



13th IEEE International Black Sea Conference on Communications and Networking

23–26 June 2025, Chisinau, Republic of Moldova

Program



IEEE International Black Sea Conference on Communications and Networking
23–26 June 2025 // Chisinau, Moldova

Organized by



Hosting University

Information Note

The IEEE BlackSeaCom series of conferences are held in the countries surrounding the Black Sea. The goal of the IEEE BlackSeaCom is to bring together visionaries in academia, research labs, and industry from all over the world to the shores of the Black Sea. Here they will address many of the outstanding grand challenges that exist in the areas of communications and networking while having an opportunity to explore this exciting and dynamic region that has a rich history.

The 13th edition of the IEEE BlackSeaCom series will be in beautiful Chisinau, Republic of Moldova on 23-26 June 2025.

The Conference details are available through the website
<https://blackseacom2025.ieee-blackseacom.org>

Program Committee

Organizing Committee

The Conference will take place at Technical University of Moldova, Bd Stefan cel Mare 168, MD-2004, Chisinau, Moldova.

Language: The official language of the Conference is **English**.

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Tina GAERLAN	Project Manager	<i>IEEE Communications Society, United States</i>

PROGRAM AT A GLANCE

IEEE BlackSeaCom 2025 Program-at-a-Glance

	Monday 23 June 2025	Tuesday 24 June 2025	Wednesday 25 June 2025	Thursday 26 June 2025		
8:00 - 8:30	Registration					
8:30 - 10:00	Tutorial 1 Applied Cyber Security Magna Hall	TS-1: MIMO / 5G/6G Networks Magna Hall	TS-4: AI in Networking Magna Hall	WIPS-1 Networking-1 room 1-205 Demo Session room 1-205	TS-6: SDN/NFV Magna Hall	WIPS-4 Security room 1-205
10:00-10:30	Coffee Break Magna Hall Foyer	Coffee Break room 1-215				
10:30 - 11:15	Tutorial 1 Applied Cyber Security Magna Hall	Opening Plenary Magna Hall	Keynote 2 Mojtaba Mahdavi Magna Hall		Special Session-2 Magna Hall	WIPS-5 Emerging New Technologies room 1-205
11:15 - 12:00		Keynote 1 Aryan Kaushik Magna Hall	Keynote 3 Uwe Assman Magna Hall			
12:00 - 13:00	Lunch room 1-215					
13:00 - 14:30	Tutorial 2 Open RAN Magna Hall	TS-2: Security room 1-205	Special Session-1 Magna Hall	WIPS-2 AI room 1-205	Panel New 6G Insights Towards Connected Intelligence Magna Hall	
14:30 - 15:00	Coffee Break Magna Hall Foyer	Coffee Break room 1-215			Closing Plenary Magna Hall	
15:00 - 16:30	Tutorial 2 Open RAN Magna Hall	TS-3: Signal Processing/ Data Transmission room 1-205	TS-5: Smart Systems Magna Hall	WIPS-3 Networking-2 room 1-205		
18:00 - 20:00	Reception	Voluntary Excursion Event. (See details on the Home page)	Banquet			

TS: Technical Session, WIPS: Work-in-Progress Session

CONFERENCE PROGRAM

23 June 2025

8:00 – 8:30 REGISTRATION

8:30 – 10:00 TUTORIAL 1 (part I)

Applied Cybersecurity: Generally-Applicable Hands-on Hacking of
Passwords and Private Keys

Andrei COSTIN

Magna Hall

10:00 – 10:30 COFFEE BREAK

Magna Hall Foyer

10:30 – 12:00 TUTORIAL 1 (part II)

Applied Cybersecurity: Generally-Applicable Hands-on Hacking of
Passwords and Private Keys

Andrei COSTIN

Magna Hall

12:00 – 13:00 LUNCH

room 1-215

13:00 – 14:30 TUTORIAL 2 (part I)

Open RAN for terrestrial Networks (5G Adv/6G) and Non-Terrestrial
Networks (NTNs)

