

Programme

A photograph of a Dublin city street scene, featuring a stone bridge in the foreground, a yellow double-decker bus, and historic buildings in the background.

KES-2026
30th International Conference on
Knowledge-Based and Intelligent
Information & Engineering Systems

9 - 11 September 2026

Dublin, Ireland &
KES Virtual Conference Centre

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Chairs' Welcome

Welcome to the 30th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems (KES2026), organised by KES International during 9-11 September 2026 at the Royal Marine Hotel, Dun Laoghaire, Dublin, Ireland.

KES2026 is something of a landmark in the history of KES International, marking 30 years of KES conferences, a dynasty that began when Professor Lakhmi Jain organised the first conference on Knowledge Based and Intelligent Engineering Systems in Adelaide, Australia in 1997. The KES community thanks him for his vision in starting the KES conference series, and we can take modest pride and satisfaction that we have continued to offer high-quality conferences to the academic community for three decades.

The main aim of this KES conference series is to provide an internationally respected forum for the dissemination of research results and the discussion of issues relating to the theory, technologies and applications of intelligent engineering and information systems.

The conference venue is the Royal Marine Hotel, a landmark four-star Victorian hotel overlooking Dublin Bay in the historic coastal town of Dún Laoghaire, just 20 minutes from Dublin city centre. Originally established in the 19th century, the hotel combines elegant period architecture with modern conference facilities, comfortable accommodation and extensive leisure amenities. Delegates can enjoy the scenic waterfront, stroll along the famous East Pier, visit the marina, cafés and restaurants, or take the frequent DART rail service into the heart of Dublin. The combination of historic character, excellent transport links and a beautiful seaside setting makes the Royal Marine Hotel an outstanding venue for conferences and events.

The conference proceedings will be published in Elsevier's *Procedia Computer Science* open access journal, available in ScienceDirect and submitted to be indexed/abstracted in CPCi (ISI conferences and part of Web of Science), Engineering Index, and Scopus. The conference is ranked 'B' in the CORE conference ranking system'.

Although the conference is primarily a live event with physical attendance in Dublin, delegates unable to take advantage of the opportunity to visit this wonderful location will be able to present virtually over the KES Virtual Conference Centre.

This truly international conference attracted submissions from a substantial number of researchers and practitioners from all over the world, who submitted their papers to four general track sessions and over 60 invited sessions. A large number of submissions was received and each paper was peer-reviewed by at least two members of the International Program Committee. From them, 818 high-quality papers were accepted for oral presentation and publication in *Procedia Computer Science*, submitted for indexing in Conference Proceedings Citation Index (CPCI), Scopus and INSPEC.

The conference chairs would like to express their gratitude to the Keynote Speakers:-

Prof. Smaranda Belciug, University of Craiova, Romania

Title of talk: AI will not replace obstetrician.. but it will change obstetrics

Prof. Krzysztof Krawiec, Poznan University of Technology, Poland

Title of talk: Towards Algorithmic Intelligence: Lifting Deep Learning with Neurosymbolic and Physics-Aware Methods

Prof. Jörg Rainer Noennig, HafenCity University Hamburg, Germany

Title of talk: Tooling for Cities - A Development Agenda for City Tech Solutions

Prof. Ralf Seepold, HTWG Konstanz University of Applied Sciences, Germany

Title of talk: From Signals to Decisions: Explainable AI and Ubiquitous Sensing for the Future of Digital Sleep Health

Prof. Milan Simic, RMIT University, Australia

Title of talk: Artificial Intelligence: From Hype to Real Impact

We would like to acknowledge the Programme Co-Chairs, the General Track chairs, and the International Programme Committee members and reviewers for their valuable efforts in the review process, helping us to guarantee the highest quality possible for the conference. We would also like to thank the organisers and chairs of the special sessions which make an essential contribution to the success of the conference. Lastly, we would like to thank all the authors, presenters and delegates for their valuable contribution to making this a very successful event.

KES International hopes and intends that KES2026 will make a significant contribution to international research collaboration and understanding, an essential task for the promotion of scientific joint work and excellence.

Prof. Robert J. Howlett, KES International Research & Cardiff Metropolitan University, Wales, UK

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Prof. Anne Hakansson, UiT The Arctic University of Norway, Norway

Associate Professor Sebastian A. Rios, University of Chile, Chile

Prof. Cecilia Zanni-Merk, INSA Rouen, Normandie, France

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KES Conference Series

KES2026 is part of the KES Conference Series.

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Name	Affiliation
Prof. Massimo Conti	Universita' Politecnica delle Marche, Italy
Prof. Gennaro Cordasco	Dipartimento di Informatica, Università degli Studi di Salerno, Italy
Dr. Paulo Cortez	University of Minho, Campus de Azurem, 4804-533 Guimaraes, Portugal
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Prof. Nikos Karacapilidis	University of Patras, Greece
Dr. Pawel Kasproski	Silesian University of Technology, Poland
Prof. Arkadiusz Kawa	Łukasiewicz Research Network - Institute of Logistics and Warehousing, Poland

Name	Affiliation
Prof. Hiroharu Kawanaka	Mie University, Japan
Dr. Imen Khamassi	University of Tunisia, Tunisia
Asst. Prof. Abhirup Khanna	University of Petroleum and Energy Studies, India
Prof. Kayoko Kurita	The University of Tokyo, Japan
Prof. Aleksandra Klasnja-Milicevic	University of Novi Sad, Faculty of Sciences, Department of Mathematics and Informatics, Serbia
Prof. Laszlo Koczy	Budapest University of Technology and Economics, Hungary
Dr. Agnieszka Konys	West Pomeranian University of Technology in Szczecin, Poland
Prof. Boris Kovalerchuk Kovalerchuk	Central Washington University, USA
Dr. Lukasz Kozar	University of Lodz, Poland
Dr. Adrianna Kozierkiewicz	Wroclaw University of Science and Technology, Poland
Prof. Krzysztof Krawiec	Institute of Computing Science, Poznan University of Technology, Poland
Dr. Kinga Krupcała	Bydgoszcz University of Science and Technology, Poland
Prof. Konrad Kułakowski	AGH University of Science and Technology, Poland
Dr. Sana Ben Abdallah Ben Lamine	ESEN, University of Manouba, Tunisia
Dr. Huong Le	New Jersey Institute of Technology, USA
Prof. Chengjun Liu	New Jersey Institute of Technology, USA
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Prof. Ivan Luković	University of Belgrade, Serbia
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Dr. Maroua Masmoudi	University of Toulouse, France
Prof. Mitsunori Matsushita	Kansai University, Japan
Dr. Mayuri Mehta	Sarvajanik College of Engineering and Technology, Sarvajanik University, Surat
Dr. Lin Meng	Ritsumeikan University, Japan

Name	Affiliation
Dr. Francesco Mercaldo	National Research Council of Italy
Dr. Ireneusz Miciula	University of Szczecin, Poland
Prof. Lyudmila Mihaylova	University of Sheffield, UK
Prof. Polina Mihova	New Bulgarian University, Bulgaria
Prof. Victor Mitrana	Polytechnic University of Madrid, Spain
Dr. Suneeta Mohanty	KIIT Deemed to be University, India
Prof. Stefania Montani	University of Piemonte Orientale, Alessandria
Prof. Chikako Morimoto	Tokyo Institute of Technology, Japan
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Dr. Teresa Mroczek	University of Information Technology and Management
Prof. Michal Munk	Constantine the Philosopher University in Nitra, Slovakia
Asst. Prof. Katsuko T. Nakahira	Nagaoka Institute of Technology, Japan
Prof. Satoshi Nakamura	Meiji University, Japan
Prof. Piotr Nikończuk	West Pomeranian University of Technology, Szczecin Faculty of Maritime Technology and Transport, Poland
Prof. Yoko Nishihara	Ritsumeikan University, Japan
Prof. Kazunori Nishino	Taisei Gakuin University, Japan
Prof. Vesa Niskanen	University of Helsinki, Vytautas Magnus University, Finland
Dr. Issam Nouaouri	Universite d'Artois, France
Prof. Nobuyuki Ogawa	National Institute of Technology, Gifu College, Japan
Dr. Michael Packianather	Cardiff University, UK
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Prof. Ingrid Pappel	Tallinn University of Technology (TalTech), Estonia
Prof. Marcin Paprzycki	Polish Academy of Sciences, Poland
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Dr. Isidoros Perikos	University of Patras, Greece
Prof. Vincenzo Piuri	University of Milan, Italy
Prof. Ana Poledica	University of Belgrade, Faculty of Organizational Sciences, Serbia
Dr. Grzegorz Popek	Wrocław University of Science and Technology, Poland

Name	Affiliation
Prof. Dorin Popescu	University of Craiova, Romania
Prof. Oliver Popov	Stockholm University, Sweden
Prof. Jim Prentzas	Democritus University of Thrace, Greece
Dr. Malgorzata Przybyla-Kasperek	University of Silesia in Katowice, Poland
Dr. Seema Purohit	UDCS, India
Assoc. Prof. Dzati Athiar Ramli	Universiti Sains Malaysia (USM), Malaysia
Prof. Ewa Ratajczak-Ropel	Gdynia Maritime University, Poland
Dr. Christoph Rathfelder	Hahn-Schickard, Germany
Prof. Ana Respicio	University of Lisbon, Portugal
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Dr. Noelia Sánchez-Marono	CITIC-University of A Coruña (UDC), Spain
Prof. Marcello Sanguineti	University of Genova, Italy
Dr. Wilhelm Daniel Scherz	HTWG Konstanz - University of Applied Sciences, Germany
Prof. Ralf Seepold	HTWG Konstanz and Sechenov University, Germany
Dr. Gaetano Settembre	Università degli Studi di Bari "Aldo Moro", Bari, Italy
Dr. Leslie F. Sikos	Edith Cowan University, Australia
Dr. Milan Simic	SAMME RMIT University, Australia
Mr Bharat Singh	Data Scientist Big Data Labs
Dr. Letycja Sołoducho-Pelc	Wroclaw University of Business and Economics, Poland
Dr. Hanna Soroka-Potrzebna	University of Szczecin, Poland
Prof. Petar Spalević	Universidad de la Sabana, Colombia
Prof. Roman Šperka	Silesian University in Opava, czechia
Dr. Maria Spichkova	RMIT University, School of Science, Australia
Dr. Urszula Stańczyk	Silesian University of Technology, Gliwice
Dr. Margarita Stankova	New Bulgarian University, Bulgaria
Assoc. Prof. Catalin Stoean	University of Craiova, Romania
Assoc. Prof. Ruxandra Stoean	University of Craiova, Romania
Prof. Toshiharu Sugawara	Waseda University, Japan
Prof. Adam Sulich	Wroclaw University of Economics and Business, Poland
Prof. Lijun Sun	Dalian University of Technology, Dalian
Dr. Piotr Szczuko	Multimedia Systems Department, Gdańsk University of Technology, Poland
Prof. Eulalia Szmidt	Polish Academy of Sciences, Warsaw, Poland

Name	Affiliation
Prof. Masakazu Takahashi	University of Yamaguchi, Japan
Prof. Hironori Takeuchi	Musashi University, Japan
Prof. Shing Chiang Tan	Faculty of Information Science and Technology, Multimedia University, Japan
Prof. Edmondo Trentin	University of Siena, Italy
Prof. Kazuhiko Tsuda	The University of Tsukuba, Tokyo
Prof. Eiji Uchino	Yamaguchi University, Japan
Prof. Hiroshi Ueda	Hosei University, Japan
Asst. Prof. Hiroyasu Usami	Chubu University, Japan
Prof. Taketoshi Ushima	Kyushu University, Japan
Prof. Florin Mircea Vaida	Technical University of Cluj-Napoca, Romania
Prof. Jordi Vallverdu	Universitat Autònoma de Barcelona, Spain
Prof. Juan D. Velasquez Silva	University of Chile, Chile
Prof. Zeev Volkovich	ORT Braude College Karmiel, Israel
Prof. Junzo Watada	Waseda University, Japan
Dr. Paweł Weichbroth	Gdansk University of Technology, Poland
Prof. Yoshiyuki Yabuuchi	Shimonoseki City University, Japan
Prof. Ryosuke Yamanishi	Kansai University, Japan
Prof. Ching-Nung Yang	National Dong Hwa University, Taiwan
Prof. Ivona Zakarija	University of Dubrovnik, Croatia
Dr. Marek Zborowski	University of Warsaw, Faculty of Management, Department of Management Information System, Poland
Dr. Beata Zielosko	University of Silesia in Katowice, Institute of Computer Science, Czechia
Prof. Sergey Zykov	National Research University – Higher School of Economics, Russia

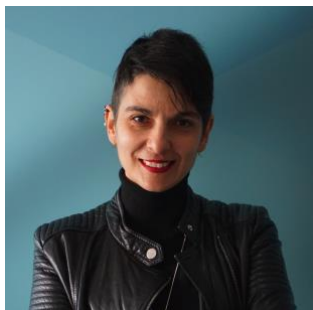
Plenary Talks

Prof. Smaranda Belciug

University of Craiova, Romania

AI will not replace obstetrician.. but it will change obstetrics

Abstract: Artificial Intelligence is often portrayed as a disruptive force in medicine, raising fears of replacement and loss of clinical autonomy. In obstetrics, these concerns are particularly sensitive, as decisions affect not one, but two lives. This keynote argues that AI will not replace obstetricians, but will redefine how obstetric care is delivered. By integrating medical imaging, longitudinal maternal-fetal data, and intelligent decision support, AI enables a shift from reactive assessment to anticipatory care. From assisting fetal morphology interpretation to predicting the type of birth before labor begins, AI transforms isolated clinical observations into coherent, patient-specific insights. These systems do not decide; they inform, simulate, and support. Looking beyond algorithms, the talk explores how AI-driven models and emerging digital twins of pregnancy can help clinicians reason about risk, uncertainty, and alternative outcomes. The future of obstetrics is not automated medicine, but augmented intelligence - where technology extends human judgment while preserving responsibility, trust, and clinical intuition.



Biography: Smaranda Belciug is a Full Professor of Computer Science at the University of Craiova, Romania, and a PhD supervisor with the Romanian Academy. Her research focuses on artificial intelligence applied to medicine, with particular emphasis on medical imaging, intelligent decision support systems, applied statistics, and generative models. She has led and coordinated major national and European-funded research projects in AI for healthcare, including large-scale clinical applications in obstetrics and fetal morphology analysis. Prof.

Belciug is the holder of a European patent on AI-based detection of internal organ anomalies and has received multiple awards from the Romanian Academy for contributions to science and medicine. She serves as Senior Editor for BMC Medical Informatics and Decision Making and is actively involved as an expert evaluator for Horizon Europe health research programmes. Her work bridges AI innovation and real-world clinical practice.

Prof. Krzysztof Krawiec

Poznan University of Technology, Poland

Towards Algorithmic Intelligence: Lifting Deep Learning with Neurosymbolic and Physics-Aware Methods

Abstract: While contemporary deep learning excels at high-dimensional pattern recognition, it remains largely constrained by a reliance on statistical correlations that often fail to capture the underlying causal or algorithmic structures of complex domains. As a result, the models are data-hungry, often struggling with systematic generalization, logical consistency, and adherence to the fundamental laws governing the physical world. This talk delineates a roadmap toward Algorithmic Intelligence, a paradigm that "lifts" standard connectionist architectures by integrating them with symbolic reasoning and the rigorous constraints of physical laws. We examine the frontier of neurosymbolic synthesis, which involves symbolic and programmatic priors into neural architectures, leading to models that don't just predict, but reason. We also explore the embedding of inductive biases derived from physical laws directly into the network's manifold, in particular the use of differentiable renderers and transparent disentanglement of latent representations to enforce physical consistency. We show that such approaches effectively mitigate the optimization plateaus and data inefficiencies prevalent in black-box models in use cases concerning abstract reasoning, interpretation of medical imaging, and remote sensing.



Biography: Krzysztof Krawiec is a Professor of Computer Science at the Poznan University of Technology in Poland, where he currently serves as the head of the Neurosymbolic Systems Group. His primary research areas include neurosymbolic systems, program synthesis, evolutionary computation, and medical imaging. He has authored over 180 publications on these topics and has received the Fulbright Senior Advanced Research Award, two ACM SIGEVO Impact Awards, and was a visiting professor at the University of California and Massachusetts Institute of Technology. He also

served as the general chair of GECCO'21, the largest scientific event in the field of evolutionary computation and as an advisor at the Confederation of Laboratories for Artificial Intelligence in Europe. Krzysztof is also a co-founder of the Center for Artificial Intelligence and Machine learning, part of the Horizon 2020 Foundations of Trustworthy AI project, and an associate editor of Genetic Programming and Evolvable Machines and ACM Transactions on Evolutionary Learning and Optimization. In addition to his academic contributions, Professor Krawiec serves as the Chief AI Officer at Optopol Technology and CTO of Hylomorph Solutions Ltd.

Prof. Jörg Rainer Noennig

HafenCity University Hamburg, Germany

Tooling for Cities - A Development Agenda for City Tech Solutions

Abstract: We are in Cambrium period for city tech solutions: over the past years we have witnessed an "explosion of species" as regards digital tools for urban management, planning and development. The panorama of solutions is rapidly expanding and becoming ever harder to oversee. This poses challenges for cities and communities (Which tools to use? How to find the most appropriate solutions?) as well as for researchers and developers (What is already there, and on which level of maturity / applicability? Are we reinventing the wheel?). The keynote talk outlines the factors that have contributed to this development and suggests measures for organising the landscape of city tools. It also shows how the research groups of the speaker - the chair of Digital City Science at HafenCity University Hamburg and the Knowledge Architecture Lab at TU Dresden - have contributed their share to the pool of solutions, by using a structured development pipeline for creating innovative city tools.



Biography: Prof. Dr.-Ing. Jörg Rainer NOENNIG (*1973) is Professor for Digital City Science at HCU HafenCity University in Hamburg, head of the WISSENSARCHITEKTUR Laboratory of Knowledge Architecture at TU Dresden, and co-founder of software startup Scenerii GmbH. From 1992 to 1998, he studied architecture at Bauhaus University Weimar, Polytechn Krakow and Waseda University Tokyo. Between 1998 and 2001 he practiced as architect in Tokyo, among others at Ishiyama Experimental Underground Architecture Factory and Arata

Isozaki & Associates, as well as a freelance architect. From 2001 he was Research Associate at TU Dresden, where he was appointed Junior Professor for Knowledge Architecture (2009-2015) and Interim Professor for Industrial and Commercial Building Design (2015-2016). In 2007 he received his doctorate from Bauhaus Universität Weimar on the topic of architectural complexity and design science. He taught at different universities in Japan, USA, China, Italy, Switzerland and Angola. He was Visiting Professor at Università degli Studi dell'Aquila, ISEN Toulon, Voronezh State Technical University, and Toyo University Tokyo. His research focuses on digital cities and collaborative environments from architectural to urban level. He has published several books as well as >150 scientific papers. He has won several prizes, scholarships and awards, incl. the Grand Prize of the European Association for Architecture Education (EAAE). Since 2007 he is married to Yoco Fukuda-Noennig; they have two children.

Prof. Ralf Seepold

HTWG Konstanz University of Applied Sciences, Germany

From Signals to Decisions: Explainable AI and Ubiquitous Sensing for the Future of Digital Sleep Health

Abstract: Advances in wearable sensing, ambient intelligence, and artificial intelligence are transforming how physiological processes can be monitored in everyday environments. Yet the central challenge of digital health is not simply collecting large volumes of data. The real challenge is converting heterogeneous physiological signals into reliable, interpretable, and clinically meaningful decisions. This keynote explores how explainable artificial intelligence, together with ubiquitous sensing technologies, can bridge the gap between biomedical signals and actionable health insights. Starting from the foundations of biomedical signal acquisition, the talk examines how physiological data, such as EEG, respiration, and body movement, can be captured using wearable and contactless sensing systems embedded in daily life. Building on this signal layer, machine learning and deep learning methods enable the automatic interpretation of complex physiological patterns. Approaches ranging from classical machine learning models to neural architectures, such as convolutional and recurrent networks, enable analysis of continuous streams of physiological data. A central theme of the keynote is the role of explainability in turning algorithmic outputs into insights that clinicians and patients can understand and trust. Sleep medicine serves as a central application domain throughout the talk. Examples include automated sleep stage analysis, detection of sleep apnea, and digital support for insomnia management. The keynote concludes with a broader perspective on intelligent Ambient Assisted Living environments, where continuous sensing, privacy-aware data processing, and transparent artificial intelligence systems enable personalized healthcare and early intervention in everyday life.



Biography: Prof. Dr. Ralf E. D. Seepold is Chair for Ubiquitous Computing at HTWG Konstanz University of Applied Sciences in Germany and Director of the Ubiquitous Computing Laboratory and the Interdisciplinary Sleep Laboratory. His research focuses on noninvasive physiological measurement, Medical Internet of Things, sleep medicine, ubiquitous artificial intelligence, and digital health technologies. His work aims to develop intelligent systems that integrate sensing, signal processing, and artificial intelligence to support continuous health monitoring and personalized healthcare in everyday environments. His research

lies at the intersection of computer science, biomedical engineering, and digital health. A particular focus is on unobtrusive monitoring and analysis of physiological signals

using wearable and ambient-sensing technologies. These approaches are applied to areas such as sleep diagnostics, telemedicine, and Ambient Assisted Living systems, where intelligent sensing and data analysis can support clinical assessment and everyday health management.

He has held academic positions in Germany, Spain, and Russia, including a professorship at Universidad Carlos III de Madrid and a co-opted professorship at the University of Seville, where he contributes to doctoral education and international research collaboration. He is also the founder and coordinator of the international SALUS Network, which focuses on citizen-centered digital health solutions in cross-border regions.

Prof. Seepold is an Associate Editor of IEEE Access and a Senior Member of IEEE. He is also an active member of several international scientific societies, including the European Sleep Research Society, the World Sleep Society, and the German Society for Sleep Research and Sleep Medicine.

Prof. Milan Simic

RMIT University, Australia

Artificial Intelligence: From Hype to Real Impact

Abstract: Starting with the question, what is intelligence, keynote will address introduction of artificial intelligence (AI), it's possible highest achievements, and relationship, competition or collaboration with human intelligence. Regulatory frameworks are evolving worldwide, various technology acceptance modes (TAM) exist, aiming to balance innovation with accountability and risk mitigation. AI is currently driving a new industry revolution. From the research domain it is moving to deployment across all industries and everyday life. Governments, businesses, medical, educational and all other institutions must urgently establish rules and regulations, as well as new business models. The rapid advancements of large language models, generative AI systems, and multimodal tools have expanded new technologies' capabilities. Computers can generate text, images, audio, video, programming code and complex analytical outputs. Interestingly, AI is now entering into the research methodology, as well as, in healthcare diagnostics, financial modelling, engineering systems' optimisation, logistics, education, arts and creative industries. While its practical impact is already significant, the wide AI introduction continues to struggle with technical and energy limitations, ethical and moral responsibilities, and social implications. The main question is no longer whether AI will shape the future, but how it will be governed, integrated, and aligned with human values.



Biography: Dr Milan Simic holds PhD, Masters, Bachelor of Electronics Engineering degrees, and Graduate Diploma in Education. While currently being with RMIT University, School of Engineering, Australia, he is also:

- Professor: MB University, Faculty of Business and Law, Belgrade, Serbia,
- Adjunct Professor: Kalinga Institute of Industrial Technology (KIIT), School of Computer Engineering, Bhubaneswar, Odisha, India.

