

# TARAS SHEVCHENKO NATIONAL UNIVERSITY OF KYIV (FACULTY OF INFORMATION TECHNOLOGY, FACULTY OF COMPUTER SCIENCE AND CYBERNETICS)

NATIONAL TECHNICAL UNIVERSITY OF UKRAINE
"IGOR SIKORSKY KYIV POLYTECHNIC INSTITUTE"
VIKTOR GLUSHKOV INSTITUTE OF CYBERNETICS OF THE NAS OF UKRAINE
INSTITUTE OF INFORMATION TECHNOLOGY AND LEARNING TOOLS OF THE NAES
OF UKRAINE

INSTITUTE OF INFORMATION REGISTRATION PROBLEMS OF THE NAS OF UKRAINE
INSTITUTE OF SOFTWARE SYSTEMS OF THE NAS OF UKRAINE
THE COUNCIL OF YOUNG SCIENTISTS OF THE FACULTY OF COMPUTER SCIENCE AND
CYBERNETICS AND THE FACULTY OF INFORMATION TECHNOLOGY OF
TARAS SHEVCHENKO NATIONAL UNIVERSITY OF KYIV

## **PROGRAM**

VII International conference







Information Technology and Interactions (Satellite)

December 04, 2020, Kyiv

The conference is planned to be held as video conference using the Zoom platform on 04th December, 2020 at **10 a.m**.

Link: https://us02web.zoom.us/j/84590132243?pwd=Rkw3OHZRc0k3eHdUWHVTL2JTRmU3QT09

Password: 940103

#### **Contact details**

#### Adress:

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- 24 B. Gavrilishyna St., Faculty of Information Technology;
- 4d Akademika Glushkova Ave., Faculty of Computer Science and Cybernetics

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# PROGRAM COMMITTEE



### **General Chairs**

- Prof. Anatoly Anisimov, Taras Shevchenko National University of Kyiv, Ukraine
- Prof. Vitaliy Snytyuk, Taras Shevchenko National University of Kyiv, Ukraine

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- Prof. Andreas Pester, Fachhochschule Kärnten, Austria
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- Prof. Hiroshi Tanaka, Tokyo Medical and Dental University, Japan
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- Prof. Oleg Chertov, National Technical University of Ukraine "Kyiv Polytechnic Institute", Ukraine
- Prof. Oleksandr Marchenko, Taras Shevchenko National University of Kyiv, Ukraine
- **Prof. Sándor Bozóki,** Computer and Automation Research Institute Hungarian Academy of Sciences, Hungary
- Prof. Vitaliy Tsyganok, Institute for Information Recording of NAS of Ukraine, Ukraine
- Prof. Vladimir Vovk, Royal Holloway, University of London, United Kingdom



### **Organizing committee**

| Anatoly Anisimov  Vitaliy Snytyuk | - | Correspondent-member of National Academy of Sciences of Ukraine, Doctor of Physical and Mathematical Science, Professor, Dean of the Faculty of Computer Science and Cybernetics.  Doctor of Technical Science, Professor, Dean of the Faculty of Information Technology. |
|-----------------------------------|---|---|
| Anatolii Pashko                   | - | Doctor of Physical and Mathematical Science,<br>Professor, Professor of the Department of Theoretical<br>Cybernetics of the Faculty of Computer Science and<br>Cybernetics.   |
| Andrii Biloshchytskyi             | _ | Doctor of Technical Science, Professor, Head of the Department of Information Systems and Technology of the Faculty of Information Technology.  |
| Kateryna<br>Kolesnikova           | _ | Doctor of Technical Sciences, Professor, Professor of<br>the Department of Technologies Management of the<br>Faculty of Information Technology.   |
| Mykola Nikitchenko                | - | Doctor of Physical and Mathematical Science,<br>Professor, Head of the Department of Theory and<br>Technology of Programming of the Faculty of Computer<br>Science and Cybernetics.   |
| Nataliia Lukova-<br>Chuiko        | _ | Doctor of Technical Science, Associate Professor, Head of the Department of Cybersecurity and Information Protection of the Faculty of Information Technology.  |
| Oleh Ilarionov                    | - | Candidate of Technical Sciences, Associate Professor,<br>Head of the Department of Intellectual Technologies of<br>the Faculty of Information Technology.   |

