



# 3<sup>rd</sup> IEEE International Conference on Advanced Information and Communication Technologies (AICT) - 2019

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council



## *Conference Program*

Lviv, Ukraine  
July 2-6, 2019

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- IEEE MTT/ED/AP/CPMT/SSC Joint West Ukraine Chapter
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- Kharkiv National University of Radio Electronics, Ukraine

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## CONFERENCE SESSIONS

Session ID	Session Title	Number of accepted papers
S0	Plenary Session	7
S1	Theoretical and Practical Aspects of Advanced Information and Communication Systems	21
S2	Software Defined Networking and Network Function Virtualization	20
S3	Internet of Things (IoT)	22
S4	Mobile Communication Networks	18
S5	Cybersecurity in ICT	15
ACCEPTED PAPERS, TOTAL		103
SUBMITTED PAPERS, TOTAL		120
ACCEPTANCE RATE		0.86

## TIME LIMITS

<b>Plenary session:</b> up to 20 min	<b>Regular sessions:</b> up to 10 min
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**PROGRAM AT A GLANCE**

July 2 Tuesday	9:00-EOD	Day of Arrival
July 3 Wednesday	08:00-9:00	Registration
	9:00-9:30	Opening Remarks
	9:30-11:00	Keynote Session
	11:00-11:30	Coffee Break
	11:30-13:00	Plenary Session
	13:00-14:00	Lunch
	14:00-15:30	Regular Sessions
	15:30-16:30	Poster Session/Coffee Break
	16:30-18:00	Regular Sessions
	18:00-EOD	Conference Dinner
July 4 Thursday	09:00-10:30	Regular Sessions
	10:30-11:30	Poster Session/Coffee Break
	11:30-13:00	Regular Sessions
	13:00-14:00	Lunch
	14:00-15:30	Regular Sessions
	15:30-16:30	Poster Session/Coffee Break
	16:30-18:00	Regular Sessions
	18:00-EOD	Social and Entertainment Events
July 5 Friday	9:00-13:00	Cisco IoT Workshop
	13:00-14:00	Lunch
	14:00-18:00	Cisco IoT Workshop
	18:00-EOD	Social and Entertainment Events
July 6 Saturday	10:00-11:00	Conference Final Session

## CONFERENCE TIMETABLE

Time	July 3 Wednesday			July 4 Thursday			July 5 Friday
8.00	Registration			Registration			Registration
9.00	Welcoming Remarks			S3	S4	Cisco IoT Workshop	Cisco IoT Workshop
10.00	Keynote Session						
11.00	Coffee Break			Poster Session/ Coffee Break			
12.00	Plenary Session			S3	S4	Cisco IoT Workshop	
13.00	Lunch			Lunch			
14.00	S1	S2	Cisco IoT Workshop	S5	Cisco IoT Workshop	Cisco IoT Workshop	
15.00	Poster Session/ Coffee Break						Poster Session/ Coffee Break
16.00	Poster Session/ Coffee Break			Poster Session/ Coffee Break			
17.00	S1	S2	Cisco IoT Workshop	S5	Cisco IoT Workshop		
18.00	Conference Dinner			Free Time			Free Time
19.00	Conference Dinner			Free Time			Free Time
20.00	Conference Dinner			Free Time			Free Time



## CONFERENCE OPENING

Wednesday, July 3

Assembly Hall

9:00 – 9:30

### OPENING REMARKS

1.	<i>Yuriy Bobalo,</i> Rector of Lviv Polytechnic National University
2.	<i>Dmytro Fedasyuk,</i> Vice-Rector of Lviv Polytechnic National University
3.	<i>Andriy Pavliv,</i> Head of Lviv Convention Bureau
4.	<i>Mykhailo Andriychuk,</i> Head of IEEE MTT/ED/AP/CPMT/SSC Joint West Ukraine Chapter

### KEYNOTE SESSION

Wednesday, July 3

Room A

9:30 – 11:00

Chair:

Prof. **Mykhailo Klymash**

1.	<i>Minho Jo, Korea University</i> <b>Blockchain in Industrial IoT</b>
2.	<i>Oleksandr Karpin, Cypress Semiconductors</i> <b>Capacitive Sensing and Wireless Connectivity for Automotive</b>
3.	<i>Ihor Tanenkov, Global Logic</i> <b>Connected Vehicles and Autonomous Driving Concepts</b>
4.	<i>Oleksandr Illiusha, ESET</i> <b>The Largest Cyber Attacks in Ukraine in 2015-2018: Analysis and Conclusions</b>

## PLENARY SESSION

Wednesday, July 3

Room A

11:30 – 13:00

Chair:

Prof. **Minho Jo**

1.	<i>Ivan Demydov, Mykhailo Klymash, Najm Ahmad Baydoun and Andriy Branytskyi</i> <b>To the Strategy Of Informational Impacts In Cyberspace By Omori's Law</b>
2.	<i>Oleksandr Lemeshko, Maryna Yevdokymenko, Oleksandra Yeremenko, Olena Nevzorova, Arkadii Snihurov and Tetiana Kovalenko</i> <b>Fast ReRoute Model with VoIP Quality of Experience Protection</b>
3.	<i>Mykola Beshley, Andrii Pryslupskyi, Oleksiy Panchenko and Halyna Beshley</i> <b>SDN/Cloud Solutions for Intent-Based Networking</b>
4.	<i>Marcus Hofmann, Jürgen Sachse and Jürgen Smettan</i> <b>Dual Study In Informatics Means Clever Study!</b>
5.	<i>Jana Zausinová, Martin Zoričák, Vladimír Gazda, Gabriel Bugár and Juraj Gazda</i> <b>An Agent-Based Model of Adaptive Pricing in HetNets</b>
6.	<i>Taras Maksymyuk, Juraj Gazda, Longzhe Han and Minho Jo</i> <b>Blockchain-Based Intelligent Network Management for 5G and Beyond</b>
7.	<i>Andriy Luntovskyy and Mykhailo Klymash</i> <b>Robotic Apps and Platforms: Mobility, Localization, Management and Security Aspects</b>

S1: Theoretical and Practical Aspects of Advanced  
Information and Communication Systems

Wednesday, July 3

Room A

14:00 – 15:30

**ORAL SESSION**

**Chair:**

**Prof. Anatoliy Sachenko**

1.	<i>Iryna Spivak, Svitlana Krepych, Serhii Spivak and Oleksandr Fedorov</i> <b>Approach to Estimate the Level of Influence of Motivation on the Effectiveness of Employees, Depending on Their Needs</b>
2.	<i>Vasyl Semerenko and Volodymyr Luzhetskyi</i> <b>Automaton Presentations of Reed-Solomon Codes</b>
3.	<i>Vladimir Barannik, Dmytro Havrylov, Valeriy Barannik and Anton Sorokun</i> <b>Development Second and Third Phase of the Selective Frame Processing Method</b>
4.	<i>Andriy Peleschyshyn, Roman Korzh, Olha Trach and Mikola Tsiutsiura</i> <b>Building of Information Activity Management System of Higher Educational Establishment in the Social Environments of the Internet</b>
5.	<i>Olexiy Odokienko, Anatolii Merzlikin, Vladimir Pavlikov, Nikolay Ruzhentsev, Anton Sobkolov, Oleksandr Tsopa, Dmitry Salnikov, Simeon Zhyla</i> <b>Cumulative Distribution of Rain Rate and Rain Attenuation in Ukraine</b>
6.	<i>Aleksey Yanenko, Sergey Peregudov, Mikhail Prokofiev and Konstantin Shevchenko</i> <b>Perspectives of the Using mm-Range Radiometry in Telecommunication Systems of Information Transmission</b>

S1: Theoretical and Practical Aspects of Advanced  
Information and Communication Systems