Dr Simic has extensive international experience spanning industry and academia, including roles with Honeywell Information Systems, CISCO Networking Academy, research institutes, and universities. His research focuses on applying AI and advanced analytical methods to complex engineering and infrastructure challenges, with an emphasis on real-world impact and industry collaboration. Dr Simic contributes to international conferences, scholarly publishing, and collaborative research initiatives. His work promotes responsible AI adoption, interdisciplinary engagement, and innovation that aligns technological advancement

with societal needs. Further details about Dr Milan Simic's multidisciplinary research and publications are available at:

- ORCID: <https://orcid.org/0000-0002-3403-4765>
- Scopus: <https://www.scopus.com/authid/detail.uri?authorId=35215976200>
- Google Scholar:
<https://scholar.google.com.au/citations?user=aEVx6cMAAAAJ&hl=en>

Welcome Drinks Reception and Early Registration

Tuesday 8th September

Welcome Drinks Reception	
18:00 - 20:00 BST	The Royal Marina Hotel

In-person Timetable – Wednesday 9 September

Rooms	Main Plenary	Room 2	Room 3	Room 4	Room 5	Room 6
8:45 - 9:00 BST	Opening Ceremony Prof Robert Howlett & Prof Lakhmi Jain					
09:00 - 10:00 BST	Keynote Speaker 1 Prof. Smaranda Belciug University of Craiova, Romania Keynote talk Title: AI will not replace obstetrician.. but it will change obstetrics					
10:00 - 10:30 BST	Networking Break					
10:30 - 12:30 BST	G01 Knowledge- Based and Hybrid Intelligent Systems Chair: Aya Saad	G02 Intelligent Information and Generative Systems Chair: Franco Giustozzi	G03 Engineering Intelligent Learning Systems Chair: Ahmed Samet	IS13 Smart Education: Learning environment using technology Chair: Nobuyuki Ogawa	IS09 Business applications of Artificial Intelligence Chair: Pawel Weichbroth	IS15 Intelligent Systems for Sustainable Energy, Mobility and Green Transitions Chair: Adam Sulich
12:30 - 13:30 BST	Lunch Break					

Rooms	Main Plenary	Room 2	Room 3	Room 4	Room 5	Room 6
13:30 - 14:30 BST	Keynote Speaker 2 Prof. Krzysztof Krawiec Poznan University of Technology, Poland Talk Title: Towards Algorithmic Intelligence: Lifting Deep Learning with Neurosymbolic and Physics-Aware Methods					
14:30 - 15:00 BST	Networking Break					

Rooms	Main Plenary	Room 2	Room 3	Room 4	Room 5	Room 6
15:00 - 18:00 BST	G01 - B Knowledge- Based and Hybrid Intelligent Systems Chair: Aya Saad	G02 - B Intelligent Information and Generative Systems Chair: Franco Giustozzi	G03 - B Engineering Intelligent Learning Systems Chair: Ahmed Samet	IS46 Effective Program Design and Educational Development for the Next Digital Era Chair: Kayoko Kurita	IS10 Generative AI in the healthcare system: friend of foe? Chair: Smaranda Belciug	IS22 & IS40 Digitalization and Knowledge Management in Health Data Acquisition and Processing & 2nd Smart Generative AI and Data Visualization Technologies - SGAIDVT Chairs: Ralf Seepold & Cesar Sanin

Rooms	Room 7	Room 8	Room 9	Room 10	Room 11
8:45 - 9:00 BST	Opening Ceremony Prof Robert Howlett & Prof Lakhmi Jain				

Rooms	Room 7	Room 8	Room 9	Room 10	Room 11
09:00 - 10:00 BST	Keynote Speaker 1 Prof. Smaranda Belciug University of Craiova, Romania Keynote talk Title: AI will not replace obstetrician.. but it will change obstetrics				
10:00 - 10:30 BST	Networking Break				
10:30 - 12:30 BST	IS29 Role and Significance of Technology and Digital Transformation in the Development of an Innovative Green Economy Chair: Lukasz Kozar	IS43 Intelligent Analytics, Decision Making and Automation Chair: Wojciech Sałabun	IS51 Modern technologies, intelligent systems, and human impact on the transformation of contemporary organisations Chair: Grzegorz Chmielarz	IS30 Combined session of Eye Movement Data Processing and Analysis (EMDPA) and Communication by Gaze Interaction (COGAIN) Chairs: Pawel Kasprowski	IS31 Intelligence Information Communication Technology for Intelligent Business Management Chair: Marek Zborowski
12:30 - 13:30 BST	Lunch Break				

Rooms	Room 7	Room 8	Room 9	Room 10	Room 11
13:30 - 14:30 BST	Keynote Speaker 2 Prof. Krzysztof Krawiec Poznan University of Technology, Poland Talk Title: Towards Algorithmic Intelligence: Lifting Deep Learning with Neurosymbolic and Physics-Aware Methods				
14:30 - 15:00 BST	Networking Break				
15:00 - 18:00 BST	IS19 Special Session on Data Pre-processing Strategies, Machine Learning and Deep Learning Chair: Ireneusz Czarnowski	IS43 - B Intelligent Analytics, Decision Making and Automation Chair: Wojciech Sałabun	IS23 AI, Robotics, and Digital Technologies for Medical/Healthcare Systems Chair: Mohamed Bennasar	IS25 Knowledge Engineering and Data Mining - theory and practice Chair: Agnieszka Nowak-Brzezińska	IS06-C Intelligent and Adaptive Learning Systems across Educational Contexts Chair: Prof. Hiroshi Ueda

In-person Timetable – Thursday 10 September

Rooms	Main Plenary	Room 2	Room 3	Room 4	Room 5	Room 6
09:00 - 10:00 BST	Keynote Speaker 3 Prof. Ralf Seepold HTWG Konstanz University of Applied Sciences, Germany Talk Title: From Signals to Decisions: Explainable AI and Ubiquitous Sensing for the Future of Digital Sleep Health					
10:00 - 10:30 BST	Networking Break					

Rooms	Main Plenary	Room 2	Room 3	Room 4	Room 5	Room 6
10:30 - 12:30 BST	G01 - C & IS32 Knowledge-Based and Hybrid Intelligent Systems & Quantum-Enabled Intelligence for Transportation and Mobility Systems Chairs: Aya Saad & Zahid Khan	G04 Industry Applications Chair: Claudio Tomazzoli	IS01 Reasoning-Based Intelligent Applied Systems Chair: Jair Minoro Abe	IS36 Intelligent Systems and Applied Machine Learning & FinTech of the future Chairs: Ireneusz Miciuła	IS14 & IS21 Digital Transformation in Accounting, Finance and Controlling & Harnessing AI in Knowledge and Intelligent Systems for Business Innovation Chairs: Arkadiusz Januszewski & Celina Olszak	IS22 & IS39 Digitalization and Knowledge Management in Health Data Acquisition and Processing & Artificial Intelligence in Industry and Humanoid Robotics Chairs: Ralf Seepold & Ireneusz Czarnowski
12:30 - 13:30 BST	Lunch Break					
13:30 - 14:30 BST	Keynote Speaker 4 Prof. Jörg Rainer Noennig HafenCity University Hamburg, Germany Talk Title: Tooling for Cities - A Development Agenda for City Tech Solutions					

Rooms	Main Plenary	Room 2	Room 3	Room 4	Room 5	Room 6
14:30 - 15:00 BST	Networking Break					
15:00 - 18:00 BST	G01 - D Knowledge-Based and Hybrid Intelligent Systems Chair: Aya Saad	G02 - C Intelligent Information and Generative Systems Chair: Franco Giustozzi	G03 - C Engineering Intelligent Learning Systems Chair: Ahmed Samet	IS05 Knowledge and data engineering in medicine and health care Chair: Wieslaw Paja	IS07 Digital Twins and New Generation Computing in Engineering, Life Sciences and Economy Chair: Piotr Nikończuk	IS16 Interdisciplinary Approaches in Digital Transformation (IADT 2026) Chair: Ralf-Christian Härting
	Gala Dinner - Meet at the Restaurant Muelle 21 at 19:00					

Rooms	Room 7	Room 8	Room 9	Room 10	Room 11
09:00 - 10:00 BST	Keynote Speaker 3 Prof. Ralf Seepold HTWG Konstanz University of Applied Sciences, Germany Talk Title: From Signals to Decisions: Explainable AI and Ubiquitous Sensing for the Future of Digital Sleep Health				
10:00 - 10:30 BST	Networking Break				
10:30 - 12:30 BST	IS37 Agentic AI and Retrieval-Augmented NLP for Intelligent Intrusion Detection and NextGeneration SIEM (Privacy and LLM Security Included) Chair: Yessine Hadj Kacem	IS44 Healthcare Systems using Artificial Intelligence, Deep Learning and Vision Transformers Chairs: Mihaela Luca and Adrian Iftene and Ciprian Ceașescu	IS61 Studying Soft Computing for Business Applications Chair: Yoshiyuki Yabuuchi	IS33 & IS62 Software Engineering and IT Intensive Systems & Sustainable Innovation for the Digital IT era Chairs: Sergey V. Zykov & Yoshimasa Masuda	IS34 Global and Constrained Optimization: Algorithms and Applications (7th Edition) Chair: Abdellah Chehri
12:30 - 13:30 BST	Lunch Break				

Rooms	Room 7	Room 8	Room 9	Room 10	Room 11
13:30 - 14:30 BST	Keynote Speaker 4 Prof. Jörg Rainer Noennig HafenCity University Hamburg, Germany Talk Title: Tooling for Cities - A Development Agenda for City Tech Solutions				
14:30 - 15:00 BST	Networking Break				
15:00 - 18:00 BST	IS18 & IS20 Computational Culture, Arts, and Interaction & Innovation, artificial Intelligence, and advanced intelligent systems in knowledge management and engineering Chairs: Ryosuke Yamanishi & Dariusz Dudek	IS44-B & IS41 Healthcare Systems using Artificial Intelligence, Deep Learning and Vision Transformers Techniques & Sustainable Adaptive Artificial Intelligence Chairs: Mihaela Luca and Adrian Iftene and Ciprian Ceașescu & Alessia Amelio	IS55 & IS57 Signal Processing and Edge AI Algorithms for Embedded Systems and Sensors & Intelligent decision support and process optimization under uncertainty Chairs: Paolo Crippa & Aleksandra Radomska-Zalas	IS26 - A Classification, forecasting and decision support Chair: Rafal Deja	IS27 Interdisciplinary Perspectives on Generative AI within Knowledge-Based and Intelligent Systems Chair: Wilhelm Daniel Scherz

Rooms	Room 7	Room 8	Room 9	Room 10	Room 11
	Gala Dinner - Meet at the Restaurant Muelle 21 at 19:00				

Online Timetable – Thursday 10 September

Room Type	Room 1 VIRTUAL ROOM (Run via KES Online)	Room 2 VIRTUAL ROOM (Run via KES Online)	Room 3 VIRTUAL ROOM (Run via KES Online)	Room 4 VIRTUAL ROOM (Run via KES Online)	Room 5 VIRTUAL ROOM (Run via KES Online)	Room 6 VIRTUAL ROOM (Run via KES Online)
09:00 - 11:00 BST	G01 Knowledge- Based and Hybrid Intelligent Systems Chair: Aya Saad	G02 Intelligent Information and Generative Systems Chair: Franco Giustozzi	G03 Engineering Intelligent Learning Systems Chairs: Ahmed Samet & Nadir Guermoudi	G04 Industry Applications Claudio Tomazzoli	IS04 Intelligent Systems and Applied Machine Learning Hadi Saleh	IS05 Knowledge and data engineering in medicine and health care Chairs: Wieslaw Paja
11:00 - 12:00 BST	Lunch Break					

Room Type	Room 1 VIRTUAL ROOM (Run via KES Online)	Room 2 VIRTUAL ROOM (Run via KES Online)	Room 3 VIRTUAL ROOM (Run via KES Online)	Room 4 VIRTUAL ROOM (Run via KES Online)	Room 5 VIRTUAL ROOM (Run via KES Online)	Room 6 VIRTUAL ROOM (Run via KES Online)
12:00 - 14:00 BST	G01 Knowledge- Based and Hybrid Intelligent Systems Chair: Aya Saad	G02 Intelligent Information and Generative Systems Chair: Franco Giustozzi	G03 Engineering Intelligent Systems Chairs: Ahmed Samet & Nadir Guermoudi	G04 & IS03 Industry Applications & Networks for Innovation, Knowledge Creation and Sharing Chairs: Claudio Tomazzoli & Hironori Takeuchi	IS04 Intelligent Systems and Applied Machine Learning Hadi Saleh	IS13 & IS02 IT systems supported by or utilising AI in e- commerce and e-businesses & Smart Education: Learning environment using technology Chairs: Kinga Krupcaca & Nobuyuki Ogawa
14:00 - 14:30 BST	Break					

Room Type	Room 1 VIRTUAL ROOM (Run via KES Online)	Room 2 VIRTUAL ROOM (Run via KES Online)	Room 3 VIRTUAL ROOM (Run via KES Online)	Room 4 VIRTUAL ROOM (Run via KES Online)	Room 5 VIRTUAL ROOM (Run via KES Online)	Room 6 VIRTUAL ROOM (Run via KES Online)
14:30 - 16:30 BST	G01 Knowledge- Based and Hybrid Intelligent Systems Chair: Aya Saad	G02 Intelligent Information and Generative Systems Chair: Franco Giustozzi	G03 Engineering Intelligent Learning Systems Chairs: Ahmed Samet & Nadir Guermoudi	IS01 Reasoning- Based Intelligent Applied Systems Jair Minoro Abe	IS04 Intelligent Systems and Applied Machine Learning Hadi Saleh	IS05 Knowledge and data engineering in medicine and health care Chairs: Wieslaw Paja

Room Type	Room 7 VIRTUAL ROOM (Run via KES Online)	Room 8 VIRTUAL ROOM (Run via KES Online)	Room 9 VIRTUAL ROOM (Run via KES Online)	Room 10 VIRTUAL ROOM (Run via KES Online)	Room 11 VIRTUAL ROOM (Run via KES Online)	Room 12 VIRTUAL ROOM (Run via KES Online)
09:00 - 11:00 BST	IS09 Business applications of Artificial Intelligence Chair: Pawel Weichbroth	IS06 & IS21 Intelligent and Adaptive Learning Systems across Educational Contexts & Harnessing AI in Knowledge and Intelligent Systems for Business Innovation Chairs: Hiroshi Ueda & Celina Olszak	IS15 Intelligent Systems for Sustainable Energy, Mobility and Green Transitions Chair: Adam Sulich	IS23 & IS27 AI, Robotics, and Digital Technologies for Medical/Health care Systems & Interdisciplinary Perspectives on Generative AI within Knowledge- Based and Intelligent Systems Chairs: Mohamed Bennasar & Wilhelm Daniel Scherz	IS25 & IS28 Knowledge Engineering and Data Mining - theory and practice & The Next Frontier in Human– Machine Cooperation: From AI to Generative Intelligence Chairs: Agnieszka Nowak- Brzezińska & Milan Simic	IS29 Role and Significance of Technology and Digital Transformation in the Development of an Innovative Green Economy Chair: Lukasz Kozar

Room Type	Room 7 VIRTUAL ROOM (Run via KES Online)	Room 8 VIRTUAL ROOM (Run via KES Online)	Room 9 VIRTUAL ROOM (Run via KES Online)	Room 10 VIRTUAL ROOM (Run via KES Online)	Room 11 VIRTUAL ROOM (Run via KES Online)	Room 12 VIRTUAL ROOM (Run via KES Online)
11:00 - 12:00 BST	Lunch Break					
12:00 - 14:00 BST	IS10 Generative AI in the healthcare system: friend of foe? Chair: Smaranda Belciug	IS11 Knowledge- Based Systems for e-Business Chair: Kazuhiko Tsuda	IS18 & IS20 Computational Culture, Arts, and Interaction & Innovation, artificial Intelligence, and advanced intelligent systems in knowledge management and engineering Chairs: Ryosuke Yamanishi & Dariusz Dudek	IS07 Digital Twins and New Generation Computing in Engineering, Life Sciences and Economy Chair: Piotr Nikończuk	IS26 C & IS31 Classification, forecasting and decision support & Intelligence Information Communication Technology for Intelligent Business Management Chairs: Rafal Deja & Marek Zborowski	IS33 Software Engineering and IT Intensive Systems Chair: Sergey V. Zykov

Room Type	Room 7 VIRTUAL ROOM (Run via KES Online)	Room 8 VIRTUAL ROOM (Run via KES Online)	Room 9 VIRTUAL ROOM (Run via KES Online)	Room 10 VIRTUAL ROOM (Run via KES Online)	Room 11 VIRTUAL ROOM (Run via KES Online)	Room 12 VIRTUAL ROOM (Run via KES Online)
14:00 - 14:30 BST	Break					
14:30 - 16:30 BST	IS06 & IS08 Complex and dispersed classifiers (CDC 2026) & Intelligent and Adaptive Learning Systems across Educational Contexts Chairs: Hiroshi Ueda & Małgorzata Przybyła- Kasperek	IS14 & IS19 Digital Transformation in Accounting, Finance and Controlling & Special Session on Data Pre- processing Strategies, Machine Learning and Deep Learning Chairs: Arkadiusz Januszewski &	IS12 & IS22 Advances in Health Informatics & Digitalization and Knowledge Management in Health Data Acquisition and Processing Chairs: Daniela Gifu & Ralf Seepold	IS07 Digital Twins and New Generation Computing in Engineering, Life Sciences and Economy Chair: Piotr Nikończuk	IS25 & IS30 Knowledge Engineering and Data Mining - theory and practice & Combined session of Eye Movement Data Processing and Analysis (EMDPA) and Communication by Gaze Interaction (COGAIN) Chairs:	IS34 & IS35 Global and Constrained Optimization: Algorithms and Applications (7th Edition) & Innovative AI Technologies for Secure Intelligent Spaces: The Convergence of Physical and Cyber Environments Chairs: Abdellah

Room Type	Room 7 VIRTUAL ROOM (Run via KES Online)	Room 8 VIRTUAL ROOM (Run via KES Online)	Room 9 VIRTUAL ROOM (Run via KES Online)	Room 10 VIRTUAL ROOM (Run via KES Online)	Room 11 VIRTUAL ROOM (Run via KES Online)	Room 12 VIRTUAL ROOM (Run via KES Online)
		Ireneusz Czarnowski			Agnieszka Nowak- Brzezińska & Pawel Kasprowski	Chehri & Huong Le

Room Type	Room 13 VIRTUAL ROOM (Run via KES Online)	Room 14 VIRTUAL ROOM (Run via KES Online)	Room 15 VIRTUAL ROOM (Run via KES Online)	Room 16 VIRTUAL ROOM (Run via KES Online)
09:00 - 11:00 BST	IS36 & IS37 FinTech of the future & Agentic AI and Retrieval- Augmented NLP for Intelligent Intrusion Detection and NextGeneration SIEM (Privacy and LLM Security Included) Chairs: Ireneusz Miciuła & Yessine Hadj Kacem	IS40 & IS53 2nd Smart Generative AI and Data Visualization Technologies - SGAI DVT & Information Disorder Challenges in the Era of AI-Generated Contents Manipulation: Security, Trustability and Faithfullness of Shared Knowledge Chairs: Cesar Sanin & Fiammetta Marulli	IS44 Healthcare Systems using Artificial Intelligence, Deep Learning and Vision Transformers Techniques Chair: Mihaela Luca	IS57 Intelligent decision support and process optimization under uncertainty Chair: Aleksandra Radomska-Zalas
11:00 - 12:00 BST	Lunch Break			

Room Type	Room 13 VIRTUAL ROOM (Run via KES Online)	Room 14 VIRTUAL ROOM (Run via KES Online)	Room 15 VIRTUAL ROOM (Run via KES Online)	Room 16 VIRTUAL ROOM (Run via KES Online)
12:00 - 14:00 BST	IS37 & IS50 Agentic AI and Retrieval-Augmented NLP for Intelligent Intrusion & AI-Enhanced Blockchain Systems: Intelligent, Trustworthy, and Decentralised Solutions Chairs: Yessine Hadj Kacem & Hajer Nabli	IS43 & IS45 Intelligent Analytics, Decision Making and Automation & Intelligent E-Learning: Engagement, Motivation and Beyond Chairs: Wojciech Sałabun & Marcin Fojcik	IS48 & IS46 Artificial Intelligence in Cybersecurity: Emerging Trends in Defensive and Offensive Operations & Effective Program Design and Educational Development for the Next Digital Era Chairs: Kashif Naseer Qureshi & Kayoko Kurita	IS51 & IS52 Modern technologies, intelligent systems, and human impact on the transformation of contemporary organisations & Generative AI at the Edge: From Smart Devices to Agentic IoT Chairs: Grzegorz Chmielarz & Maha Driss
14:00 - 14:30 BST	Break			

Room Type	Room 13 VIRTUAL ROOM (Run via KES Online)	Room 14 VIRTUAL ROOM (Run via KES Online)	Room 15 VIRTUAL ROOM (Run via KES Online)	Room 16 VIRTUAL ROOM (Run via KES Online)
14:30 - 16:30 BST	IS38 & IS41 AI, Robotics, and Digital Technologies for Autonomous Systems & Sustainable Adaptive Artificial Intelligence Chairs: Agnieszka Lazarowska & Alessia Amelio	IS44 Healthcare Systems using Artificial Intelligence, Deep Learning and Vision Transformers Chair: Mihaela Luca	IS48 & IS47 Artificial Intelligence in Cybersecurity: Emerging Trends in Defensive and Offensive Operations & Longevity@Home powered by Electronic Systems Chairs: Kashif Naseer Qureshi & Prof. Dr. Petra Friedrich	IS55 & IS61 Signal Processing and Edge AI Algorithms for Embedded Systems and Sensors & Studying Soft Computing for Business Applications Chairs: Paolo Crippa & Yoshiyuki Yabuuchi

In-person Timetable – Friday 11 September

Rooms	Main Plenary	Room 2	Room 3	Room 4	Room 5	Room 6
09:30 - 10:00 BST	Networking Break					
10:00 - 12:00 BST	IS02 & IS47 IT systems supported by or utilising AI in e-commerce and e-businesses & Longevity@Home powered by Electronic Systems Chairs: Kinga Krupcała & Prof. Dr. Petra Friedrich	IS08 & IS59 Complex and dispersed classifiers (CDC 2026) & Design of Nigiwai: Places Embracing Values Chairs: Małgorzata Przybyła-Kasperek & Akinori Abe	IS11 Knowledge-Based Systems for e-Business Chair: Kazuhiko Tsuda	IS05 - B Knowledge and data engineering in medicine and health care Chair: Wieslaw Paja	IS04 Intelligent Systems and Applied Machine Learning Chair: Hadi Saleh	IS15 - B Intelligent Systems for Sustainable Energy, Mobility and Green Transitions Chair: Adam Sulich
12:00 - 13:00 BST	Lunch Break					

Rooms	Main Plenary	Room 2	Room 3	Room 4	Room 5	Room 6
13:00 - 14:00 BST	Keynote Speaker 5 Prof. Milan Simic RMIT University, Australia Talk Title: Artificial Intelligence: From Hype to Real Impact					
14:00 - 14:30 BST	Networking Break					
14:30 - 16:30 BST	IS03 & IS52 Networks for Innovation, Knowledge Creation and Sharing & Generative AI at the Edge: From Smart Devices to Agentic IoT Chairs: Hironori Takeuchi & Maha Driss	IS42 Intelligent Methods in Maritime Engineering, Transport and Logistics Chair: Andrzej Banaszek	IS11 - B Knowledge-Based Systems for e-Business Chair: Kazuhiko Tsuda	IS12 Advances in Health Informatics Chair: Daniela Gifu	IS28 The Next Frontier in Human–Machine Cooperation: From AI to Generative Intelligence Chair: Milan Simic	IS17 Interdisciplinary Approaches in Data Science Practice (IADSP 2026) Chair: Ralf Christian Härting
16:30 - 16:55 BST	Closing Ceremony					

Rooms	Room 7	Room 8	Room 9	Room 10	Room 11
09:30 - 10:00 BST	Networking Break				
10:00 - 12:00 BST	IS48 Artificial Intelligence in Cybersecurity: Emerging Trends in Defensive and Offensive Operations Chair: Kashif Naseer Qureshi	IS58 Generative AI and Data-Driven Intelligent Optimization for Decision Making Chair: Xiangpei Hu	IS38 AI, Robotics, and Digital Technologies for Autonomous Systems Chair: Agnieszka Lazarowska	IS35 Innovative AI Technologies for Secure Intelligent Spaces: The Convergence of Physical and Cyber Environments. Chair: Huong Le	IS57 Intelligent decision support and process optimization under uncertainty Chair: Aleksandra Radomska-Zalas
12:00 - 13:00 BST	Lunch Break				
13:00 - 14:00 BST	Keynote Speaker 5 Prof. Milan Simic RMIT University, Australia Talk Title: Artificial Intelligence: From Hype to Real Impact				