| Oleksandr<br>Marchenko | - | Doctor of Physical and Mathematical Science,<br>Professor, Professor of the Department of Mathematical<br>Informatics of the Faculty of Computer Science and<br>Cybernetics.   |
|------------------------|---|--|
| Oleksii Bychkov        | - | Doctor of Technical Science, Associate professor, Head of the Department of Program Systems and Technology of the Faculty of Information Technology.   |
| Serhii Toliupa         | - | Doctor of Technical Sciences, Professor, Professor of<br>the Department of Cybersecurity and Information<br>Protection of the Faculty of Information Technology.   |
| Taras Panchenko        | _ | Candidate of Physical and Mathematical Science,<br>Associate Professor, Associate Professor of the<br>Department of Theory and Technology of Programming<br>of the Faculty of Computer Science and Cybernetics.                |
| Valentyna Pleskach     | - | Doctor of Economics, Candidate of Technical Sciences, Professor, Head of the Department of Applied Information System of the Faculty of Information Technology.  |
| Viktor Morozov         | _ | Candidate of Technical Sciences, Professor, Head of<br>the Department of Technologies Management of the<br>Faculty of Information Technology.  |
| Volodymyr<br>Zaslavsky | - | Doctor of Technical Science, Professor, Professor of the Department of Mathematical Informatics of the Faculty of Computer Science and Cybernetics.  |
| Iurii Krak             | _ | Correspondent-member of National Academy of Sciences of Ukraine, Doctor of Physical and Mathematical Science, Professor, Head of the Department of Theoretical Cybernetics of the Faculty of Computer Science and Cybernetics. |
| Yurii Samokhvalov      | - | Doctor of Technical Sciences, Professor, Professor of<br>the Department of Intellectual Technologies of the<br>Faculty of Information Technology.  |
| Yurii Kravchenko       | _ | Doctor of Technical Sciences, Professor, Head of the Department of Network and Internet Technologies of the Faculty of Information Technology.   |

#### **Secretariat**

Anastasiia – (specialist, FIT, Taras Shevchenko KNU)

Andrii Fesenko – (PhD in Technical Science, Head of the council of young

scientists, FIT, Taras Shevchenko KNU)

Andriy Dudnik – (Doctor of Science, Ass. Prof, FIT, Taras Shevchenko KNU)

Dmytro – (Phd student, FCSC, Taras Shevchenko KNU)

George Gaina - (PhD in Technical Science, Prof, FIT, Taras Shevchenko

KNU)

Nataliia (PhD in Technical Science, Ass. Prof, FIT, Taras Shevchenko

Oberemok KNU)

Olena – (assistant, FIT, Taras Shevchenko KNU)

Olena – (Deputy Dean of Research, FCSC, Taras Shevchenko KNU)

Olha (PhD in Technical Science, Ass. Prof, FIT, Taras Shevchenko

Mezentseva KNU)

Viktoriia (PhD in Technical Science, Ass. Prof, FIT, Taras Shevchenko

Mironova KNU)

Volodymyr (Doctor of Science, senior researcher, FIT, Taras

Nakonechnyi Shevchenko KNU)

Yuliia (PhD in Physical and Mathematical Science, Head of the

Shevchuk council of young scientists, FCSC, Taras Shevchenko KNU)



# **CONFERENCE TIMETABLE**



#### Friday, December 04, 2020

| 10:00 – 10:15 | Opening of the Conference |
|---------------|---------------------------|
| 10:15 – 11:30 | Oral parallel sessions    |
| 11:30 – 11:45 | Break                     |
| 11:45 – 13:00 | Oral parallel sessions    |
| 13:00 - 14:00 | Lunch break               |
| 14.00 - 17.00 | Oral narallel sessions    |

#### Welcome speech

link: https://us02web.zoom.us/j/84590132243?pwd=Rkw3OHZRc0k3eHdUWHVTL2JTRmU3QT09

passcode: 940103

Section 1. Artificial Intelligence Technologies

link https://us02web.zoom.us/j/84590132243?pwd=Rkw3OHZRc0k3eHdUWHVTL2JTRmU3QT09

meeting ID: 845 9013 2243

passcode: 940103

Section 2. Cyberspace Protection Technologies,

link https://us02web.zoom.us/j/88503952712?pwd=MkpKN2dta05zMksrZ0tsSnk3NW9uQT09

passcode: 110449

Section 3. Data Analytics

&

Section 4. Digital Project Management Technologies,

link https://us02web.zoom.us/j/4948604324?pwd=QXZ10HdoRlkyZ203aEJsQ0w1QzB2Zz09

meeting ID: 494 860 4324

passcode: 157969

Section 5. E-commerce, E-government and E-learning Technologies,

link https://us02web.zoom.us/j/89193146515?pwd=OTVocjZFZU9kMmNwNDBKYmdlc29yZz09

meeting ID: 891 9314 6515

passcode: 714162

Section 6. Mathematical Foundations of Information Technology,

&

Section 7. Network and Internet Technologies,

link https://us02web.zoom.us/j/83256136866



# **CONFERENCE PROGRAMME**



04
Friday

## **DECEMBER**

#### OPENING OF THE CONFERENCE (10:00 – 10:15)

Welcome speech:

Link: https://us02web.zoom.us/j/84590132243?pwd=Rkw3OHZRc0k3eHdUWHVTL2JTRmU3QT09

passcode: 940103

**Anatoliy Anisimov**, Doctor of Physical and Mathematical Science, Professor, Correspondentmember of National Academy of Sciences of Ukraine, Dean of the Faculty of Computer Science and Cybernetics of Taras Shevchenko Kyiv National University

and

**Vitaliy Snytyuk**, Doctor of Technical Science, Professor, Dean of the Faculty of Information Technology of Taras Shevchenko Kyiv National University

#### **ORAL PARALLEL SESSIONS**

(10:15 - 11:30)

#### **BREAK**

(11:30 - 11:45)

#### **ORAL PARALLEL SESSIONS**

(11:45 - 13:00)

LUNCH BREAK

(13:00 - 14:00)

#### **ORAL PARALLEL SESSIONS**

(14:00 - 17:00)

#### Tracks 1:

#### **Artificial Intelligence Technologies**

#### Link:

https://us02web.zoom.us/j/84590132243?pwd=Rkw3OHZRc0k3eHdUWHVTL2JTRmU3QT09

meeting ID: 845 9013 2243

passcode: 940103

|     | Head: Oleksandr Marchenko, Yurii Samokhvalov Secretary: George Gaina |  |  |
|-----|--|--|--|
| 1.  | Abduramanov Z.,<br>Seidametova Z.,<br>Valiieva N.                    | Color Recognition Deep Learning Model  |  |
| 2.  | Antonevych M.,<br>Didyk A.,<br>Snytyuk V.                            | Choice of Better Parameters for Method of Deformed Stars in N-Dimensional Case   |  |
| 3.  | Astakhov A.,<br>Ilarionov O.   | Analysis of Speech Emotion Recognition Methods   |  |
| 4.  | Bondar T.,<br>Hnatiienko H.  | Video Registration and Face Recognition Technology on Stream Video   |  |
| 5.  | Derevianchenko O.,<br>Nikolaiev A.                                   | Implementation of Artificial Intelligence Module for Learning Purposes   |  |
| 6.  | Kadomskyi K.   | Evaluating Deep Learning Models for Anomaly Detection in an Industrial Transporting System                                     |  |
| 7.  | Nazarchuk I.,<br>Krasovska, H.,<br>Ilarionov O.                      | Intellectual Agent for Sentiment Analysis on Movie Reviews   |  |
| 8.  | Neskorodieva T.,<br>Fedorov E.                                       | Automatic Analysis Method of Audit Data Based on Neural Network Mapping  |  |
| 9.  | Samokhvalov Y.,<br>Bondarenko B.                                     | Use of Neural Networks in Information Retrieval Systems  |  |
| 10. | Semerikov S.,<br>Kucherova H.,<br>Los V.,<br>Ocheretin D.            | Neural Network Analytics and Forecasting the Country's Business Climate in Conditions of the Coronavirus Disease (Covid-19)    |  |
| 11. | Sharkadi M.  | Neuro-Fuzzy Modeling of Level Assessment in the System of Financial-Economic Security  |  |
| 12. | Soroka P.,<br>Krasnovidov S.   | Business Analytics Information Technologies for Analysis of the Activity of a Commercial Organization                          |  |
| 13. | Soroka P.,<br>Savchenko R.   | Machine Learning Methods for Sport Result Prediction   |  |
| 14. | Sus B.,<br>Revenchuk I.,<br>Bauzha O.                                | Model of Implementation Virtual Laboratory Work for Supporting Educational Process   |  |
| 15. | Tmienova N.,<br>Dulich O.  | Automatic Question Generation System for Ukrainian-<br>Language Texts  |  |
| 16. | Yakymenko D.,<br>Tregubenko I.                                       | Modified Method of Construction of Information Image of<br>Electronic Text Documents By Means of Intellectual Data<br>Analysis |  |

