



International Scientific and Technical Conference

**INTEGRATED COMPUTER TECHNOLOGIES IN
MECHANICAL ENGINEERING –
SYNERGETIC ENGINEERING**

December 23, 2024 – Kharkiv, Ukraine

Organized by:

NATIONAL AEROSPACE UNIVERSITY “KHARKIV AVIATION INSTITUTE”



Patronized by:

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE



KHARKIV REGIONAL STATE ADMINISTRATION



December 23, 2024 – Kharkiv, Ukraine

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Vitaly MIROSHNIKOV, Doctor of Technical Sciences, Professor (National Aerospace University “Kharkiv Aviation Institute”, Kharkiv, Ukraine);

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Illia POLOSUKHIN (NEAR.ai, San Francisco, CA, USA);

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Andrew ZAVGORODNIY, Doctor of Philosophy (LinkedIn, Milpitas, CA, USA).

Oleksandr ZABOLOTNYI, Doctor of Technical Sciences, Professor (National Aerospace University “Kharkiv Aviation Institute”, Kharkiv, Ukraine).

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ORGANIZING TEAM

National Aerospace University “Kharkiv Aviation Institute”, Kharkiv, Ukraine

Publication Chair: Dmytro KRYTSKYI. Secretary: Oleksandr KARATANOV.

Members (in alphabetical order): Andrii BYKOV, Tetiana BYKOVA,
Dmytro CHUMACHENKO, Vasilisa KALASHNIKOVA, Olha KRYTSKA,
Vitaly MIROSHNIKOV, Artem PEREPELTSYN, Olha POHUDINA,
Mariia PYVOVAR, Olga SHYPUL, Oleksandr ZABOLOTNYI.

THE OFFICIAL LANGUAGE OF THE ICTM-2024 IS ENGLISH

Time for presentations:

Presentation at the plenary session – max 20 minutes.

Paper presentation and discussion at the regular session – max 10 minutes.

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GENERAL SCHEDULE (UTC+2)

December 23, 2024 (Monday)

8:50	TESTING SESSION and REGISTRATION OPENS: https://meet.google.com/rqn-uqgm-aec					
9:00	CONFERENCE OPENING Oleksii LYTVYNOV , Honorary Chair of ICTM-2024, Acting rector of National Aerospace University “Kharkiv Aviation Institute”, Ukraine					
9:10	Session 1 MECHANICAL ENGINEERING https://meet.google.com/rqn-uqgm-aec	Session 2 PROBLEMS OF STRENGTH https://meet.google.com/xhm-kkxn-nto	Session 3 CYBER- SECURITY & IoE https://meet.google.com/nxh-0000-uvg	Session 4 INFORMATION TECHNOLOGY https://meet.google.com/hes-0000-wxih-cpo	Session 5 CONTROL SYSTEMS AND TESTING https://meet.google.com/bhe-jmsx-twq	Session 6 HUMANITARIAN AND LEGAL ISSUES https://meet.google.com/nyp-vqfd-yab
11:00						
11:30						
11:50					BREAK	
12:10	BREAK	BREAK	BREAK			BREAK
12:45						
13:00	CLOSING OF THE CONFERENCE: LOOKING TO THE FUTURE https://meet.google.com/hes-wxih-cpo					

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GENERAL SCHEDULE (UTC+2)