Rooms	Room 7	Room 8	Room 9	Room 10	Room 11
14:00 - 14:30 BST	Networking Break				
14:30 - 16:30 BST	IS60 Specialized Decision Techniques for Data Mining, Transportation and Project Management Chair: Ireneusz Czarnowski	IS58 - B Generative AI and Data-Driven Intelligent Optimization for Decision Making Chair: Xiangpei Hu	IS04 - B Intelligent Systems and Applied Machine Learning Chair: Hadi Saleh	IS45 Intelligent E- Learning: Engagement, Motivation and Beyond Chair: Marcin Fojcik	IS50 AI-Enhanced Blockchain Systems: Intelligent, Trustworthy, and Decentralised Solutions Chair: Hajer Nabli
16:30 - 16:55 BST	Closing Ceremony				

Online Timetable – Friday 11 September

Room Type	Room 1 VIRTUAL ROOM (Run via KES Online)	Room 2 VIRTUAL ROOM (Run via KES Online)	Room 3 VIRTUAL ROOM (Run via KES Online)	Room 4 VIRTUAL ROOM (Run via KES Online)	Room 5 VIRTUAL ROOM (Run via KES Online)	Room 6 VIRTUAL ROOM (Run via KES Online)
09:00 - 11:00 BST	G01 Knowledge- Based and Hybrid Intelligent Systems Chair: Aya Saad	IS04 Intelligent Systems and Applied Machine Learning Chair: Hadi Saleh	IS07 Digital Twins and New Generation Computing in Engineering, Life Sciences and Economy Chair: Piotr Nikończuk			
11:00 - 12:00 BST	Lunch Break					

Room Type	Room 1 VIRTUAL ROOM (Run via KES Online)	Room 2 VIRTUAL ROOM (Run via KES Online)	Room 3 VIRTUAL ROOM (Run via KES Online)	Room 4 VIRTUAL ROOM (Run via KES Online)	Room 5 VIRTUAL ROOM (Run via KES Online)	Room 6 VIRTUAL ROOM (Run via KES Online)
12:00 - 14:00 BST	G01 Knowledge- Based and Hybrid Intelligent Systems Chair: Aya Saad	IS26 - B Classification, forecasting and decision support Chair: Rafal Deja	IS07 Digital Twins and New Generation Computing in Engineering, Life Sciences and Economy Chair: Piotr Nikończuk			

Presentation Schedule – General Tracks

G01-A: Knowledge-Based and Hybrid Intelligent Systems

Chair: Prof. Aya Saad

Wednesday 9 September: 10:30 - 12:30

Plenary Room

Paper No	Paper Title / Authors
34	MILP-SAT-GNN: Yet Another Neural SAT solver Franco Alberto Cardillo, Hamza Khyari, Riccardo Paoli and Umberto Straccia
67	Ontology-based Repairing of ELH.L Knowledge Graphs Ying Li and Patrick Lambrix
76	From domain-landmark graph learning to problem-landmark graph generation Cristian Pérez-Corral, Antonio Garrido and Laura Sebastia
104	Hybridizing AI pipelines with Ontologically Explainable Classifiers Arnaud Lewandowski, Grégory Bourguin and Mourad Bouneffa
166	From Cruelty to Care: Children's Emotional Softening of Romanian Fairytales Anca Daniela Dinu, Andra-Maria Florescu, Alina Resceanu and Ștefana Arina Tăbușcă
175	Named Entity Recognition for a low-resourced language and a specific domain: a case study on Romanian fairytales Anca Daniela Dinu, Andra-Maria Florescu and Radu George Marin

G01-B: Knowledge-Based and Hybrid Intelligent Systems

Chair: Prof. Aya Saad

Wednesday 9 September: 15:00 - 18:00

Plenary Room

Paper No	Paper Title / Authors
179	Privacy-Aware Intelligent Text Processing: Adaptive Anonymization with Quantified Utility Balance Oleksandr Lytvyn, Andras Nagy, Hlib Kokin and Giang Nguyen
187	Label quality over quantity: How noisy reward signals widen the gap between reinforcement learning and supervised fine-tuning for vulnerability detection Paul Andrei Dobrescu, Ioan Daniel Pop and Diana Florina Sotropa
247	Hybrid Computer Vision and Analytical Method Approach to Real-Time Viscosity Estimation in Mechanical Systems Laith Shatnawi, Sebastian Lenz, Niels Ockert, Patrick Harfmann, Markus Kley and Steffen Schwarzer
284	Clustering agent representation for explaining reinforcement learning policies Maxime Alaarabiou, Nicolas Delestre and Laurent Vercouter
287	A unified taxonomy for explainability in reinforcement learning Maxime Alaarabiou, Nicolas Delestre and Laurent Vercouter
299	NutriKG: A Knowledge Graph for Explainable and Adaptive Food Recommendation Alexandre Combeau, Fatiha Saïs, Nageeta Kumari, Stéphane Dervaux, Cristina Manfredotti, Vincent Guigue and Paolo Viappiani
319	Sensitivity-Driven Learning for Runtime Self-Adaptation of Interaction Protocols in Multi-Agent Systems Nadia Abchiche-Mimouni, Amina Maddouri and Samir Otmane
323	Toward Automated Generation of DEVS Models from Structured Natural Language Requirements Aroua Ben Daya, Rim Saddem-Yagoubi and Claudia Frydman

G01-C: Knowledge-Based and Hybrid Intelligent Systems

Chair: Prof. Aya Saad

Thursday 10 September: 10:30 - 12:30

Plenary Room

Paper No	Paper Title / Authors
342	Cognitive Network Science for Human-AI Systems: A Systematic Review Christophe Cruz, Hussam Ghanem, Samir Jabbar, Sarah Theroine, Laurent Gautier, Maria Alice Bertolim and Hocine Cherifi
445	Stable Multi-Agent Reinforcement Learning using Agent-wise Tree Structured Histories Hayato Setoya and Toshiharu Sugawara
339	Towards Energy-Stable Reinforcement Learning for IoT Networks: A Variance-Aware Stability Framework Awatef Chniguir and Houda Hassen
465	Hybrid Intelligent PV Forecasting with Runtime Validation and Qualification Leila Sakli and Seifeddine Ben El Ghali
476	Feature selection and feature weighting in classification in the context of examining relevance and redundancy Pasi Luukka, Christoph Lohrmann and Mahinda Mailagaha Kumbure
459	Agile diagnosis of active systems by condensed abduction Gianfranco Lamperti

G01-D: Knowledge-Based and Hybrid Intelligent Systems

Chair: Prof. Aya Saad

Thursday 10 September: 15:00 - 18:00

Plenary Room

Paper No	Paper Title / Authors
502	The more the merrier – proposing a multi-expert use of fsQCA for data analytics with attention to information loss and distortion Alisa Lancaster and Jan Stoklasa
536	BSOA: A Battery Specification-Observation-Anomaly Ontology for Explaining Battery Anomaly Detection Oussama Mahdjour, Ali Ayadi, Ahmed Samet, Tedjani Mesbahi and Romuald Boné
538	RODO: A modular ontology for integrative knowledge representation in rare orodental diseases Socrates Waka Onyando, Ali Ayadi, Marzena Kawczynski, Cedric Wemmert and Agnes Bloch-Zupan
617	Real-Time and Uncertainty-Aware Hospital Bed Assignment via a Hybrid Learning-Optimization Framework Marwa Harzi and A. Yvan Guifo Fodjo
618	Peak-pattern-based neural readouts of narrative structure for self-continuity heterogeneity Ayaka Sato and Masayuki Kikuchi
627	A Semantic-based Explainable Artificial Intelligence Approach for Reinforcement Learning-solved Dynamic Pick-up and Delivery Problems Bowe Han, Linda Elmhahbi and Lilia Gzara
731	From Evidence to Rules: Evidence-Grounded Defeasible Rules for Building Energy Management Claudio Tomazzoli, Massimiliano Pirani, Simone Scannapieco and Cristian Randieri
783	Transformation of Equality Constraints in Datalog-Based Knowledge Graphs Andrea Calí

G01-E: Knowledge-Based and Hybrid Intelligent Systems

Chair: Prof. Aya Saad

Thursday 3 September: 09:00 - 11:00

KES Online Room 1

Paper No	Paper Title / Authors
2	A Knowledge-Driven Multi-Agent Architecture for Explainable Urban Decision Support Systems in Smart Cities Imene Ouali, Achraf Wali, Mohamed Saifeddine Hadj Sassi and Lamia Hadrich Belguith
52	Text-GCFExplainer: Global Counterfactual Explainer for Graph Neural Networks on Textual data Quang Le, Khoa Dang and Bac Le
91	A new Genetic Programming HyperHeuristic based algorithm for the Permutation Flow Shop Problem Imen Oueslati, Moez Hammami, Ameni Azzouz, Issam Nouaouri, Lamjed Ben Saif and Ha Allaoui
153	On Measuring Semantic Preservation in Legal Ontology Learning Albert Sadowski and Jaroslaw A. Chudziak
159	Deep Ensemble Approach for Multidialectal Arabic Hate and Abusive Speech Classification Nabil Badri, Ferihane Kboubi and Anja Habacha Chaibi
172	A Knowledge Graph Reasoning Framework for Syllabi Analysis Minh-Thu Tran, Hai-Yen Do and Thi-My-Hang Vu
178	A Distributed Multi-Agent Architecture for Remote Electronics Laboratories: Enabling Modular Hardware Virtualization and Concurrent Access Elmissaoui Taoufik, Chebil Jalel and Bel Hadj Taher Jamel

G01-F: Knowledge-Based and Hybrid Intelligent Systems

Chair: Prof. Aya Saad

Thursday 3 September: 12:00 - 14:00

KES Online Room 1

Paper No	Paper Title / Authors
218	Flex(G)RS: A Flexible Recommendation System for Individuals and Groups Classification of Online Arabic Handwriting Scripts Yacine Mokhtari and Grégory Smits
229	A Multi-Level Fuzzy Attributed Graph for Modeling and Classification of Online Arabic Handwriting Scripts Rabaa Zitouni, Hala Bezine and Sana Trigui
234	GALAC: Guided evolutionary algorithm using local alignment for biclustering Jihen Chedly, Ons Maatouk and Wassim Ayadi
238	TextLogics: an alternative accuracy-focused deductive reasoning system for free texts Emi-Marian Ionescu, Ionut Cristian Pistol and Andrei Arusoae
307	Hybrid Retrieval and Reranking for Quranic Question Answering Zakia Saadaoui, Ghassen Tlig and Fethi Jarray
329	Stitch: an AI-based workflow for graph processing frameworks selection and deployment Mariem Loukil, Lilia Sfaxi and Riadh Robbana
365	An Interpretable AI Framework for Monthly Wildfire Risk Assessment Oumaima Naoui, Ahmed Toujani and Mohamed Farah

G01-G: Knowledge-Based and Hybrid Intelligent Systems

Chair: Prof. Aya Saad

Thursday 3 September: 14:30 - 16:30

KES Online Room 1

Paper No	Paper Title / Authors
424	HybDet: A Hybrid CNN–Transformer framework for deepfake image detection Chafika Ouni, Hajer Almoutaq, Munera Alhubishi and Leen Alturaiqi
429	Swin-Siam: A Hybrid Approach for Signature Verification Fadoua Bouafif and Aya Boualabiar
446	A Logical Study of Incompatibility Between Machine Learning Models and Belief Bases Rim Belaiche, Fahima Cheikh-Alili, Souhila Kaci and Yakoub Salhi
558	CRED-RAG: A Model Based on Dynamic Attention for Trustworthy RAGs Imen Fadhli
561	Explainable AI for Embryo Selection in IVF: A Time-Lapse Imaging Approach Nadine Chaibi, Rafika Thabet and Farah Jemili
576	OntoHESS: A knowledge-based energy management strategy development of a Hybrid Energy Storage System for electric vehicles Marthe Désirée Olivia Haback, Caio Fonseca de Freitas, Ali Ayadi, Ahmed Samet and Tedjani Mesbahi
632	AI-Orchestrated Multi-Horizon Forecasting with Uncertainty Awareness for Harmful Algal Blooms Abir Loussaief, Raida Ktari and Yessine Hadj Kacem

G01-F: Knowledge-Based and Hybrid Intelligent Systems

Chair: Prof. Aya Saad

Friday 4 September: 09:00 - 11:00

KES Online Room 1

Paper No	Paper Title / Authors
641	Ontology-grounded cooperative perception in IoMT: from evidence to maintained event knowledge. Kamran Ismayilzada, Mathieu Bourgaïs, Cecilia Zanni-Merk and Nigar Ismayilova
677	A Locally Deployed RAG-Based Academic Advising System for Course Selection Feng Li and Yoritaka Iwata
707	Adaptive and Explainable AI-Driven Educational Systems for Primary Education: a SLR Maram Bdair, Nesrine Ben Yahia and Nashat Al-Jallad
711	Harmonization of Heterogeneous Software Defect Datasets with BERT-MiniLM Aicha Trigui, Yessine Hadj Kacem and Imen Chaari
717	Hybrid Graph-Vector Retrieval-Augmented Generation and GRU-Based Temporal Modeling for Electronic Health Records Zouhaira Ltifi, Nadia Smairi, Houda Abadlia and Olfa Belkahla
727	An Improved Hannibal Barca Optimizer for Automatic Data Clustering Najd Bizid, Hamida Amdouni and Ghaith Manita
747	Enhanced Hierarchical Gene Structuring with Adaptive NSGA-III for Multi-Objective Gene Selection in High-Dimensional Bioinformatics Data Dhia Bouazizi, Asma Amdouni, Daniel Rodriguez and Ghaith Manita

G01-I: Knowledge-Based and Hybrid Intelligent Systems

Chair: Prof. Aya Saad

Friday 4 September: 12:00 - 14:00

KES Online Room 1

Paper No	Paper Title / Authors
751	A Comparative Analysis of Data Augmentation Strategies for Lung Cancer Detection using Faster R-CNN with Feature Pyramid Networks Ibticem Ayed, Houda Abadlia and Nadia Smairi
752	An Enhanced Hannibal Barca Optimizer for Multi-Level Image Thresholding Kassis Mohamed Slim, Olfa Fakhfakh and Ghaith Manita
772	Fuzzy Deep Learning with Dual Explainability for Uncertainty-Aware Remote Sensing Image Classification Nawel Slimani, Ghazala Hcini, Imen Jdey and Monji Kherallah
775	Extending BPMN for Quality Management in Sensitive Business Processes Using Ontology-Driven Transformation Rules Zohra Alyani, Mohamed Turki, Karima Dhouib and Faiez Gargouri
791	From Argument Components to Graphs: A Multi-Agent Debate with Confidence Gating for Argument Relations Jakub Bąba and Jarosław A. Chudziak

G02-A Intelligent Information and Generative Systems

Chair: Prof. Franco Giustozzi

Wednesday 9 September: 10:30 - 12:30
Room 2

Paper No	Paper Title / Authors
16	Ethical Coordination in Generative Multi-Agent Systems J. de Curtò, I. de Zarzà and Carlos T. Calafate
65	Breaking Words Right: Morphology-Aware Tokenization for Inflectional Languages Bartłomiej Koptyra, Przemysław Kazienko, Maciej Piasecki and Jan Kocoń
71	Influence Factors on RAG Poisoning Pedro Pereira, Eva Maia, Isabel Praça and Adrien Bécue
230	Supervised Counterfactual Text Explanations via Control Token Conditioning Samuele Tonati, Sergio Muñoz, Roberto Pellungrini and Fosca Giannotti
275	Cross-lingual Mental Disorders Detection: a Multilingual Analysis of Arabic, Russian, Spanish, Chinese, and Bengali Vitaliy Nikitin, Ana-Maria Bucur and Fabio Crestani
276	Inverse Adaptation: Cross-Cultural Moral Divergence in Large Language Models Emanuele Bellini, Ana-Maria Bucur and Fabio Crestani

G02-B Intelligent Information and Generative Systems

Chair: Prof. Franco Giustozzi

Wednesday 9 September: 15:00 - 18:00

Room 2

Paper No	Paper Title / Authors
310	Cross-Lingual Word Sense Disambiguation Remains Challenging for Large Language Models Sebastian Balmus, Bogdan Dura, Ana-Sabina Uban and Sergiu Nisioi
330	An Architecture for Intelligent Information Systems Supporting Federated Service Integration and Knowledge Discovery in Higher Education Jacek Marciniak, Patryk Żywica, Marek Kubis, Andrzej Wójtowicz and Krzysztof Dyczkowski
452	Towards human-centered plan evaluation: combining LLMs and fuzzy inference for qualitative preference alignment Diego Alonso, Yolanda E-Martín, Antonio Garrido and Laura Sebastia
486	Experiments on Dorsal Hand Images Using SURF Keypoints and Convolutional Neural Networks Features Anca Ignat, Ioan Păvăloi and Cristina Diana Niță
495	Data-driven anomaly detection framework for education skills misalignment based on artificial intelligence Imelda Zadeja and Kaspars Osis
555	NeoOLAF: A Multi-Layer Agentic Framework for Grounded Ontology Population and Controlled Ontology Evolution from Text Gabriel Medeiros, Léa Charbonnier, Soufiane Ellassri and Cecilia Zanni-Merk
557	CARET: A Spec-Driven Development Framework for Contract-Aware Repository Editing and Governed Agentic Code Generation Ciprian Paduraru, Petru-Liviu Bouruc and Alin Stefanescu
563	The F1 Mirage: Unmasking Shortcut Learning in Mistral’s Fact-Checking Gagandeep Kaur, Ismail Badache and Aznam Yacoub
588	Embedding Compression for Biomedical Information Retrieval: A Systematic Evaluation Brendan Sevellec, Alexandre Pauchet and Lina Soualmia

G02-C Intelligent Information and Generative Systems

Chair: Prof. Franco Giustozzi

Thursday 10 September: 15:00 - 18:00

Room 2

Paper No	Paper Title / Authors
621	Harnessing Structure-from-Motion Reconstruction for Calibrating Traffic Cameras Observing Featureless Scenes Petr Dobeš and Michal Španěl
624	Beyond Static Comments: How AI and Chatbots Affect Source Code Comprehension Alfonso Piscitelli, Mattia De Rosa, Katia Buonocore, Marta Coiro, Vittorio Fuccella and Gennaro Costagliola
625	Traditional vs. LLM-Assisted Coding: Code Correctness, Effort, and User Perception Alfonso Piscitelli, Mattia De Rosa, Gerardo Frino, Maria Lombardi, Vittorio Fuccella and Gennaro Costagliola
631	Agentic AI and Human-in-the-Loop Decision Making Anne Håkansson and Gloria Phillips-Wren
667	SigLIP-HGC: Hierarchical Image Captioning via Gated Cross-Scale Fusion Ansar Hani
670	Enhancing Papaya Disease Diagnosis through Multimodal Fusion of Vision and Language Models Eyobed Birhanu Paulos, Tewabe Chekole Workneh, Claudio Tomazzoli and Matteo Cristani
687	Chunking Methods on Retrieval-Augmented Generation – Coming Closer to Clarification Mateusz Śmigielski, Michał Rajkowski, Mateusz Zbrocki, Michał Bernacki-Janson, Karol Kunicki, Julianna Godziszewska, Konrad Wojtasik and Maciej Piasecki
714	Rethinking Text-to-BPMN Generation: A Structured AI Approach For Process Modeling From Natural Language Asma Maalej, Hatem Hadj Kacem and Nawal Guermouche
715	Beyond Arithmetic: The Semantic Bottleneck in Neuro-Symbolic LLMs Bogdan-Marius Dinu, Ciprian-Mihai Ceausescu and Cristian-Haciv Kevorchian

G02-D Intelligent Information and Generative Systems

Chair: Prof. Franco Giustozzi

Thursday 3 September: 09:00 - 11:00

KES Online Room 2

Paper No	Paper Title / Authors
128	G-MORDA: Graph-guided Compression with Locally Distinct Selection for Efficient VideoLLM Reasoning Thai Nguyen, Thanh Long Tran and Thanh Le
162	ViGCT-VQA: Gated Cross-Modal Attention with Type-Conditioned Visual Gating for Vietnamese VQA Duong Nghia, Luong Thanh and Tung Le
182	X-cDiT: Explainable Latent Conditional Diffusion Inpainting with Transformers for Iris Occlusion Removal Andreea Negoitescu, Gabriela Czibula and Cristina Mircea
183	Emulating Structured Inspection A Comparative Analysis of MultiAgent Systems and Human Teams in the Context of Fagan Inspection Paul Andrei Dobrescu, Ioan Daniel Pop and Maria Camelia Chisalita Cretu
278	Evidence-Aware Query Reformulation for VideoQA with Temporal Grounding Gia-Hao Tran, Tan-Hung Nguyen and Thanh Le
268	Addressing Structural Underdetermination in Epidemiological Studies: Knowledge-Guided LLMs for Causal DAG Construction Wissal El Habti and Abdellah Azmani
305	FILLM: A Large Language Model Based Agentic System for Machine Learning Tabular Data Imputation Carlos Gonçalves, Pedro Pereira and Paulo Cortez

G02-E: Intelligent Information and Generative Systems

Chair: Prof. Franco Giustozzi

Thursday 04 September: 12:00 - 14:00

Online room 2

Paper No	Paper Title / Authors
349	Tiny OD NAS: Resource-aware Multi-Objective Neural Architecture Search for TinyML Object Detection Models Nazmus Sakib, Marco Zennaro and Naushin Nower
401	Transfer learning in audio deepfake detection - adaptation of an automatic speech recognition model Anna Chojnacka and Bartłomiej Stasiak
414	Beyond Token Removal: Using DSPy-Optimized LLMs as Local Interpretable Surrogates for Text Classifiers Marcin Koralewski
425	Adaptive Blockwise 8-bit Floating Point Quantization of Parameters for Communication-Efficient Large Language Model Training Igor Polyakov and Alexey Dukhanov
453	TripHSD-VN: Leveraging Triplet Loss with Hard Triplet Sampling Strategy for Vietnamese Hate Speech Detection Hoang-Quan Tran, Duc-Hao Do and Thanh-Duc Chau
511	AWARE: A Real Evidence-based Model for Reducing LLMs Hallucinations Mohamed Yassine Landolsi and Lotfi Ben Romdhane

G02-F: Intelligent Information and Generative Systems

Chair: Prof. Franco Giustozzi

Thursday 04 September: 14:30 - 16:30

Online room 2

Paper No	Paper Title / Authors
585	ReceiptCAT: Analysing Invoices and Receipts with Amazon Textract Sneha Oommen, Gabby Sanchez, Cassandra Britto, Di Wang, Jung-De Chiou and Maria Spichkova
587	A Multi-Objective Community Detection Framework for Agile Team Formation in Collaborative Learning Networks Wiem Rebhi, Wala Rebhi and Narjes Bellamine
654	Hybrid Multitask model for Prediction of Parkinson’s Progression and Depression from time series data and LLM-based Report Generation Tasnim Bali, Raouia Mokni and Mariem Haoes
679	A Study on five LLM Prompting Engineering Techniques for generating Pedagogically and Accessible Course Syllabus Sirine Elghali, Mabrouka Chouchane and Makram Soui
726	Multimodal registration of drone-captured images using gradient matching and local deformation field estimation Mariusz Dojka and Tomasz Kapuściński
746	Controlled NL-to-SQL for Public Administration: A Romanian Pipeline for Structured Data Access Ciprian Paduraru, Gabriela Mihai and Alin Stefanescu

G03-A: Engineering Intelligent Learning Systems

Chair: Prof. Ahmed Samet

Wednesday 9 September: 10:30 - 12:30

Room 3

Paper No	Paper Title / Authors
4	Multilingual Energy–Performance Evaluation of Large Language Models I. de Zarzà, Mauro Liz, J. de Curtò, Jordi Cabot and Carlos T. Calafate
45	WiFi CSI–Driven Biometric Authentication for Human Identification and Re-Identification Md Fahim Nafis, Mohamed Rahouti, Abdellah Chehri, Kaiqi Xiong and Thaier Hayajneh
47	Fuzzy Type Regularization for Translating Knowledge Graph Embeddings Italo Zoppis, Sara Manzoni and Davide Ciucci
68	Accurate and Consistent Post-hoc Explanations in Federated Learning of Brain Tumor Classifiers Pietro Ducange, Michela Fazzolari, Francesco Marcelloni, Giustino Claudio Miglionico and Fabrizio Ruffini
81	Temporal Anomaly Detection in Citation Networks via Dynamic Graph Transformers Renata Avros, Israel Shushan, Noah Soskha and Zeev Volkovich
95	Evolutionary Complexity Reduction of Federated Fuzzy Rule-Based Classifiers: A Preliminary Experimental Analysis Mattia Daole, Pietro Ducange, Francesco Marcelloni and Alessandro Renda
121	CoReGraph: A Knowledge Graph Approach for Software Repository Analysis Maria Gomes, Eva Maia and Isabel Praça