# Tracks 2: Cyberspace Protection Technologies

#### Link:

https://us02web.zoom.us/j/88503952712?pwd=MkpKN2dta05zMksrZ0tsSnk3NW9uQT09

passcode: 110449

Head: Serhii Toliupa

Secretary: Volodymyr Nakonechnyi

|     | ,                         |   |
|-----|---------------------------|---|
| 1.  | Buchyk S.,                | Searching for a Potential Criminal Using Wireless Internet    |
|     | Andrushchenko Y.          | Networks as one of the Targets of State Security              |
| 2.  | Buchyk S.,                | The Method of Detection of Hidden Information Using           |
|     | Symonychenko Y.,          | Steganographic Methods  |
|     | Symonychenko A.           |   |
| 3.  | Kashtalian A.             | Honeypots Models in Computer Networks According to            |
|     |                           | Malicious Attacks Types                                       |
| 4.  | Koltsov D.,               | Traversal Utilities for Nat                                   |
|     | Parkhomenko I.            |   |
| 5.  | Lukova-Chuiko N.,         | Advice on Selecting an Intrusion Detection System for Small   |
|     | Bystrov A.                | and Medium-Sized Businesses                                   |
| 6.  | Lukova-Chuiko N.,         | Threat Hunting as a Method of Protection Against Cyber        |
|     | Fesenko A.,               | Threats   |
|     | Papirna H.,               |   |
|     | Gnatyuk S.                |   |
| 7.  | Lukova-Chuiko N., Klochko | Collective Defense of Corporate Networks Against Computer     |
|     | V.                        | Attacks   |
| 8.  | Nakonechnyi V.,           | Application of Biometric Methods of User Identification in    |
|     | Bondarenko M.             | Information and Communication Systems                         |
| 9.  | Nakonechnyi V.,           | Comparative Characteristics of Algorithms to Improve Spam     |
|     | Voitenko I.               | Prevention Mechanism  |
| 10. | Nicheporuk A.,            | The Architecture of CNN Model for Android Malware Detection   |
|     | Savenko O.,               |   |
|     | Kazantsev A.              |   |
| 11. | Ponomarov S.,             | Breach and Attack Simulation as a New Vector of Information   |
|     | Lukova-Chuiko N.          | Security  |
| 12. | Rusyn V.,                 | Simple Autonomous Security System Based on the Fingerprint    |
|     | Sambas A.                 | Scanner Module and Arduino Platform: a Study Case             |
| 13. | Shved A.,                 | Basic Approaches to Personal Data Protection in Client        |
|     | Buchyk S.                 | Relationship Management System                                |
| 14. | Slipachuk L.,             | Synthesis Features of Functional Model of Integrated Industry |
|     | Toliupa S.                | Management System of National Cybersecurity                   |
| 15. | Stetsiuk M.,              | Ensuring the Fault Tolerance And Survivability of Specialized |
|     | Nicheporuk A.,            | Information Technologies in Corporate Computer Networks       |
|     | Savenko B.                | Under the Influence of Malicious Software                     |
| 16. | Toliupa S.,               | Safety of Critical Functions Infrastructure                   |
|     | Brailovskyi M.,           |   |
|     | Parkhomenko I.,           |   |
|     | Zhurakovskyi B.           |   |

| 17. | Toliupa S.,<br>Buchyk S.,<br>Shestak Y.,<br>Kulko A.         | Cyberattack Detection Systems Based on the Signature Method |
|-----|--|---|
| 18. | Toliupa S.,<br>Nakonechnyi V.,<br>Kotov M.,<br>Solodovnyk V. | Signals Encryption in Wireless Data Input Devices           |
| 19. | Tukalo S.,<br>Kostiv O.,<br>Shpur O.,<br>Buhyl B.            | Methods Development to Protect IoT from Botnets             |

### Tracks 3: Data Analytics

#### Link:

https://us02web.zoom.us/j/4948604324?pwd=QXZ1OHdoRlkyZ203aEJsQ0w1QzB2Zz09

meeting ID: 494 860 4324

passcode: 157969

|     |                                 | passcode: 157969  |  |
|-----|---------------------------------|---|--|
|     | ad: Kateryna Kolesnikova, Volod | ymyr Zaslavsky  |  |
| Sec | Secretary: Olha Mezentseva      |   |  |
| 1.  | Bokan V.,                       | Information Analysis of Methods for Forecasting the           |  |
|     | Tsykun V.,                      | Population of Ukraine   |  |
|     | Khlevnyi A.                     |   |  |
| 2.  | Bura Y.,                        | House Price Modeling By Machine Learning                      |  |
|     | Khlevna Y.                      |   |  |
| 3.  | Burmistenko O.,                 | Information Analysis of the Bulk Materials Continuous Dosing  |  |
|     | Bila T.,                        | Process   |  |
|     | Statsenko V.,                   |   |  |
|     | Statsenko D.                    |   |  |
| 4.  | Dolgikh S.,                     | Covid-19 Epidemiological Factor Analysis: Identifying         |  |
|     | Mulesa O.                       | Principal Factors With Machine Learning                       |  |
| 5.  | Dvoretskyi M.,                  | Using the Analytic Hierarchy Process for Optimization the     |  |
|     | Dvoretska S.,                   | Database Structure of a Distributed Corporate Information     |  |
|     | Horban H.,                      | System Node   |  |
|     | Nezdoliy Y.                     |   |  |
| 6.  | Fedorchenko I.,                 | Research and Development of a Genetic Algorithm for           |  |
|     | Oliinyk A.,                     | Diagnosing the Strength of the Blade Structure in Gas Turbine |  |
|     | Stepanenko A.,                  | Engines   |  |
|     | Kharchenko A.,                  |   |  |
|     | Saman M.                        |   |  |
| 7.  | Horban H.,                      | Principles of Searching for a Variety of Types of Associative |  |
|     | Kandyba I.,                     | Rules in OLAP-Cubes   |  |
|     | Dvoretskyi M.,                  |   |  |
|     | Boiko A.                        |   |  |
| 8.  | Kiktev N.                       | Application of the Internet of Things Technology in the       |  |
|     | Lendiela T.                     | Automation of the Production of Compound Feed and             |  |
|     | Osypenkoc V.                    | Premixes  |  |
|     |                                 |   |  |