Wednesday, July 3

Room A

15:30 – 16:30

**POSTER SESSION**

**Chair:**

**Dr. Ivan Demydov**

1.	<i>Bohdan Zhurakovskiy and Nataliia Tsopa</i> <b>Assessment Technique and Selection of Interconnecting Line of Information Networks</b>
2.	Oleksandr Kliuiev, Oleh Uhrovetskyi, Ella Simakova-Yefremian, Mykhailo Mozhaiev and Oleksandr Mozhaiev <b>Method of Forensic Research on Image for Finding Touch Up on The Basis of Noise Entropy</b>
3.	Valerii Kozlovskiy, Roman Korzh, Svitlana Petrovska, Yurii Balaniuk, Yuliia Boiko and Ivan Yakoviv <b>Low-Frequency Schemes of Substitution of Segments in Homogeneous Transmission Lines</b>
4.	<i>Myroslava Yavorska, Mykhaylo Palamar, Mykhaylo Strembitskyi and Stepan Mashtalyar</i> <b>Information Support for the Fractal Antennas Construction</b>
5.	<i>Nataliya Suprun and Yana Red'ko</i> <b>Flexible Textile Absorbers of Electromagnetic Radiation</b>
6.	<i>Viacheslav Tretiak, Dmitry Filgus, Oksana Stetsenko and Sergii Buchyk</i> <b>Parallel Computation Method for Fragmentation of Distributed Database Data Based on Rank-Based Approach</b>
7.	<i>Oleg Yaremko, Nazariy Andrushchak, Volodymyr Adamiv, Taras Rosa, Monika Lelonek and Anatoliy Andrushchak</i> <b>Research of Nanocomposite Materials for Telecommunication Networks</b>

S1: Theoretical and Practical Aspects of Advanced  
Information and Communication Systems

Wednesday, July 3

Room A

16:30 – 18:00

**ORAL SESSION**

**Chair:**

Prof. **Jürgen Smettan**

1.	Gerhard Luhn and Agnes Oszuszký <b>Information Holism – A New Way to Close the Information Gap</b>
2.	Yuriy Shapovalov, Dariya Bachyk and Ksenia Chaban <b>Determination of the Sensitivity of Linear Periodically-Time-Variable Circuits by the Frequency Symbolic Method</b>
3.	Mykola Dyvak, Natalia Porplytsya and Yurii Maslyiak <b>Computational Complexity of Structural Identification Method for Interval Discrete Models</b>
4.	Sergei Yelmanov, Olena Hranovska and Yuriy Romanyshyn <b>Image Enhancement Technique based on Power-Law Transformation of Cumulative Distribution Function</b>
5.	<i>Victor Krasnobayev, Alexandr Kuznetsov, Andrey Dyachenko and Irina Lokotkova</i> <b>The Method of Single Errors Correction in the Residue Class</b>
6.	<i>Alexandr Kuznetsov, Anastasiia Kiian, Vitalina Babenko, Oleksii Smirnov, Hanna Zhosan and Dmytro Prokopovych-Tkachenko</i> <b>Soft Decoding Method for Turbo-Productive Codes</b>
7.	<i>Oleksiy Yanenko, Konstantyn Shevchenko and Oleksandra Golovchanska</i> <b>Optoelectronic System with Automated Determination of Maximum Absorption Frequencies</b>
8.	Lesya Nikityuk, Roman Tsaryov, Kateryna Lavreka and Kateryna Shulakova <b>Method of Optimum Synthesis of Reconstructed Subscriber Access Network with using FTTC Technology</b>

S2: Software Defined Networking and Network Function  
Virtualization

Wednesday, July 3

Room B

14:00 – 15:30

ORAL SESSION

Chair:

Prof. **Oleksandr Lemeshko**

1.	<i>Volodymyr Andrushchak, Mykola Kaidan, Stepan Dumych, Taras Maksymyuk</i> <b>Intelligent Data Flow Aggregation in Edge Nodes of Optical Label Switching Networks</b>
2.	<i>Marian Seliuchenko, Mykola Beshley, Marian Kyryk, Mykhailo Zhovtonoh</i> <b>Automated Recovery of Server Applications for SDN-Based Internet of Things</b>
3.	<i>Irina Strelkovskaya, Irina Solovskaya and Anastasiya Makoganiuk</i> <b>Predicting Self-Similar Traffic Using Cubic B-Splines</b>
4.	<i>Yuliia Pyrih, Mykola Kaidan and Ihor Tchaikovskyyi</i> <b>Research of Genetic Algorithms for Increasing the Efficiency of Data Routing</b>
5.	<i>Oleksandr Lemeshko, Oleksandra Yeremenko, Maryna Yevdokymenko, Batoul Sleiman, Ahmad M. Hailan and Amal Mersni</i> <b>Computation Method of Disjoint Paths under Maximum Bandwidth Criterion</b>
6.	<i>Saleem Iqbal, Adnan Ahmed, Muhammad Irshad and Imtiaz Ali Halepoto</i> <b>Maintaining Information Consistency in Inter-domain Software Defined Networks</b>

S2: Software Defined Networking and Network Function  
Virtualization

Wednesday, July 3

Room B

15:30 – 16:30

**POSTER SESSION**

**Chair:**

**Dr. Mykola Beshley**

1.	Yaroslav Krainyk, Olga Dvornik and Oleksii Krainyk <b>Software-Defined Network Application-Aware Controller for Internet-of-Things</b>
2.	<i>Oleksandr Lemeshko, Tetiana Lebedenko and Aymen Al-Dulaimi</i> <b>Improvement of Method of Balanced Queue Management on Routers Interfaces of Telecommunication Networks</b>
3.	<i>Taras Rosa, Juraj Gazda, Taras Maksymyuk</i> <b>Implementation of Software Defined Mobile Network based on SDR and Network Function Virtualization</b>
4.	<i>Evgeniy Lavrov, Olga Lavrova, Nadiia Pasko and Nataliia Savina</i> <b>Models for the Description of Man-Machine Interaction for the Tasks of Computer-Aided Assessment of the Reliability of Automated Systems</b>
5.	Alexander Trunov <b>Diagnostic of Inflammation and Choice of Therapy's Alternatives in Accordance with Several Standards</b>
6.	<i>Evgeniy Lavrov, Olga Lavrova, Natalija Barchenko and Nataliia Savina</i> <b>Models of the Dialogue "Human - Computer" for Ergonomic Support of E-Learning</b>
7.	Andrii Hryvachevskyi, Sergiy Fabirovskyy, Ivan Prudyus and Jan Matuszewski <b>Multi-Criteria Informativeness Evaluation of Digital Images in Monitoring Systems</b>
8.	<i>Nick Vinogradov and Alina Savchenko</i> <b>Impact of Network Control System Performance on Efficiency of Large Corporate Network</b>

S2: Software Defined Networking and Network Function  
Virtualization

Wednesday, July 3

Room B

16:30 – 18:00

**ORAL SESSION**

**Chair:**

Prof. **Oleksandr Lemeshko**

1.	<i>Ivan Katerynychuk and Michael Strelbitsky</i> <b>Model of Information Flows of the Information System at the Stage of Modernization</b>
2.	<i>Valentyn Faychuk, Orest Lavriv, Mykhailo Klymash, Olga Shpur and Viktoriia Zhebka</i> <b>Investigation of the Bellman-Ford Algorithm Enhanced for Remote Execution</b>
3.	<i>Olena Tykhonova, Olga Yavorska and Vasyl Berezovskiy</i> <b>The Max-Flow Problem Statement on the Three-Pole Open Network Graph</b>
4.	<i>Oleksandr Koval, Valeriy Kuzminykh, Serhii Otrokh and Vladyslav Kravchenko</i> <b>Optimization of Scenarios for Collecting Information Streaming Wide-Area Network</b>
5.	<i>Mykola Pasyeka, Vasyl Sheketa, Nadiia Pasiaka, Svitlana Chupakhina and Ivanna Dronyuk</i> <b>System Analysis of Caching Requests on Network Computing Nodes</b>
6.	<i>Lubov Berkman, Larysa Kriuchkova, Olga Tkachenko and Oksana Varfolomeeva</i> <b>Determination of Criteria for Choosing the Best Ways and Indicators of Service Quality in Infocommunication Networks</b>