G03-B: Engineering Intelligent Learning Systems

Chair: Prof. Ahmed Samet

Wednesday 9 September: 15:00 - 18:00

Room 3

Paper No	Paper Title / Authors
168	Detecting Sleeping Beauties via Gravity Models Renata Avros, Oren Baranovsky, Anna Garmash and Zeev Volkovich
190	Trajectory Anomaly Detection for Orchestrated Logistics via Group-Aware Spatial Corridors Julian Klinger, Mohammad Reza Mohebbi, Julian Bialas and Mario Döller
192	What Makes a System Worthy of Your Trust? Alexandre Gomez and Irina Rychkova
200	Downscaling climate projections to 1 km with single-image super resolution Petr Košťál, Pavel Kordík and Ondřej Podsztavek
213	FPNAtt-Neck: Attention-Refined Multiscale Feature Learning for Martian Landslide Segmentation Muhammad Zia Ur Rehman, Zuha Aamir, Syed Mohammed Shamsul Islam and Anwaar Ulhaq
255	Hierarchical Specialised Ensembles for Classification of Zebrafish Phenotypes Using the Selected Image Recognition Methods Piotr Maciąg, Monika Maciąg and Magdalena Majdan
304	From Superpixels to Proto-Regions: A Model-Driven Neural Network for Coherent Region Segmentation Zsombor Boga, Csanád Sándor and Péter Kovács
434	Wildfire Risk Prediction in the Brazilian Amazon using Geospatial Analytics, Vegetation Dynamics, and Machine Learning Arwa Rahmani, Julio A. Sanguesa, Piedad Garrido, Francisco J. Martinez and Carlos T. Calafate

G03-C: Engineering Intelligent Learning Systems

Chair: Prof. Ahmed Samet

Thursday 10 September: 15:00 - 18:00

Room 3

Paper No	Paper Title / Authors
466	Explainable Recommendation through Neurosymbolic Knowledge Integration Valentina Lopez-Chacon and Laura Sebastia
488	Disjunctive Normal Form Extraction for Interpretable Neural Models in Riesz MV-Algebras Bogdan Macovei and Maria Preda
504	A Data-Centric Framework for Automated Partial-Credit Grading: Rubric-Guided Anchor-Based Data Augmentation Shinichi Oeda and Ryosei Hoshi
565	VigilFed: Vigilant Federated Learning based on Collaborative Detection of Coordinated Attacks Hanen Hamdani, Emna Benmohamed and Hela Ltfi
638	Pseudo-Label Smoothing and Last-Layer Feature Regularization for Test-Time Adaptation on Tabular Data Keon Myung Lee
690	Assessing Dataset Suitability for Traffic Sign Detection Using Open-set and Synthetic Data-driven Approaches René Pihlak, Sadok Ben Yahia, Uljana Reinsalu and Elena Samsonova
793	Ingredient-to-Food Composition Table Matching via Taxonomy-Aware Multi-Task Learning with Structured Decomposition Naoki Yoshimaru, Tomoya Kambara and Kenji Hatano
800	A Comparative Study of CNN Architectures for Brain Tumor Classification from MRI Images Alina Duca and Adrian Iftene

G03-D: Engineering Intelligent Learning Systems

Chair: Prof. Ahmed Samet

Thursday 3 September: 09:00 - 11:00

Online Room 3

Paper No	Paper Title / Authors
10	Accuracy vs. Robustness in Speech Emotion Recognition: An Empirical Study of the Generalization-Specialization Trade-off Across Corpora and Architectures Jihed Jabnoun and Mounir Zrigui
89	A Hybrid Multimodal Graph Framework for Medical Link Prediction and Decision Support Takoua Ben Smida, Riadh Bouslimi and Hadhemi Achour
98	Improving Explainability of Graph Neural Networks through Multi-Objective Evolutionary Computation Laura-Maria Cornei, Mădălina Răschip and Mihaela-Elena Breabăn
146	Counterfactual Reasoning for Robust Visual Question Answering Truong-Binh Duong, Thanh-Ngan Tran, Ngoc-Thao Nguyen and Bac Le
158	PropaGauss: Cross-View Token Propagation for Consistent Single-View 3D Reconstruction with Gaussian Splatting Phu-Loi Pham and Ngoc-Thao Nguyen
160	Ru-X-Moji: Emoji-Driven Weak Supervision for Sentiment Analysis in Russian Social Media Sergiu Limboi, Irina Savilencu and Laura Diosan
161	KAViC: Knowledge-Guided Augmentation and Video-Caption Interaction for Text-Video Retrieval Duc-Huy Ha, Minh-Hung Nguyen and Thanh Le

G03-E: Engineering Intelligent Learning Systems

Chair: Prof. Ahmed Samet

Thursday 3 September: 12:00 - 14:00

Online Room 3

Paper No	Paper Title / Authors
191	Causal Multimodal Temporal Learning for Stroke Recovery Prediction and Personalized Treatment Allocation Houda Trabelsi, Riadh Bouslimi, Hadhemi Achour and Besma Zeddini
254	Session-based Recommender Systems: User Interest as a Stochastic Process in the Latent Space Klaudia Dynak and Piotr Lipinski
257	ViT-GSOM: Vision Transformer with Adaptive Topology Learning of Growing Self-Organizing Map Tomáš Hanzlík and Magda Friedjungová
283	TopoSOM-HAR: A Differentiable Self-Organizing Map Architecture for Cross-Subject Generalisation and Explainability in Sensor-Based Human Activity Recognition Salem Trabelsi, Malika Charrad, Khaled Ben Khalifa and Ahmed Ghazi Blaiech
286	Towards assessing the suitability of tree species using machine learning Markéta Hošmánková, Lenka Lehnerová, Pavel Kordík and Ondřej Podsztavek
293	CoFiMix-SFDA: Source-Free Domain Adaptation Using Confident-based Filtering And Mixup Augmentation Cuong Nguyen Cao, Xuan Nguyen Pham and Ngoc-Thao Nguyen

G03-F: Engineering Intelligent Learning Systems

Chair: Prof. Ahmed Samet

Thursday 3 September: 14:30 - 16:30

Online Room 3

Paper No	Paper Title / Authors
306	RAMTUNet-VLM: A Hybrid 3D U-Net Architecture with ET-Guided Transformer for Brain Tumor Sub-Region Segmentation and Automated Report Generation Amal Beladhria and Raouia Mokni
546	Benchmarking Deep Neural Models for Music Genre Classification: An Empirical Analysis on the FMA Dataset Yu-Ting Zhang, Pei-Chun Lin, Eric Odle and Nureize Arbaiy
559	CBCARP: A Contextual Bandit Controller for Adaptive Replica Placement in HDFS Helmi Tlich, Hanène Chettaoui and Tarek Hamrouni
568	Efficient Hyperparameter Optimization for Image Classification Leveraging Stochastic Best-Improvement Strategy and Progressive Halving Kamel Brouthen, Ibrahim Aboud, Abdelaziz Akeb, Mouaadh Baghdadi, Imededdine Mokrane, Abderraouf Seghairi, Fatima Benbouzid-Si Tayeb and Malika Bessedik
611	RangeViM: Full-Resolution Range-View LiDAR Segmentation with a Lightweight Hybrid Vision Mamba Backbone Kiet Huynh, Man Ly and Ngoc Thao Nguyen
633	SeD: A Bounded, Domain-Aware Sentiment and Technical Density Measure for Collaborative Effort Estimation Le Thi Kim Nhung Ho, Nguyen An Thuyen Duong, Radek Silhavy and Petr Silhavy

G04-A: Industry Applications

Chair: Prof. Claudio Tomazzoli

Thursday 10 September: 10:30 - 12:30

Room 2

Paper No	Paper Title / Authors
49	Blockchain-Assisted Deep Learning Framework for Secure, Safe, and Efficient Urban Parking Management Jan Bieniek, Lesther Santana, Mohamed Rahouti, Mohammed Aledhari, Nasir Ghani and Abdellah Chehri
63	Evaluating YOLOv11 for Robotic Apple Harvesting under Low-Resource Computing Constraints Giustino Claudio Miglionico, Pietro Ducange, Francesco Marcelloni and Tiberio Uricchio
111	Deformable Retinal Image Registration using Deep Learning Local Feature Matching Approaches Inés Lloves-García, Álvaro S. Hervella, José Rouco and Jorge Novo
507	Beyond Blind Training: Hurst-Based Ticker Selection Maros Cavojsky, Filip Hodon and Martin Drozda
644	Personalized federated Learning for improving spare parts prediction across companies Pietro Ducange, Francesco Marcelloni, Alessandro Renda and Alessio Schiavo
660	A Cooperative Multi-Agent Reinforcement Learning Guided Iterated Greedy Algorithm for Hybrid Flow Shop Scheduling Problem with Unrelated Parallel Machines Ahmed Missaoui and Barry O'Sullivan
674	Towards Holistic CSR Recommendation for Workplace Performance Asma Dhaouadi and Cecilia Zanni-Merk

G04-B: Industry Applications

Chair: Prof. Claudio Tomazzoli

Thursday 3 September: 09:00 - 11:00

Online Room 4

Paper No	Paper Title / Authors
203	A Novel Deep Learning Intrusion Detection System Paradigm via Counterfactual Divergence in a Network Digital Twin Houcemeddine Hermassi and Haythem Ghazouani
252	Attention-enhanced deep learning for wheat disease classification Amira Bellali, Zoulikha Abbaci, Abdenour Sehad, Rachid Hedjam and Naima Bessah
295	ESG-Aware Portfolio Optimization for Emerging Market Banks: A Hybrid LSTM–Particle Swarm Optimization Approach Chaima Ben Hassine and Heni Boubaker
567	Economic vs Environmental Drivers of SDG Performance: An Explainable Machine Learning Approach Ilaha Latifova
699	A Multi-Objective Hannibal Barca Optimizer for Synergy-Aware Project Portfolio Selection Zied Ben Youssef, Yosr Slama and Ghaith Manita
708	Enhancing Human Situational Awareness and Decision-Making in High-Risk Contexts through Immersive XR George-Gabriel Constantinescu, Ana-Maria Bores and Adrian Iftene

G04-C: Industry Applications

Chair: Prof. Claudio Tomazzoli

Thursday 3 September: 12:00 - 14:00

Online Room 4

Paper No	Paper Title / Authors
721	A GVNS-Based Approach to the Inventory Routing Problem with Operational Cash Constraints Khouloud Dorgham, Fatma Essghaier and Issam Nouaouri
750	A Medical Truck--Drone Routing Problem with Solar Recharge, Thermal Viability Constraints using Multi-Objective Approach Abir Ouechtati, Miguel Garcia Torres and Ghaith Manita
762	Non-Informative Frame Classification in Colonoscopy Videos Using Vision Transformer Md Marufi Rahman, Junghwan Oh and Piet de Groen
798	An Enhanced Hannibal Barca Optimizer for the Capacitated Vehicle Routing Problem Ramzi Guesmi and Ghaith Manita

Presentation Schedule – Invited Sessions

IS01 - Reasoning-Based Intelligent Applied Systems

Chair: Prof. Jair Minoro Abe

Thursday 10th September 10:30-12:30
Room 3

Paper No	Paper Title / Authors
152	Paraconsistent Annotated Logic for Intrinsic Moral Value in Reinforcement Learning Yotaro Nakayama, Yoshitaka Aoki and Seiki Akama
686	From Contradiction to Application: A Critical Review of the Main Use Cases of Paraconsistent Logic Marcus Leite, Jair Minoro Abe, João Glauco Barbosa dos Santos, Leandro Cigano de Souza Thomas and Marcos Leandro Hoffmann de Souza
740	Approaches, Challenges, and Limitations in Web Application Firewall Threat Protection, A Systematic Review João Glauco Barbosa dos Santos, Jair Minoro Abe, Marcus Leite, Leandro Cigano de Souza Thomas and Hugo Gava Insua
743	Decoding Institutional Signals: A Methodological Assessment of Inferential Risks in Police Arrest Records Hugo Gava Insua, Jair Minoro Abe, João Glauco Barbosa dos Santos and Marco Antonio Campos Benvenga
790	Paraconsistent Decision Support Framework for Service-Level Agreement Evaluation in Last-Mile Logistics Kennya Vieira Queiroz, Jair Minoro Abe, Miguel Renon and Marcus Leite
818	Computer Vision for Behavioral Monitoring in Poultry Systems: A Systematic Review of Trends, Challenges, and Future Directions Leandro Cigano de Souza Thomas, Jair Minoro Abe, João Glauco Barbosa dos Santos and Marcus Leite
887	Decision Support Systems for Environmental Control in Poultry Farming: Trends, Advances, and Perspectives Marcus Leite, Jair Minoro Abe, Leandro Cigano de Souza Thomas, Rogerio Carlos Traballi, João Glauco Barbosa dos Santos, Irenilza de Alencar Nääs and Marcos Leandro Hoffmann de Souza

IS01-B - Reasoning-Based Intelligent Applied Systems

Chair: Prof. Jair Minoro Abe

Thursday 3rd September 14:30-16:30

Online Room 4

Paper No	Paper Title / Authors
147	Bridging Predictions and Reasoning: Rationale-Driven AI for Interpretable Image Classification Pham Duc-Huy, Tung Le and Nguyen Huy Tien
543	Towards the Integration of Logic-Based Verification with Large Language Models in Software Engineering: A Case Study Pavel Melnikov and Andrey Tyugahsev
564	OPTIMIZATION IN CYBERSECURITY OF SIEM USING DLP AND PANN Liliam Sakamoto, Jair Minoro Abe, Luigi Pavarini Lima, Luiz Antonio de Lima and Adriane Akemi Zenke
768	Comparative Study of Operational Handling Method Decision-Making in Simulated Processes and Signal Triangulation Reading Rodrigo Cesar Barreto Santos, Ana Lucia Figueiredo Facin and Marcos Arruda
811	A Relational Objects Knowledge Base Model and Reasoning Methods for Problem Solving Mai Thành and Nhon Do

IS02-A - IT systems supported by or utilising AI in e-commerce and e-businesses

Chair: Dr. Kinga Krupcała

Friday 11th September 10:00-12:00

Room 1

Paper No	Paper Title / Authors
336	Product experience management in fashion e-commerce – potentials of PXM solutions for improving the product experience Chiara Henßler, Lara Hönn, Hannah Lauber, Ralf Haerting, Patrick Ulrich and Jo Scheppach
937	Who wants to use AI responsibly? Predictors of intentions to limit unnecessary GenAI use Paulina Rutecka-Cicha and Karina Rutecka-Cicha
979	A Granular Analysis of Digital Competencies Among Future Managers within the DigComp Framework Justyna Śpiewak and Natalia Buchalska-Sugajska
1025	Explainable Multi-Criteria Accessibility Assessment of Airline Booking Platforms Through LLM-Augmented TOPSIS Kinga Kulawik and Adam Wasilewski

IS02-B - IT systems supported by or utilising AI in e-commerce and e-businesses

Chair: Dr. Kinga Krupcała

Thursday 3rd September 12:00-14:00

Online room 6

Paper No	Paper Title / Authors
921	Human-centered AI support and user evaluation patterns in e-commerce Dariusz Grabara
994	The development of digital skills in management education through the use of social media and generative artificial intelligence Kinga Krupcała

IS03 - A - Networks for Innovation, Knowledge Creation and Sharing

Chair: Assoc. Prof. Hironori Takeuchi

Friday 11th September 14:30 - 16:30

Room 1

Paper No	Paper Title / Authors
75	Toward Structured Expectation Management in AI Projects: An Assurance Case Approach Hironori Takeuchi and Hiroshi Maruyama
88	Virtual Human Generative Model: Masked Modeling Approach for Predicting Human Characteristics Kenta Oono, Nontawat Charoenphakdee, Kotatsu Bito, Zhengyan Gao, Hideyoshi Igata, Masashi Yoshikawa, Yoshiaki Ota, Hiroki Okui, Kei Akita, Shoichiro Yamaguchi, Yohei Sugawara, Shin-Ichi Maeda, Kunihiro Miyoshi, Yuki Saito, Koki Tsuda, Hiroshi Maruyama and Kohei Hayashi
143	Composite Quality to Resolving Quality Conflict Shuichiro Yamamoto
361	Preliminary Evaluation of an Effort Estimation Method for Flask Web Development using KAOS model Jin Watanabe, Haruhiko Kaiya, Shinpei Ogata, Hiroyuki Nakagawa and Hironori Takeuchi

IS03 - B - Networks for Innovation, Knowledge Creation and Sharing

Chair: Assoc. Prof. Hironori Takeuchi

Thursday 3rd September 12:00 - 14:00

Online Room 4

Paper No	Paper Title / Authors
36	How Agile Mindsets Leverage Tacit Knowledge to Foster Innovation in IT Wioleta Kucharska, Maciej Kucharski and Jari Jussila

IS04-A - Intelligent Systems and Applied Machine Learning

Chair: Prof. Hadi Saleh

Friday 11th September 10:00 - 12:00

Room 5

Paper No	Paper Title / Authors
72	Virtual Conductor: A Real-Time Multimodal System for Gesture Recognition and Training Bozena Kostek and Jakub Cisoń
116	Using Physical and Statistical Features for Explainable AI in a Wave Propagation Context Alice Janela Cameijo, Youcef Sklab, Souhila Arib, Sven Peter Näsholm, Quentin Brissaud, Alexis Le Pichon, Constantino Listowski and Samir Aknine
141	Taxonomy-Driven Annotation of Energy Transition Debates: Corpus Construction and Classifier Benchmarking Matthieu François, Paul Gay, Nicolas Dugué, Brice Auvet and Xavier Arnaud de Sartre
167	WAKER: Weight Attribution based on Kolmogorov-Arnold Networks for Entity Resolution Lamisse Bouabdelli, Fatma Abdelhedi, Slimane Hammoudi and Allel Hadjali
355	Bridging Data Scarcity in ASR using Synthetic Speech: A Multilingual and Domain-Specific Study Alexandra Diaconu and Bogdan Alexe

IS04-B - Intelligent Systems and Applied Machine Learning

Chair: Prof. Hadi Saleh

Friday 11th September 14:30-16:30

Room 9

Paper No	Paper Title / Authors
780	Hybrid Intelligence for Software Defect Prediction: A Quantum Approach Mohamed Hasni, Fatiha Elhatmi, Nesrine Ben Yahia, Qassim Nasir and Manar Abu Talib
804	Deep neural networks for data-driven system identification: guitar amplifier emulation Bartosz Borkowski and Krzysztof Brzostowski
412	A Deep Learning Framework for Bird Detection Using UAV Imagery Antonio G. Moraga, Sara Blanc and Carlos T. Calafate
847	EEG Electrode Reduction for Emotion Recognition Without Significant Performance Loss Elhadji Mbaye Biteye, Haifa Nakouri and Hamdi Ben Abdessalem
992	Artificial Industrial Intelligence: Bioinspired Technology for Big Data Analysis and Comprehensive Assessment of its Effectiveness Galina Samigulina, Zarina Samigulina and Daulet Bekeshev
673	Transformer-Based Irony Detection and Sentiment Analysis in Arabic Tweets with Emojis Nesrine Ouled Abdallah and Maryam Abdulaziz Alkindi
720	Augmented Software Validation Framework for Traffic Sign Recognition Systems with Explainable AI Nesrine Triki, Mohamed Karray and Mohamed Ksantini

IS04-C - Intelligent Systems and Applied Machine Learning

Chair: Prof. Hadi Saleh

Thursday 3rd September 09:00-11:00

Online Room 5

Paper No	Paper Title / Authors
3	PN-TSNet: Real-Time Multimodal Sign Language Recognition for Embedded and Accessible Applications Haifa Harrouch and Maher Jebali
21	APU-TSP: GRU-based Adaptive Privacy and Utility Preserving Time Series Data Protection Adrian Roman, Teri Lenard and Dănuț-Ovidiu Pop
35	RF-BoxCAM: Receptive Field Guided High Resolution Visual Explanations for Object Detection Networks Malek Ben Hassine, Reza Bahmanyar and Houda Chaabouni-Chouayakh
53	Deep Learning Risk-Aware: Development of a Quantitative Intelligence System for Risk-Aware Vetoing in Biotechnology J. David Nuñez-Gonzalez, Paula Azqueta-Tames, Jose Manuel Lopez-Guede and Ekaitz Zulueta-Guerrero
54	Online Surrogate Model to speed up Genetic Algorithm for Association rules mining (GA-ARM): Fitness computation. Leila Hamdad, Cylia Laoufi, Souhila Sadeg and Karima Benatchba
66	From Scarcity to Scale: A Release-Level Analysis of the Pashto Common Voice Dataset Jahani Jandad, Mursal Dawodi and Jawid Ahmad Baktash
122	CourtStyle: Unified Self-Supervised Framework for Tennis Playing Style Discovery Ahmed Jouini, Faten Chaieb-Chakchouk and Alex Loth
298	HERBIOME: Automated pipeline for herbarium label digitization Sklab Youcef, Hiba Abbad, Hanane Ariouat, Nicolas Turenne and Eric Chenin

IS04-D - Intelligent Systems and Applied Machine Learning

Chair: Prof. Hadi Saleh

Thursday 3rd September 12:00-14:00

Online Room 5

Paper No	Paper Title / Authors
130	Engineering an Evidence-Grounded Verification Pipeline for Lengthy Reports under Scanned-PDF Noise Elina Dyukina, Dmitry Alekseev, Yuri Silaev and Hadi Saleh
135	SHAP Value Dynamic Threshold-based Approach for Homogeneous Ensemble Feature Selection Alia Maaloul, Maissa Ouni, Meriam Jemel and Nadia Ben Azzouna
156	ViMoE-VQA: Reasoning-Aware Sparse Experts for Generative Vietnamese Visual Question Answering Anh Tuong Nguyen, Trung Quoc Nguyen, Duy Lan Dang, Dac Thinh Tran, Ba Duc Phan, Quoc Thinh Nguyen and Tung Le
163	Detecting the undetectable: benchmarking AI-generated text Sergey Avdoshin, Elena Pesotskaya, Hadi Saleh, Rada Likhacheva and Grigorii Mishin
171	Toward Proactive RF Cybersecurity in Critical Wireless Networks: A Systematic Literature Review Mohamed Amine Guesmi, Feten Slimeni and Nesrine Ben Yahia
236	MAS-HHL: A Multi-Agent System with Hybrid Hidden Markov Model and Long Short-Term Memory for Discovering Intentional Process Models and Prediction Strategies in Educational Process Mining Hajer Bouricha, Lobna Hsairi and Khaled Ghédira
285	Deep Transfer Learning Architectures and Hybrid Classifiers for Automated Ear Disease Diagnosis Ana-Maria Lupoea and Anca Ignat

IS04-E - Intelligent Systems and Applied Machine Learning

Chair: Prof. Hadi Saleh

Thursday 3rd September 14:30-16:30

Online Room 5

Paper No	Paper Title / Authors
266	Ensemble Learning with Recurrent Neural Networks for Driver Behavior Classification Dănuț-Ovidiu Pop, Roland Bolboacă and Adrian Roman
292	Few-Shot Recognition of a Novel Apple Leaf Disease: Transfer-Learning versus Prototypical Meta-Learning Asma Ait Ba, Souhila Arib, Mohamed Zarboubi, Samira Chabaa, Hajer Baazaoui and Azzedine Dliou
316	An Explainable Dual-Model Framework for Pneumonia Detection in Interactive Clinical Decision Support Sys-tems Faten Bouallagui, Samar Bouazizi and Hela Ltifi
371	Text2DSL: LLM-Based Code Generation for Domain-Specific Languages Alexander Kozachok, Alexander Nazimov and Shamil Magomedov
463	SolanAPP: a synergistic framework for real-time biotic stress detection in Solanaceous crops Dunia Pineda Medina
656	MLCANet: Multi-Level Cross Attention Network for Handwritten Signature Verification Ibtissem Haj Ali and Harold Mouchère
659	Hybrid Machine Learning for Predictive Kubernetes Observability from Multi-Modal Telemetry Karim Arous, Marouen Kachroudi, Marius Zaharia and Mohamed Farah