Session 1 MECHANICAL ENGINEERING https://meet.google.com/rqn-uqgm-aec Olga SHYPUL – Chairman	
9:10	<i>Ivan Kalinichenko, Victoria Kornienko, Halina Kobalava</i> EVALUATION OF THE EFFECTIVENESS OF USING AN ALTERNATIVE HEAT PUMP STEAM GENERATING UNIT ON A SHIP
9:20	<i>Galyna Mygal, Olga Protasenko, Natalia Kobrina, Andrii Ivashura</i> VEHICLE CONDITION DIAGNOSTICS USING PARAMETRIC NOISE VISUALIZATION
9:30	<i>Oleksandr Shmarkov, Serhiy Serbin and Volodymyr Korobko</i> USING DETAILED KINETIC SCHEMES FOR CFD CALCULATIONS OF HYDROGEN-FUELED GAS TURBINE COMBUSTION CHAMBER PROCESSES
9:40	<i>Valeriyi Kuzmin, Maksym Zaliskyi</i> NEW APPROACHES TO ROBUST LINEAR REGRESSION FOR OUTLIER CORRECTION IN THE SAMPLES WITH SMALL SIZE
9:50	<i>Valeriy Kuzmin, Yuliia Petrova, Olena Koba</i> APPLICATION OF MEDIAN APPROXIMATION TO ENSURE ROBUSTNESS OF THE MATHEMATICAL MODEL
10:00	<i>Andrii Radchenko, Serhiy Forduy, Volodymyr Korobko, Nataliia Zhykharieva, Artem Hrych, Viktor Khaldobin, Viktor Sichko</i> GAS ENGINE INLET AIR CONDITIONING BY HEAT RECOVERY WITH RECIRCULATION OF REFRIGERANT IN AIR COOLER
10:10	<i>Tetyana Nabokina, Christian Bach</i> ASSESSING THE APPLICABILITY OF TERRESTRIAL RECYCLING FRAGMENTATION TECHNOLOGIES IN LUNAR CONDITIONS: A REVIEW
10:20	<i>Gennadii Martynenko, Volodymyr Martynenko</i> JUSTIFICATION OF THE NEED TO USE NONLINEAR MATHEMATICAL MODELS TO DESCRIBE THE DYNAMICS OF SYSTEMS WITH ELASTIC-DAMPING SUPPORT MAGNETIC ELEMENTS USING THE EXAMPLE OF ROTORS IN MAGNETIC BEARINGS OF DIFFERENT TYPES
10:30	<i>Gennadii Kaniuk, Vasiliy Promoskal, Hanna Hrinchenko, Olena Blyznychenko, Tetiana Fursova, Andrey Mezerya</i> QUALIMETRIC ASPECTS OF THE APPLICATION OF NON-METRIC MEASUREMENT SCALES IN THE ENERGY TECHNOLOGY OF THERMAL POWER PLANTS

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10:40	<i>Gennadii Kaniuk, Andrey Mezerya, Tetiana Fursova, Hanna Hrinchenko, Tetiana Vasylets, Oleksandr Yepik</i> ENHANCING THE QUALITY OF TECHNICAL AND ECONOMIC INDICATORS OF THERMAL POWER PLANTS BY IMPROVING THE COMBUSTION OF LOW-GRADE FUELS
10:50	<i>Svitlana Smerichevska, Zarina Poberezhna, Larysa Ivanenko, Kyryl Yevtushenko</i> PREDICTIVE MODEL FOR THE DEVELOPMENT OF THE TRANSPORT AND LOGISTICS SYSTEM AND SUPPLY CHAINS IN UKRAINE IN THE CONTEXT OF EUROPEAN INTEGRATION PROCESSES
11:00	<i>Denys Shalapko, Yurii Halynkin</i> PERSPECTIVE METAL HYDROGEN STORAGE SYSTEM FOR SMALL PASSENGER VESSELS
11:10	<i>Illia Petukhov, Vladimir Parafeinyk, Oleksii Lysytsia</i> NOVEL APPROACH TO ESTIMATE THE EFFICIENCY OF THE REAL GAS COMPRESSION PROCESS IN AN UNCOOLED CENTRIFUGAL COMPRESSOR
11:20	<i>Wang Yurong, Tan Kun, Hu Wenjie, Oleksandr Shorinov, Wang Yun</i> STUDY ON POROSITY CONTROL OF MULTI-POWDER PARTICLE MATERIAL COATINGS BASED ON NUMERICAL SIMULATION OF COUPLED EULERIAN-LAGRANGIAN (CEL) METHOD
11:30	<i>Mykyta Aleksandrov, Mykola Riabchykov, Yuriy Sychov, Alexandr Alexandrov</i> 3D EFFECTS DURING SORPTION OF LIQUIDS THROUGH POROUS STRUCTURES OF ENGINE FILTER ELEMENTS
11:40	<i>Dmytro Brega, Oleg Tryfonov, Olga Shypul, Vadim Garin, Oleksii Pavlenko</i> A COMPARATIVE ANALYSIS FOR DIFFERENT TURBULENCE MODELLING APPROACHES IN COMBUSTION SIMULATION
11:50	<i>Vladyslav Pliuhin, Sergiy Plankovskyy, Vitalii Tietieriev, Yevgen Tsegelnyk, Taras Sakhoshko</i> MODEL FORMATION APPROACH FOR POWER SUPPLY NETWORK MODERNIZATION
12:00	<i>Andrii Radchenko, Serhiy Forduy, Volodymyr Korobko, Nataliia Zhykharieva, Artem Hrych, Viktor Khaldobin, Viktor Sichko</i> THERMOPHYSICAL FEATURES OF TRANSFORMING GAS ENGINE HEAT FOR CONDITIONING INLET AIR
12:10	<i>Oleksii Patlaichuk, Serhiy Serbin, Volodymyr Patlaichuk</i> EFFICIENCY OF ANODE GAS AFTERBURNERS IN THE MARINE HYBRID SYSTEM "SOLID OXIDE FUEL CELL – GAS TURBINE"

