TO CRACK DEVELOPMENT
14.35	<i>Ya. Shved; Ya. Kovalchuk; L. Bodrova; H. Kramar; N. Shynhera</i> MODELING THE INFLUENCE OF COMPLEX FACTORS ON THE DESTRUCTION OF A WELDED TRUSS
14.50	<i>V. Sidyachenko, V. Pokrovskii</i> PREDICTION OF THE EFFECT OF WARM PRESTRESSING ON THE MIXED MODE FRACTURE TOUGHNESS OF THE REACTOR PRESSURE VESSELS STEELS
15.05	<i>M. Levchenko, Y. Lapusta, V. Loboda</i> 3-D ANALYSIS OF A CRACK WITH FINITE ELECTRICAL PERMEABILITY BETWEEN TWO PIEZOELECTRIC MATERIALS
15.20	<i>I. Pidgurskyi, M. Stashkiv, V. Baranovsky, M. Pidgurskyi, Y. Rudyak</i> RESEARCH OF THE OVERLOADING INFLUENCE ON THE PROPAGATION OF SEMI-ELLIPTICAL SURFACE CRACKS WITH DIFFERENT SHAPE CONFIGURATIONS IN LOW-ALLOY STEEL
15.35	<i>M. Pidgurskyi, M. Stashkiv, R. Rohatynskyi, I. Pidgurskyi, V. Senchyshyn, T. Dubyniak</i> INVESTIGATION OF THE STRESS INTENSITY FACTOR FOR THE EDGE CRACK IN I-BEAM UNDER BENDING MOMENT



15.50- 16.10	
16.10	V. Makarenko, V. Lazoryk, V. Hots, S. Maksimov, Yu. Makarenko STUDY OF DEGRADATION OF STEEL SEWER STRUCTURES OF LONG-TERM OPERATION
16.25	A. Krzyzak, S. Relich, E. Kosicka, R. Szczepaniak, P. Przybyłek SELECTED CONSTRUCTION PROPERTIES OF HYBRID EPOXY COMPOSITES REINFORCED WITH CARBON FIBER AND ALUNDUM
16.40	V. Aulin, M. Mytnyk, A. Hrynkiv, A. Holovatyi, S. Lysenko, U. Plekan PREDICTION OF RECOGNIZED DEFECT COMBINATIONS IN THE PARTS OF AUTOMOBILE UNITS, SYSTEMS, AND ASSEMBLIES USING ARTIFICIAL NEURAL NETWORK METHOD
16.55	V. Aulin, O. Lyashuk, S. Lysenko, O. Tson, A. Hrynkiv, N. Rozhko EXTENSION OF THE SERVICE TERM OF THE RESOURCE-DETERMINING ELEMENTS OF VEHICLE UNITS BASED ON THE ARTIFICIAL NEURAL NETWORK MODEL OF THEIR DEFECTS
17.10	A. Senyk, V. Kovalov, G. Klymenko, Y. Vasylchenko, M. Shapovalov A NEW TECHNOLOGY FOR THE MANUFACTURE AND USE OF FOLDING SWIVEL BUSHINGS IN THE CHASSIS OF CERTAIN VEHICLES
17.25	A. Senyk, A. Gagaliuk, I. Plavutska, A. Matviyishyn, A. Larochkin HARMONIC-DISPERSION ANALYSIS OF THE SHAPE ACCURACY OF THE ROLLING BUSHINGS OF DRIVE ROLLER AND SLEEVE CHAINS