IS04-F - Intelligent Systems and Applied Machine Learning

Chair: Prof. Hadi Saleh

Friday 4th September 09:00-11:00

Online Room 2

Paper No	Paper Title / Authors
666	Deep Learning Architectures for Student Outcome Prediction in Distance Learning: A Comparative Study on the OULAD Dataset Ghada Ben Khalifa and Lilia Cheniti Belcadhi
634	An improvement of LightGCL: Simple yet effective graph contrastive learning for recommendation Duc-Phuc Nguyen, Thanh-Long Tran and Ngoc-Thao Nguyen
386	A Hybrid Vision Transformer–KAN Framework for Efficient Spatio-Temporal Modeling in Video Action Recognition Abdul Moeed Siddiqui and Sayda Elmi
678	A Comprehensive Review of Deep Reinforcement Learning for Routing Optimization in SDN Networks Houda Hassen, Awatef Chniguir and Soumaya Meherzi
712	CloudDyslex: Deployment Patterns for Serving Volumetric Neuroimaging Classifiers in a Low-Resource Cloud Container Muhammad Abuhamdah, Hamdi Kchaou and Boudour Ammar
806	Emotion Recognition in Autism Spectrum Disorder Using Vision Transformer and Explainable AI on Clinically Re-Annotated Data Sonia Slimen
815	PM-SFDA: Prototype-Guided Memory for Source-Free Remote Sensing Scene Classification Manel Khazri Khelifi, Adel Ammar, Wadii Boulila and Imed Riadh Farah

IS05-A - Knowledge and data engineering in medicine and health care

Chair: Prof. Wieslaw Paja

Thursday 10th September 15:00-18:00

Room 4

Paper No	Paper Title / Authors
117	GenEvidence: Genomic Explainability through Evolutionary Independent Deterministic Explanation Lerina Aversano, Felice Franchini, Vincenzo Dentamaro and Giuseppe Pirlo
123	Five Uncertainty Measures for Confidence-Weighted Coronary Diameter Estimation: A Systematic Benchmark on ImageCAS Rahma Melki, Afef Kacem and Christophe Lohou
315	BRAIN-GAT: Multi-feature fusion-driven graph attention networks for brain tumor classification in high-dimensional medical imaging Akrem Sellami and Sabeur Aridhi
426	Low-Latency Hybrid Encryption With Tamper-Evident Auditing for Consumer Health IoT Data Angel G. Rivera, Paul Badu Yakubu, Zaren Ghani, Mohamed Rahouti, Abdellah Chehri and Paweł Weichbroth
523	The Study of Classification and Recognition Models in Advanced Imaging Applications Flavia Andron
710	ClinEX: A Multimodal Graph Attention Framework with Human-in-the-Loop Explainability for Accurate Medication Recommendation in Intensive Care Sarra Laaouar, Nacim Yanes and Sihem Ben Sassi

IS05-B - Knowledge and data engineering in medicine and health care

Chair: Prof. Wiesław Paja

Friday 11th September 10:00-12:00

Room 4

Paper No	Paper Title / Authors
547	Metaheuristic Approaches to the Scheduling Problem Urszula Boryczka
569	GE-SHAP: A Causally-Informed Explainable Framework for Trustworthy ICU Medication Recommendation Mayssa Kilani, Nacim Yanes and Sihem Ben Sassi
841	A Hybrid Genetic Autoencoder for X-ray Anomaly Detection Using Wavelet Mutation Cozmina Scorobete
991	Informativeness of ECG Lead Configuration in Arrhythmia Classification Using Classical and Deep Learning Models Agnieszka Wosiak, Katarzyna Żykwieńska and Sebastian Zych
1021	Hierarchical Ranking from Tree Structures with Distributed Data Integration Bartłomiej Barański, Beata Zielosko and Maria Zakharowa
1040	Semantic Twin of Poland: A Health Care System Component Krzysztof Pancerz and Kamil Zieliński

IS05-C - Knowledge and data engineering in medicine and health care

Chair: Prof. Wieslaw Paja

Thursday 3rd September 09:00-11:00

Online Room 6

Paper No	Paper Title / Authors
109	Vector-Quantized Graph Learning for Drug-Disease Association Prediction on Heterogeneous Biomedical Networks Oussama Abdeddayem, Alaa Bessadok and Hedi Sakli
112	A Comparative Study of Brain Atlas Selection and Multi-Atlas Fusion for Autism Spectrum Disorder Classification Using Resting-State fMRI Olfa Adouni, Alaa Bessadok, Ridha Ejballi and Hedi Sakli
337	Leakage-Safe Machine Learning for Alzheimer's Disease Classification with External Validation on ADNI and OASIS Elgun Hasanov, Ayman El Kadhi, Gulzar Safarli and Nahla El Kadhi
441	Explainable Multimodal Fusion for Chest X-ray-Based Thoracic Disease Classification in Resource-Constrained Settings Wiem Zemzem, Ichrak Aouadni and Mariem Hadj Kacem
468	An Efficient Two-Stage Deep Learning Framework for Multi-Label Chest X-Ray Pathology Detection and Classification Jawhara Lazhara, Wyssem Fathallah and Hedi Sakli
526	When Graphs Do Not Win: A Comparison of Residual and Graph Convolutional Networks for Drug-Drug Interaction Event Prediction Maria-Antonia-Emanuela Pascu and Madalina Raschip
469	Multimodal Deep Learning for COVID-19 Diagnosis: Chest X-ray vs. CT Scan Evaluation Jawhara Lazhara, Wyssem Fathallah and Hedi Sakli
196	Causality-Inspired Structure Learning for Mitral Regurgitation via Graph Neural Networks Catalin Pangaleanu, Dan Blendea and Teodora Avram

IS05-C - Knowledge and data engineering in medicine and health care

Chair: Prof. Wieslaw Paja

Thursday 3rd September 14:30-16:30

Online Room 6

Paper No	Paper Title / Authors
545	A Machine Learning Approach for Predicting Immunotherapy Response in Non-Small Cell Lung Cancer Using Clinical and CT Radiomic Features Dragos Martinas and Florin Olariu
571	Efficient Alzheimer's Detection Using Speech Transcripts: LoRA-Tuned Small Language Model with Chain-of-Thought Prompts and Semantic Augmentation Khaoula Ajroudi, Mohamed ibn-Khedher and Olfa Jemai
589	RaTFuse-Net: A Radiomic-Aware Transformer Framework for Multimodal Glioma Classification Kourchid Mongi, Bessadok Alaa, Ben Salah Bassem and Sakli Hedi
663	A Framework for Evaluating Knowledge Graph Quality in AI-based CDSS Emna Hazmi, Ghada Besbes, Sana Ben Abdallah Ben Lamine, Narjès Bellamine Ben Saoud and Hajer Baazaoui
693	A Synthetic Dataset of Augmented Chest X-ray Images for Improved Pathology Detection: MIMIC-A as a Unified Framework for Multi-modal Image Synthesis for Clinical Benchmarking Daniela Cristea, Moisi Ferenc and László-Barna Iantovics
697	Multimodal Edge AI for Medicinal Plant Disease Detection Using Hybrid Crop IoT and Leaf Imagery Ali Chouikhi, Sawsan Selmi, Khalil Jouili and Hedi Sakli
493	CLIP-DrugRep: Zero-Shot Drug Repurposing via Contrastive Multimodal Drug–Gene–Disease Alignment Oussama Abdeddayem, Alaa Bessadok and Hedi Sakli
745	Multimodal AI with Late Fusion and SHAP Interpretability for Predicting Optimal Balance in Removable Partial Dentures Olfa Mabrouk, Amira Dhokar, Lobna Hlaoua and Yosra Mabrouk

IS06-A - Intelligent and Adaptive Learning Systems across Educational Contexts

Chair: Prof. Hiroshi Ueda

Thursday 3rd September 09:00-11:00

Online Room 8

Paper No	Paper Title / Authors
22	Students' Perceptions and Challenges in Utilizing Artificial Intelligence and Large Language Models in Learning Outcomes Emilia Loredana Pop, Ioan Sima and Daniela Maria Cristea
106	Behavioral and Temporal Indicators of AI-Assisted SQL Problem Solving in a Controlled Assessment Environment Janka Pecuchová and Martin Drlík
176	Improving Automated Essay Scoring with Targeted LLM-Based Data Augmentation under Imbalanced Data Duy Anh Le, Nghia Vo Thanh, Huy Trieu, Nam Van Chi, Huy Tien Nguyen and Tung Le
222	Influence of Prompting Strategies on the Performance of Lightweight LLMs in Automated Grading of Open-ended Questions Lucia Benková, Ľubomír Benko and Janka Pecuchová
327	Using LLMs to Derive Textual Pedagogical Recommendations from Process Trees Amira Abbes, Héra Fehri, Leila Ghorbel, Corinne Amel Zayani, Ronan Champagnat and Jacques Morcos

IS06-B - Intelligent and Adaptive Learning Systems across Educational Contexts

Chair: Prof. Hiroshi Ueda

Thursday 3rd September 14:30-16:30

Online Room 7

Paper No	Paper Title / Authors
360	Remedial Action from Learning Analytics: A Systematic Review Hans Georg Schaathun, Firuz Khafizov and Anita Jansone
521	Predicting Student Success in Higher Education Using AI-Driven Educational Data Mining on the OULAD Dataset Ben Khalifa Ghada and Lilia Cheniti Belcadhi
826	A Hybrid AI-Based Pedagogical Agent for Learner Profile Analysis and Adaptive Learning Strategy Selection Asma Ayari, Mariem Chaabouni and Henda Ben Ghezala
833	IBIS-X: A Human-Centered Framework for End-to-End Dataset Selection, Machine Learning, and Explainable AI Anthony Rodrigues, Nourhène Ben Rabah, Bénédicte Le Grand and Camille Salinesi
180	Impact of Generative AI as a Scaffolding Tool on Computational Thinking and Learner Engagement: A Multi-Institutional Study in General Software Education Kyung-Sun Oh and Eun-Sill Jang

IS06-C - Intelligent and Adaptive Learning Systems across Educational Contexts

Chair: Prof. Hiroshi Ueda

Wednesday 9th September 15:00-18:00

Room 11

Paper No	Paper Title / Authors
457	Interactive Volume Rendering for Visualizing Hydrogen Atomic Orbitals Hiroya Suno, Yuma Kawachi and Nobuaki Ohno
519	Development of a Dashboard using Vega for Real-time Monitoring in Practical Classes with Jupyter Notebooks Nobukuni Hamamoto, Shigetoshi Yokoyama, Atsuko Takefusa and Kento Aida
696	PyQuiz: Toward an AI-Powered Serious Game for Programming Education Khouloud Jouini and Kalthoum Rezgui
748	A Tutor-AI Assistant to Enhance Teachers' Self-Efficacy for Inclusion: Tool Design & Preliminary Expert Content Validation Martina Giorgi, Guido Benvenuto, Keith Johnston, Giulia Brandi and Andrea Chirico
797	Edunova: A Teacher-in-the-Loop Multi-Agent System for Pedagogy-Aware, Accessible, and Inclusive Lesson Design Mohamed Semah Khelifi, Oussema Tourir and Makram Soui
816	XPLAIN-ED: An XAI Framework for Educational Data with Quantitative and User-Centered Evaluation Emmanuel Deniaux, Tesnim Khelifi, Nourhène Ben Rabah and Bénédicte Le Grand
823	Features of the Presence Effect Manifestation in Stress-Inducing Educational Virtual Reality Environments Yulia Rogoleva, Ksenia Ryseva and Artem Kovalev
470	SQL-DQN: A Knowledge-Based Adaptive Learning Environment Integrating Deep Reinforcement Learning and Narrative Scaffolding for Personalized SQL Education Hazra Imran and Jiahuan He

IS07-A - Digital Twins and New Generation Computing in Engineering, Life Sciences and Economy

Chair: Professor Piotr Nikończuk

Wednesday 9th September 15:00-18:00

Room 5

Paper No	Paper Title / Authors
615	A Typology-Based Construction Method for Digital Twin Systems Tsuyoshi Nakajima
945	A CFD-Based Digital Twin Approach to Hydro-Aerodynamic Analysis of WIG Craft over Rigid and Free-Surface Boundaries Jakub Byczek
971	Vehicle Routing Optimization for Cold-Sensitive Distribution in War Situations Regaig Ines, Raoudha Bendjemaa and Layth Sliman
973	Preliminary considerations and definition scope for the digital twins in deep sea mining Tomasz Abramowski
1047	Cybersecurity Risks in Ammonia and CO2 Refrigeration Systems Wojciech Tuchowski and Łukasz Cierocki
1048	Securing District Heating Networks Against Contemporary Cyber Threats Wojciech Tuchowski and Łukasz Cierocki
1075	A Digital Twin of Spray booth - Framework for Coating Processes: Concept for Coating Quality Prediction, Predictive Maintenance and Energy-Cost Optimization Piotr Nikończuk

IS07-B - Digital Twins and New Generation Computing in Engineering, Life Sciences and Economy

Chair: Professor Piotr Nikończuk

Thursday 3rd September 12:00-14:00

Online Room 10

Paper No	Paper Title / Authors
239	A Secure-by-Design Virtual Twin Framework for AI-Driven Threat Modeling in Railway OT Systems Narendra Neupane, Ahmad Mohsin, Md Iqbal Sarker, Leslie F. Sikos and Helge Janicke
1073	AI Voice System: an LLM-driven, configurable voice agent platform for controlling everyday and rehabilitation IoT devices by people with motor and verbal limitations Tomasz Królikowski
1000	Research on the effectiveness of energy recovery in mechanical vibration reduction systems using controlled damping elements Tomasz Królikowski
352	Explainable Digital Twin Residual Learning for Proactive Anomaly Detection in IoT Networks Yousra Achouri, Samar Bouazizi and Hela Ltifi
628	Model of decentralized resource allocation in signal processing systems based on negotiation and prediction Łukasz Gołka, Paweł Poczekajło and Robert Suszyński
653	Mathematical and Computational Modelling of Mono- and Multi-Species Bacterial Populations on Biomaterial Surfaces Łukasz Szparaga, Wiktoria Studzińska, Kacper Diakun, Ewa Czerwińska and Robert Suszyński
839	Comparison of Students' Investment Performance Considering Behavioral Factors Anna Szczepańska-Przekota
1032	From Industry 4.0 to Industry 5.0: Urban-Rural Spatial Imbalances Between Advanced Industry and Knowledge-Intensive Services in Poland Patrycjusz Zarębski, Agnieszka Kurdyś-Kujawska and Norbert Chamier-Gliszczyński

IS07-C - Digital Twins and New Generation Computing in Engineering, Life Sciences and Economy

Chair: Professor Piotr Nikończuk

Thursday 3rd September 14:30-16:30

Online Room 10

Paper No	Paper Title / Authors
850	Application of Random Forest in ESG investing analysis for mutual funds and listed companies - selected case studies Agnieszka Moskal
851	Determinants of the Perceived Risk of Financial Exclusion among Households of Older Adults: An Application of Ordinal Logistic Regression (OLR) Agnieszka Strzelecka, Ewa Szafraniec-Siluta, Roman Ardan and Danuta Zawadzka
852	Analysis of the Structure and Variability of Insurance Premiums for Renewable Energy Insurance: A Model-Based Approach Using the Example of a Photovoltaic Installation in Poland Karolina Willa and Danuta Zawadzka
885	The issue of using very low-cost RFID systems in teaching production processes Tomasz Królikowski
886	FlexSim in the Design and Configuration of Internal Logistics Systems: A Practice-Oriented Path from Discrete-Event Simulation to Digital Twin Development Tomasz Królikowski
888	From Cargo Gateways to Energy Hubs: Functional Transformation of Baltic Seaports into Intelligent Energy Logistics Systems Tomasz Królikowski
889	The Use of AI in WMS Systems at Logistics Centers Tomasz Królikowski

IS07-D - Digital Twins and New Generation Computing in Engineering, Life Sciences and Economy

Chair: Professor Piotr Nikończuk

Friday 11th September 09:00-11:00

Room 3

Paper No	Paper Title / Authors
842	Corporate GHG Emissions and Financial Performance: Evidence from Polish Companies Anna Szczepańska-Przekota and Krzysztof Dziadek
890	The use of GIS systems in estimating agricultural crop losses in the era of energy transformation Tomasz Królikowski
894	Exploring innovation in Polish enterprises: trends and future directions Tomasz Królikowski
912	A segment-based model for electric vehicle energy consumption and range under real-world conditions Norbert Lech and Piotr Nikończuk
1031	Carbon Emission Modeling in Short Food Supply Chains: Simulating Transport Energy Transition Scenarios Agnieszka Kurdyś-Kujawska, Norbert Chamier-Gliszczyński and Patrycjusz Zarębski
1059	Concept for integrating parameters indicating a refrigerant leak in HVACR equipment Diana Pietryga, Tomasz Łokietek and Norbert Lech

IS07-E - Digital Twins and New Generation Computing in Engineering, Life Sciences and Economy

Chair: Professor Piotr Nikończuk

Friday 11th September 12:00 - 14:00

Room 3

Paper No	Paper Title / Authors
397	Household Factors Associated with Holiday Deprivation in Poland: Evidence from Tree-based Gradient Boosting Methods and Logistic Regression Urszula Grzybowska, Agnieszka Wojewódzka-Wiewiórska and Hanna Dudek
324	Evaluating Vision-Based Multi-Object Tracking under Simulated Image Degradation in Crisis Scenarios: A Pathway to Multi-Sensor Fusion Adam Iwaszkiewicz, Robert Suszyński and Paweł Poczekajło
326	Design and Evaluation of a Context-Controlled VLIW Architecture for Reconfigurable DSP Systems Łukasz Gołka, Paweł Poczekajło and Robert Suszyński
1001	Design and Knowledge-Based Control of a Mechatronic Manipulator System Tomasz Królikowski
1002	Design and Validation of a Low-Cost Autonomous Tracked Mobile Robot Using Ultrasonic Sensors Tomasz Królikowski
968	The role of human factor in integrated fire and evacuation modelling Agata Krystosik-Gromadzińska, Agnieszka Ubowska and Norbert Lech
1033	Vending Machines as an Innovative Distribution Channel in Short Food Supply Chains Norbert Chamier-Gliszczyński, Agnieszka Kurdyś-Kujawska and Patrycjusz Zarębski
1034	IT tools for travel planning versus digital and transport exclusion in rural areas Jakub Walczak, Agnieszka Kurdyś-Kujawska and Norbert Chamier-Gliszczyński

IS08-A -Complex and dispersed classifiers (CDC 2026)

Chair: Assoc Prof. Małgorzata Przybyła-Kasperek

Friday 11th September 10:00-12:00

Room 2

Paper No	Paper Title / Authors
224	Context, Rejection, and Taxonomy in Long-Tail Litter Detection Rafał Skinderowicz
506	Analysis of Insulin Therapy in Pediatric Type 1 Diabetes at Onset using Multistate Markov Models: A Dynamic View of Glycemic Trajectories Rafał Deja and Grazyna Deja
821	Hyperparameter Optimization of Artificial Neural Networks using an Epigenetic-Enhanced Genetic Algorithm Kornel Chromiński
895	Fuzzy user profile in web application based on keystroke dynamics Przemysław Kudłacik

IS08-B -Complex and dispersed classifiers (CDC 2026)

Chair: Assoc Prof. Małgorzata Przybyła-Kasperek

Thursday 3rd September 14:30-16:30

Online room 7

Paper No	Paper Title / Authors
24	Constructing the minimum-size decision tree from a sufficient query set Łukasz Strąk, Wojciech Wieczorek and Arkadiusz Nowakowski
150	Unifying Discriminative Boundaries and Generative Manifolds for Open-Set Recognition Quang Cao, Minh Tran and Bac Le

IS09-A - Business applications of Artificial Intelligence

Chair: Assoc. Prof. Paweł Weichbroth

Wednesday 9th September 10:30-12:30

Room 5

Paper No	Paper Title / Authors
61	Short-Term Near-Surface Wind Speed Forecasting Using Machine Learning Post-Processing of AROME Numerical Weather Prediction Outputs Samir Saadane, Nordine Quadar, Abdellah Chehri and Hatim Kharraz Aroussi
119	Beyond Accuracy with XAI: A Comparison Approach to Feature-Based Explanations in Predictive Process Monitoring Noah Kim, Alina Hafner, Holger Wittges and Stefanie Rinderle-Ma
451	Neural-level knowledge and Human-level transparency in Sentiment Analysis: BERT-Driven Sentiment Lexicon Extraction Lidia-Monica Antal and László Barna Iantovics
593	KOMA: Knowledge Oriented Multi LLM Approach for Process Modeling Simay Celik, Faten Atigui, Laurent Boutal, Samira Cherfi and Laurent Drouin
943	Machine Learning Models in Activity-Based Daily CO2 Emission Estimation for Maritime Fleets under Strict Temporal Evaluation Michał Kamiński and Joanna Szłapczyńska

IS09-B - Business applications of Artificial Intelligence

Chair: Assoc. Prof. Paweł Weichbroth

Thursday 3rd September 09:00-11:00

Online Room 7

Paper No	Paper Title / Authors
30	Drink-Making Heuristics Framework for Knapsack-Like Problems of Resource Allocation Kateryna Czerniachowska
185	Intelligent model robustness assessment on degraded ETL streams using synthetic financial data Mikołaj Pastucha, Agata Kozina and Michał Pikus
186	Comparative Analysis of Deep Learning Architectures for Multivariate Time Series Forecasting in Energy Data Wiktor Kowalski and Agata Kozina
394	Semantic retrieval of Common Procurement Vocabulary Codes Through Transformer-Driven Sentence Representations and Vector Similarity Mikołaj Pastucha and Marcin Hernes
1042	Discrete-Event Simulation in Manufacturing Investment Decision-Making Support Jarosław Maćków, Ewa Walaszczyk, Michał Nadolny and Patryk Żuchowicz
1043	Integration of AI and Discrete-Event Simulation in Process Data Analysis Jarosław Maćków and Krzysztof Nowosielski
1062	Elevating Compliance Intelligence in High Risk Workplaces: A Human Machine Model for Incident Analysis Divya Sukumar, Ljiljana Brankovic, Sujana Adapa, Stephan Chalup and Shan Chen

IS10 A- Generative AI in the healthcare system: friend of foe?

Chair: Smaranda Belciug

Wednesday 9th September 15:00 -18:00

Room 5

Paper No	Paper Title / Authors
181	An End-to-End Deep Learning Framework for Speckle Noise Removal and Pathology Detection in OCT Imaging Alexandru-Robert Farcaş and Sebastian-Aurelian Stefaniga
215	Early dementia detection methods using conversational AI with prompt design Tatsuki Shimamoto, Motoi Iwashita, Yoshiki Izukune and Kuniharu Takahashi
379	Comparison Between LLM-as-a-Judge and Human Evaluation Construction and Evaluation of a Mental Health Dataset using LLMs Noriyuki Okumura, Taro Akada and Chie Mizunuma
415	First Responders Allocation Algorithm: A Novel Meta-Heuristic approach to optimization multi-objective problems Smaranda Belciug
432	Three-Dimensional Reconstruction of the Human Heart from Computed Tomography Volumes Ioana-Alexandra Morariu, Sebastian-Aurelian Stefaniga and Todor Ivascu
481	A Safety-Aware Digital Twin Framework for Mortality Risk Prediction and Counterfactual Analysis in Intensive Care Florin Ispas
482	EchoCF: EF-Conditioned Counterfactual Echocardiography Generation for Clinical Decision Support Diana-Lorena Cocîlnău
501	Recipes4Allergies – Robust multi-label classification of raw food ingredients under semantic uncertainty Tiberiu-Alexandru Mihai
637	From Flat Images to Clinical Intelligence: A 3D Trauma-Aware Digital Twin Pipeline for Preclinical Emergency Assessment Mohamed Hedi Riahi, Nardine Hanfi, Youssed Mejri and Mohamed Aziz Maatoug

IS10 - B - Generative AI in the healthcare system: friend of foe?