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GENERAL SCHEDULE (UTC+2)

12:20	<i>Haydar Al-Ethari, Osamah Ihsan Ali, Sarah Fares Namah</i> INFLUENCE OF WARM FORMING ON CHARACTERISTICS OF CU10WT%SN CAST ALLOY
12:30	<i>Yuri Dyachenko, Iryna Voronko, Valeriy Sikulskyi, Kateryna Maiorova, Serhii Shapar</i> STUDY OF THE TECHNOLOGICAL PARAMETERS OF SURFACE PLASTIC DEFORMATION FOR MONOLITHIC AIRCRAFT PANELS BY THE IMPACT-DRUM METHOD
12:40	<i>Maria Sukhonos, Vladyslav Pliuhin, Sergiy Plankovskyy, Yevgen Tsegelnyk, Vitalii Tietieriev</i> COMBINED POWER GRID WITH SOLAR AND WIND ENERGY GENERATION
12:50	TECHNICAL BREAK
13:00	CLOSING OF THE CONFERENCE: LOOKING TO THE FUTURE https://meet.google.com/hes-wxih-cpo

GENERAL SCHEDULE (UTC+2)

SESSION 2 – PROBLEMS OF STRENGTH https://meet.google.com/xhm-kkxn-nto Vitaly MIROSHNIKOV – Chairman	
9:10	<i>Vitalii Myntiuk, Denys Tkachenko, Oleksii Pavlenko, Olga Shypul</i> SIMULATING THE EFFECT OF MINE EXPLOSION A REMOTE GAS DETONATION DEMINER
9:20	<i>Natalia Smetankina, Serhii Morhun</i> COMPLEX DETERMINATION OF THE MODERN SINGLE SHAFT GAS TURBINE ROTOR DURABILITY
9:30	<i>Konstantin Avramov, Boris Uspensky, Maryna Chernobryvko, Oleksandr Salenko</i> SELF-SUSTAINED VIBRATIONS OF CONICAL SANDWICH SHELL INTERACTING WITH SUPERSONIC GAS STREAM
9:40	<i>Konstantin Avramov, Borys Liubarskyi, Vitaly Mirosnikov, Roksana Petrova, Inna Urniaieva</i> FLUTTER OF PLATES INTERACTING WITH THREE DIMENSIONAL SUBSONIC GAS STREAM
9:50	<i>Oleksii Vambol, Dmytro Klymenko, Oleg Kivirenko, Andrii Kondratiev</i> IMPACT OF METAL INSERTS ON STRESS DISTRIBUTION IN THE POLAR REGIONS OF FILAMENT-WOUND COMPOSITE PRESSURE VESSELS
10:00	<i>Vladyslav Demenko, Igor Linetskiy, Oleg Yefremov, Larysa Linetska, Michael Sutcliffe, Andrii Kondratiev</i> STRESS ANALYSIS OF IMPLANT-SUPPORTED THREE-UNIT FIXED BRIDGE IN COMPROMIZED MAXILLA: A FINITE ELEMENT STUDY
10:10	<i>Maryna Chernobryvko, Konstantin Avramov, Igor Marshuba, Viktor Vasechko</i> BUCKLING OF COMPOSITE SANDWICH PLATES WITH DIFFERENT GEOMETRIES HONEYCOMB CORES MANUFACTURED BY ADDITIVE TECHNOLOGIES
10:20	<i>Fedir Gagauz, Serhii Kurenov, Kostiantyn Barakhov, Oleksii Vambol</i> AN EXPERIMENTAL STUDY ON THE MECHANICAL PROPERTIES OF ADHESIVE MATERIALS
10:30	<i>Andrii Volkov, Oleksandr Shorinov, Yuriï Neveshkin</i> RESEARCH ON THE COATING MICROHARDNESS AND ADHESION AND COHESION STRENGTH DURING COLD SPRAYING WITH MODIFIED NOZZLE
10:40	<i>Dmytro Akimov, Kyryl Degtyariov, Vasyl Gnitko, Denis Kriutchenko, Ivan Osypov, Elena Strelnikova</i>