|     | Khlovevi A               | Development of a French Detection Contains in Development                         |
|-----|--------------------------|---|
| 9.  | Khlevnyi A.,             | Development of a Fraud Detection System in Payment                                |
|     | Koval B.,                | Services Using CRISP-DM Methodology   |
|     | Shabatskaya S.           |   |
| 10. | Kondruk N.               | Segmentation of Data Sets by Different Types of Clusters                          |
| 11. | Koval B.,                | Fraud Detection Technology in Payment Systems                                     |
|     | Khlevna I.               |   |
| 12. | Linder Y.,               | Modeling and Prediction of Covid-19 Using Hybrid Dynamic                          |
|     | Veres M.,                | Model Based on Seird With Arima Corrections                                       |
|     | Kuzminova K.             |   |
| 13. | Mikhieiev V.,            | Analysis and Forecasting of Environmental Pollution by                            |
|     | Mezentseva O.            | Carbon Dioxide  |
| 14. | Minaeva J.               | Processing of Multidimensional and Multi-Aspect Data in Conditions of Uncertainty |
| 15. | Mudra A.,                | Examination of the Dependence Between Criminal's                                  |
|     | Mezentseva O.            | Appearance and His Offense Using Machine Learning                                 |
| 16. | Orlovskyi D.,            | A Business Intelligence Dashboard Design Approach to                              |
|     | Kopp A.                  | Improve Data Analytics and Decision Making  |
| 17. | Rudenko V.,              | Influence Analysis of Different Management Methodologies on                       |
|     | Mezentseva O             | the Result of Big Data Projects   |
| 18. | Shelest T.,              | Analysis of the Possibility of Using Vr Technologies in                           |
|     | Yeremieieva V.           | Environmental Awareness Projects  |
| 19. | Shtovba S.,              | An Informetric Assessment of Various Research Fields                              |
|     | Petrychko M.             | Interactions on Base of Categorized Papers in Dimensions                          |
| 20. | Taborovskyi A.,          | The Impact of Automated and Robotic Warehouses on the                             |
|     | Kolesnikova K.,          | Scope of Supply Chain Process   |
|     | Khlevnyi A.              |   |
| 21. | Tereshchenkova O.,       | Informational Expert System For Minimizing the Time for                           |
|     | Kondrashov K.            | Searching of Failures of Ship Electrical Equipment                                |
| 22. | Vavilenkova A.           | Ragularity of Context Units Identification in Electronic Text                     |
|     |                          | Documents   |
| 23. | Yefremov H., Kolesnikova | Opinion Mining Methodology in Market Research                                     |
|     | K.                       | , 3   |
| 24. | Yeshchenkov V.,          | Identification of the Main Problems of Collection and Analysis                    |
|     | Mezentseva O.            | of Speech Data Using Machine Learning   |
| 25. | Zhovtukhin D.,           | Classification of Bottles Images Using Convolutional Neural                       |
|     | Yehorchenkov O.          | Networks  |
|     |                          | Tracks 4:   |