Alessandro VIZZARRI

Magna Hall

14:30 – 15:00 COFFEE BREAK

Magna Hall Foyer

15:00 – 16:30 TUTORIAL 2 (part II)

Open RAN for terrestrial Networks (5G Adv/6G) and Non-Terrestrial
Networks (NTNs)

Alessandro VIZZARRI

Magna Hall

18:00 – 20:00 RECEPTION

24 June 2025**8:00 – 8:30 REGISTRATION****8:30 – 10:00 TS-1: MIMO / 5G/6G NETWORKS***Magna Hall***Session Chair: Mojtaba Mahdavi (*Ericsson, Sweden*)****TS1-1 Practical and Robust Antenna Downtilt Optimisation Approach in 5G Network**

Golnar R Behzadi (*Spark New Zealand, New Zealand & University of Auckland, New Zealand*); Michael O'Sullivan (*The University of Auckland, New Zealand*); Geoffrey William Tunnicliffe (*Spark New Zealand Ltd, New Zealand*)

TS1-2 Enabling Low-Complexity Massive MIMO Detection Using in-Memory Computing

Mojtaba Mahdavi (*Ericsson, Sweden*)

TS1-3 Capacity Enhancement of near-Shore Communication Using Rate Splitting Multiple**Access**

Saurab Rauniyar (*University of Oslo, Norway*); Sagnik Bhattacharyya (*IIT Ropar, India*); Pål Orten (*Kongsberg Maritime & University of Oslo, Norway*); Stig Petersen (*Sintef ICT, Norway*); Sam Darshi (*Indian Institute of Technology Ropar, India*)

TS1-4 Secrecy Analysis of Two-Way Full-Duplex RIS-Empowered Vehicular Networks over Double Nakagami-m Fading Channels

Radhika Gour and Luxmi Kant Vishwakarma (*IIIT Allahabad, India*); Suneel Yadav (*Indian Institute of Information Technology, India*); Devendra Singh Gurjar (*National Institute of Technology Silchar, India*)

TS1-5 Is It Worth to Use Feedback Channel in 5G V2X Platoon Scenarios?

Dmitry Bankov (*IITP RAS & NRU HSE, Russia*); Artem Krasilov, Artem Otmakhov, Pavel Savlukovich and Evgeny Khorov (*IITP RAS, Russia*)

10:00 – 10:30 COFFEE BREAK*Room – 1-215***10:30 – 11:15 OPENING PLENARY *Magna Hall***

11:15 – 12:00 KEYNOTE 1

6G Innovation Beyond Just Communications: Empowering Integrated,
Intelligent and Ubiquitous Connectivity

Aryan KAUSHIK

Magna Hall

12:00 – 13:00 LUNCH

room 1-215

8:30 – 10:00 TS-2: SECURITY *Magna Hall*

Session Chair: Kerem KUCUK (*Kocaeli University, Turkey*)

TS2-1 Detection of GAN Generated Images Related Poisoning Attacks in Federated Learning Systems

Mouley Sivarajah, Arushan Thayaparan and Mohamed Rishad (*University of Ruhuna, Sri Lanka*); Chamara Sandeepa, Charuka Moremada and Madhusanka Liyanage (*University College Dublin, Ireland*)

TS2-2 Enhancing Intrusion Detection in 5G Networks: a Comparative Study of Generative Adversarial and Diffusion Networks

Pasindu Nadun Pamuditha, Yasodha Nayanadarshani Gunarathne and Sandaru Nuwanmini Hettiarachchi (*University of Ruhuna, Sri Lanka*); Charuka Moremada, Chamara Sandeepa and Madhusanka Liyanage (*University College Dublin, Ireland*)

TS2-3 Evaluating Large Language Models for Anomaly Detection with Cost-Efficient Sampling: a Generalized Framework