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	FLIGHT STAGE-DEPENDENT VIBRATION CHARACTERISTICS OF LAUNCH VEHICLE FUEL TANKS
10:50	<i>Mustapha HASSA, Ahmed Adri, Omar Outassafte, Yassine El Khouddar, Adil Ziraoui, Issam El Hantati, Rhali Benamar</i> FREE TRANSVERSAL VIBRATION OF EULER-BERNOULLI COUPLED DOUBLE BEAMS CARRYING A POINT MASS
11:00	<i>Yuriy Bykov, Lyubov Kolodyazhna, Mykola Kostin and Oleksii Petrov</i> MODELING OF COUPLED AUTO-OSCILLATIONS OF AIRCRAFT ENGINE FAN BLADES
11:10	<i>Natalia Smetankina, Denys Ustuhov, Dmytro Zhyriakov, Sergey Ugrimov, Nataliya Garmash</i> SIMULATING OF BIRD STRIKE ON THE STABILIZER LEADING EDGE OF A TRANSPORT CATEGORY AIRCRAFT
11:20	<i>Basheer Younis, Vitaly Miroshnikov</i> POLYMER COMPOSITE MATERIALS IN THE AEROSPACE INDUSTRY
11:30	<i>Vitaly Miroshnikov, Oleksandr Savin, Oleksandr Denshchykov, Olexii Ilin, Mykhailo Kosenko</i> INFLUENCE OF CYLINDRICAL GASKET MATERIAL ON THE STRESS STATE OF A LAYER WITH EMBEDDED CYLINDRICAL SUPPORTS
11:40	<i>Natalia Saienko, Basheer Younis and Vitaly Miroshnikov</i> IMPROVE THE OPERATIONAL PROPERTIES OF STRUCTURAL ELEMENTS OF AIRCRAFT MADE FROM BASALT PLASTICS
11:50	TECHNICAL BREAK
13:00	CLOSING OF THE CONFERENCE: LOOKING TO THE FUTURE https://meet.google.com/hes-wxih-cpo

GENERAL SCHEDULE (UTC+2)

SESSION 3 – CYBERSECURITY & IoE	
https://meet.google.com/nxh-0000-uvg	
Artem PEREPELTSYN – Chairman	
9:10	<i>Olha Pohudina, Muhammad Tauseef Mushtaq, Antonietta Sivo, Nicola Cordeschi</i> LOCALIZATION OF THINGS SIMULATION IN SMART WAREHOUSES APPLICATIONS BASED ON UWB TECHNOLOGY
9:20	<i>Yuliia Husieva, Igor Chumachenko, Oleksandr Skachkov, Iryna Kadykova, Nataliia Dotsenko</i> USING BLOCKCHAIN TECHNOLOGY FOR MONITORING PROJECTS DURING WARTIME AND POST-WAR TRANSFORMATION AND RECOVERY
9:30	<i>Iurii Krak, Olena Sobko, Olexander Mazurets, Illia Tymofiiiev, Maryna Molchanova and Olexander Barmak</i> METHOD FOR DETECTING AND CLASSIFYING CYBERBULLYING IN TEXT CONTENT USING NEURAL NETWORKS
9:40	<i>Pavlo Ponomarenko, Vyacheslav Kharchenko</i> OBJECT POSITIONING METHODS IN AUGMENTED AND VIRTUAL REALITY FOR MINING SYSTEMS: TECHNOLOGIES COMBINING
9:50	<i>Oleksandr Godunov, Alona Chepelevych, Andrii Litvinov</i> PIPELINE PROCESSING DURING IMPORTING LARGE FILES INTO WEB-BASED SYSTEMS
10:00	<i>Oleksandr Godunov, Daria Shkrabachenko</i> IMPLEMENTATION OF THE OPTIMIZED DATA SELECTION ALGORITHMS FOR WEB APPLICATIONS
10:10	<i>Artem Perepelitsyn, Alona Chepelevych, Andrii Litvinov</i> METHOD OF NAMING OF MULTI-VOLUME FILES BASED ON BLAKE2 CRYPTOGRAPHIC HASH FUNCTION
10:20	<i>Vitaliy Kulanov, Artem Perepelitsyn</i> METHOD OF DEPLOYMENT OF CI/CD PIPELINES FOR RTL DESIGN FLOW WITHIN FPGA TECHNOLOGY
10:30	<i>Serhii Chumachenko, Bohdan Chumachenko, Roman Odarchenko, Maryna Maloied, Maksym Zaliskyi, Oleksandr Bondarev</i> MODEL OF NETWORK CONFIGURATION FOR IoT DEVICES
10:40	<i>Natalia Savchenko, Oksana Dovgalyuk, Andrii Tretiak</i> ALGORITHMS FOR CONTROLLING THE MODES OF A HIGHLY EFFICIENT HYBRID MOBILE POWER COMPLEX
10:50	<i>Bogdan Kosarevskiy, Artem Tetskyi</i> USING SECURE INFRASTRUCTURE OF UNMANNED INTELLIGENT SYSTEMS TO SUPPORT MINE CLEARANCE