#### Tracks 4:

### **Digital Project Management Technologies**

#### Link:

https://us02web.zoom.us/j/4948604324?pwd=QXZ1OHdoRlkyZ203aEJsQ0w1QzB2Zz09

meeting ID: 494 860 4324

passcode: 157969

| Sec | Section head: Viktor Morozov |                              |  |
|-----|------------------------------|------------------------------|--|
| Sec | Secretary: Nataliia Oberemok |                              |  |
| 1.  | Zubets D.,                   | Business Analysis in Ukraine |  |
|     | Steshenko G.                 |                              |  |

| 2.   | Dehtiarova Y.,                | Practical Implication of Digital Project Management                  |
|------|-------------------------------|--|
|      | Morozov V.                    | Technologies   |
| 3.   | Gamotska S.,                  | Special Features Of The Choice Of The Method Of Model                |
|      | Soroka P.                     | Evaluation For The Management Of Risers In IT Projects               |
| 4.   | Kambur M.,                    | Smart Kitchen Development Project Management                         |
|      | Yehorchenkov O.               |  |
| 5.   | Kovalenko A.,                 | Research of Methods of Formation of the Initial Description of       |
|      | Ivanov I.,                    | the Project of Creation And Start-Up of the Enterprise on            |
|      | Morozov V.                    | Production of Street Furniture Made of Recycled Materials            |
| 6.   | Loik O.,                      | Information Technology in Project Management of the                  |
|      | Triska M.,                    | Agriculture Technological Systems Development                        |
|      | Lub P.,                       |  |
|      | Sharybura A.                  |  |
| 7.   | Morozov V.                    | Use of Machine Learning Methods in Data Analysis for Digital         |
|      | Manager                       | Project Management   |
| 8.   | Morozov V.,                   | Analysis of the Prospects for Applying Methods for Customer          |
|      | Proskurin M.                  | Churn Prediction Using Machine Learning in Innovative                |
|      | Noumanka A                    | Startup Projects   |
| 9.   | Naumenko A.,<br>Kolomiiets A. | Specific Characteristics of Project Management in the Banking Sector |
| 10.  | Oberemok I.,                  |  |
| 10.  | Oberemok N.                   | Priority of Values of Project Stakeholders                           |
| 11.  | Raichuk I.                    | Models of Digitalization of Business Processes of Project-           |
| ' '. | raioliur I.                   | Oriented Organizations Based on Artificial Neural Networks           |
| 12.  | Samonenko A.,                 | Peculiarity of RPA Projects  |
|      | Yehorchenkov O.               | Toolianty of the first rojecto                                       |
| 13.  | Sazonov A.,                   | Concept of Organization of Portfolio of Projects and Programs        |
|      | Yehorchenkova N.              | of Financial Companies   |
| 14.  | Shelest T.,                   | Analysis of Prerequisites for the Application of it Projects in      |
|      | Rudenko A.                    | Conscious Consumption Management                                     |
| 15.  | Smishchenko D.,               | Process of Effective Project Management of Developing                |
|      | Latysheva T.                  | Mobile Application for Carsharing                                    |
| 16.  | Steshenko G.,                 | Basic Metrics of Startup Evaluating                                  |
|      | Buhrov A.,                    |  |
|      | Horban D.,                    |  |
|      | Timrova Y.                    |  |
| 17.  | Suprun O.,                    | It Audit as a Key Component of Information Systems                   |
|      | Klimenkova N.                 | Effectiveness and Data Security                                      |
| 18.  | Timinsky A.,                  | MS Project as a Digitalisation Tool of Project Management            |
| 4.5  | Kerdun N.                     | System for Project Oriented Companies                                |
| 19.  | Timinsky A.,                  | Team Management Models of Seo-Optimization Start Up                  |
|      | Patsyuk M.                    | Projects   |
| 20.  | Yas V.,                       | Implementation of Projects in the Medical Field Using Big Data       |
|      | Kolomiiets A.                 | and Waterfall Methodology  |
| 21.  | Zharikova A.,                 | Project Management of Development Business Messenger for             |
|      | Morozov V.                    | Communication With Foreign Clients                                   |
|      |                               |  |