Chair: Smaranda Belciu

Thursday 3rd September 12:00 -14:00

Online Room 7

Paper No	Paper Title / Authors
149	ViHalluQA: Hallucination Benchmark Datasets for Vietnamese Question Answering Linh Chu Hai, Huyen Nguyen Ngoc Nhu, An Tran Phan Phuc, Anh Nguyen Duc Duy, Hieu Le Bao, Tung Le and Huy Nguyen Tien
214	Towards Reliable Evaluation of Factuality in Long-Form Text Generated by LLMs That Pham, Tung Le and Huy Tien Nguyen
436	AI-Assisted Fetal Ultrasound Analysis Attention-Based Plane Classification and Automated Clinical Report Generation Renato Ivanescu, Mihai-Costinel Balosu and Dragos Lupsoiu
438	AgenticRAG-Ar: An Agentic Hybrid Retrieval-Augmented Generation Framework for Arabic Mental Health Question Answering Khadouj Chadha Amraoui, Yassine Saoudi and Mohamed Mohsen Gammoudi
637	From Flat Images to Clinical Intelligence: A 3D Trauma-Aware Digital Twin Pipeline for Preclinical Emergency Assessment Mohamed Hedi Riahi, Nardine Hanfi, Youssed Mejri and Mohamed Aziz Maatoug
668	Diabetes Prediction Using the Framingham Heart Study Dataset: Exploring Common Risk Factors and Insights from Diagnostic-Driven Modeling Zsuzsa Simó, Barna Iantovics and Tünde Pál
25	GCM-Mamba: Decoupled Generative Cross-Modal Inference for Robust Human Activity Recognition Xiaolong Wang, Yihong Zheng, Haoxi Zhang and Edward Szczerbicki

IS11 - Knowledge-Based Systems for e-Business

Chair: Prof. Kazuhiko Tsuda

Friday 11th September 10:00-12:00

Room 3

Paper No	Paper Title / Authors
18	False Base Station Detection using Eigenvalues of ChannelState Information Nobuo Suzuki
208	Make the cream stand out!: Concepts and packaging designs that enhance the perceived value of non-homogenized milk Takumi Kato, Mitsuhiro Ishida, Honami Moriya, Nanako Tanaka, Etsuko Hasegawa, Yuto Tamura, Mayuko Kuwabara, Ryota Minamiura, Shinichi Kitamura and Taro Kida
209	Creating a concept and package design that meets the consumer desire to "eat milk" in Japanese yogurt market Takumi Kato, Ryoko Ueda, Yuko Azuma, Kanon Tomiya, Megumi Ida, Eiki Nakamura, Mayuko Kuwabara, Ryota Minamiura, Shinichi Kitamura and Taro Kida
407	ESG Performance, Innovation Asset, and Market Capitalization Relations: Evidence from Japanese Firms Napitiporn Manoli, ุณิยาตา Kawewong and Masakazu Takahashi
413	Evaluating Evacuation Efficiency in a High-Density Urban Campus Building Using Agent-Based Modeling Chikako Morimoto and Misaki Kisou
421	Tracing the trajectory of wind instrument dental research from morphology to function using text mining Yoshiyuki Kobayashi, Hiroko Furuhashi and Satoko Yamaguchi

IS11 B - Knowledge-Based Systems for e-Business

Chair: Prof. Kazuhiko Tsuda

Friday 11th September 14:30-16:30

Room 3

Paper No	Paper Title / Authors
491	From Organizational Experience to Transferable Competency: Generative AI-Based Competency Map Extraction Across Municipal Digital Transformation Initiatives Eiji Kano
516	Text-Only or Text-and-Image? An Operational Benchmark for Zero-Shot Artwork-Type Classification on Art-Auction Data Tatsuya Tojima and Mitsuo Yoshida
552	Interpretable Tree-Based Knowledge Discovery for Classifying Corporate Voluntary Disclosure Decisions Yuichiro Nakai and Mitsuo Yoshida
584	Anger, Toxicity, and Semantic Alignment in Replies to Japanese Diet Members on Twitter Yusuke Otsuka and Mitsuo Yoshida
824	Prompt Structure Shapes LLM Annotation Stability and Inter-Model Reliability in Brand Evangelism Measurement Takao Oshikiri and Mitsuo Yoshida
855	Evaluation Method for Lecture-Based Disaster Response Training Based on Participant Survey Analysis Kazuhiko Tsuda, Sayaka Maeda and Gengaku Mashiro

IS11 C - Knowledge-Based Systems for e-Business

Chair: Prof. Kazuhiko Tsuda

Thursday 3rd September 12:00-14:00

Online Room 8

Paper No	Paper Title / Authors
173	Detecting Architectural Discontinuity in Pharmaceutical Innovation: A Community and Local Main Path Framework Applied to ADCs Wataru Takeuchi and Hideki Hayashida
419	Non-Linear Pattern Recognition in Cultural Tourism Decision Making: A Knowledge-Based AI System Fitri Aprilianty, Masakazu Takahashi and Yoshiyuki Matsuura
462	Formalized Risk Identification for Mission-Critical SaaS: Evaluating LLM-Based Alignment with Public Guidelines Arisa Morozumi, Kazuhiko Tsuda and Hisashi Hayashi
518	Multimodal Learning Analytics Using LMS Data for Enhancing Student Basic Skills: A Time-Series and Causal Modeling Approach Isao Karube and Setsuya Kurahashi
529	Managing service experience in employee self-service portals: Evidence from enterprise field data Masaki Koizumi
597	Strategic Orchestration of IP and Ecosystems for Deep-Tech Growth: AI-Driven Insights from a Case Study of JAC Ltd. Masayuki Hirosue, Hideki Hayashida and Masakazu Takahashi
614	A Nationwide 1-km Grid Framework for Place-Based Emotion Analytics Using Transformer-Based Social Sensing Daisuke Kikutani and Mitsuo Yoshida
854	Improving Annotation Reliability of Advertisement Images with Knowledge Anchoring Kenjiro Inoue and Mitsuo Yoshida

IS12 - Advances in Health Informatics

Chair: Daniela Gifu

Friday 11th September 14:30-16:30
Room 4

Paper No	Paper Title / Authors
96	AI-Driven UAV-Based Multi-Modal System for Soil Health Monitoring and Precision Agriculture Applications Pablo Flores Peñaa, Mohammad Sadeq Ale Isaac, Eleftheria Maria Pechlivani, Ahmed Refaat Ragab, Daniela Gifu and David Martín Gómez
405	Next-Generation UAV Systems for Healthcare Logistics: Architecture, Mission Suitability Modeling, and Operational Integration Romeo Bosneagu and Daniela Gifu
431	Privacy-Preserving Clinical Predicate Verification Using Zero-Knowledge Proofs over HL7 FHIR Data Florin-George Fofiu, Darius Galis and Sebastian-Aurelian Stefaniga
883	An explainable AI approach for the detection of key genes and SNPs for Alzheimer’s disease through a multi-omics factor analysis Anna Catarinolo, Antonino Fiannaca, Laura La Paglia, Massimo La Rosa and Alfonso Urso

IS12 B- Advances in Health Informatics

Chair: Daniela Gifui

Thursday 3rd September 14:30-16:30

Online Room 9

Paper No	Paper Title / Authors
39	Argumentative Multi-Agent Debate for Explainable Depression Detection in Clinical Interviews Hoang-Loc Cao, Van Pham and Bac Le
498	Clinical Coordination and Validation Protocol for Multi-Agent Clinical Decision Support Kristijan Cincar, Todor Ivascu and Viorel Negru
189	Synthetic Psychiatric Conversations: A Dataset of Clinical Dialogues Containing Hallucinations Ioana-Raluca Zaman, Andrei-Gabriel Zanfir, Stefan Trausan-Matu, Ovidiu Popa-Velea and Simona Corina Trifu
548	Learnable embeddings for improving the performance of Graph Neural Networks for timetabling: a case study on Nurse Rostering Laura-Maria Cornei and Mihaela-Elena Breabăn
599	Dual-Branch VGG-ResNet Fusion and LLM-Based Explanations for Robust Skin Lesion Classification M'Hamed Abid, Wyssem Fathallah and Hedi Sakli
684	Smart Contract-Based Hierarchical ABAC for IoMT: A Gas-Efficient Bitmask-Aggregated Approach Fatma Ellouze

IS13 -Smart Education: Learning environment using technology

Chair: Prof. Nobuyuki Ogawa

Wednesday 9th September 10:30-12:30

Room 4

Paper No	Paper Title / Authors
129	Development of a Cloud-Based A-txt AR Content Management System with User Authentication and Access Scope Control Shin-Nosuke Suzuki, Ryohei Kameyama, Takuya Matsumura, Akira Okada, Katsumi Hirata, Yasuhiro Kobayashi, Takehito Kato, Yutaro Akimoto, Kuniaki Yajima, Nobuyuki Ogawa and Tadashi Fukumoto
145	Evaluation and Improvement of a Disaster STEAM Learning Program for Students Not Majoring in Architecture or Civil Engineering Yutaka Tada, Yasuhiro Nishii, Kenji Kato and Takashi Matsumoto
217	From Risk Visualization to Decision Support: Restructuring Evacuation Decision-Making under Trade-Off Conditions using Smart Hazard Map 1.5 Manato Kosaka, Yutaka Tada, Taichi Sugimori, Ryo Moriwaki, Yoshifumi Fujimori, Shingo Suzuki, Mursyida Nurfadhilla, Yoshinori Tsukada, Yoshimasa Umehara, Masaya Nakahara, Yasunori Kozuki, Yukari Ando and Isao Goto
231	Mapping, Testing, and Assessing Artificial Intelligence in Educational Research: A Systematic Literature Analysis Daniela Popița and Adriana Mihaela Coroiu
423	Designing a smart learning environment for simulator-assisted land forces education and training: integrating AI-supported scenarios and after-action review Kalle Saastamoinen
472	From Pixels to Practice: Serious Games for Real-World Situational Awareness Tamara Wanner and Marcus Gelderie
646	Digital Intercultural Communication Competence Framework: A Qualitative Thematic Study on Voices from Vietnamese stakeholders' insights Tri Minh Nguyen

IS13 B -Smart Education: Learning environment using technology

Chair: Prof. Nobuyuki Ogawa

Thursday 3rd September 12:00-14:00

Online Room 6

Paper No	Paper Title / Authors
99	STEMM, the addition of music to STEM Dana Barry and Paul McGrath
300	Quantifying the Aesthetic Complexity of Tamahagane Structural Colors by Persistent Homology Hideyuki Kanematsu, Akiko Ogawa, Yoshiyuki Matsui, Michiko Yoshitake, Takeshi Bessho, Ryoichi Ichino, Yoshitaka Adachi and Takayoshi Nakano
433	Beyond Expert Eyes: Persistent Homology as an Objective Framework for Biofilm Identification in Microscopy Images Akiko Ogawa, Katsuko T. Nakahira, Nobuyuki Ogawa and Hideyuki Kanematsu
450	From Web User Interfaces to Smartwatch Interactions Alecsandru Grigoriu and Sabin Buraga
492	Benchmarking Teacher–Student Perception Gaps in Assessing Intercultural Virtual Communication in Smart Learning Environments Tri Minh Nguyen
549	AILS: An Adaptive Immersive Intelligent Tutoring System with Real-Time Cognitive Load Detection, Hybrid Recommendation, and SHAP-Based Explainability Sabrine Ouerieche, Nacim Yanes and Mabrouka Chouchane

IS14-A - Digital Transformation in Accounting, Finance and Controlling

Chair: Prof. Arkadiusz Januszewski

Thursday 10th September 10:30-12:30

Room 5

Paper No	Paper Title / Authors
875	Technological, Communication and Standardization Challenges in Financial Shared Service Centers: Evidence from Literature and a Case Study Arkadiusz Januszewski and Karolina Karolak
900	Agentic AI for Public Administration: A Multi-Agent Architecture and Controlled Fault Injection Evaluation Radu-Mihai Gheorghe, Petru-Liviu Bouruc, Ciprian Paduraru and Alin Stefanescu
913	Corporate Budgeting Architecture: A Contingency Theory Perspective on Activity-Based and Function-Based Budgeting under Digital Support Conditions Andrzej Piosik
938	An Agentic Approach to End-to-End Accounts Payable Automation: Architecture, Evidence, and Governance Aleksandra Kapkowicz and Jędrzej Wiczorkowski
980	Research on artificial intelligence in accounting firms. Bibliometric analysis. Natalia Buchalska-Sugajska and Justyna Śpiewak

IS14-B - Digital Transformation in Accounting, Finance and Controlling

Chair: Prof.Arkadiusz Januszewski

Thursday 3rd September 14:30-16:30

Online Room 8

Paper No	Paper Title / Authors
399	Sectoral Variation in AI Implementation Barriers and Priorities in Enterprises Marzena Remlein, Dariusz Nowak and Grzegorz Nowak
400	Barriers and Priorities of Intelligent Automation Implementation: Independent Decision Dimensions and Model Testing Dariusz Nowak, Marzena Remlein and Grzegorz Nowak

IS15-A - Intelligent Systems for Sustainable Energy, Mobility and Green Transitions

Chair: Associate Prof Adam Sulich

Wednesday 9th September 10:30-12:30

Room 6

Paper No	Paper Title / Authors
228	Optimizing the Renewable Energy Supply Chain: A Stochastic Simulation of Heat Pump Sales and Installation Processes Using BPMN 2.0 Małgorzata Oleś-Filiks and Agnieszka Warchulska
241	Developing a Criteria Catalog for the Selection of Low-Code Development Platforms in Public Administration Sascha Ludwig, Christian Hrach, Richard Brennecke, Marie-Luise Lindner, Stephan Burow and André Ludwig
243	Leveraging Large Language Models for Automated BPMN 2.0 Process Modelling in Public Administration Marie-Luise Lindner, Richard Brennecke, Sascha Ludwig, Ingolf Römer, Christian Hrach, Stephan Burow and André Ludwig
249	Multi-Objective Genetic Algorithm Approaches for Rebalancing Bike-sharing Networks Mariana Carneiro, Pedro Pereira, Gonçalo Rodrigues, Mónica Gomes, Rui Mendes and Paulo Cortez
267	Comparison of Machine Learning Methods for Short-Term Air Pollution Prediction: the Role of Autoregressive Features Marcin Żurawski, Paweł Sobczak, Antoni Ciesielski and Marek Dębczyński
484	Artificial Intelligence and the Transformation of the Scientific Method Letycja Sołoducho-Pelc and Adam Sulich

IS15-B - Intelligent Systems for Sustainable Energy, Mobility and Green Transitions

Chair: Associate Prof Adam Sulich

Friday 11th September 10:00-12:00

Room 6

Paper No	Paper Title / Authors
485	Knowledge Structuring Protocol for Bibliometric Analysis: Assessing the Impact of Disciplinary Filtering in AI–Sustainable Development Research Adam Sulich and Letycja Sołoducho-Pelc
496	The CAISE Platform: A Modern Framework for the Development of Intelligent Cloud Services Henryk Krawczyk and Pawel Weichbroth
591	Behavioral Data for Energy Consumption Analysis and Prediction Using Artificial Intelligence Techniques Besma Bouhoufani, Mohamed Essaid Khanouche, Ahror Belaid, Frédérique Biennier, Parisa Ghodous and Christian Obrecht
487	Artificial Intelligence in Academic Writing as a Decision Support System Adam Sulich and Letycja Sołoducho-Pelc
838	Central Bank Digital Currencies: Current Developments, Frameworks, and Future Research Directions Maksymilian Lis, Karol Flisikowski, Abdellah Chehri and Pawel Weichbroth
1038	A Graph-Augmented Study Platform for Data Science Education Filip Wójcik, Ryszard Zygała and Wiesława Gryniewicz

IS15-C - Intelligent Systems for Sustainable Energy, Mobility and Green Transitions

Chair: Associate Prof Adam Sulich

Thursday 3rd September 09:00-11:00

Online room 9

Paper No	Paper Title / Authors
83	Meteorological Stations in the Era of Smart Sensing: Advances, Challenges, and Opportunities Samir Saadane, Lahcen Hassine and Hatim Kharraz Aroussi
134	Planogram execution gap: impacts on demand, logistics efficiency and sustainability Kateryna Czerniachowska and Krzysztof Lutosławski
311	Can ESG databases support monitoring of SDG 7? Evidence from the LSEG ESG dataset Przemysław Wolczek and Hanna Sikacz
389	Genetic Algorithm-Optimized Audio Mamba for Non-Intrusive Acoustic Defect Classification in Bridge Expansion Joints Mohammadreza Mohebbi Najmabad, Manu Gupta and Mario Döller
480	Wealthfunding - a new way for financing innovations in green energy Krystian Olek
604	The importance of electricity generation in driving economic growth in Central European countries Dominik Katarzyński and Grzegorz Przekota
672	Deep Reinforcement Learning-Enabled IoT Architecture for Precision Subsurface Irrigation Sawsan Selmi
735	Toward Frugal MEC Orchestration: Cost-Based and Learning-Driven Service Migration under Resource Constraints Lotfi Souifi, Nesrine Khabou and Ismail Bouassida Rodriguez
738	A Self-Sustaining AI Framework for Precision Subsurface Irrigation via RFEH and DRL Sawsan Selmi

IS16- Interdisciplinary Approaches in Digital Transformation (IADT 2026)

Chair: Ralf-Christian Härting

Thursday 10th September 15:00-18:00

Room 6

Paper No	Paper Title / Authors
74	When Agile Transformation Meets Resistance: Insights from an Organizational Case Study Aurélie Lorient and Rebecca Deneckere
188	Manipulative Interface Design in Social Media: User Awareness and Vulnerability to Dark Patterns – Evidence from a Systematic Literature Review and Survey Andra-Carla Georgescu and Rebecca Deneckere
227	Effects of Different Prompt Designs in Football Analytics: Analyzing Large Language Models for Player Evaluation Marco Klaiber, Fabian Fehlinger, Edgar Heldt, Dominik Hahn, Christoph Mattmann and Manfred Rössle
294	Comparing Explainable AI Methods for Object Detection: LIME and SHAP on an Autonomous Driving Dataset Marc Donauer, Philipp Kohnle, Dominik Hahn, Christoph Mattmann, Marco Klaiber, Christian Koot, Manfred Rössle and Tobias Gentner
367	Potentials of Artificial Intelligence in Recruitment - An Empirical Study from the Perspective of Applicants Anne Grüner, Melissa Malik, Ralf-Christian Härting, Christopher Reichstein, Jo Scheppach and Gia-An Bernadette Pham
382	When Accuracy Misleads: Reliability and Error Structure in Legal Language Model Evaluation Blanca Büechl, Markus Conrads and Sascha Schweitzer
622	The Hidden Driver of AI Adoption: Data-Centric Decision-Making in Cloud Environments Silas König and Joerg Bueechl
701	It's Not the Gender, It's the Congruence: How Vocal Gender Expression and Social Cues Shape Trust in Voice-Based Health Assistants Tim Michael Wolf, Jen Preisser, David Feierabend and Joerg Bueechl

IS17- Interdisciplinary Approaches in Data Science Practice (IADSP 2026)

Chair: Prof. Ralf-Christian Härting

Friday 11th September 14:30-16:30

Room 6

Paper No	Paper Title / Authors
140	Visual Apps in Data Science Education: A Thorough Experimental Study of Algorithm Visualization vs. Paper-Based Learning Timo Gerstenhauer, Regina Kempen, Marc Fernandes and Christian Koot
165	Can AI Grade AI? Validating Rubric-Based Automated Assessment of LLM-Generated Legal Case Solutions Markus Conrads, Luisa Hoffmann Vicente and Sascha Schweitzer
314	Do incentives affect performance? – An experimental study in a data science education context Johannes Hänle, Regina Kempen, Sirin Jael Gentner, Manfred Rössle and Christian Koot
440	Distributional Discrepancy Alignment for Virtual Sensor Calibration using Feature Representation-based-Transfer Learning Akash Mangaluru Ramananda, Niels Ockert, Gilnei Pauli, Luca Cadau, Niklas Zürger, Steffen Schwarzer and Markus Kley
449	Potentials of GenAI for the efficiency of Small and Medium-Sized Enterprises Nele Ruoff, Melike Sengül, Fabian Banzhaf, Ralf-Christian Haerting and Jo Scheppach
595	WhatDoUC: Image labeling on mobile devices Tunc Yomut, Christian Koot and Ricardo Buettner
636	Probabilistic Approximations with Objects Specified Values Michinori Nakata

IS18-A - Computational Culture, Arts, and Interaction

Chair: Prof. Ryosuke Yamanishi

Thursday 10th September 15:00-18:00

Room 7

Paper No	Paper Title / Authors
58	Unmasking Cultural Patterns: Sensitivity Analysis of Traditional Music Daniel Kostrzewa, Pawel Grabczynski, Mateusz Cudzik and Katarzyna Harezlak
461	Emotion-Aware and Hybrid Approaches to Music Recommendation Daniel Kostrzewa, Cezary Szumerowski, Pawel Benecki, Jeremiah Abimbola and Robert Brzeski
515	Computational Analysis of Public Attention to Art Auction Events Using Google Trends Tatsuya Tojima and Mitsuo Yoshida

IS18-B - Computational Culture, Arts, and Interaction

Chair: Prof. Ryosuke Yamanishi

Thursday 3rd September 12:00-14:00

Online room 9

Paper No	Paper Title / Authors
138	Teaching Human-Computer Interaction with the use of Generative Artificial Intelligence Design Tools and Prototypes Alecsandru Grigoriu and Sabin Buraga
512	Affiliation Segmentation in Creator-Visible Collaboration Signaling among VTubers on YouTube Tomohiro Murakami and Mitsuo Yoshida

IS19-A - Special Session on Data Pre-processing Strategies, Machine Learning and Deep Learning

Chair: Dr. Ireneusz Czarnowski

Wednesday 9th September 15:00-18:00

Room 7

Paper No	Paper Title / Authors
97	Image resolution and color effects on OvR classification of defective and non-defective steel and concrete surfaces Arkadiusz Mirakowski
184	An evaluation of selected backbone architectures for YOLOv8 in the detection of International Code of Signals flags Juliusz Łosiński and Ireneusz Czarnowski
437	Distinguishing chaotic, deterministic, and stochastic signals based on their time-frequency properties visible on spectrograms Pawel Kasprowski, Dariusz Augustyn, Katarzyna Harezlak, Adam Świtoński, Henryk Josiński and Agnieszka Szczęśna
724	Adversarial Robustness and Performance of Anomaly Detection Models in Network Traffic Analysis using Masked FGSM and PGD Attacks Jeremi Kowalski and Agnieszka Nowak-Brzezińska
975	Selected methods for word embedding in e-mail classification Michał Lasek and Beata Zielosko

IS19-B - Special Session on Data Pre-processing Strategies, Machine Learning and Deep Learning

Chair: Dr. Ireneusz Czarnowski

Thursday 3rd September 14:30-16:30

Online Room 8

Paper No	Paper Title / Authors
169	MobileNetV2-Based Intelligent System for Olive Variety Identification Using Leaf Images Ines Neji, Mohamed Omar Mansri, Moufida Maghrebi, Mustapha Najah and Ridha Ejali
198	Thematic Structuring for LLM Fine-Tuning via Synthetic Instruction Generation: A Comparison of BERTopic and Hierarchical Leiden Ülke Balcı Yeşilkaya and Ilker Yeşilkaya
199	Hierarchy Depth as a Data Curation Variable: Comparing Two and Three-Level Hierarchical Leiden Structures for LLM Fine-Tuning Ülke Balcı Yeşilkaya and Ilker Yeşilkaya
289	Statistical Non-linear Reconstruction Loss for Image Anomaly Detection Tri Nguyen, Duy Hoang and Ngu Huynh
534	A CURE Clustering Approach for RFM-based Customer Segmentation Thanh Dao, Han Le and Nhan Le
544	LLMs-Driven Augmentation and Error Correction for Transcription-Based Speech Emotion Recognition Latifa Iben Nasr, Ismail Badache, Abir Masmoudi and Lamia Hadrich Belguith
652	Movie Success Prediction with Advanced AI Techniques: From Data Pre-processing to Explainable Models Lorenzo Lefevre, Krishnath Thevakumaran, Nourhène Ben Rabah and Bénédicte Le Grand
764	Deep Learning-Based Monitoring of Temporal Soil Moisture Variations Using Sentinel-1 SAR Data for Irrigation Management Salah Ben Mahmoud and Olfa Charfi
827	Dual-Pipeline VQA: Enhancing Vietnamese Visual Question Answering via Question-Type Routing and Visual Grounding Dương Hoài Minh, Phạm Ngọc Hòa and Tung Le