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11:00	<i>Oleksandr Vdovichenko, Artem Perepelitsyn</i> ANALYSIS OF NOMENCLATURE OF MICROCONTROLLERS: DECISION-MAKING DURING BUILDING OF HOME AUTOMATION ELEMENTS
11:10	<i>Artem Perepelitsyn, Daryna Zyrianova</i> ANALYSIS OF POSSIBLE WAYS OF CONVENIENT COMMUNICATION FOR HOME AUTOMATION SYSTEMS WITH SMARTPHONE
11:20	<i>Ivan Didenko, Artem Perepelitsyn</i> ANALYSIS OF REDUNDANT ENCODING IMPLEMENTATION FOR SERIAL COMMUNICATION OF MICROCONTROLLERS
11:30	<i>Sergii Sushko, Artem Tetskyi and Artem Perepelitsyn</i> MICROCONTROLLER-BASED SYSTEM FOR BALANCING AND MONITORING OF LI-ION BATTERY PACK
11:40	<i>Artem Tetskyi, Artem Perepelitsyn</i> ANALYSIS OF POSSIBILITIES OF INTRUSION PREVENTION SYSTEMS ACCELERATION WITH USE OF FPGA-BASED SMARTNIC
11:50	<i>Artem Perepelitsyn, Vladyslav Samarchenko</i> ANALYSIS OF TECHNOLOGIES AND WAYS OF LOCAL INTERACTION OF SMART HOME COMPONENTS WITH HUMAN
12:00	<i>Zarina Poberezhna</i> INFORMATION TECHNOLOGIES FOR SECURITY OF BUSINESS MODELS OF TRANSPORT ENTERPRISES
12:10	TECHNICAL BREAK
13:00	CLOSING OF THE CONFERENCE: LOOKING TO THE FUTURE https://meet.google.com/hes-wxih-cpo

GENERAL SCHEDULE (UTC+2)

SESSION 4 – INFORMATION TECHNOLOGY	
https://meet.google.com/hes-wxih-cpo	
Dmytro CHUMACHENKO– Chairman	
9:10	<i>Volodymyr Rebrov, Galina Proskura, Vladimir Lukin</i> CLASSIFICATION OF COMPRESSED NOISY THREE-CHANNEL NOISY IMAGES: COMPARISON OF SEVERAL APPROACHES
9:20	<i>Serhii Kochuk, Roman Trishch, Artem Nikitin, Ivan Zhezhera, Olena Cherniak, Eduard Khomiak</i> ALGORITHMIC PROVISION OF CONTOURS GUIDANCE OF UNMANNED SYSTEMS
9:30	<i>Hanna Kyrychenko, Yuliia Berdnychenko, Maksym Tuzynskiy, Artemii Bernatskiy, Oleh Strelko</i> THE IMPACT OF INFORMATION TECHNOLOGIES ON RAILWAY TRANSPORTATION: UTILIZATION OF SATELLITE NAVIGATION SYSTEMS
9:40	<i>AJD Nanthakumar, Ujjwal Vaish, Kshitij Garge</i> MACHINE LEARNING MODEL OF AN AUTOMOTIVE DAMPER
9:50	<i>Iurii Krak, Dmytro Yurchenko, Olexander Mazurets, Olha Zalutska, Maryna Molchanova, Olexander Barmak</i> METHOD OF INTERPRETIVE VISUAL ANALYTICS FOR NEURAL NETWORK DETECTION OF SOCIAL MEDIA POSTS SENTIMENTS
10:00	<i>Kostiantyn Dergachov, Eugene Ovdiiuk, Vladyslav Dubinin</i> COMPARATIVE ANALYSIS REGION OF INTEREST TRACKING METHODS
10:10	<i>Vladyslav Bilozerskiy, Kostiantyn Dergachov, Oleksii Hurtovyi</i> PERFORMANCE EVALUATION OF MODIFIED DETECTION ALGORITHMS WITHIN THE FRAMEWORK OF A SIMULATION SYSTEM FOR MODELLING UAV VISUAL GUIDANCE
10:20	<i>Viacheslav Leznovskiy, Agil Nabizade, Ihor Turkin</i> MODEL-ORIENTED SOFTWARE DEVELOPMENT OF EMBEDDED SYSTEMS OF THE INDUSTRIAL EQUIPMENT VIBRATION DIAGNOSTIC. ENVIRONMENT MODEL
10:30	<i>Danylo Krasii, Oleksiy Larin, Ievgen Gorovyi</i> ANALYSIS OF THE OPTICAL COHERENCE TOMOGRAPHY IMAGES OF ARTERIOSCLEROTIC HUMAN VESSELS USING COMPUTER VISION AND DEEP LEARNING ALGORITHMS
10:40	<i>Valeriia Hritskova, Mariia Shapovalova, Oleh Semenenko, and Oleksii Vodka</i> SENSITIVITY ANALYSIS OF PARAMETERS USED TO GENERATE MATERIAL MICROSTRUCTURES BY CELLULAR AUTOMATA