# Tracks 5: E-commerce, E-government and E-learning Technologies

#### Link:

https://us02web.zoom.us/j/89193146515?pwd=OTVocjZFZU9kMmNwNDBKYmdlc29yZz09

meeting ID: 891 9314 6515

passcode: 714162

Head: Valentyna Pleskach, Taras Panchenko

Secretary: Viktoriia Mironova

|     | retary. Viktoriia iviiroriova |   |
|-----|-------------------------------|---|
| 1.  | Bezlutska O.,                 | Informational Visualization on E-Courses of Higher Maritime   |
|     | Leshchenko A.,                | Educational Institutions                                      |
|     | Yurzhenko A.,                 |   |
|     | Paziak A.                     |   |
| 2.  | Domanetska I.,                | Dynamic Analysis of the Quiz Complexity in Moodle             |
|     | Ilarionov O.,                 |   |
|     | Fedusenko O.,                 |   |
|     | Vlasenko O.                   |   |
| 3.  | Gradinari O.                  | Analysis of Existing Models of Information Competence         |
| 4.  | Horbas I.                     | "A State in a Smartphone" Concept by Ukrainain government     |
| 5.  | Makhachashvili R.,            | ICT Tools for Final Qualification Assessment Survey Study for |
|     | Semenist I.,                  | European and Oriental Languages Programs                      |
|     | Bakhtina A.                   |   |
| 6.  | Mironova V.,                  | Methodology of Building Agile-Education Processes in Higher   |
|     | Pyroh M.,                     | Education Institutions  |
|     | Harko I.                      |   |
| 7.  | Morze N.,                     | Digital Competence in E-Governance Education: a Survey        |
|     | Makhachashvili R.             | Study   |
| 8.  | Morze N.,                     | Development of the Digital Transformation Model for Higher    |
|     | Strutynska O.                 | Educational Institutions                                      |
| 9.  | Ponomarenko R.                | Knowledge Test Systems Based on Type 2 Takagi-Sugeno          |
|     |                               | Fuzzy Inference   |
| 10. | Provotar A.,                  | Using Educational IoT System                                  |
|     | Veres M.,                     |   |
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| 11. | Riabov O.,                    | Recommendation System Design In Python By Methods Of          |
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| 12. | Selivanova A.,                | Agent Modeling of Online Store Activities                     |
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| 13. | Yurchenko A.,                 | Open Educational Resources in it Sphere                       |
|     | Semenikhina O.,               |   |
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| 14. | Zagorodnyuk S.,<br>Sus B., | The Application of Network Communication for Organizing a Laboratory Work |
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|     | Bauzha O.                  |   |
| 15. | Zinchenko V.,              | Information and Communication Technologies While Forming                  |
|     | Kyrpa A.,                  | Non-Philological Students' Professional Language and                      |
|     | Stepanenko O.              | Speech Competences  |