Ievgeniia Kuzminykh (*King's College London, United Kingdom (Great Britain) & Kharkiv National University of Radio Electronics, Ukraine*); Duy Anh Pham (*King's College London, United Kingdom (Great Britain)*); Andrii A. Astrakhantsev (*National Technical University of Ukraine Igor Sikorsky Kyiv Polytechnic Institute & Samsung R&D Institute Ukraine, Ukraine*); Bogdan Ghita (*University of Plymouth & Centre for Security, Communications, and Network Research, United Kingdom (Great Britain)*)

TS2-4 Volumetric DDoS Attack Detection and Mitigation Using P4-DPDK

Samia Dani Choueiri, Ali Mazloum, Sergio Elizalde, Elie F. Kfoury and Jorge Crichigno (*University of South Carolina, USA*)

TS2-5 A Comparative Study of SMOTE-Enhanced Machine Learning Models for IoT Device Classification on the TON IoT Dataset

Ela Kalifati, Kerem Kucuk and Şevval Şolpan (*Kocaeli University, Turkey*); Kazim Kivanc Eren (*Kocaeli University, Turkey & Hitit Computer Services, Turkey*)

14:30 – 15:00 COFFEE BREAK*Room – 1-215***15:00 – 16:30 TS-3: SIGNAL PROCESSING AND DATA****TRANSMISSION *Magna Hall*****Session Chair: Mehmet Zeki KONYAR (*Kocaeli University, Turkey*)****TS3-1 Evaluating Encryption Overhead and Offload Techniques in High-Speed Data Transfers**

Elie F. Kfoury (*University of South Carolina, USA*); Jose Gomez (*Fort Lewis College, USA*); Ali Mazloun (*University of South Carolina, USA*); Ali AlSabeih (*University of South Carolina Aiken, USA*); Jorge Crichigno (*University of South Carolina, USA*)

TS3-2 A New Reversible Data Hiding Method in PDF Files for Secret Communication

Adem Savaş and Mehmet Zeki Konyar (*Kocaeli University, Turkey*)

TS3-3 Channel Estimation Aware NMSE Performance Analysis for Multi-Cell Massive MIMO Systems

Pei Liu (*Wuhan University of Technology, China*); Yue Zhang (*Shantou University, China*); Kehao Wang (*WHUT, China*); Wei Gao (*Hainan University, China*); Giovanni Interdonato (*University of Cassino and Southern Lazio, Italy & CNIT, Italy*); Stefano Buzzi (*University of Cassino and Lazio Meridionale/CNIT, Italy*); Georgios Mylonopoulos (*Consorzio Interuniversitario Delle Telecomunicazioni & University of Cassino and Southern Latium, Italy*)

TS3-4 Application of the List Viterbi Algorithm for Satellite-Based AIS Detection

Linda Kanaan (*Imt Atlantique, France*); Karine Amis and Frederic Guilloud (*IMT Atlantique, France*); Rémi Chauvat (*Kinéis, France*)

18:00 – 20:00 VOLUNTARY EXCURSION EVENT*(See details on the Home page)*

25 June 2025**8:00 – 8:30 REGISTRATION****8:30 – 10:00 TS-4: AI IN NETWORKING***Magna Hall***Session Chair: Viorica SUDACEVSCHI** (*Technical University of Moldova, Moldova*)**TS4-1 Machine Learning-Assisted Network-Aware Bitrate Prediction for Remote Driving**Aslihan Reyhanoglu, Feyzi Ege Kumec and Abdulkadir Bilge (*Koc University, Turkey*); Hira Bakirhan (*Ford Otosan, Turkey*); Bugra Turan and Sinem Coleri (*Koc University, Turkey*)**TS4-2 Drone Inspection for Large-Scale Digital Twins: Stationary and Mobile Deployment Concepts**Volodymyr Prokopets (*TU Dresden, Germany*); Uwe Aßmann (*Technische Universität Dresden, Germany*)**TS4-3 Multi-Class Device Identification on Large-Scale WiFi Network Traffic Data**Öykü Han Batum and Mehmet Özgün Demir (*Lifemote Networks, Turkey*); H. Birkan Yilmaz (*Bogazici University, Turkey*)**TS4-4 Optimizing CRC Polynomial Selection Using Reinforcement Learning for Improved GRAND Decoding**Atahan Mehmet Cirpan (*Istanbul Technical University, Turkey*); Ali Gorcin (*Istanbul Technical University, Turkey*); Ibrahim Hokelek (*TUBITAK BILGEM, Turkey*); Ferkan Yilmaz (*Istanbul Technical University, Turkey*)**10:00 – 10:30 COFFEE BREAK***Room – 1-215***8:30 – 9:30 WIPS-1 NETWORKING-1***Room 1-205***Session Chairs: Lilia SAVA, Vladimir MIROVSCHI** (*Technical University of Moldova, Moldova*)**WIPS-1-1 Utility Maximization in Digital Twin Enabled 6G Network with Joint Communication and Sensing**Jagadeesha R Bhat (*Indian Institute of Information Technology Dharwad, India*); Omar Alfandi (*Zayed University, United Arab Emirates*); Karan Kabdal and Yash Srivastava (*IIIT Dharwad, India*)