IS20-A - Innovation, artificial Intelligence, and advanced intelligent systems in knowledge management and engineering

Chair: Assoc. Prof. Dariusz Dudek

Thursday 10th September 15:00-18:00

Room 7

Paper No	Paper Title / Authors
648	A Probabilistic Framework for Cloud Reconstruction in Multispectral Satellite Image Time Series Domenico Benfenati, Gennaro Iannuzzo, Giuseppe La Terza, Cristiano Russo, Cristian Tommasino, Antonio Maria Rinaldi and Angelo Ciaramella
978	DIPT Framework: A Multi-Layer Architecture for Digital Identity Protection Against Generative AI Threats Grzegorz Chmielarz
1035	The importance of well-being programs in shaping employee job satisfaction Edyta Kulej-Dudek

IS20-B - Innovation, artificial Intelligence, and advanced intelligent systems in knowledge management and engineering

Chair: Assoc. Prof. Dariusz Dudek

Thursday 3rd September 12:00-14:00

Online Room 9

Paper No	Paper Title / Authors
62	The level of artificial intelligence adoption in EU companies Katarzyna Grondys, Beata Ślusarczyk and Re-An Müller
94	Social Acceptance and Environmental Expectations of AI-Driven Drone Delivery: A Cross-Country Study from Poland and India Ilona Pawełoszek and Rafał Niedbał
223	Robust Invisible Watermarking for High-Resolution Images via Distortion- Images via Distortion-Aware End-to-End Learning Vu Truong Le, Thanh Duc Chau and Trung-Nghia Le
1067	Information Technology in Project Effects Management at the Lowest Level of Local Government in Poland Cezary Stępniać and Tomasz Turek
1070	Information and Communication Technologies in Planning Projects at the lowest level of local government in Poland Tomasz Turek and Cezary Stępniać

IS21-A - Harnessing AI in Knowledge and Intelligent Systems for Business Innovation

Chair: Celina Olszak

Thursday 10th September 10:30-12:30

Room 5

Paper No	Paper Title / Authors
475	Explainable AI-Enhanced Business Intelligence for Customer Complaint Analysis and Decision Support Barbara Probiez, Jan Kozak, Celina Olszak and Przemysław Juszcuk

IS21-B - Harnessing AI in Knowledge and Intelligent Systems for Business Innovation

Chair: Celina Olszak

Thursday 3rd September 09:00 - 11:00

Online Room 8

Paper No	Paper Title / Authors
657	From Classification to Decision Support: Mapping CTI Reports to MITRE ATT&CK with Transformers, Embeddings, and LLMs Łukasz Wawrowski, Dominik Borys, Dawid Macha and Marek Sikora

IS22-A - Digitalization and Knowledge Management in Health Data Acquisition and Processing

Chair: Prof. Ralf Seepold

Wednesday 9th September 15:00-18:00

Room 6

Paper No	Paper Title / Authors
14	A Privacy-Preserving Conceptual Framework for Continuous Care Process Monitoring and Evidence-Based Clinical Decision Support Ralf Seepold, Giulia Maria Mattia, Daniel Velez Gutierrez, Michaela Depaoli-Neuwirt, Carmen Helbok-Föger, Michael Brandstötter, Claudia Fichtner, Linda Premerlani, Gunda Berger, Karsten Hopbach, Urs Guggenbühl, Saskia Klotz, Angela Häusling, Uwe Herwig, Dragana Leidolt and Caroline Wolf
46	SALUS NET: A Transnational Research Network for AI Enabled Digital Health, Telemedicine, and Knowledge Exchange Ralf Seepold, Polina Mihova, Margarita Stankova, Ivan Ivanov, Tamer Bego, Almir Badnjević, Lejla Gurbeta Pokvić, Adna Ašić, Natividad Martínez Madrid, Panagiotis D. Bamidis, George E. Dafoulas, Ivan Chorbev, Mircea Focsa, Juan Antonio Ortega, Kostadin Angelov, Hisham Elmoaqet, Arian Boci and Julian D. Echeverry-Correa
680	Decoupled Curriculum and Loss-Weighting for Robust Post-Treatment Glioma Segmentation with Validated Generative Tumor Synthesis Amel Omri, Khaoula Elbedoui, Giansalvo Cirrincione and Safya Belghith
856	Edge-AI-Driven Knowledge Management for Health Training: Integrating LLM-Based Dialogue with Mixed Reality CPR Coaching on Embedded Platforms Tsung-Lu Michael Lee and Chen-Wei Ives Chu
959	Automated Sleep Scoring Beyond 30-Second Epochs: A Scoping Review Maksym Gaiduk, Daniel Velez Gutierrez, Giulia Maria Mattia, Natividad Martínez Madrid and Ralf Seepold

IS22-B - Digitalization and Knowledge Management in Health Data Acquisition and Processing

Chair: Prof.Ralf Seepold

Thursday 10th September 10:30-12:30

Room 6

Paper No	Paper Title / Authors
955	Measuring Cognitive Empathy and Emotional Recognition in Children with Autism Spectrum Disorders Using Eye-Tracking Technology Margarita Stankova, Ivan Ivanov, Daniela Tuparova, Polina Mihova and Georgi Tuparov
977	Design and Evaluation of LLM-Based Systems for B2B Market Entry Analysis Diana Scherz, Juan Antonio Ortega, Thomas Holeczek and Wilhelm Daniel Scherz
1007	Evaluating Passive Home Monitoring Data for Severe Mental Illness: Data Quality, Baseline Modelling and Habit Analysis in the MindIA Project Yasmina Moreira, Kristina Lacasta and Juan Antonio Ortega
1013	Subject-Independent Multiclass Sleep Apnea Prediction: An Ensemble Learning Approach with Respiratory Effort Signals Saly Alradaideh, Hisham Elmoaqet, Daniel Velez, Giulia Maria Mattia, Ralf Seepold and Natividad Martínez Madrid

IS22-C - Digitalization and Knowledge Management in Health Data Acquisition and Processing

Chair: Prof. Ralf Seepold

Thursday 3rd September 14:30-16:30

Online Room 9

Paper No	Paper Title / Authors
359	Personalized Migraine Forecasting Using Machine Learning: Design and Evaluation of a Mobile Application Marco Spano, Bakir Hadzic, Ralf Seepold, Matthias Rätsch and Natividad Martínez Madrid
884	A ResNet50-Based Approach with Class Weighting and Focal Loss for Breast Cancer Detection on Imbalanced Histopathological Datasets Sonia Maalaoui, Hajer Ouerghi and Olfa Mourali
936	A methodological framework to assess the impact on caregivers and patients of a privacy-preserving 3D sensor system in long-term care Daniel Velez Gutierrez, Giulia Maria Mattia, Maksym Gaiduk and Ralf Seepold
388	AHybrid Graph Neural Network and Operational Research Framework for Intelligent Clinical Pathway Recommendation Mohamed Anouer Sdiri, Hamza Gharsellaoui and Sadok Bouamama
1030	A Multimodal Artificial Intelligence Framework for Early Detection of Impulse Control Disorders in Children andAdolescents Daniel Velez Gutierrez, Giulia Maria Mattia, Ralf Seepold, Julian D. Echeverry-Correa, Jorge Avila-Campos, Polina Mihova, Margarita Stankova, Kostadin Angelov, Natividad Martínez Madrid and Juan Antonio Ortega
972	AI-Based Unobtrusive Sleep Body Position Detection Using Accelerometer Sensing Maximilian Schmidt, Daniel Velez Gutierrez, Giulia Maria Mattia and Ralf Seepold

IS23 - AI, Robotics, and Digital Technologies for Medical/Healthcare Systems

Chair: Prof. Rossi Setchi

Wednesday 9th September 15:00-18:00

Room 9

Paper No	Paper Title / Authors
753	EmbryoSorter: An explainable deep learning model for distinguishing clinical and biochemical pregnancy outcomes in IVF Zebang Liu, Jingqi Ai, Xinning Yu, Shuping Kang, Zijun Guo, Chuyu Huang, Huixi Li and Jing Liu
899	Forecasting Japan's Total Fertility Rate Using Geospatial Data and an Analysis of Associated Factors Takumi Kitajima and Hiroharu Kawanaka
907	Multimodal Prognostic Modeling for Multiple Myeloma Using Clinical and Transcriptomic Data Abderrahmane Aimen Mazouz, Salaheddine Oukil, Hachemi Nabil Dellys, Layth Sliman, Saliha Artabaz, Halima Mokeddem and Sherifa Guezlane
908	Multimodal Approach for Predicting Relapse Following Favorable First-Line Response in Multiple Myeloma Wail Himeur, Ahmed Yanis Djouima, Hachemi Nabil Dellys, Layth Sliman, Saliha Artabaz, Halima Mokeddem and Sherifa Guezlane
914	Selecting Multimodal Approach For Lymphoma Diagnosis And Prognosis using Clinical and Multi-Omics Data Imene Boudjadi, Yasmine Ghoular, Saliha Artabaz, Layth Sliman, Hachemi Nabil Dellys and Halima Mokeddem
928	EEGTCNet: A CNN-Transformer Architecture with Layer-wise Fine-Tuning for Cross-Subject EEG Motor Imagery Classification Antonin Iva and Stefan Daniel Achirei

IS23 - AI, Robotics, and Digital Technologies for Medical/Healthcare Systems

Chair: Prof. Mohamed Bennasar

Thursday 3rd September 09:00 - 11:00

Online Room 10

Paper No	Paper Title / Authors
308	Speech-Based Pain Detection Across Acute and Chronic Pain Datasets Sara Sallam and Yomna Hassan
391	A Multimodal Cross-Attention Graph-Based Transformer for Skin Disease Classification on the PAD-UFES-20 Dataset M'Hamed Abid, Wyssem Fathallah and Hedi Sakli
232	Modeling Expert–AI Alignment Using Immutable Inference Snapshots in Image-Based Clinical Decision Support Dimitrios P. Panagoulas, Evangelia-Aikaterini Tsichrintzi, Georgios Savvidis, Evridiki Tsourelis-Nikita and Evangelos Sakkopoulos
435	Text-Guided Knowledge Distillation for Text-Free Medical Image Segmentation Thanh-Duy Lam, Thanh-Lam Le, Viet-Tuan Le, Hung Phuoc Truong and Thai Hoang Le
694	Interpretable Autism Spectrum Disorder Classification from Resting-State fMRI via Multi-Scale Hybrid GIN-Transformer Samah Abdellaoui, Rebh Soltani and Hela Ltifi
911	Shared-Encoder Vision Transformer for Multi-Task Breast Cancer Assessment Amal Jlassi, Deniz Temur, Ilkay Oksuz and Walid Barhoumi
922	Explainable Ensemble Learning for Distracted Driver Detection using CNN-YOLO Fusion Ayoub Kochbati and Khaoula Elbedoui

IS25 - Knowledge Engineering and Data Mining - theory and practice

Chair: Assoc. Prof. Agnieszka Nowak-Brzezińska

Wednesday 9th September 15:00-18:00

Room 10

Paper No	Paper Title / Authors
19	Knowledge Extraction for Local Sequence Alignment Based on Optimized Smith–Waterman Dynamic Programming Marek Palkowski and Mateusz Gruzewski
41	Hybrid Decision Strategies as Trade-off Shapers in Operational Systems Dawid Drabek and Agnieszka Nowak-Brzezińska
577	Dataflow-Oriented NGS Preprocessing at Scale: A Distributed Approach with Apache Spark Piotr Blaski, Bożena Malysiak-Mrozek, Che-Lun Hung and Dariusz Mrozek
590	Using positional entropy to determine the readability of computer program source code Marcin Cholewa
609	Incremental Feature Ranking Evaluation for Parkinson's Disease Classification Krzysztof Wrobel and Rafał Doroz
932	Ontology-Grounded Evaluation of Large Language Models: Design Principles and Error Taxonomy Agnieszka Konys

IS25 - B - Knowledge Engineering and Data Mining - theory and practice

Chair: Assoc. Prof. Agnieszka Nowak-Brzezińska

Thursday 3rd September 09:00 - 11:00

Online Room 11

Paper No	Paper Title / Authors
13	Inferring Personality Traits from Online Social Networks Data: A New ML-Based Architecture Lotfi Ben Romdhane and Amna Meddeb
55	Noise-Tolerant Multi-View Concept Drift Detection Based on Statistical Fusion Benjamin Mensah Dadzie and Piotr Porwik
206	Link Prediction-Based Multiplex Network Aggregation Model Oumaima Achour and Lotfi Ben Romdhane
274	Hybrid Graph Neural Network for Multi-Aspect Opinion Analysis in Arabic Social Platforms Mohammad Alzyadneh, Ferial Trabelsi and Chiraz Zribi
282	DPCBE for Overlapping Community Detection in Dynamic Networks Manar Alimi and Kamel Garrouch
478	A Dynamic-Time-Warping-Path-Guided Framework for Interpolation-Based Online Signature Synthesis Tomasz Orczyk and Rafał Doroz

IS25 - C - Knowledge Engineering and Data Mining - theory and practice

Chair: Assoc. Prof. Agnieszka Nowak-Brzezińska

Thursday 3rd September 14:30 - 16:30

Online Room 11

Paper No	Paper Title / Authors
366	AutoKGGGen: Automated Knowledge Graph Generation from Unstructured Text via Structural Refinement Hon Sam O, Phat Minh Le and Buu Long Nguyen Hong
464	Interpretable Concept Drift detection using SHAP value distributions Rafal Doroz, Piotr Sołtysik and Dorota Bober
509	LLM-Driven Knowledge Graph Construction for Transportation: Challenges, Techniques, and Opportunities Wiem Baazouzi, Marouen Kachroudi and Wael Baazouzi
514	A Hybrid Knowledge-Driven Framework for Outlier-Aware Match Outcome Prediction in MOBA Data Agnieszka Duraj and Justyna Tyran
573	Structured Domain Knowledge Injection for VLM-Based Annotation: A Knowledge Engineering Approach to Active Learning in Hand Gesture Recognition Florin Olariu and Oana Rotaru
613	Survival Exception Rules Dawid Macha, Łukasz Wróbel and Marek Sikora

IS26- A - Classification, forecasting and decision support

Chair: Assist. Prof. Rafal Deja

Thursday 10th September 15:00-18:00

Room 10

Paper No	Paper Title / Authors
33	Multimodal Eye-Tracking and Pulse-Wave Features for Stress and Focus Estimation during Cognitive Tasks Kazuyuki Matsumoto, Yuki Kawano, Hidehiro Umehara, Ryota Nishimura, Manabu Sasayama and Mikio Shindo
728	Bridging the Interpretive Gap in Recommender System Explanations through User Interpretive Schemas Deo Munduku and Elsa Negre
729	Hybrid Mechanistic–Machine Learning Frameworks for Advancing Infectious Disease Transmission Modelling Amira Rachah
194	The Rise of Generative AI in IoT Security: Taxonomy, Performance, and Challenges Mohammed Houache, Djallel Eddine Boubiche, Abdellah Chehri and Homero Toral-Cruz
302	Interpretable Machine Learning for Financial Time Series: A Group-Based Analysis of Technical Indicators Livia Kelebercová and Maroš Čavojský
846	Feature Redundancy and Ensemble Learning in Repository Configuration Classification Using a Newly Constructed Dataset Małgorzata Przybyła-Kasperek and Maciej Czechowski
882	From levels to velocities: Benchmarking machine learning approaches for river current prediction Felix Becker, Christoph Tholen and Frederic Stahl

IS26- B - Classification, forecasting and decision support

Chair: Assist. Prof. Rafal Deja & Dr hab. Alicja Wolny-Dominiak

Friday 4th September 10:00-12:00

Online Room 2

Paper No	Paper Title / Authors
56	Advancing bootstrap inference: A new kernel method for total investment prediction intervals Iwo Rybicki and Tomasz Żądło
443	Advanced Tsunami Prediction with Comparative Resampling Techniques: A Comprehensive Machine Learning Analysis Nejla Essaddi, Imen Ziadi and Mongi Besbes
444	Assessing Mid-Century Desertification Risk in Tunisia: An Ensemble Machine Learning Approach with CMIP6 Projections Nejla Essaddi, Imen Ziadi and Mongi Besbes
458	Hybrid Deep Learning Architectures for Seismic Prediction in the Mediterranean: CNN–LSTM–BiLSTM Cascade, Parallel and Hierarchical Approaches Imen Ziadi, Nejla Essaddi and Mongi Besbes
537	Using an unsupervised machine learning algorithm to study the relationships and connections between Polish stock market sectors Rafik Nafkha, Dorota Żebrowska-Suchodolska and Paweł Hoser
878	Breast-XR: Toward Multimodal Explainable and Automated Breast Cancer Radiographic Reporting Imen Kamel, Marouene Chaieb and Haythem Ghazouani

IS26- C - Classification, forecasting and decision support

Chair: Assist. Prof. Rafal Deja & Dr hab. Alicja Wolny-Dominiak

Thursday 3rd September 12:00-14:00

Online Room 11

Paper No	Paper Title / Authors
5	Spatio-temporal hot-spot analysis of global maritime piracy incidents using Kernel Density Estimation (2021–2025) Sonia Rozbiewska
69	Alignment-free Algorithm for Comparing and Classifying Metagenomics Sequences Hend Amraoui and Faouzi Mhamdi
430	Attention-Guided Autoencoder Transformers for Robust Fake News Image Verification Rahma Ghorbel, Hanen Ameer and Yassine Ben Ayed
560	Analysis of the effectiveness of three facial characteristic extraction methods in emotion classification based on facial expressions Hafedh Zghidi, Adam Duszeńko, Martyna Duda, Ruoyan Wang and Magdalena Pendzialek
581	Modeling of a dynamical system using artificial intelligence methods Rafik Nafkha, Paweł Hoser, Dorota Żebrowska-Suchodolska and Mateusz Piwowarski
877	CogniVision-T5: Bridging Medical Imaging and Language for Automated Alzheimer’s Disease Reporting Nour Ben Ameer, Marouene Chaieb and Haythem Ghazouani

IS27 - Interdisciplinary Perspectives on Generative AI within Knowledge-Based and Intelligent Systems

Chair: Dr. Wilhelm Daniel Scherz

Thursday 10th September 15:00-18:00

Room 11

Paper No	Paper Title / Authors
258	Smart mirrors for intrinsic capacity assessment Edgar Batista, Montse Garcia-Famoso, Mary Carlota Bernal, Fran Casino, Francesc Serratosa, Dolors Puigjaner, Leyre Azpilicueta, Ignacio Angulo, Antoni Martínez-Ballesté and Agusti Solanas
350	How will Generative AI change the knowledge transfer in organizations? Torben Marques Da Silva, Anna-Maria Rommel, Daniel Thomas, Sarah Winter, Ralf-Christian Haerting and Jo Scheppach
531	Generative-Reflective Agent-Based Method for the Extraction of Chemical Information Abdulelah Alshehri
947	Towards Human-Centered LLM Applications: Design Insights of Developing an App Review Summarization Tool Teresa Mary Kutzner, Joana Hois and Ansgar Gerlicher
958	Towards a Comprehensive Framework for Agentic AI Governance and Orchestration in Organizations Yassine Ayadi, Benoît Charroux and Layth Sliman
976	Patterns of Generative AI Utilisation in Undergraduate Academic Writing: A Descriptive Study Maksym Gaiduk and Wilhelm Daniel Scherz
997	Diagnostic Accuracy of Multivoxel Proton Magnetic Resonance Spectroscopy for Estimating Histological Grade in Primary Central Nervous System Tumors Using Deviations from Normalized Brain Metabolite Ranges Yesid Cardozo Vélez, Carlos Felipe Hurtado Arias, José William Martínez and Wilhelm Daniel Scherz

IS27 - Interdisciplinary Perspectives on Generative AI within Knowledge-Based and Intelligent Systems

Chair: Dr. Wilhelm Daniel Scherz

Thursday 3rd September 09:00-11:00

Online Room 10

Paper No	Paper Title / Authors
197	A Human-Centered Evaluation of LLM-Based STEM Career Guidance Using Profile-Based Student Personas Ülke Balcı Yeşilkaya and Ilker Yeşilkaya
301	AI-Driven Neurofeedback for Music Therapy: A Systematic Literature Review Ghada Feki, Joseph De Givry, Nourhène Ben Rabah, Benedicte Le Grand and Ahmed Maalel
373	Decoupling Thought from Speech: Knowledge-Grounded Counterfactual Reasoning for Resilient Multi-Agent Argumentation Jakub Maślowski and Jaroslaw A. Chudziak
662	From Traditional to AI-Powered: The Way Artificial Intelligence is Transforming the Fashion Design and Development Process Anna-Maria Lioka, Natividad Martinez Madrid, Katerina Rose and Maksym Gaiduk
999	Mapping Cognitive Effects in User–LLM Interaction: Toward Problem Genesis and Hybrid Creative Agency Violetta Palenova and Anatoly Voronin

IS28-A- The Next Frontier in Human–Machine Cooperation: From AI to Generative Intelligence

Chair: Prof. Milan Simic

Friday 11th September 14:30 - 16:30

Room 5

Paper No	Paper Title / Authors
9	Conditional Generative Adversarial Network in the Generation of Electromyography Data for Post-Stroke Gait Classification Roel Pantonial and Milan Simic
157	Explainable Deep Learning Framework for Monitoring Parkinson’s Disease through Gait Analysis Roel Pantonial and Milan Simic
393	Unifying Mechanical, Teleological, and Emotional Explanations in Human-Agent Interaction: A Formal and Empirical Study Mibuki Takagi and Kazunori Terada
556	Background Interference in LoRA-Based Image Generation for Cultural Heritage Applications Mircea-Andrei Radu, Rajendra Acharya and Catalin Stoean
574	Fidelity and Usability in 3D Reconstruction of Cultural Heritage Artefacts and User Avatars Alexandru-Adrian Ciobanu, Nebojsa Bacanin and Catalin Stoean
575	Hybrid Head-and-Face Swap for Museum Identity Integration Alexandru-Adrian Ciobanu and Catalin Stoean
853	A Regime-Aware Hybrid for Photovoltaic Power Forecasting Using Physical Modeling and Deep Learning Ariana-Andra Șerpar, Valentin Meier, Fereshteh Jafari, Joseph Moerschell, Ruxandra Stoean and Ignacio Rojas Ruiz
1017	Space-Time Metrics and Analysis of Concurrent Networks Heinz Schmidt, Peter Herrmann, Maria Spichkova, James Harland and Ian Peake
1024	Analysis of the wellbeing within software development teams Zan Xu, Sari Nurfauziyyah, Anastasia Romanova, Kaamesh G S, Yiqun Gao and Maria Spichkova
1068	Questioning Plausibility and Creativity in Collaborative LLM-Assisted 3D Design among Humans and AI Xuân Vũ Đình, David Murphy, Tung Khanh Tran, Quynh Giao Vu, Barry O'Sullivan and Hoang D. Nguyen

IS28-B - The Next Frontier in Human–Machine Cooperation: From AI to Generative Intelligence

Chair: Prof. Milan Simic

Thursday 3rd September 09:00-11:00

Online room 11

Paper No	Paper Title / Authors
127	V-SLOPE: Video Speech and Linguistic Optimization for Presentation Enhancement Yanchi Liu, Yuan Li, Yanjun Li and Yijun Zhao
494	A Combined Incremental Learning Algorithm for Human-Robot Collaboration Mohamed Karray, Ameer Gargouri and Mohamed Ksantini

IS29 - Role and Significance of Technology and Digital Transformation in the Development of an Innovative Green Economy

Chair: Dr. Lukasz Kozar

Wednesday 9th September 10:30-12:30

Room 7

Paper No	Paper Title / Authors
210	Green Business and Digital Transformation: Mapping Key Research Areas and Identifying Green-Oriented Research Streams Łukasz Kozar
291	Technology Is Not Enough: Institutional Barriers to Developing Green Competencies in Digital Education Ewa Listopadzka
377	Damage Area Annotation and Partial-Value-Based Recycling Assessment for Used Clothes Images Chie Mizunuma and Noriyuki Okumura
381	Green Research Areas at the Intersection of Industry 5.0 and the Internet of Things through Bibliometric Analysis Monika Wodnicka, Łukasz Kozar and Małgorzata Matusiak
387	ESG and FinTech: A Bibliometric Analysis Szymon Bolimowski and Łukasz Kozar
872	Educational Bubbles and Algorithmic Workplaces: Shaping Competencies for AI-Driven HRM Ewa Listopadzka, Dariusz Prokopowicz and Adan Vega Pandiella