# Tracks 6: Mathematical Foundations of Information Technology

#### Link:

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Secretary: Olena Grinenko

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|--------------------------|----------------|---|--|--|
| 1.                       | Bychkov O.,    | Mathematical Methods for Information Technology of            |  |  |
|                          | Ivanchenko O., | Biometric Identification in Conditions of Incomplete Data     |  |  |
|                          | Merkulova K.,  |   |  |  |
|                          | Zhabska Y.     |   |  |  |
| 2.                       | Hnatiienko H., | Use of Algebraic Approach When Evaluating the Correct         |  |  |
|                          | Rimek A.       | Sequence of the Present List Elements in Testing Tasks        |  |  |
| 3.                       | Klyushin D.    | Randomness: Old And New Ideas                                 |  |  |
| 4.                       | Kovalenko I.,  | Structuring of Group Expert Judgments Formed Under            |  |  |
|                          | Davydenko Y.,  | Complex Forms of Ignorance                                    |  |  |
|                          | Shved A.       |   |  |  |
| 5.                       | Kredentser B., | Analytical Model With Interruption of Service of Short-Term   |  |  |
|                          | Mogylevych D., | Objects With Temporary Reservation                            |  |  |
|                          | Kononova I.,   |   |  |  |
|                          | Mohylevych V.  |   |  |  |
| 6.                       | Makarenko A.   | Cellular Automata Models With Riemann Surfaces                |  |  |
| 7.                       | Polishchuk V., | The Technology for Determining the Level of Process Control   |  |  |
|                          | Malyar M.,     | in Complex Systems  |  |  |
|                          | Polishchuk A.  |   |  |  |
| 8.                       | Rusyn V.,      | Circuit Realization of the Pulse Transformation of the Analog |  |  |
|                          | Sambas A.      | Nonlinear Signals Based on Chua's Generator                   |  |  |
| 9.                       | Semenov V.,    | Convergence of Adaptive Methods for Equilibrium Problems in   |  |  |
|                          | Vedel Y.       | Hadamard Spaces   |  |  |
| 10.                      | Sobchuk V.,    | Ensuring the Properties of Functional Stability of            |  |  |
|                          | Olimpiyeva Y., | Manufacturing Processes Based on the Application of Neural    |  |  |
|                          | Musienko A.,   | Networks  |  |  |
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| 11.                      | Solomko M.,    | Modified Algorithm for Transformation of Boolean Functions    |  |  |
|                          | Zubyk L.,      |   |  |  |
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| 12. | Vostrov G.,                           | Mathematical Models of Pseudorandom Processes Behavior                          |  |  |  |
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|     | Khrinenko A.                          | for Nonlinear Dynamical Systems   |  |  |  |
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| Hos | ı <b>d:</b> Yurii Kravchenko          |   |  |  |  |
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| 1.  | Barannik V.,                          | Video Encoding to Increase Video Availability in                                |  |  |  |
|     | Babenko Y.,                           | Telecommunication Systems   |  |  |  |
|     | Shulgin S.,                           |   |  |  |  |
|     | Parkhomenko M.                        |   |  |  |  |
| 2.  | Belfer R.                             | The Architecture of The Layered Peer to Peer Network                            |  |  |  |
| 3.  | Buchyk S.,                            | Information Technologies in Ukrainian Judicial System                           |  |  |  |
|     | Palageychenko D.                      |   |  |  |  |
| 4.  | Cherevatov A.,                        | The Use of Artificial Intelligence in the Internet of Things                    |  |  |  |
|     | Paliy S.                              | System  |  |  |  |
| 5.  | Dudnik A.,                            | Analysis of the Current State of Technology "Smart Home"                        |  |  |  |
|     | Kobylchuk M.,                         |   |  |  |  |
|     | Pokutnia D.                           |   |  |  |  |
| 6.  | Gladka M.,                            | Using the Internet of Things When Introducing CRM Systems                       |  |  |  |
|     | Lisnevskyi R.,                        | in the Banking Sector   |  |  |  |
|     | Kostikov M.                           |   |  |  |  |
| 7.  | Hnatiienko H.,                        | Fuzzy Definition of Relative Estimates of Alternatives Based                    |  |  |  |
|     | Kudin V.,                             | on Pairwise Comparisons Using Pseudobasic Matrices                              |  |  |  |
|     | Ilarionov O.,                         |   |  |  |  |
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| 8.  | Kondratiuk I.,                        | Current Problems of Information Security of IoT Systems                         |  |  |  |
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|     | Paliy S.                              | Connerio Formation Construction of a Local Cornerate                            |  |  |  |
| 9.  | Kovbas Y.,<br>Izmailova O.            | Scenario Formation Construction of a Local Corporate  Network of the Enterprise |  |  |  |
| 10. |                                       | Machine Learning Algorithms for Predicting the Results of                       |  |  |  |
| 10. | Dakhno N.,                            | Covid-19 Coronavirus Infection  |  |  |  |
|     | Leshchenko O.,                        | Covid-13 Colonavilus Inicolon   |  |  |  |
|     | Tolstokorova A.                       |   |  |  |  |
| 11. |                                       | IoT Solutions System for Climate Control Process of Making                      |  |  |  |
|     | Kravchenko O.                         | Cheese  |  |  |  |
| 12. |                                       | Modeling of Dynamic Ecological-Economic Interaction                             |  |  |  |
|     | Onyshchenko A.,                       |   |  |  |  |
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| 13. | Leshchenko O.,                        | Application Peculiarities of Gradient Descent Algorithms in                     |  |  |  |
|     | Dahno N.,                             | Neural Networks   |  |  |  |
|     | Herasymenko O.,                       |   |  |  |  |
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| 14. | Myroshnychenko Y., | Road Traffic Optimization by IoT                             |
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| 15. | Nakonechnyi V.,    | Development and Analysis of Algorithms for Recognizing       |
|     | Pliushch O.,       | Moving Objects in the Data Stream                            |
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| 16. | Nemchenko K.,      | Statement of the Task of Building an Adaptive System of      |
|     | Paliy S.           | Energy-Efficient Lighting for Administrative Buildings Based |
|     |                    | on the Internet of Things                                    |
| 17. | Nikolyuk P.,       | Intellectual Algorithm Implementation for Megacity Traffic   |
|     | Neskorodieva T.,   | Management   |
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| 18. | Paiuk V.,          | Detecting Software Malicious Implant Based on Anomalies      |
|     | Heidarova O.       | Research on Local Area Networks                              |
| 19. | Ponomarenko R.,    | Method of Processing Complex Objects Based on Object-        |
|     | Tkachenko R.       | Oriented Proxy System  |
| 20. | Sakharov D.,       | IoT Seismological Situation Monitoring System Development    |
|     | Kravchenko O.      | With one of the Regions of Ukraine as an Example             |
| 21. | Selivorstova T.,   | Research of Application Metrics Deployed in Monolithic and   |
|     | Kyrychenko S.,     | Microservice Architectures                                   |
|     | Brodskyi V.,       |  |
|     | Tarkovska N.       |  |
| 22. | Turovsky O.,       | Minimization of Phase Error Dispersion in Closed Type Phase  |
|     | Kozlovskyi V.,     | Synchronization Systems in Carrier Frequency Tracking Mode   |
|     | Balaniuk Y.,       |  |
|     | Boiko Y.           |  |
| 23. | Tymoshchuk S.,     | The Research and Development of the Software to Support      |
|     | Ponomarenko R.     | the Educational Process in Higher Education Institutions     |