SESSION 2C


19 / 10 / 2023, Thursday

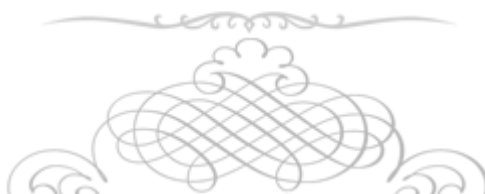
Session 2C		Chairs: Prof. P. Maruschak and Dr. A. Sorochak	
10.00	<i>Alfiy Alfatarizqi, Teguh Muttaqie, Abid Paripurna Fuadi, Andi C.P.T. Nugroho, Dany Hendrik Priatno, Yudiawan Fajar Kusuma, Tuswan, Hartono Yudo, Deddy Chrismianto</i>	SYSTEMATIC REVIEW OF ULTIMATE STRENGTH OF CYLINDRICAL STRUCTURES SUBJECTED TO COMBINED LOADING OF AXIAL FORCE AND EXTERNAL PRESSURE	
10.15	<i>Teguh Muttaqie, Cahyo Sasmito, Agus Suhartono, Muh. Hisyam Khoirudin, Buddin Al Hakim, Mohammad Arif Kurniawan, Topan Firmandha, Quang Thang Do, Sang Hyun Park, Aditya Rio Prabowo</i>	IMPACT BEHAVIOR CHARACTERIZING OF SUS 304 IN CRYOGENIC TEMPERATURE SCENARIOS FOR LIQUIFIED NATURAL GAS (LNG) TANKS	
10.30	<i>Ilham Bagus Wiranto, Sherly Octavia Saraswati, Aditya Rio Prabowo, Iqbal Reza Al Fikri, Chairunnisa, Muhammad Ilham Adhynugraha, Teguh Muttaqie, Fadli Cahya Megawanto, Arif Hidayat, Abid Paripurna, Aryandi Marta, Fajar Ari Wandono, Abian Nurrohmad</i>	NUMERICAL ANALYSIS OF COMPOSITE FUSELAGE STRUCTURE UNDER AXIAL IMPACT LOADING	
10.45	<i>B. Ganendra, T. Muttaqie, A.R. Prabowo, R. Ridwan, Q.T. Do, N. Muhayat, I. Yaningsih, S. Hadi, F.B. Laksono</i>	INVESTIGATING THE FLEXURAL STRENGTH OF STEEL CYLINDRICAL SHELL SUBJECTED TO BENDING MOMENT: A STUDY CASE USING FE APPROACH	
11.00	<i>O. Ivanov, M. Karpash, D. Petryna, S. Marynenko, I. Koval, O. Huryk</i>	EXPERIMENTAL APPROBATION OF THE ALGORITHM FOR OBTAINING 3D MODEL OF HARDFACING MATERIAL PHASE PARTICLE	
11.15	<i>O. Zaika, V. Rud, L. Samchuk, Y. Povstyana, N. Rud</i>	IMPLEMENTATION OF 3D PRINTING TECHNOLOGY IN THE CONDITIONS OF SERIES PRODUCTION	

11.30-11.50	
11.50	<i>O. Maksymiv, V. Kyryliv, B. Chaikovs'kyi, O. Zvirko</i> IMPROVEMENT OF DURABILITY OF STRUCTURAL STEELS UNDER HIGH CONTACT LOADING BY NANOSTRUCTURING FRICTIONAL TREATMENT
12.05	<i>L. Bodrova, H. Kramar, I. Koval, S. Marynenko, Ya. Kovalchuk, M. Prokopiv, Yu. Ushchapovskyi, O. Kharchenko</i> INFLUENCE OF INITIAL POWDERS DISPERSION AND CHEMICAL COMPOSITION ON THERMAL SHOCK RESISTANCE AND DESTRUCTION NATURE OF TITANIUM CARBIDE BASED HARD ALLOYS
12.20	<i>M. Roshchuk, S. Homon, S. Gomon, O. Petrenko, M. Romaniuk, M. Smal, O. Dziubynska</i> STUDY OF CHANGE IN THE MECHANICAL PROPERTIES OF WOOD AFTER LONG-TERM MOISTURE
12.35	<i>O. Mikulich, O. Hulay, T. Furs, V. Shemet</i> STRENGTH AND MECHANICAL CHARACTERISTICS OF MODIFIED POLYURETHANE FOAMS
12.50	<i>V. Grudz, V. Zapukhliak, S. Hryhorskyi, R. Stasiuk, B. Hershun, A. Maksymchuk</i> OPTIMIZATION OF THE FUNCTIONING OF THE GAS SUPPLY SYSTEM UNDER PROBABILISTIC CONDITIONS OF OUTPUT INFORMATION
13.05	<i>V. Lytvynenko, O. Startsev, A. Ponomarev</i> MODIFICATIONS IN TITANIUM VT1-0 IRRADIATED BY INTENSE ELECTRON BEAM IN ABLATIVE MODE
13.20-14.20	 Lunch

Chairs: Prof. O. Fomin and Dr. V. Iasnii

14.20	<i>V. Aulin, O. Lyashuk, A. Gupka, O. Tson, D. Mironov, M. Sokol, R. Leshchuk, I. Yarema</i> TRIBODIAGNOSIS OF THE SURFACE DAMAGE OF TRIBO-COUPLING PARTS MATERIALS DURING MACHINE OPERATION
14.35	<i>S. Fedorova, V. Fedorov</i> DECOMPOSITION OF THE PROBLEM OF CONSTRUCTING THE EQUATION OF EVOLUTIONARY DAMAGEABILITY

