Ministry of Education and Science of Ukraine

**KHARKIV NATIONAL UNIVERSITY OF RADIO ELECTRONICS**

**ISMA UNIVERSITY**

**NATIONAL AVIATION UNIVERSITY**

**INSTITUTE FOR INFORMATION RECORDING**

**LVIV POLYTECHNIC NATIONAL UNIVERSITY**

**THE MILITARY ACADEMY OF THE ARMED FORCES OF AZERBAIDJAN REPUBLIC**

Program of the Fifth International
Scientific and Technical Conference

# «COMPUTER AND INFORMATION SYSTEMS AND TECHNOLOGIES»

*April 22 – 23, 2021*

**Kharkiv 2021**

## PROGRAM COMMITTEE CO-CHAIRS

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| DODONOV Alexander | Dr.S., Prof., Institute for Information Recording of the National Academy of Sciences of Ukraine, *(Kyiv, Ukraine)* |
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| MASHTALIR Volodymyr | Dr.S., Prof., Kharkiv National University of Radio Electronics *(Kharkiv, Ukraine)* |
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| LEVASHENKO Vitaliy | Prof. Ing., PhD, University of Zilina *(Zilina, Slovakia)* |

## MEMBERS OF PROGRAM COMMITTEE

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| HASHIMOV Elshan Giyas | Dr.S., Prof., The Military Academy of the Armed Forces of Azerbaidjan Republic *(Baku, Azerbaijan)* |
| KOCHURKO Pavel | Ph.D., Assoc., Brest State Technical University *(Brest, Belarus)* |
| KOVALENKO Andriy | Dr.S., Prof., Kharkiv National University of Radio Electronics *(Kharkiv, Ukraine)* |
| KOSENKO Viktor | Dr.S., Prof., State Enterprise "Kharkiv Research Institute of Mechanical Engineering" *(Kharkiv, Ukraine)* |
| KUCHUK Heorhii | Dr.S., Prof., National Technical University "Kharkiv Polytechnic Institute" *(Kharkiv, Ukraine)* |
| LEVCHUK Victor | Ph.D., Assoc., Gomel State University named after Francis Skaryna *(Gomel, Belarus)* |
| LEVYKIN Victor | Dr.S., Prof., Kharkiv National University of Radio Electronics *(Kharkiv, Ukraine)* |
| LEMESHKO Oleksandr | Dr.S., Prof., Kharkiv National University of Radio Electronics *(Kharkiv, Ukraine)* |
| LUKOVA-CHUIKO Nataliia | Dr.S., Assoc., Taras Shevchenko National University of Kyiv *(Kyiv, Ukraine)* |
| MASHTALIR Sergii | Dr.S., Prof., Kharkiv National University of Radio Electronics *(Kharkiv, Ukraine)* |
| MIKHAL Oleg | Dr.S., Assoc., Kharkiv National University of Radio Electronics *(Kharkiv, Ukraine)* |
| PRIKHODKO Sergey | Dr.S., Prof., Ukrainian State University of Railway Transport *(Kharkiv, Ukraine)* |
| SEMENOV Serhii | Dr.S., Prof., National Technical University "Kharkiv Polytechnic Institute" *(Kharkiv, Ukraine)* |
| SMELYAKOV Kirill | Dr.S., Prof., Kharkiv National University of Radio Electronics *(Kharkiv, Ukraine)* |
| FEDOROVICH Oleg | Dr.S., Prof., National Aerospace University "Kharkiv Aviation Institute" *(Kharkiv, Ukraine)* |
| FILATOV Valentin | Dr.S., Prof., Kharkiv National University of Radio Electronics *(Kharkiv, Ukraine)* |