WIPS-1-2 Energy Efficient Wake Up Radio Polling Based on Value of Information

Sokiprialala Jonah, Seong Ki Yoo and Saurav Sthapit (*Coventry University, United Kingdom (Great Britain)*)

WIPS-1-3 Enhancing near-Shore Connectivity with IRS Assisted Uplink User Pairing

Saurab Rauniyar (*University of Oslo, Norway*); Pål Orten (*Kongsberg Maritime & University of Oslo, Norway*); Stig Petersen (*Sintef ICT, Norway*)

WIPS-1-4 Reconfigurable Intelligent Surfaces-Assisted Integrated Access and Backhaul

Charitha Madapatha (*Chalmers University of Technology, Sweden*); Behrooz Makki (*Ericsson Research, Sweden*); Hao Guo (*New York University, USA & Chalmers University of Technology, Sweden*); Tommy Svensson (*Chalmers University of Technology, Sweden*)

9:30 – 10:00 DEMO SESSION

Room 1-205

Session Chair: Larysa S. GLOBA (*National Technical University of Ukraine "KPI", Ukraine*)

DS-1 Towards Fast High-Level Estimation of Inspection Drone Networks for Large-Scale Digital Twins

Volodymyr Prokopets (*TU Dresden, Germany*); Uwe Aßmann (*Technische Universität Dresden, Germany*)

10:00 – 10:30 COFFEE BREAK

Room – 1-215

10:30 – 11:15 KEYNOTE 2

Efficient Realization of Signal Processing Algorithms for Wireless Systems Using In-Memory Computing

Mojtaba MAHDAVI

Magna Hall

11:15 – 12:00 KEYNOTE 3

Software Engineering for Digital Shadows and Digital Twins

Uwe AßMANN

Magna Hall

12:00 – 13:00 LUNCH

room 1-215

13:00 – 14:30 **SS-1: DISRUPTIVE TECHNOLOGIES FOR SMART VERTICALS**

Magna Hall

Session Chair: Octavian FRATU (University POLITEHNICA of Bucharest, Romania)

SS-1-1 AI-Driven Zero-Touch Containerized Network Functions Optimization for 6G Networks Using Network Data Analytics Components

Razvan Mihai (*University Politehnica of Bucharest & Orange Romania, Romania*); Florentina Belu, Raluca Priminescu and Radu Andreescu (*National University of Science and Technology Politehnica Bucharest, Romania*); Razvan Craciunescu (*University Politehnica of Bucharest & Future Networks Lab, Romania*); Johann Marquez-Barja (*University of Antwerpen & IMEC, Belgium*)

SS-1-2 Design and Analysis of a Linear 4-Patch Antenna System for 5/6G Technology

Maria Sîrbu-Drăgan (*University Politehnica of Bucharest, Romania*); Teodora-Cristina Stoian (*National University of Science and Technology Politehnica Bucharest, Romania*); Simona V. Halunga (*University Politehnica of Bucharest, Romania*); Petru Mazare (*National Association of the Reserve, Romania*); Diana Brînaru (*University Politehnica of Bucharest, Romania*)