14.50	V. Aleksiiievets, S. Gomon, I. Aleksiiievets, S. Homon, A. Ivaniuk, I. Zadorozhnikova, I. Bandura THE RESULTS OF EXPERIMENTAL AND THEORETICAL STUDIES OF THE WORK OF NAIL JOINTS WITH DIFFERENT THICKNESSES OF EXTREME AND MIDDLE ELEMENTS
15.05	O. Ivanov, D. Petryna, M. Karpash, H. Kramar, S. Marynenko, I. Koval EXPERIMENTAL INVESTIGATION OF FCAW HARDFACING WEAR RESISTANCE BASED ON FE-TI-MO-B-C
15.20	H. Sulym, V. Pasternak, Ia. Pasternak BOUNDARY INTEGRAL EQUATIONS FOR THERMOELASTIC ANALYSIS OF CRACKED QUASICRYSTAL SOLIDS
15.35	M. Hud, V. Ihnatieva, D. Baran INFLUENCE OF MASS DISTRIBUTION ON NATURAL VIBRATIONS OF A REINFORCED CONCRETE BUILDING FRAME
15.50-16.10	 Coffee Break
16.10	M. Shulzhenko, A. Olkhovskiy, O. Derkach THE INFLUENCE OF KINEMATIC EXCITATION ON THE VIBRATIONAL STRESS OF THE MISTUNED BLADED DISK OF THE LAST STAGE OF A HIGH-POWER STEAM TURBINE
16.25	V. Kovalchuk, B. Parneta, R. Rybak METHODOLOGY OF EXPERIMENTAL STUDIES OF THE DEFORMED STATE OF A CONCRETE PIPE RESTORED POLYMER REPAIR MIX
16.40	O. Mikulich, N. Komenda, O. Guda, T. Kradinova SIMULATION ANALYSIS OF THE INFLUENCE OF CHANGING MECHANICAL CHARACTERISTICS OF POLYURETHANE FOAMS
16.55	M. Hud, R. Grytseliak, O. Meshcheryakova STRESS-STRAIN STATE OF REINFORCED CONCRETE STIFFENING DIAPHRAGM IN THE PRESENCE OF CROSS-REINFORCEMENT
17.10	M. Hud, N. Chornomaz, S. Danylchenko MODELLING OF THE STRESS-STRAIN STATE OF A WOODEN FRAME UNDER DYNAMIC LOADS WITH LOCAL STIFFENING ELEMENTS



SESSION 3A (ROOM A)

20 / 10 / 2023, Friday


- Session 3A		Chairs: Dr. E. Kondryakov and Dr. O. Derkach	
10.00	<i>S. Drobyshtynets, Ye. Babych, P. Sunak, I. Zadorozhnikova, I. Parfentyeva, V. Pakhareenko, S. Homon</i>	EXPERIMENTAL AND THEORETICAL STUDIES OF FATIGUE OF REINFORCED CONCRETE UNDER LOW-CYCLE COMPRESSION	
10.15	<i>V. Dovbenko, O. Kukhniuk, S. Homon, A. Ivaniuk, V. Aleksiiyevets, O. Savytska, L. Kulakovskiy</i>	STUDY OF THE STRENGTH PROPERTIES OF CONCRETE IMPREGNATED WITH A POLYMER COMPOSITION	
10.30	<i>V. Ihnatieva</i>	IMPROVING THE QUALITY OF COMPLEX PROFILE PRODUCTS FROM COMPOSITES USED IN EARTHQUAKE-RESISTANT STRUCTURES	
10.45	<i>O. Fomin, S. Kara, D. Turovets, S. Shevchenko, Y. Polupan</i>	CREATION OF A DEVICE FOR THE TRANSPORTATION OF SEMI-TRAILERS ON PLATFORM WAGONS WITH CONSIDERATION OF DAMAGE RESISTANCE AND CONCEPTUAL MANUFACTURING FROM COMPOSITES	
11.00	<i>O. Fomin, S. Kara, D. Turovets, A. Klymash, S. Kuzmenko</i>	DEVICE STRENGTH ASSESSMENT (CONSIDERING THE POSSIBILITIES OF COMPOSITES) FOR TRANSPORTATION OF SEMI-TRAILERS ON PLATFORM WAGONS	
11.15	<i>O. Romashko-Maistruk, V. Romashko</i>	MODEL OF CONCRETE DEFORMATION UNDER THE ACTION OF DYNAMIC LOADS	
11.30		A logo for a coffee break, featuring a stylized coffee cup on a saucer with steam rising from it, and the words "Coffee" and "Break" on either side.	
11.50	<i>I. Shatskyi, M. Makoviichuk, L. Ropyak</i>	PLANE DEFORMATION OF CONTRAST LAYERED COATING UNDER LOCAL LOAD	