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| KHARCHENKO Vyacheslav | Dr.S., Prof., National Aerospace University "Kharkiv Aviation Institute" *(Kharkiv, Ukraine)* |
| CHUMACHENKO Igor | Dr.S., Prof., O.M. Beketov National University of Urban Economy in Kharkiv *(Kharkiv, Ukraine)* |
| TSYMBAL Alexander | Dr.S., Prof., Kharkiv National University of Radio Electronics *(Kharkiv, Ukraine)* |
| SHMATKOV Sergey | Dr.S., Prof., V. N. Karazin Kharkiv National University *(Kharkiv, Ukraine)* |
| GOPEJENKO Viktors | Dr.sc.ing., Prof., Vice Rector for Research, ISMA University *(Riga, Latvia)* |
| ZAITSEVA Elena | Prof. Ing., PhD, University of Zilina *(Zilina, Slovakia)* |

**CHAIRMAN OF THE ORGANIZING COMMITTEE**

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|---|---|
| MARTOVYTSKYI Vitalii | Ph.D., Assoc., Kharkiv National University of Radio Electronics *(Kharkiv, Ukraine)* |

**MEMBERS OF ORGANIZING COMEETTEE**

| | |
|---|---|
| YEREMENKO Oleksandra | Dr.S., Assoc., Kharkiv National University of Radio Electronics *(Kharkiv, Ukraine)* |
| YEREMINA Natalia | Ph.D., Kharkiv National University of Radio Electronics *(Kharkiv, Ukraine)* |
| CHALA Oksana | Ph.D., Assoc., Kharkiv National University of Radio Electronics *(Kharkiv, Ukraine)* |
| LIASHENKO Oleksii | Ph.D., Assoc., Kharkiv National University of Radio Electronics *(Kharkiv, Ukraine)* |
| MOVSESIAN Iana | Ph.D., Kharkiv National University of Radio Electronics *(Kharkiv, Ukraine)* |
| ROSINSKY Dmitry | Kharkiv National University of Radio Electronics *(Kharkiv, Ukraine)* |
| TKACHOV Vitalii | Ph.D., Assoc., Kharkiv National University of Radio Electronics *(Kharkiv, Ukraine)* |
| FEDIUSHYN Oleksandr | Ph.D., Assoc., Kharkiv National University of Radio Electronics *(Kharkiv, Ukraine)* |

## Presentation timings:

presentation up to 10 minutes;
Q&A session up to 5 minutes.

The conference will be as online event using Google Meet platform (**https://meet.google.com/udk-nyoj-szo**).

The conference is one of events planned in the scope of Science Day in Ukraine.

Timetable presented in Eastern European Summer Time (EEST) - it is 3 hours ahead of UTC (or UTC +3)

**OPENING OF THE CONFERENCE**

**Moderator:** ***Vitalii Martovytskyi***

**Assistant:** ***Kateryna Hvozdetska***

**April 22, 2021**

*Igor Ruban* 11.00

WELCOME WORDS OF THE FIRST VICE-RECTOR OF KNURE

*Vitaly Levashenko, Martin Lukac* 11.05

FUNCTIONALITY AND USAGE OF ACESYRI PORTAL

*Olesia Barkovska, Vladyslav Kholiev* 11.20

A STUDY OF THE INFLUENCE OF COMPUTING SYSTEMS ON THE TEXT VECTORIZATION SPEED

*Oleksandr Koshedran, Vitaliy Tkachov* 11.35

METHODS FOR AUTOMATING DEVELOPMENT PROCESSES AND DEPLOYMENT OF MICROSERVICE APPLICATIONS

*Yevhen Laptii, Vitalii Tkachov* 11.50

METHODS OF CONSTRUCTION OF OVERLINE INFRASTRUCTURES IN THE CLOUD ENVIRONMENT

*Vladimir Sayenko* 12.05

PRELIMINARY ASSESSMENT ON CHOOSING A CLOUD PLATFORM

*Dmytro Bilash, Maksym Bondarenko* 12.20

END-TO-END DELAY MODEL OF THE MAIN TYPES SATELLITES FOR VOIP-TELEPHONY OVER SATELLITE LINKS

*Vadym Mukhin, Yaroslav Kornaga, Valery Zavgorodnii, Maksym Basaliy, Oleg Mukhin* 12.35