SS-1-3 Massive MIMO in 5G Networks: Trade-Offs in Capacity and Complexity

Cristina Maria Andras (*Politehnica University of Timisoara, Romania & Universitatea Politehnica Timisoara, Romania*); Ioana-Adriana Manea (*Politehnica University Timisoara, Romania*); Gordana Raluca Barb (*Politehnica University of Timisoara, Romania*); Florin Alexa (*Politehnica University Timisoara, Romania*)

SS-1-4 Cross-Vertical Integration of AI, Blockchain, and IoT for Secure and Resilient Digital Health Ecosystems

George Suciu (*Politehnica University of Bucharest & BEIA Consult International SRL, Romania*); Cosmina Stalidi (*Politehnica University of Bucharest & Beia Consult International, Romania*); Eduard C. Popovici (*National University of Science and Technology Politehnica Bucharest, Romania*)

SS-1-5 Real-Time Object Detection and Rural Connectivity with 5G-Enabled Edge Solutions

Claudia Carballo González (*i2CAT, Spain*); August Betzler and Adrián Pino (*i2CAT Foundation, Spain*); Kurdman Abdulrahman Rasol (*Fundació i2CAT, Internet i Innovació Digital a Catalunya, Spain*); Joan Josep Aleixendri, Josep Brugués and Ivan Huerta (*i2CAT Foundation, Spain*)

14:30 – 15:00 COFFEE BREAK
Room – 1-215

13:00 – 14:30 WIPS-2 AI*Room 1-205***Session Chair: Orhan AKBULUT** (*Kocaeli University & Diginova, Turkey*)**WIPS-2-1 Geometric Distributions MinMax and MaxMin Modified as Lifetime Distributions and Statistical Estimators for Them**

Alexei Leahu, Maria Rotaru, Dumitru Ciorba and Ion Fiodorov (*Technical University of Moldova, Moldova*)

WIPS-2-2 Engineering Education Management in the Era of Artificial Intelligence

Valentina Tirsu, Lilia Sava and Pavel Nistiriuc (*Technical University of Moldova, Moldova*); Vladimir Mirovski (*Technical University of Moldova & TUM, Moldova*)

WIPS-2-3 KLSampler: a Kullback-Leibler Divergence Based Undersampling Technique for Machine Learning Applications

Kazım Kıvanç Eren and Kerem Kucuk (*Kocaeli University, Turkey*); Sema Zeynep Bulut and Yiğiter Yiğit (*Hitit Computer Solutions, Turkey*); Orhan Akbulut (*Kocaeli University & Diginova, Turkey*)

WIPS-2-4 Transformer-Based Paper Title Generation from Turkish Article Abstracts

Beyzanur Bektaş and Mehmet Zeki Konyar (*Kocaeli University, Turkey*)

WIPS-2-5 Artificial Neuronal Network for Surface EMG Signal Processing

Larisa Dunai (*Universidad Politecnica de Valencia, Spain*); Isabel Seguí Verdú (*Universitat Politècnica de València, Spain*); Lilia Sava and Dinu Turcanu (*Technical University of Moldova, Moldova*)

14:30 – 15:00 COFFEE BREAK*Room – 1-215***15:00 – 16:30 TS-5: SMART SYSTEMS***Magna Hall***Session Chair: Alexander D. GROS** (*University of Mons, Belgium*)**TS5-1 Bridging Internet of Things and Beyond 5G with Secure Orchestration**

Engin Zeydan (*CTTC, Spain*); Luis Blanco (*Centre Tecnològic de les Telecomunicacions de Catalunya (CTTC), Spain*); Sadeep Batewela (*University of Oulu, Finland*); Pasika Ranaweera and Madhusanka Liyanage (*University College Dublin, Ireland*)

TS5-2 Enhancing Modulation Classification Through Lightweight Dyadic down-Sampling Schemes and CNN Layer Fusion

Alexander D Gros (*University of Mons, Belgium*); Véronique Moeyaert (*Université de Mons (UMONS) & Faculté Polytechnique, Belgium*); Patrice Mégret (*University of Mons (UMONS) & Faculté Polytechnique, Belgium*)