12.05	<i>H. Krechkovska, B. Bakun, I. Kopei, O. Student</i> FEATURES OF FATIGUE FRACTURE OF THE COMPOSITE SUCKER ROD
12.20	<i>I. Tsybailo, H. Krechkovska, O. Student, L. Svirskva</i> STRUCTURAL ASPECTS OF DEGRADATION OF THE BEND STRETCHED ZONE
12.35	<i>N. Bykiv, V. Iasnii, E. Kosicka</i> JOINING THE REBAR WITH STRENGTHED ELEMENTS IN A CONCRETE BEAM
12.50	<i>O. Fomin, P. Prokopenko, I. Medvediev, L. Degtyareva</i> DETERMINATION OF SAFETY INDICATORS OF THE FREIGHT WAGONS AS PART OF A TRAIN BY MOBILE SYSTEMS
13.05	<i>O. Fomin, O. Kozinka, V. Ishchenko, O. Burlutskyy</i> REPAIR MEANS FOR TYPICAL AND COMPOSITE OPEN-WAGON BODIES
13.20	<i>Closing of the Conference</i>



SESSION 3B (ROOM B)

20 / 10 / 2023, Friday


- Session 3B		Chairs: Prof. L. Kulakovskiy and Prof. S. Homon	
10.00	V. Romaniuk, L. Bezniuk, V. Supruniuk, O. Kononchuk, O. Meshcheryakova, A. Sorochak	FEATURES OF THE WORK OF CONTINUOUS PERFORATED BEAMS NEAR INTERMEDIATE SUPPORTS	
10.15	V. Romaniuk, V. Supruniuk, L. Bezniuk, O. Kononchuk, O. Meshcheryakova, A. Sorochak	EXPERIMENTAL STUDIES OF A STEEL RAFTER ARCH WITH A PERFORATED TOP CHORD	
10.30	M. Holotiuk, O. Nalobina, S. Homon, O. Bundza, A. Shymko, O. Petrenko, B. Parneta	INVESTIGATION OF THE PROCESS OF IMPACT DESTRUCTION OF ICE	
10.45	A. Uhl, O. Melnyk, Yu. Melnyk, O. Vereshko, I. Boyarska, S. Homon, L. Kulakovskiy	THEORETICAL ANALYSIS OF THE MICRORELIEF OF TYPICAL MACHINE-MADE SURFACES BY SEM PHOTOGRAMMETRY	
11.00	S. Homon, P. Gomon, S. Gomon, S. Litnitskiy, I. Boyarska, O. Chapiuk, N. Chornomaz	STUDY OF THE MECHANICAL PROPERTIES OF CONIFEROUS WOOD OF DIFFERENT AGES AT STANDARD HUMIDITY	
11.15	P. Gomon, Ye. Babych, M. Polishchuk, D. Y. Kysliuk, I. Bandura, O. Pakholiuk, A. Shevchuk	DEFORMABILITY OF A GLUED WOODEN BEAM WITH PRESTRESSED COMPOSITE REINFORCEMENT	
11.30			