DOUBLE-CIRCUIT ORGANIZATION OF A DISTRIBUTED COMPUTER SYSTEM FOR THE EFFECTIVE CONTROL OF ITS FUNCTIONING

*Igor Ruban, Valentyn Lebediev* 12.50

ANALYSIS OF THE CURRENT STATE OF SELF-HEALING SYSTEMS

*Mykhailo Hunko, Kateryna Hvozdetska* 13.15

SECURING THE INTERNET OF THINGS VIA VPN TECHNOLOGY

**BREAK (13.30-14.00)**

*Oleksandr Marukhnenko, Gennady Khalimov* 14.00

THE OVERVIEW OF DECENTRALIZED SYSTEMS SCALING METHODS

*Nina Kuchuk, Andriy Kovalenko, Vitalii Tkachov, Heorhii Kuchuk, Dmytro Rosinskiy* 14.15

PREDICTING TRAFFIC ANOMALIES IN CONTAINER VIRTUALIZATION

*Illia Fedorov, Khalimov Gennady* 14.30

SOFTWARE AND HARDWARE SIMULATOR OF COMPANY SECURITY AUDIT

*Igor Nevludov, Sergiy Novoselov, Oksana Sychova, Serhii Tesliuk* 14.45

PRODUCTION WORKSPACE OBSTACLE AVOIDANCE MOBILE ROBOT TRAJECTORY MODELING

*Vladlen Filippov, Ilya Voloshin, Stanislav Partyka, Oksana Baranova* 15.00

VNF PLACEMENT AND CONNECTIVITY

*Usic Ghenadie* 15.15

PERSONALIZED GLUCOSE PREDICTION MODEL FOR PATIENTS WITH TYPE I DIABETES

*Serhii Chalyi, Ievgen Bogatov* 15.30

THE USAGE OF THE TECHNOLOGY OF CONSTRUCTING "AS-IS" MODELS OF INITIAL MATURITY LEVELS OF PROCESS MANAGEMENT

*Vadym Poddubnyi, Roman Gvozdov, Oleksandr Sievierinov* 15.45

EVALUATION AND DECISION-MAKING SYSTEM AS VULNERABILITY MANAGEMENT PROCESS IN INFORMATION AND TELECOMMUNICATION SYSTEMS

*Olesia Barkovska, Vitalii Vodolazkyi* 16.00

METHOD OF ANNOTATING A COLLECTION OF TEXT DOCUMENTS

*Olesia Barkovska, Ihor Ryzhov* 16.15

USING OPENMP DIRECTIVES TO ACCELERATE OCR WITH TESSERACT OCR

*Olesia Barkovska, Yevhenii Bas* 16.30

ACCELERATED LOCALIZATION OF THE IRIS AS AN ELEMENT OF THE BIOMETRIC SYSTEM

*Viktoriia Perepadia, Zabolotnyj Volodymyr* 16.45

FEATURES OF THE ESTIMATION OF THE COMPROMISING EMANATIONS LEVEL OF A MODERN ELECTRONIC COMPUTER VIDEOTRACT

**April 23, 2021**

*Mykola Slisarenko, Oleksii Liashenko* 10.00

MODEL OF INTEGRATION OF VOICE ASSISTANTS IN THE CONSTRUCTION OF WEB APPLICATIONS

*Nelia Miroshnichenko, Iryna Perova* 10.15

REVIEW OF APPROACHES TO DIAGNOSIS OF POST-TRAUMATIC STRESS DISORDERS

*Yuliia Ivanenko, Anastasiia Hliuza, Denys Honcharenko, Oleksii Liashenko* 10.30

SECURITY SYSTEM DEVELOPMENT FOR "SMART HOUSE"