TS5-3 Extracting Vehicle Trajectory Clusters from Video Monitoring in Smart Intersections

Nicolae Cleju and Constantin Catargiu (*Gheorghe Asachi Technical University of Iasi, Romania*)

TS5-4 Ship Detection and Statistics in Constanta Anchorage Using Sentinel-1 Data

Kamal Marandskiy, Andrei Racoviteanu, Ioana Plajer, Matei Debu and Artur Kazak (*Transilvania University of Brasov, Romania*); Mihai Ivanovici (*Transilvania University of Brasov & MIV Imaging Venture, Romania*)

TS5-5 NVENC Codecs Quality Comparison for Real-Life UAV 4k Video Streams

Costin-Emanuel Vasile and Calin Bira (*National University of Science and Technology Politehnica Bucharest, Romania*)

15:00 – 16:30 WIPS-3 NETWORKING-2

Room 1-205

Session Chair: Mircea Popescu (*National Institute for Research and Development in Electrical Engineering ICPE-CA, Romania*)**WIPS-3-1 Innovative Method for TEMPEST Detection and Identification of Compromising Emission Generated by the Video Signal from a Laptop**

Mircea Popescu (*The National Institute for Research and Development in Electrical Engineering ICPE-CA, Romania*); Cristian Morari (*ICPE-CA, Romania*); Calin Popescu (*National University of Science and Technology Politehnica, Bucharest, Romania*); Eduard-Marian Badula (*Polytechnic University of Bucharest, Romania*)

WIPS-3-2 Assessing the Opportunity to Implement Mobile Applications

Ion BOLUN, Sr (*Technical University of Moldova, Moldova*)

WIPS-3-3 SOFIA: Smart Optical Facial-Interaction Assistant

Iuliana Marin (*National University of Science and Technology Politehnica Bucharest, Romania*); Comeaga Ana-Maria (*University Politehnica of Bucharest, Romania*)

WIPS-3-4 Image Fusion for Wi-Fi AP Localization

Robert-Gabriel Dobosan (*UPT, Romania*); Teodor Petruta (*Politehnica University of Timisoara & ANCOM, Romania*)

WIPS-3-5 The Effect of Correlated Arrivals on the Performance of Energy Efficient Ethernet

Mehmet Akif Yazici (*Istanbul Technical University, Turkey*); Utku Ozmat (*Turk Telekom, Turkey & Information and Communications Research Group Informatics Institute Istanbul Technical University, Turkey*)

18:00 – 20:00 BANQUET (Astoria)

26 June 2025

8:00 – 8:30 REGISTRATION

8:30 – 10:00 TS-6: SDN/NFV

Magna Hall

Session Chair: Murat KARAKUS (*Ankara University, Turkey*)

TS6-1 ATEO: Adaptive Timeout & Eviction Orchestrator

Efe Ertekin, Beytullah Yigit and Fatih Alagoz (*Bogazici University, Turkey*)

TS6-2 DQRL: a Directed Acyclic Graph and RL-Based Framework for QoS-Centric Routing in Multi SDNs

Baris Kurtulus and Murat Karakus (*Ankara University, Turkey*); Evrim Guler (*Bartın University, Turkey*)

TS6-3 OPT-AG-VMTE: Integer Linear Programming-Optimized Augmented Graph Approach for Virtual Multicast Tree Embedding in Software Defined Networks

Furkan Ayaz (*Bartın University, Turkey*); Hadi Alizadeh (*Gebze Technical University, Turkey*); Evrim Guler (*Bartın University, Turkey*); Murat Karakus (*Ankara University, Turkey*); Davut Hanbay (*Inonu University, Turkey*)

TS6-4 Solving Urban Parking Inefficiency Through Blockchain and SDN: from Formulation to Implementation

Huseyin Ozgur Kamali, Ali Berkay Gorgulu and Murat Karakus (*Ankara University, Turkey*); Evrim Guler (*Bartın University, Turkey*); Suleyman Uludag (*The University of Michigan - Flint, USA*)