11.50	S. Gomon, S. Homon, A. Pavluk, O. Matviiuk, M. Roshchuk, Yu. Puhach, O. Svyrydiuk HYPOTHESES AND PREREQUISITES FOR MODELING THE STRESS-STRAIN STATE OF A NORMAL SECTION OF WOOD ELEMENTS USING THE DEFORMATION METHOD OF CALCULATION
12.05	A. Pavluk, S. Gomon, M. Khoruzhyi, S. Homon, O. Dejneka, M. Smal, O. Dziubynska PECULIARITIES OF CALCULATION OF WOODEN BEAMS FOR OBLIQUE BENDING USING THE DEFORMATION MODEL
12.20	O. Korniychuck, G. Masiuk, S. Homon, I. Aleksiiievets, O. Chapiuk, D. Kaynts, V. Rizyak DEFORMABILITY OF REINFORCED CONCRETE BEAMS UNDER THE ACTION OF REPEATED ALTERNATING LOADS
12.35	V. Datsiuk, S. Homon, S. Gomon, V. Dovbenko, S. Drobyshynets, I. Parfentyeva, M. Romaniuk STUDY OF CHANGE STRENGTH PROPERTIES OF PINE WOOD AFTER LONG-TERM EXPLOITATION
12.50	M. Riabchykov, Yu. Sychov, A. Alexandrov, I. Tsykhanovska, N. Korolyova STRENGTH OF POROUS MATERIALS FILLED WITH NANOCOMPONENTS BASED ON DIVALENT AND TRIVALENT FERRUM
13.05	S. Homon, T. Dovbenko, V. Savitskiy, M. Khoruzhyi, O. Petrenko, P. Sunak, D. Y. Kysliuk THE INFLUENCE OF NATURAL AND POLYMER COMPOSITE MATERIALS ON THE MECHANICAL PROPERTIES OF WOOD
13.20	Closing of the Conference



SESSION 3C (ROOM C)

20 / 10 / 2023, Friday

- Session 3C		Chairs: Prof. L. Poberezhnyi and Dr. V. Iasnii	
10.00	<i>D. Nosov, V. Peremitko, Yu. Nosova, I. Kolomoets</i>	ENSURING THE EQUALITY OF WELDED JOINTS OBTAINED BY BUTT CONTACT WELDING IN THE MANUFACTURE OF BAND SAWS FROM 65G STEEL	
10.15	<i>L. Poberezhnyi, M. Rutner, S. Kessler, N. Spalek, I. Okipnyi</i>	PROSPECTS OF USING METALLIC NANOCOATINGS TO IMPROVE THE OPERATIONAL CHARACTERISTICS OF WELDED JOINTS	
10.30	<i>S. Kozulin, I. Lychko, S. Reznik, T. Maydanchuk, Ye. Lukianchenko</i>	REPAIR OF THROUGH CRACKS IN LARGE-THICKNESS PARTS ON SITE BY MULTI-PASS ELECTROSLAG WELDING	
10.45	<i>T. Maydanchuk, Ye. Lukianchenko, S. Kozulin, V. Porohonko, S. Marynenko</i>	DEVELOPMENT OF A FUNDAMENTAL TECHNOLOGY FOR REPAIRING PRODUCTS MADE OF CUZN37 BRASS THROUGH TIG WELDING	
11.00	<i>A. Babii, B. Levytskyi, T. Dovbush, M. Babii, N. Khomuk, A. Dovbush</i>	MATHEMATICAL MODEL OF THE PARTIAL LOAD OF THE SPRAYER TANK	
11.15	<i>L. Poberezhna, L. Poberezhnyi, L. Shkitsa, A. Hrytsanchuk, O. Korol, B. Berezhenko</i>	PREDICTING ENVIRONMENTAL RISKS IN CASE OF OIL AND GAS EQUIPMENT FAILURES	
11.30			
11.50	<i>Ya. Grudz, O. Ivanov, R. Maliutin, V. Sadlivskyi, O. Turovskyi, I. Datsko</i>	INCREASING THE RELIABILITY OF GAS SUPPLY ON THE BASIS OF IMPROVING THE ACTIVITY OF THE SERVICE SYSTEM	
12.05	<i>M. Serediuk, V. Zapukhlyak, H. Hrytsuliak, Ya. Doroshenko, V. Voznyi</i>	LIFETIME EXTENSION OF LONG-OPERATED PIPELINES	

12.20	Ya. Grudz, I. Prokopiv, K. Novikov, N. Drin, A. Vitushynskyi, L. Kachan ENERGY EFFICIENCY AND RELIABILITY OF GAS TRANSPORT AND DISTRIBUTION NETWORKS
12.35	V. Iasnii, V. Budz, V. Antonchenko, M. Holubovskyi MODELLING OF A BEHAVIOUR OF SMA-BASED DAMPER DEVICE
12.50	M. Hud ANALYSIS OF THE INFLUENCE OF HORIZONTAL TIES ON THE BUCKLING OF THE BOTTOM OF A FLOATING POOL
13.20	Closing of the Conference