Thursday, July 4

Room A

9:00 – 10:30

**ORAL SESSION****Chair:****Dr. Mahmut Durgun**

1.	<i>Dmytro Fedasyuk, Roman Holyaka and Tetyana Marusenkova</i> <b>A Tester of the MEMS Accelerometers Operation Modes</b>
2.	Anatolii Kargin and Tetyana Petrenko <b>Knowledge Representation in Smart Rules Engine</b>
3.	<i>Oleksii Serheiev-Horchynskyi</i> <b>Measures of Optimal Digital Filtering for Different Signal Types in Medical Telecommunication Systems</b>
4.	<i>Pinar Kirci</i> <b>A Novel Model for Vehicle Routing Problem With Minimizing CO2 Emissions in Urban Delivery</b>
5.	Bohdan Rusyn, Oleksiy Lutsyk, Rostyslav Kosarevych and Yarema Varetsky <b>Automated Recognition of Numeric Display Based on Deep Learning</b>
6.	<i>Bohdan Shevchuk, Yuriy Brayko, Mykhaylo Geraimchuk, Orest Ivakhiv and Roman Velgan</i> <b>Processing of Input Signals of Wireless Monitoring Networks by Means of Subscriber Systems</b>
7.	<i>Andrii Kanovskyi, Anatoly Sachenko and Volodymyr Kochan</i> <b>Virtual spatial displaying of dynamic graphic objects for IoT</b>

Thursday, July 4

Room A

10:30 – 11:30

**POSTER SESSION**

Chair:

**Dr. Taras Maksymyuk**

1.	Yaroslav Krainyk, Yevhen Davydenko and Valentyn Tomas <b>Configurable Control Node for Wireless Sensor Network</b>
2.	Valerii Koval, Nadiia Kazakova, Dmytro Kalian, Dmytro Komarchuk, Vitaliy Lysenko and Oleksandr Samkov <b>The Use of Advanced Information and Communication Technologies to Monitor the Quality of Synchronization Signals of IoT Terminal devices</b>
3.	Roman Melnyk and Ruslan Tushnytskyy <b>Piece-Wise Approximation of Distributed Cumulative Histogram Features for Face Classification</b>
4.	<i>Victor Gorbachev, Ivan Vikulin, Anna Gorbacheva, Vika Krasova and Victor Litvinenko</i> <b>Radiation resistant FET-based Temperature Sensor for End Devices of IoT</b>
5.	Roman Voliansky, Yurii Shramko, Oleksandr Sadovoi, Nina Volianska and Oleksiy Sinkevych <b>Arduino-based Implementation of the Dual-channel Chaotic Generator</b>
6.	<i>Vasyl Lytvyn, Victoria Vysotska, Ivan Peleshchak, Roman Peleshchak, Ihor Kohut and Vladyslav Mykhailyshyn</i> <b>Intelligent System of a Smart House</b>
7.	<i>Sergei Yelmanov, Olena Hranovska and Yuriy Romanyshyn</i> <b>A New Approach to the Implementation of Histogram Equalization in Image Processing</b>
8.	<i>Sergey Sveleba and Ivan Katerynchuk</i> <b>The Real Time Face Recognition</b>
9.	<i>Vadym Bakiko, Volodymyr Shvaichenko, Yuri Onikienko and Oleksii Pereverziev</i> <b>The Concept of Integrating the Fashion Industry Into the Entertainment Industry on the Basis of the Internet of Things</b>
10.	<i>Stanislav Omelianenko, Yuriy Kondratenko, Galyna Kondratenko and Ievgen Sidenko</i> <b>Advanced System of Planning and Optimization of Cargo Delivery and its IoT Application</b>