TS6-5 An Approach to Creating an Auto-Scalable Software-Defined Network Using the Computing Resources of Connected Devices

Mykola Oleksandrovych Aliksieiev (*National Technical University of Ukraine 'Igor Sikorsky Kyiv Polytechnic Institute', Ukraine*)

8:30 – 10:00 WIPS-4 SECURITY*Room 1-205***Session Chair: Evgeny KHOROV (IITP RAS, Russia)****WIPS-4-1 Offloading Encrypted C2 Traffic Mitigation to SmartNICs**

Ali Mazloun, Elie F. Kfoury, Samia Dani Choueiri, Ali AlSabeh and Jorge Crichigno (*University of South Carolina, USA*)

WIPS-4-2 A Blockchain-Based Framework for Secure IoT Device Communication

Thomas Mazaud, Martin d'Hérouville and Lucas Hauszler (*Halmstad University, Sweden & EPITECH, France*); Daniel Henrique Pohren and Alexandre dos Santos Roque (*Federal University of Rio Grande do Sul, Brazil*); Edison Pignaton de Freitas (*Halmstad University, Sweden*)

WIPS-4-3 OB-IDS: Optimized BERT-Based Intrusion Detection System

Göktuğ Ateş, Başar Çelebi, Umut Aytuğ Semerci, Emircan Çapkan, Batuhan Yıldırım, Ilktan Ar and Taner Arsan (*Kadir Has University, Turkey*)

WIPS-4-4 Enhancing Malicious URL Classification with Transformer-Based Embeddings

Larysa S. Globa (*National Technical University of Ukraine "KPI", Ukraine*); Vitalii V. Prykhodniuk (*National Center Junior Academy of Sciences of Ukraine, Ukraine*); Serhii Tsukanov (*National Technical University of Ukraine Igor Sikorsky Kyiv Polytechnic Institute, Ukraine*)

WIPS-4-5 An Approach to Improving the Security of Remote Authentication Systems

Andrii A. Astrakhantsev (*National Technical University of Ukraine Igor Sikorsky Kyiv Polytechnic Institute & Samsung R&D Institute Ukraine, Ukraine*); Larysa S. Globa (*National Technical University of Ukraine "KPI", Ukraine*); Galyna Liashenko (*Kharkiv National University of Radio Electronics, Ukraine*); Ievgeniia Kuzminykh (*King's College London, United Kingdom (Great Britain) & Kharkiv National University of Radio Electronics, Ukraine*)

10:00 – 10:30 COFFEE BREAK*Room – 1-215*

VERTICALS*Magna Hall*

Session Chair: Octavian FRATU (University POLITEHNICA of Bucharest, Romania)

SS-2-1 Performance Evaluation of a Blockchain-Based Smart Livestock Farm Management Platform

Alexandru Vulpe (*National University of Science and Technology Politehnica Bucharest & Beam Innovation SRL, Romania*); Dana-Cătălina Popa (*University of Agronomic Sciences and Veterinary Medicine of Bucharest, Romania*); Laura Maria Fricosu (*Beam Innovation SRL, Romania*); Livia Vidu (*University of Agronomic Sciences and Veterinary Medicine of Bucharest, Romania*); Marius-Constantin Vochin (*University Politehnica of Bucharest, Romania & BEIA Consult International, Romania*); Carmen Florea (*University Politehnica of Bucharest, Romania*)

SS-2-2 Architecting Secure Smart Infrastructures with AI Microservices and Autonomous Agents: a State-of-the-Art Review and Healthcare Use Case

Traian C. Ureche (*National Science and Technology University Politehnica Bucharest, Romania*); Eduard C. Popovici (*National University of Science and Technology Politehnica Bucharest, Romania*); Simona V. Halunga and Laurentiu Boicescu (*University Politehnica of Bucharest, Romania*); Dinu Turcanu (*Technical University of Moldova, Moldova*); Paula A. Avasiloaie (*National Science and Technology University Politehnica Bucharest, Romania*)