GENERAL SCHEDULE (UTC+2)

10:50	<p><i>Tetiana Klochko, Vasilisa Kalashnikova, Viktoriya Kruchyna, Konstantin Nosov, Yurii Bespalov</i></p> <p>ARTIFICIAL INTELLIGENCE AND ALTSHULLER'S INVENTION ALGORITHM FOR REMOTE MONITORING OF ICHTHYOFAUNA STATUS</p>
11:00	<p><i>Serhii Misochenko, Karina Selivanova, Yana Nosova, Oleg Avrunin, Maksym Tymkovych</i></p> <p>APPLICATION OF DETECTRON2 SOFTWARE PLATFORM FOR SURGICAL INSTRUMENT DETECTION AND SEGMENTATION ON THE OPERATIONAL SPACE OF LAPAROSCOPIC INTERVENTION</p>
11:10	<p><i>Mykola Butkevych, Dmytro Chumachenko</i></p> <p>SIMULATION OF ACUTE UPPER RESPIRATORY TRACT INFECTIONS IN KHARKIV OBLAST (UKRAINE): THE ARIMA MODEL APPROACH</p>
11:20	<p><i>Oleksandr Miroshnichenko, Mykola Ponomarenko, Sergey Abramov, Vladimir Lukin and Karen Egiazarian</i></p> <p>IMAGE SET FOR VERIFICATION OF METHODS OF DENOISING OF SAR IMAGES</p>
11:30	<p><i>Anatoliy Padalko, Nina Padalko, Kateryna Padalko</i></p> <p>MATHEMATICAL METHODS OF ANALYZING POWER CONSUMPTION BY AN INDUCTION MOTOR WITH A SQUIRREL-CAGE WINDING</p>
11:40	<p><i>Oleksandr Vasilevskiy, Roman Trishch, Emanuel Popovici, Volodymyr Sarana, Romualdas Ginevičius</i></p> <p>EXPERIMENTAL STUDIES OF BLOOD PRESSURE USING ECG AND PPG SIGNALS OBTAINED FROM THE FINGERS ON THE HAND</p>
11:50	<p><i>Yrii Afanasiev, Anna Puzhai-Chereda, Volodymyr Afanasiev, Sergey Andrieiev, Oleksandr Andrieiev, Oleksandr Korobetskyi</i></p> <p>MODEL OF INFORMATION TECHNOLOGY INTEGRATION FOR SOLVING ECOSYSTEM MONITORING TASKS</p>
12:00	<p><i>Kseniia Bazilevych, Olena Kyrylenko, Yurii Parfeniuk, Ievgen Meniailov</i></p> <p>EMERGING TECHNOLOGIES IN INFECTIOUS DISEASE SURVEILLANCE AND CONTROL: CURRENT SOLUTIONS AND FUTURE DIRECTIONS</p>
12:10	<p><i>Oleksandr Liubimov, Ihor Turkin, Lina Volobuieva, Ivan Iovenko, Maksym Liubimov</i></p> <p>DEVELOPING HARDWARE AND SOFTWARE FOR UAV ONBOARD COMPUTERS: A COMBINED APPROACH WITH SWOT ANALYSIS</p>
12:20	<p><i>Alina Artomova, Ihor Artomov</i></p> <p>OPTIMIZATION OF UAV ROUTES AND EFFICIENCY ENHANCEMENT USING MODERN IT TECHNOLOGIES</p>