Thursday, July 4

Room A

11:30 – 13:00

**ORAL SESSION****Chair:****Dr. Levent Gokrem**

1.	<i>Mahmut Durgun and Levent Gokrem</i> <b>Cloud-Based Adjustable and Section Led Pattern Controlled Street Light</b>
2.	<i>Yeliz Durgun and İsa Karaman</i> <b>Web of Things Based User-Friendly Pulse Width Modulation Dimmable Intelligent Digital Led Driver</b>
3.	Levent Gokrem, Mahmut Durgun and Yeliz Durgun <b>Indoor Location Control with Visible Light Communication</b>
4.	<i>Olexander Belej, Natalia Nestor, Orest Polotai and Jan Sadeckii,</i> <b>Features of Application of Data Transmission Protocols in Wireless Networks of Sensors</b>
5.	Sergey Toliupa, Ihor Tereikovskiy, Ivan Dychka, Liudmyla Tereikovska and Alexander Trush <b>The Method of Using Production Rules in Neural Network Recognition of Emotions by Facial Geometry</b>
6.	<i>Valery Shestakov and Yuriy Danyk,</i> <b>Methodology of Situational Control System Synthesis</b>
7.	<i>Serhiy Kovbasiuk, Leonid Kanevskyy and Mykola Romanchuk</i> <b>Object detection method based on aerial image instance segmentation by unmanned aerial system in the framework of decision making system</b>

Thursday, July 4

Room B

9:00 – 10:30

**ORAL SESSION****Chair:**Prof. **Andriy Luntovskyy**

1.	<i>Roman Odarchenko, Jordi Gimenez, Yevgeniya Sulema, Swen Petersen and Baruch Altman</i> <b>Multilink Solution for 5G: Efficiency Experimental Studies</b>
2.	<i>Bohdan Strykhaliuk, Roman Kolodiy and Valentyn Faychuk</i> <b>Method for Intelligent Routing Within Ad-Hoc Networks with Complex Topology</b>
3.	<i>Dmytro Makoveyenko and Olena Osharovska</i> <b>Electromagnetic Compatibility of 5G Mobile Communications and Ultra-Wideband Devices</b>
4.	<i>Kostiantyn Sielivanov, Mykola Moskalets and Al-Vandavi Saif Ahmed Iskandar Ismael</i> <b>A Method for Increasing Probability of Detecting Call Signals of Subscriber Stations in Mobile Communication Systems</b>

## S4: Mobile Communication Networks

Thursday, July 4

10:30 – 11:30

## POSTER SESSION

Chair:  
Dr. Juraj Gazda

1.	<i>Bohdan Shubyn, Taras Maksymyuk</i> <b>Intelligent Mobility Management in 5G Mobile Networks based on Recurrent Neural Networks</b>
2.	<i>Oleksandr Oksiiuk and Vadym Krotov</i> <b>Method of Nodes Connectivity Management of Tactical Mobile Radio Networks</b>
3.	<i>Ihor Kahalo, Andriy Masyk, Halyna Beshley, Volodymyr Pashkevych</i> <b>The Method of Transmitting Real-Time Video Streams for Wi-Fi Networks with Short-Term Channel Failures</b>
4.	<i>Nikolay Vinogradov, Mikhailo Stepanov, Valerii Hladkykh, Oleksandr Toroshanko and Andrii Skrypnychenko</i> <b>Eliminate Application Redundancy Using Local Processing Using Directional Diffusion with Mobile Agents</b>
5.	<i>Oleksiy Polikarovskyy, Igor Gula and Lesya Karpova</i> <b>Phase Accumulator Simulation for Advanced Digital Frequency Synthesizers</b>
6.	<i>Orest Khamula, Svitlana Vasiuta, Nazar Soroka, Olha Sosnovska and Mykhailo Kliap</i> <b>Interface Management of Mobile Devices via Electromyography</b>
7.	<i>Igor Zelinsky, Myroslava Yavorska and Mykhaylo Palamar</i> <b>Data Processing Problem at Remote Measurements of Parabolic Antenna Dimensions</b>
8.	<i>Roman Stoliarchuk, Oksana Urikova, Mykhailo Klymash</i> <b>Methods of Common Resources Management of Independent Heterogeneous Networks by Using Big Data Technology</b>
9.	<i>Olena Semenova, Andriy Semenov and Olha Voitsekhovska</i> <b>Neuro-Fuzzy Controller for Handover Operation in 5G Heterogeneous Networks</b>
10.	<i>Volodymyr Pelishok, Bohdan Koval, Halyna Kopets</i> <b>Simulation and Efficiency Increasing of the Scanning Antennas Based on Linear Arrays</b>