*Yuliia Andrusenko* 10.45

RESEARCH ON CNN (CONVOLUTIONAL NEURAL NETWORK)-BASED FORECASTING METHOD

*Oleksii Liashenko, Oleh Zhurylo, Kateryna Komarets, Serhii Liashenko* 11.00

HYBRID SCHEME OF USING LIGHTWEIGHT CRYPTOGRAPHIC ALGORITHMS FOR IOT SECURITY

*Oleksii Liashenko, Denys Holtsev,Vladyslav Diachenko,Serhii Liashenko* 11.15

ANALYZE AND USE NEURAL NETWORKS FOR INTRUSION DETECTION

*Dmytro Karnaukhov, Nataliia Yeromina* 11.30

TERRITORY MODELING WITH COMPUTER GRAPHICS, RENDERING AND GEOGRAPHIC INFORMATION SYSTEMS

*Oleksandr Sievierinov, Marharyta Ovcharenko* 11.45

ENTERPRISE SECURITY OPERATIONS CENTER

*Oleksandr Sievierinov, Oleh Kholosha* 12.00

SECURING BEARER TOKEN IN OAUTH2.0

*Vladyslav Lysakov, Oleksandr Sievierinov* 12.15

SECURITY OF WEB APPLICATIONS USING AWS CLOUD PROVIDER

*Yevgen Kotukh, Khalimov Gennady* 12.30

HARD PROBLEMS FOR NON-ABELIAN GROUP CRYPTOGRAPHY

**BREAK (12.30-13.00)**

*Andrii Hapon, Volodimir Fedorchenko* 13.00

MEASURING VULNERABILITY IN THREAT MODELING WITH RISK MATRIX

*Oleksandr Sievierinov, Lesia Bilan* 13.15

ANALYSIS OF VARIATIONS IN BIOMETRIC AUTHENTICATION METHODS IN MOBILE DEVICES

*Maksym Akshentsev, Khalimov Gennady* 13.30

WAYS OF PROTECTING THE CMS WORDPRESS-BASED SITES

*Viktor Chelak, Svitlana Gavrylenko* 13.45

DEVELOPMENT OF COMPUTER STATE IDENTIFICATION METHOD BASED ON BOOSTING ENSEMBLE

*Bayram Ganimat Ibrahimov, Arif Hasan Hasanov* 14.00

RESEARCH OF THE QUALITY OF FUNCTIONING MULTISERVICE COMMUNICATION NETWORKS WHEN ESTABLISHING A MULTIMEDIA SESSION

*Bayram Ganimat Ibrahimov, Arif Hasan Hasanov* 14.15

RESEARCH AND ANALYSIS OF THE EFFECTIVENESS MULTISERVICE COMMUNICATION NETWORKS NGN/IMS

*Bayram Ganimat Ibrahimov, Talibov A.M.* 14.30

RESEARCH AND ANALYSIS OF THE EFFECTIVENESS MULTISERVICE COMMUNICATION NETWORKS NGN/IMS

*Artem Bronnikov* 14.45

ADAPTIVE VISUAL MOBILE ROBOT CONTROL

*Volodymyr Lysechko, Oleksandr Zhuchenko, Iryna Kovtun, Serhii Indyk* 15.00

RESEARCH ON THE PROPERTIES OF COMPLEX SIGNAL ENSEMBLES OBTAINED BY FREQUENCY SEGMENTS PERMUTATION

*Kirill Khrustalev, Ruban Igor, Sofiia Khrustalova* 15.15
DETERMINATION OF FACTORS AFFECTING THE STABILITY OF THE ENTERPRISE

*Viktor Borysenko, Tatjana Borysenko* 15.30
CONCEPT AND METHOD FOR DEVELOPMENT OF CORPORATE INFORMATION SYSTEM

*Dariia Varchenko, Alina Komashchuk* 15.45
THE AIR HUMIDITY ACCURACY IMPROVING BY SEPARATING THE HUMIDIFIER FUNCTIONS

*Volodymyr Leshchynskyi, Irina Leshchynska* 16.00
THE CONSTRUCTION OF EXPLANATIONS IN INTELLIGENT SYSTEMS ON THE BASIS OF INTERACTIVE CLARIFICATION OF THE DECISION'S REASONS

*Oleksandr Lemeshko, Oleksandra Yeremenko, Maryna Yevdokymenko, Batoul Sleiman* 16.15
QOS ROUTING MODEL OVER DISJOINT PATHS WITH GUARANTEED BANDWIDTH IN SOFTWARE-DEFINED NETWORKS

*Vusal Katekhliyev* 16.30
THE ROLE OF MODERN TECHNOLOGY-BASED SYSTEMS IN THE ORGANIZATION OF INTERACTION IN THE ARMY