SS-2-3 Method for Identifying Plant Diseases Based on Monitoring Platform for Plantations

Lisnic Dorin (*Technical University of Moldova, Moldova*); Viorel Bostan (*Technical University of Moldova (TUM), Moldova*); Lilia Rotaru, Viorel Carbune, Maxim Kapustianski and Valeriu Seinic (*Technical University of Moldova, Moldova*)

SS-2-4 Design and Implementation of Lightweight Virtualized Firewalls for Industrial Cybersecurity and Medical Services

Raluca Stefania Lungu (*University Politehnica of Bucharest & Luxoft, Romania*); Ovidiu-Andrei Frăsin and Constantin Viorel Marian (*National University of Science and Technology Politehnica Bucharest, Romania*)

SS-2-5 Improving Livestock Monitoring: Multi-Classifer Approach for Cattle Behavior Recognition

Iuliana Marin and Diana Alexandra Ciungan (*National University of Science and Technology Politehnica Bucharest, Romania*); Roxana Elena Vasiliu and Dănuț-Nicolae Enea (*University of Agriculture and Veterinary Medicine, Romania*)

8:30 – 10:00 WIPS-5 EMERGING NEW TECHNOLOGIES

Room 1-205

Session Chair: Valentina TIRSU (*Technical University of Moldova, Moldova*)

WIPS-5-1 Upgrading GPIB Instruments with IoT: a Microcontroller Solution for Local Network Control of the Laboratory Devices

Cătălin Creciunel, Catalin Cechin, Vladimir Ciobanu and Eduard V. Monaico
(*National Center for Materials Study and Testing, Technical University of Moldova, Moldova*)

WIPS-5-2 An Adaptive Thresholding and Fog-Enabled Remote Healthcare Monitoring System

Jeremy Costantino, George Welson and Edison Pignaton de Freitas (*School of Information Technology, Halmstad University, Halmstad, Sweden*)

WIPS-5-3 Research Space Missions Developed at the TUM Space Centre

Viorel Bostan, Nicolae Gheorghe Secrieru (*Technical University of Moldova (TUM), Moldova*); Mihai Ivanovici (*Transilvania University of Brasov & MIV Imaging Venture, Romania*); Irina Cojuhari (*Technical University of Moldova, Moldova*); Alexandru Pandeale (*Romanian InSpace Engineering, Romania*); Stefan Popa (*Transilvania University of Brasov, Romania*); Vladimir Melnic, Nicolae Magariu, Alexei Martiniuc (*Technical University of Moldova (TUM), Moldova*)

WIPS-5-4 Community-Driven Disaster Risk Reduction: Investigating Capacities and Vulnerabilities of Selected Barangay in Lipa, Batangas, Philippines

Larry Jr F. Fronda, Anna Mae Sales Olan, Rose-Anne B. Magsino, Jiselle D. Umali, Janice T. Fischer and Josierene V. Abel (*National University, Philippines*)

WIPS-5-5 Peak Load Management in EV Charging Through Intelligent Rotational Strip Packing

Shivansh Mishra, Nilotpal Chakraborty (*Indian Institute of Information Technology, Guwahati, India*)

12:00 – 13:00 LUNCH

room 1-215

13:00 – 14:30 PANEL SESSION

Magna Hall

NEW 6G INSIGHTS TOWARDS CONNECTED INTELLIGENCE

Organizer: Yacine GHAMRI-DOUDANE, *La Rochelle Université, France*

Moderator: Mehmet ULEMA, *Manhattan College, USA*

Panelists:

Andrei COSTIN, University of Jyvaskyla, Finland

Aryan KAUSHIK, Manchester Metropolitan University, United Kingdom

Mojtaba MAHDAVI, Ericsson Research, Sweden

Madhusanka LIYANAGE, University College Dublin, Ireland

Alessandro VIZZARRI, University of Rome Tor Vergata, Italy

10:30 – 11:15 CLOSING PLENARY *Magna Hall*

NOTES