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12:30	<i>Danyil Kloka, Yevheniia Znakovska, Yuliya Averyanova</i> UNMANNED TECHNOLOGIES AND DRONES IN RUNWAY SERVICE
12:40	<i>Olexandr Lysenko, Serhii Chumachenko, Ihor Honcharenko</i> A SYSTEMATIC APPROACH TO DEVELOPING A SIMULATED MATHEMATICAL MODEL OF ECOSYSTEMS IMPACTED BY THE MILITARY-TECHNOGENIC LOAD OF HOSTILITIES
12:50	<i>Ihor Turkin, Oleksandr Liubimov, Lina Volobuieva, Viacheslav Valkovyi</i> EXPERT EVALUATION OF THE SERIAL INTERFACES EFFECTIVENESS FOR THE UNMANNED AERIAL VEHICLES ONBOARD NETWORKS
13:00	CLOSING OF THE CONFERENCE: LOOKING TO THE FUTURE https://meet.google.com/hes-wxih-cpo

GENERAL SCHEDULE (UTC+2)

SESSION 5 – CONTROL SYSTEMS AND TESTING	
https://meet.google.com/bhe-jmsx-twq	
Oleksandr ZABOLOTNYI – Chairman	
9:10	Andrii Pohudin GROUND RADIO TRACKING OF REMOTE EARTH SENSING SATELLITES
9:20	Oleksii Vambol, Fedir Gagauz, Igor Kaluzhynov TECHNICAL CHALLENGES OF UAVS-ASSISTED FREE SPACE OPTICAL COMMUNICATION IN SOME REGIONS OF UKRAINE
9:30	Oleksandr Lysenko, Olena Tachinina, Sergiy Ponomarenko, Oleksandr Guida, Iryna Alekseeva, Vladyslav Kutiepov TWO-CHANNEL PRECISION REGULATOR FOR THE ELECTRIC DRIVE OF THE OPTICAL FIBER WINDING MECHANISM OF THE SENSORY ELEMENTS OF AVIONICS
9:40	Oleksandr Zabolotnyi, Serhii Nikulin, Vitalii Siroklyn, Nikolay Koshevoy A STUDY OF QUADCOPTER FLIGHT DYNAMICS AND REACTIONS TO CONTROLS AND DISTURBANCES WITH A HELP OF DEDICATED TEST BENCH
9:50	Roman Voliansky, Iurii Shramko, Nina Volianska, Yunifa Miftachul Arif MODELING AND SIMULATION OF MODIFIED DUFFING PENDULUM
10:00	Ivan Ostroumov, Nataliia Kuzmenko PERFORMANCE EVALUATION OF DME NAVIGATION NETWORK
10:10	Olha Sushchenko CONTROL OF GIMBALED ATTITUDE AND HEADING REFERENCE SYSTEMS
10:20	Anatoly Kulik, Dmytro Sokol, Sibeï Wei RESEARCH AND IMPLEMENTATION OF FLIGHT PERFORMANCE OPTIMIZATION BASED ON DYNAMIC CONTROL STRATEGIES FOR CYCLOTOROTOR
10:30	Olexander Betin, Petro Kyriienko, Denys Betin, Olena Betina NUMERICAL MODELLING IN THE PROBLEM OF DETERMINING THE FUNCTIONAL CAPABILITIES OF FREE FLYING AIRCRAFT MODELS

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10:40	<i>Volodymyr Kolomiets, Serhii Babchuk, Andrii Topalov, Oleksii Zivenko, Vitaliia Kropyvnytska, Vira Harasymiv, Serhii Shevchenko</i> INTEGRATION OF NIGHT VISION TECHNOLOGIES INTO AN AVIATION COMPUTER CONTROL SYSTEM
10:50	<i>Nataliia Antonenko, Hanna Hrinchenko, Antonina Volivach</i> ENHANCING THE EFFICIENCY OF PROTECTION OF THE RECEIVING PATHS OF ON-BOARD RADIO SYSTEMS FROM POWERFUL ENERGY EMISSION
11:00	TECHNICAL BREAK
13:00	CLOSING OF THE CONFERENCE: LOOKING TO THE FUTURE https://meet.google.com/hes-wxih-cpo