## S4: Mobile Communication Networks

Thursday, July 4

Room B

11:30 – 13:00

## ORAL SESSION

Chair:

Prof. **Andriy Luntovskyy**

1.	<i>Ruslan Politanskyi and Mykhailo Klymash</i> <b>Application of Artificial Intelligence in Cognitive Radio For Planning Distribution of Frequency Channels</b>
2.	Alexandr Kuznetsov, Oleksii Smirnov, Diana Kovalchuk, Alexander Averchev, Mykola Pastukhov and Kateryna Kuznetsova <b>Formation of Pseudorandom Sequences with Special Correlation Properties</b>
3.	<i>Yulia Skoryk, Valeriy Bezruk, Victoria Vlasova and Yuriy Koltun</i> <b>Multicriterial Analysis and Selection of Mobile Communication Technologies of the Fourth and Fifth Generation</b>
4.	Andrii Zinchenko, Natalia Korolyuk, Elena Korshets and Vadym Slusar <b>The Method of Open Space Selection of Signals for RedCom Systems</b>

Thursday, July 4

Room A

14:00 – 15:30

**ORAL SESSION**

**Chair:**  
**Prof. Serhii Toliupa**

1.	<i>Ivan Obod, Iryna Svyd, Oleksandr Maltsev, Halyna Maistrenko, Oleh Zubkov and Ganna Zabolodko</i> <b>Bandwidth Assessment of Cooperative Surveillance Systems</b>
2.	<i>Vladimir Barannik, Vadym Fustii, Dmitry Barannik and Maksym Parkhomenko</i> <b>Evaluation of Effectiveness of Masking Methods of Aerial Photographs</b>
3.	<i>Mykhailo Klymash, Olha Shpur and Nazar Peleh</i> <b>Information Security in Virtualized Data Center Network</b>
4.	<i>Pavlo Gurzhiy, Oleksandr Yudin, Bogdan Gorodetsky and Yuriy Ryabukha</i> <b>The Method of Adaptive Counteraction to Viral Attacks, Taking Into Account Their Masking in Infocommunication Systems</b>
5.	<i>Tatyana Belikova, Oleksii Dovbenko, Albert Lekakh and Oleksandr Dodukh</i> <b>Method of Increasing the Capacity of Information Threat Detection Filters in Modern Information and Communication Systems</b>

Thursday, July 4

Room A

15:30 – 16:30

**POSTER SESSION****Chair:**

Prof. Iryna Svyd

1.	<i>Iryna Svyd, Ivan Obod, Oleksandr Maltsev, Ganna Zavalodko, Daria Pavlova and Halyna Maistrenko</i> <b>Fusion of Airspace Surveillance Systems Data</b>
2.	<i>Iryna Svyd, Ivan Obod, Oleksandr Maltsev, Olekcii Strelnitskiy, Oleh Zubkov and Ganna Zavalodko</i> <b>Method of Increasing the Identification Friend or Foe Systems Information Security</b>
3.	<i>Dmytro Chumachenko and Sergiy Yakovlev</i> <b>Development of Deterministic Models of Malicious Software Distribution in Heterogeneous Networks</b>
4.	<i>Svitlana Popereshnyak</i> <b>Analysis of Pseudorandom Small Sequences Using Multidimensional Statistics</b>
5.	<i>Gennady Khalimov, Tendong Tetuh Simon, Albarghati Mohammed Adrees and Yevgen Kotukh</i> <b>MST3 Cryptosystem Based on a Small Ree Groups</b>
6.	<i>Vasyl Lytvyn, Roman Peleshchak, Ivan Peleshchak and Victoria Vysotska</i> <b>Information Encryption Based on the Synthesis of a Neural Network and AES Algorithm</b>