GENERAL SCHEDULE (UTC+2)

SESSION 6 – HUMANITARIAN AND LEGAL ISSUES https://meet.google.com/nyp-vqfd-yab Oleksandr KARATANOV – Chairman	
9:10	<i>Galyna Mygal, Olga Protasenko, Natalia Kobrina</i> DIGITAL WORKPLACE: ERGONOMIC PRINCIPLES OF ORGANIZATION AND DEVELOPMENT STRATEGY
9:20	<i>Daria Barbash, Nataliia Filipenko</i> ETHICAL PRINCIPLES OF INTERACTION BETWEEN JUDGES AND PARTIES IN ADVERSARIAL PROCEEDINGS: THE EXPERIENCE OF UKRAINE
9:30	<i>Tetiana Kurman, Yuliia Bakai, Olena Batyhina, Oksana Tuieva</i> AGRARIAN NOTES IN THE ASPECT OF DIGITAL TRANSFORMATION OF AGRARIAN RELATIONS
9:40	<i>Olena Zinchenko, Zhanna Chevychalova, Maryna Cherkas, Maryna Semenova, Anastasiia Matvieieva</i> DIGITAL HUMAN RIGHTS: PROBLEMS OF REALIZATION AND PROTECTION
9:50	<i>Anastasiia Matvieieva, Sergii Solodchenko, Maksym Bepalov, Hryhorii Hrytsenko</i> PECULIARITIES OF LEGAL REGULATION OF THE DIGITAL ECONOMY IN UKRAINE
10:00	<i>Stanislav Sieriebriak, Olena Ostapenko, Olena Sushch, Olena Rohova, Olena Savchuk</i> PROBLEMATIC ISSUES OF DOING BUSINESS UNDER MARTIAL LAW IN UKRAINE
10:10	<i>Kateryna Lisohorova, Ievgen Vasyliev, Hanna Ponomarova, Viacheslav Rumiantsev, Svitlana Hotsuliak</i> THE JUDICIAL SYSTEM IN UKRAINE DURING THE LIBERATION STRUGGLE (1917-1921)
10:20	<i>Svitlana Gutsu, Svitlana Shyroka</i> THE RIGHT TO DISCONNECT AS AN IMPLEMENTATION OF THE EMPLOYEE'S CONSTITUTIONAL RIGHT TO REST: A PHILOSOPHICAL AND LEGAL APPROACH
10:30	<i>Nataliia Filipenko, Vitalii Pavlykivskyyi, Serhii Lukashevych, Volodymyr Trofymenko, Hanna Teteriatnyk</i> CATEGORICAL AND CONCEPTUAL FRAMEWORK AND LEGAL REGULATION PROTECTION AND RESILIENCE OF CRITICAL INFRASTRUCTURE

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10:40	<i>Alevtyna Biryukova, Hanna Kolisnykova, Yevheniia Tupytska, Viktoriia Panchenko</i> LEGAL REGULATION OF ADVERTISING IN DIGITAL MARKETING
10:50	<i>Nataliia Filipenko, Serhii Lukashevych, Olena Andrieieva, Karina Palkova, Vitālijs Rakstiņš, Lidija Juļa</i> INFORMATION SECURITY POLICY IN HIGHER EDUCATION INSTITUTIONS
11:00	<i>Olena Savchuk</i> ALTERNATIVE ENERGY SOURCES AS TOOLS FOR LEGAL REGULATION OF ENVIRONMENTAL USE AND PROTECTION IN THE INNOVATION SECTOR
11:10	<i>Ekaterina Bataeva, Sabine von Löwis</i> HIGHER EDUCATION IN A FRONTLINE CITY DURING THE RUSSIAN-UKRAINIAN WAR AND COVID-19 PANDEMIC
11:20	<i>Hanna Bidniak, Valentin Bidniak</i> ENTERING FALSE INFORMATION INTO THE ELECTRONIC HEALTHCARE SYSTEM REGARDING THE PROVISION OF MEDICAL SERVICES TO PATIENTS: A FORENSIC ASPECT
11:30	TECHNICAL BREAK
13:00	CLOSING OF THE CONFERENCE: LOOKING TO THE FUTURE https://meet.google.com/hes-wxih-cpo