Thursday, July 4

Room A

16:30 – 18:00

**ORAL SESSION****Chair:**Prof. **Serhii Toliupa**

1.	<i>Lada Slipachuk, Serhii Toliupa and Volodymyr Nakonechnyi</i> <b>The Process of the Critical Infrastructure Cyber Security Management using the Integrated System of the National Cyber Security Sector Management in Ukraine</b>
2.	<i>Mykola Kushnir, Anatolii Semenko and Grygorii Kosovan</i> <b>Increasing the Cryptosecurity of Telecommunication Systems with Spread Spectrum by using Pseudorandom Sequences Based on Two Ergodic Chaotic Signals</b>
3.	Vasyl Kychak, Volodymyr Tromsuk, Serhii Tsyurulnyk, Artem Metelitsa, Yaroslav Borodai and Vasyl Tkachuk <b>Analysis and Synthesis of Codes of Generators in Quartus II</b>
4.	<i>Serhii Toliupa, Hanna Shvedova and Ivan Parkhomenko</i> <b>Security and Regulatory Aspects of the Critical Infrastructure Objects Functioning and Cyberpower Level Assessment</b>

**CISCO IOT WORKSHOP****Wednesday, July 3****Room C****9:00 – 13:00**

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| 1. | <i>Serhii Dziuba, ITC ORT</i><br><b>Introduction to Arduino</b> |
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**Wednesday, July 3****Room C****14:00 – 18:00**

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| 1. | <i>Roman Chernenko, ITC ORT</i><br><b>Introduction to Raspberry Pi</b> |
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**CISCO IOT WORKSHOP****Thursday, July 4****Room C****9:00 – 13:00**

1.	<i>Nataliia Poliakova, ASC Engineering Institute of Zaporizhzhya National University</i> <b>Escape Route Game</b>
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**Thursday, July 4****Room C****14:00 – 18:00**

1.	<i>Orest Kostiv, ITC Lviv Polytechnic National University</i> <b>IoT Security Game</b>
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## CISCO IOT WORKSHOP

**Friday, July 5**

**Room C**

**9:00 – 11:00**

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| <b>2.</b> | <i>Olena Domotenko</i><br><b>General Discussion: Results, Ideas, Formation of Committees</b> |
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**Friday, July 5**

**Room C**

**11:00 – 12:00**

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| <b>2.</b> | <i>Nataliia Poliakova, ASC Engineering Institute of Zaporizhzhya National University</i><br><b>Automation of the Collection of Information About Teachers, Students and Educational Institutions After all-Ukrainian Events</b> |
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**Friday, July 5**

**Room C**

**12:00 – 12:45**

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| <b>1.</b> | <i>Serhiy Martsenko, ASC Ternopil National Technical University</i><br><b>20th Anniversary of the First Academy in Ukraine / Autumn BootCamp in Ternopil</b> |
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**Friday, July 5**

**Room C**

**12:45 – 13:15**

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| <b>1.</b> | <i>Leonid Tsvirkun, ASC DNTU</i><br><b>Preparation for the Winter BootCamp in the Dnieper</b> |
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**Friday, July 5**

**Room C**

**13:15 – 13:45**

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| <b>1.</b> | <i>Olena Domotenko</i><br><b>IPD Weeks Topics</b> |
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**Friday, July 5**

**Room C**

**15:15 – 17:00**

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| <b>1.</b> | <b>Brainstorming</b> |
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FINAL SESSION

**Saturday, July 6**

**10.00-11.00**

- 1. Concluding reports of Section Chairs**
- 2. Discussion**
- 3. Conference summary**

**CONFERENCE CLOSING**





# LOCATIONS