IS29 B - Role and Significance of Technology and Digital Transformation in the Development of an Innovative Green Economy

Chair: Dr. Lukasz Kozar

Thursday 3rd September 09:00-11:00

Online Room 11

Paper No	Paper Title / Authors
403	Integrating Artificial Intelligence with Green Supply Chains: A Bibliometric Analysis of Research Trends and Gaps Anna Wronka and Monika Wodnicka
608	Will industry follow energy? The location of energy-intensive enterprises in the context of Poland’s energy transition Dominik Katarzyński and Grzegorz Przekota
619	Deep Tech in Scientific Discourse: A Bibliometric Analysis of Research Trends Tomasz Sadyński and Monika Wodnicka
873	The Nexus of Artificial Intelligence, Social Media, and Digital Finance: A Bibliometric Analysis Iwona Dorota Czechowska and Marta Paduszyńska
874	Financial Consumer Protection of The Digital Age: A Bibliometric Analysis Iwona Dorota Czechowska and Marta Paduszyńska
881	Maturity Assessment of Integrated Municipal Mobile Applications in Polish Smart Cities Aldona Podgórnica-Krzykacz, Justyna Przywojska and Łukasz Kozar
930	Mapping the Nexus of Digital Transformation, Green Innovation, and the Green Economy: A Bibliometric Analysis Łukasz Kozar and Magda Kubicka

IS30 -Combined session of Eye Movement Data Processing and Analysis (EMDPA) and Communication by Gaze Interaction (COGAIN)

Chair: Pawel Kasprowski

Wednesday 9th September 10:30-12:30

Room 10

Paper No	Paper Title / Authors
103	Characteristics of Microsaccades and Pupillary Response to Cognitive Workload Minoru Nakayama
290	How Colour Shapes Perception Regardless of Observer Experience: An Eye-Tracking Study on Chromatic Modulators of Attention Gabriela Puchała, Paulina Puchała, Patryk Szczeciński, Yasaman Farhangpour, Ewa Satalecka, Jakub Karpoluk, Krzysztof Krejtz and Izabela Krejtz
848	Impact of Feature Selection and Model Ensemble Fusion on Classification Accuracy for Eye-Movement Biometrics Katarzyna Harezlak and Ewa Pluciennik
927	A Modular Workflow for Multimodal Reading Experiments Thomas Krämer, Thomas Kosch, Dagmar Kern and Daniel Hienert
948	An Analysis of the Suitability of Saliency4ASD Dataset Images for ASD Diagnosis Using Eye Movement Data Amnaduny Akhara Nurhasan and Pawel Kasprowski

IS30 B-Combined session of Eye Movement Data Processing and Analysis (EMDPA) and Communication by Gaze Interaction (COGAIN)

Chair: Pawel Kasprowski

Thursday 3rd September 14:30-16:30

Online Room 11

Paper No	Paper Title / Authors
396	Effectiveness of Search Reading in Native and Foreign Languages in Stress-Induced Conditions Mishel Ryseva, Kseniia Ryseva and Artem Kovalev
942	Eye-Tracking Gaze Patterns for TikTok-Style vs. Conventional Captions With and Without Audio: A Pilot Study Ella Sofie Posny, Angela Heine and Wolf Culemann

IS31-A - Intelligence Information Communication Technology for Intelligent Business Management

Chair: Prof. Marek Zborowski

Wednesday 9th September 10:30-12:30

Room 11

Paper No	Paper Title / Authors
7	Analysis of Perceptions of Business Intelligence and Business Analytics Systems in the Context of Organisational Applications Małgorzata Oleś-Filiks
23	Perceptions of IoT technology among young people – results of a survey of students in Poland Zborowski Marek
193	Technological and Workforce Transformation Management referring to Industry 4.0 Anna Nowacka
630	The Next Generation of AI-Native, Adaptive Enterprise-Wide Architecture Principles Aneta Biernikowicz
814	The relationship between social recognition and the level of use AI systems in organizations Anna Nowacka and Małgorzata Oleś-Filiks

IS31-B - Intelligence Information Communication Technology for Intelligent Business Management

Chair: Prof. Marek Zborowski

Thursday 3rd September 12:00-14:00

Online room 11

Paper No	Paper Title / Authors
718	The Role of AI in Transformation of Human Resource Management Strategies: On the Recruitment Criteria Extracted by the Algorithms of Selected AI Models Mesut Atasever, Witold Chmielarz and Anna Sołtysik-Piorunkiewicz

IS32- Quantum-Enabled Intelligence for Transportation and Mobility Systems

Chair: Assoc Prof. Zahid Khan

Thursday 10th September 10:30-12:30

Room 1

Paper No	Paper Title / Authors
594	Privacy-Preserving Sentiment Analysis on Noisy Tweets Using CKKS-based Encrypted Inference Faneela Faneela, Baraq Ghaleb, Jawad Ahmad, Bill Buchanan, Sana Ullah Jan, Ahmed Al-Dubai and Muazzam Ali Khan
755	A Hybrid AI Framework Combining NSGA-II and Deep Q-Network for the Ambulance Routing Problem in Emergency Medical Services Amal Mansour, Marouene Chaieb, Saoussen Krichen and Issam Nouaouri

IS33- - Software Engineering and IT Intensive Systems

Chair: Prof. Sergey V. Zikov

Thursday 10th September 10:30-12:30

Room 10

Paper No	Paper Title / Authors
404	The Role of Industrial IoT and Machine Learning in Smart Transportation: A Systematic Literature Review Cynthia Chedrawi, Elena Kornyshova and Laurent Boutal
500	Structural assessment of various medical guidelines in Western Europe and Asia Yuxuan Hou, Gustav Hubert, Rebecca Deneckere, Elena Kornyshova and Sjaak Brinkkemper
1041	Adaptive Artificial Intelligence for Segment-Driven Behavioral Modelling in Dynamic Mobile Web Ecosystems Alfredo Cuzzocrea and Soumia Benkrid

IS33-B - Software Engineering and IT Intensive Systems

Chair: Prof. Sergey V. Zykov

Thursday 3rd September 12:00-14:00

Online Room 12

Paper No	Paper Title / Authors
70	Formal Verification for Security and Attacks in IOT Network Layer Ikbel Haouas, Lazhar Hamel, Aida Lahouij, Raouda Maraoui Kamoun and Mohamed Graiet
82	Does AI source code have the same types of code smells as traditional code? Vasilica Moldovan, Liviu Berciu and Simona Motogna
137	Verifying RAFT-based Consensus Distributed Systems with Event-B Ines Jday, Imed Abbassi, Houda Chouat, Mohamed Graiet and Uli Fahrenberg
155	LLM-Assisted Construction of Rule-Aligned Cross-Language Datasets for Software Quality Analysis Rares-Danut Patcas
170	Improving crisis manager training by game-based auto-generation of personalized challenges Boris Ulitin, Eduard Babkin and Sergey V. Zykov
220	LLM-based Contrastive Learning Approach for Bug Priority Classification Galbin-Nasui Andreea and Vescan Andreea
271	SentinelOps: A Predictive AIOps Framework for Self-Healing Kubernetes Systems Ruchi Verma, Sohan Sen, Devanjali Relan, Maheshwar Dwivedy and Kiran Khatter
757	A Correct by Construction Approach to Functional Scalability of IoT Service Compositions using Event-B Malek Ltaief, Aida Lahouij, Khawla Boukchim, Ikbel Haouas, Lazhar Hamel, Raouda Maraoui Kamoun and Mohamed Graiet
763	Crisis-Responsive Digitalization of Cross-Border B2B Sales: Design and Validation of an AI-Assisted Tool Ecosystem Using the IT Crisisology Framework Gui Zangqing and Sergey Zykov

IS34 - Global and Constrained Optimization: Algorithms and Applications (7th Edition)

Chair: Dr. Abdellah Chehri

Thursday 10th September 10:30-12:30

Room 11

Paper No	Paper Title / Authors
151	An adaptive rank-based extension of Gaslike Social Motility for high-dimensional optimization Oscar D. Sanchez, Ian López-Ríos, Itzel Aranguren, Arturo Valdivia-G, Hannia M. Hernandez and Diego Oliva
154	Scheduled Differential Evolution with Dual-Phase Strategy Integrating Historical Population Guidance Arturo Valdivia-G, Itzel Aranguren, Diego Oliva, Oscar D. Sanchez, Ian López-Ríos and Angel Casas-Ordaz
332	Inferring Sequence Diagrams from Source Code Using Large Language Models Hamza Abdelmalek, Zakaria Babaalla, Lamya Benaddi, Abdeslam Jakimi, Abdellah Chehri and Rachid Saadane
661	Exploring Energy-Performance Tradeoffs in LLM-Generated CUDA Kernels Through Prompt-Driven Variant Generation Mateusz Gruzewski
870	Energy-Aware Transmission Scheduling Optimization for Heterogeneous WSN Protocols Under Battery Lifetime Constraints Khalid Oubaha, Omar Boughdad, Jalal Laassiri, Abdeslam Jakimi, Rachid Saadane and Abdellah Chehri
996	Learning Doubly Sparse Explicitly Conditioned Transforms Tudor Pistol

IS34 - Global and Constrained Optimization: Algorithms and Applications (7th Edition)

Chair: Dr. Abdellah Chehri

Thursday 3rd September 14:30-16:30

Online Room 11

Paper No	Paper Title / Authors
93	Approximate Solution Methods for the Two-Stage Hybrid Flow Shop with Release Dates, Transportation, and Delivery Tails Wafa Omezine, Mahdi Jemmali and Mohamed Nazih Omri
530	Genetic Algorithm Optimisation of Savitzky-Golay Filter Parameters for Satellite NDVI Time Series in Romanian Vegetation Monitoring Andrei Văran
665	A Learning-Guided Many-objective Evolutionary Framework Based on Cluster Exchange and Surrogate-Driven Adaptation Samia Chnini, Smairi Nadia and Nasri Nejeh
685	A Hybrid Genetic Algorithm and Adaptive Large Neighborhood Search Approach for University Timetabling Irina Felea, Todor Ivascu and Flavia Micota
830	PSO-Optimized Intrusion Detection in Wireless Sensor Networks: A Comparative Study of SVM, K-Means, and Random Forest with Large-Scale Validation Khalid Oubaha, Omar Boughdad, Jalal Laassiri, Abdeslam Jakimi, Rachid Saadane and Abdellah Chehri

IS35 - Innovative AI Technologies for Secure Intelligent Spaces: The Convergence of Physical and Cyber Environments

Chair: Dr. Huong Le

Wednesday 9th September 10:30-12:30

Room 11

Paper No	Paper Title / Authors
202	TransFlower: Contextual Dual-Branch Transformer-CNN Architecture for Real-Time Violence Detection Théophile Lahaussais, Mouadh Bouali, Alae Taoudi and Zahra Ramezanpanah

IS35 B- Innovative AI Technologies for Secure Intelligent Spaces: The Convergence of Physical and Cyber Environments

Chair: Dr. Huong Le

Thursday 3rd September 14:30-16:30

Online Room 11

Paper No	Paper Title / Authors
225	Enhancing Multilingual Fact-Checking Retrieval with Ensemble Bi-Encoders and Architecture-Aware Hard Negative Reranking Van Truong Le, Duy-Minh Nguyen-Tran, Nguyen Tien Huy and Tung Le
825	Bilevel Reinforcement Learning for Urban Mobility Resilience: Navigating the Saturation Frontier of the Newark Digital Twin Huong Le
1005	A Semantic Communication-Driven Metacognitive Intelligence Framework for Machine-Speed Autonomous Cyber Defense in Intelligent Spaces Wala Ben Rhouma, Haythem Hayouni, Sabrine Zahi and Omar Abdul Wahab

IS36- - FinTech of the future

Chair: Professor Dr. Ireneusz Miciuła

Thursday 10th September 10:30-12:30

Room 4

Paper No	Paper Title / Authors
865	Decision Rules for Mobile Payment Adoption in European Union: A Rough Set Analysis of Global Findex Data Karol Kuczera

IS36-B - FinTech of the future

Chair: Professor Dr. Ireneusz Miciuła

Thursday 3rd September 09:00-11:00

Online room 13

Paper No	Paper Title / Authors
60	Health-related internet use as a determinant of expected quality of primary healthcare services among young adults Magdalena Sobon
279	VietFinQA: A Large-Scale Vietnamese Financial News Question-Answering Dataset via Automated LLM Generation Thien Khuu, Thuan Huynh, Tung Le and Nguyen Huy Tien
528	The Use of AI in Assessing the Financial Condition of Enterprises Edyta Mioduchowska-Jaroszewicz

IS37 - Agentic AI and Retrieval-Augmented NLP for Intelligent Intrusion Detection and NextGeneration SIEM (Privacy and LLM Security Included)

Chair: Dr. Yessine Hadj Kacem

Thursday 10th September 10:30-12:30

Room 7

Paper No	Paper Title / Authors
269	Semantic Labeling for Third-Party Cybersecurity Risk Assessment: A Semi-Supervised Approach to Intent-Aware Question Retrieval Ali Nour Eldin, Mohamed Sellami, Mehdi Acheli, Walid Gaaloul and Julien Steunou
739	Cross-ZID: Trustless and Secure Cross-Blockchain Communication with Identity Privacy, Data Confidentiality, and Non-Repudiation Rawya Mars, Slim Kallel, Saoussen Cheikhrouhou and Mohamed Sellami
859	LENS: Language-Enhanced Network Security for Explainable IoT Intrusion Detection with Hierarchical Edge Reasoning Safa Ben Atitallah, Maha Driss, Adel Ammar and Wadii Boulila

IS37- B - Agentic AI and Retrieval-Augmented NLP for Intelligent Intrusion Detection and NextGeneration SIEM (Privacy and LLM Security Included)

Chair: Dr. Yessine Hadj Kacem

Thursday 3rd September 09:00-11:00

Online Room 13

Paper No	Paper Title / Authors
12	Closing the Semantic Gap: On-Device Retrieval-Augmented Generation for Automated MITRE ATT&CK Mapping Daniel Jimon and Mircea Florin Vaida
331	Fine-Tuning Large Language Models for Arabic Dialect to Modern Standard Arabic Translation: A Comparative Study Malek Hedhli, Ferihane Kboubi and Anja Habacha Chaibi
340	Contrastively Fine-Tuned Dense Retrieval for Arabic QA: An Empirical Study of Encoder Selection and Training Dynamics Khadouj Chadha Amraoui, Yassine Saoudi and Mohamed Mohsen Gammoudi
356	Self-Adaptive Retrieval-Augmented Neural Architecture for Neurological Outcome Prediction After Cardiac Arrest Randa Khaskhoussy, Samar Bouazizi and Hela Ltifi
524	Hybrid Retrieval for Noisy Telegram Cyber Threat Intelligence: IOC-Enriched Structuring and Benchmarking on DarkGram Mariem Mezghani, Emna Fakhfekh, Maha Charfeddine, Bechir Hamdaoui and Habib M. Kammoun
689	PSO-Driven SMOTE: Handling Class Imbalance in Intrusion Detection Systems Firas Sliman, Nadia Smairi, Houda Abadlia and Nejeh Nasri

IS37- B - Agentic AI and Retrieval-Augmented NLP for Intelligent Intrusion Detection and NextGeneration SIEM (Privacy and LLM Security Included)

Chair: Dr. Yessine Hadj Kacem

Thursday 3rd September 12:00-14:00

Online Room 13

Paper No	Paper Title / Authors
758	A Two-Stage Edge LLM-Augmented Intrusion Detection System for IoT Microservices in Kubernetes Faicel Yaakoubi, Aymen Yahyaoui, Wadii Boulila, Félix Cuadrado and Rabah Attia
578	Towards Automated Generation of AADL Models from Natural Language Descriptions: A Feasibility Investigation Wafa Gabsi and Zalila Bechir
771	A Federated Learning Approach for Credit Card Fraud Detection Using Single, Hybrid, and Stacking Ensemble Models Weddou Mohamedhen
891	Semantic Communication-Driven Self-Auditing Agentic Retrieval-Augmented Reasoning for Robust Multimodal Intrusion Detection under Adversarial Drift Sabrine Zahi and Haythem Hayouni
799	MSAT: A Multi-Modal Security-Aware Transformer for Multi-Language Software Vulnerability Detection Hadhami Boubaker, Raoudha Ben Djemaa and Salma Hamza
861	AutoTestAI: An Agentic ECU Testing Framework with ISO/IEC 42001 Accountability and AUTOSAR-Integrated Governance Hela Lajmi, Olfa Bouchaala and Ines Njeh

IS38- - AI, Robotics, and Digital Technologies for Autonomous Systems

Chair: Associate Professor Agnieszka Lazarowska

Friday 9th September 10:00-12:00

Room 9

Paper No	Paper Title / Authors
390	A Distributed Human Following Robot using Deep Learning and Sensor Fusion Hiram Zuñiga, Luis Bernardo Bremer, Ulises Orozco-Rosas and Kenia Picos
554	Comparison of waypoint-based and segment-based motion control for a mobile robot in ROS2 Monika Rybczak and Agnieszka Lazarowska
626	Human Detection from Sparse LiDAR Point-Clouds Using Autoencoder-Based Anomaly Detection Ryozo Kiyohara and Haruki Mochizuki
642	Artificially empathic collaboration in multi-agent systems Joanna Siwek, Przemysław Siwek and Konrad Pierzyński
784	Extension of LaCAM* algorithm for multiagent pathfinding with parallel subgoals among groups Toshihiro Matsui
965	A behavioral cloning approach to autonomous maritime path planning based on deterministic expert policies Agnieszka Lazarowska and Monika Rybczak
998	A sparse-dense dilemma: an exploratory analysis of performance benefits and drawbacks for selected linear algebra kernels – CPU vs. GPU case study. Piotr Ratuszniak, Rafał Ładysz, Paweł Malczyk, Łukasz Rostkowski, Michał Lewandowski, Dorota Przła and Mirosław Łącki

IS38- B- AI, Robotics, and Digital Technologies for Autonomous Systems

Chair: Associate Professor Agnieszka Lazarowska

Thursday 3rd September 14:30-16:30

Online Room 13

Paper No	Paper Title / Authors
320	Deep learning-based solution for intelligent sorting of spoiled fruits and vegetables Houda Meddeb and Zouhaira Abdellaoui
370	An Advanced Deep Learning Based Approach for Anti-UAV Systems Hafedh Jouini, Hamza Gharsellaoui and Mohamed Khargui
385	How Autonomous Is It ? A Visual Benchmark for Measuring Autonomy in Agentic AI Systems. Varun Gazala and Sayda Elmi
108	Meta-Reinforcement Learning for Zero-Shot Adaptation in GNSS-Denied UAV Target Tracking Nikolaos Almalis, Nikolaos Armenakis and George Tsihrintzis

IS39 - Artificial Intelligence in Industry and Humanoid Robotics

Chair: Ireneusz Czarnowski

Thursday 10th September 10:30-12:30
Room 6

Paper No	Paper Title / Authors
802	Multilayered Holistic AI Ecosystem Exploration and Trend Research Maciej Majewski and Ireneusz Czarnowski

IS40 - 2nd Smart Generative AI and Data Visualization Technologies - SGVIDVT

Chair: Professor Cesar Sanin

Wednesday 9th September 15:00-18:00

Room 6

Paper No	Paper Title / Authors
957	Predictive Modeling of Occupational Vibration Risk in Mining Environments Using Explainable Machine Learning and Generative AI-Powered Decision Support Syed Imran Shafiq, Cesar Sanin and Edward Szczerbicki
964	A Multi-Agent Forensic Framework Bridging High-Fidelity Long-Form Neural Speech Synthesis and Explainable AI Validation Kushal Pokhrel, Cesar Sanin, Md Kowsar Hossain Sakib, Sebastian Ramirez V and Edward Szczerbicki

IS40 -B- 2nd Smart Generative AI and Data Visualization Technologies - SGAIDVT

Chair: Professor Cesar Sanin

Thursday 3rd September 09:00-11:00

Online Room 14

Paper No	Paper Title / Authors
133	HOD-Lite: An Enhanced Lightweight Human Object Detection Network via Neural Architecture Search, Knowledge Distillation and Pruning Shahriar Shakir Sumit, Murat Tahtali, Darcy Byrne, Seyedali Mirjalili, Andrey Miroshnichenko and Matt Garratt
969	A Human-in-the-Loop Workflow for Studying Verification Signals Around Generative-AI Content Dorota Jaguścik and Edyta Gołąb-Andrzejak
1046	A Multi-Grating Optical Fibre Sensing Platform with Machine Learning Based Spectrum Demodulation for Simultaneous Multi-Parameter Detection Shuvashis Saha, Ali Hadigheh and Cesar Sanin
1049	Explainable Chest X-ray VQA via Counterfactual Augmentation and Vision-Grounded Rationale Generation Phuc Bao Phan, Cong Thanh Doan, Hai Dang Nguyen and Ngoc Thao Nguyen
1056	Architecting the Corporate AI Infrastructure: The Evolving Roles of AI Governance Committees and Chief Ethics Officers David Hason Rudd, Dennis Singh, Cesar Sanin and Bryn James
892	Sustainable Knowledge Management in Digital Transformation Programs. Rodrigo Castro, Cesar Sanin, Andrew Levula and Edward Szczerbicki
970	RAGNAR: A Multi-agent retrieval-augmented generation framework for long-form analytical report generation Tharindu Wickramasinghe and Nishan Gunawardena

IS41 -- Sustainable Adaptive Artificial Intelligence

Chair: Professor Alessia Amelio

Thursday 10th September 15:00-18:00

Room 8

Paper No	Paper Title / Authors
893	RAViT: Resolution-Adaptive Vision Transformer Martial Guidez, Stefan Duffner and Christophe Garcia
904	Audio Sentiment Analysis via Distillation and Cross-Modal Integration of Generated Multilingual Transcripts Andrei-George Durdun, Victor Constantinescu and Radu Tudor Ionescu
963	Experimental Comparison of a Classical CNN and a Hybrid Quantum-Classical Model for Dermoscopic Skin Lesion Classification Aida-Gabriela Pâncă, Maria Ciorăţanu, Alina-Miruna Varzar, Ştefan-Răzvan Bălăucă and Adrian Iftene
981	Towards Sustainable Graph Intelligence: A Multi-Objective Benchmarking Framework for Temporal Graph Algorithms Pierre-Paul Cavallera, Landy Andriamampianina, Moncef Garouani, Franck Ravat, Jiefu Song and Nathalie Vallès-Parlangeau

IS41 -B- Sustainable Adaptive Artificial Intelligence

Chair: Professor Alessia Amelio

Thursday 3rd September 14:30-16:30

Online Room 13

Paper No	Paper Title / Authors
902	Few-Medoids: An Embarrassingly Simple Coreset Selection Method for Few-Shot Knowledge Distillation Cemil-Andrei Dilmac, Florinel-Alin Croitoru and Radu Tudor Ionescu
963	FeTrIL++: Feature Translation for Exemplar-Free Class-Incremental Learning with Hill-Climbing Eduard Hogeia, Adrian Popescu, Darian Onchis and Grégoire Petit
1004	A Conformer based architecture for Romanian syllabification Cosmin-Nicu Tîrpescu
1014	A New Deep Learning Framework With Local LLM Integration for Proactive Air Quality Management at Construction Sites Eliezer Zahid Gill, Daniela Cardone and Alessia Amelio

IS42 -- Intelligent Methods in Maritime Engineering, Transport and Logistics

Chair: Prof. Andrzej Banaszek

Friday 11th September 14:30 - 16:30

Room 2

Paper No	Paper Title / Authors
42	A new concept of an advanced navigation decision support system (NDSS) for the captain of a sea yacht sailing in the North Atlantic, threatened by dynamically changing sea ice conditions Andrzej Banaszek and Andrzej Lisaj
43	Navigation Decision Support System (NDSS) for unconventional vessels sailing on the Svalbard/Spitsbergen-Reykjavik/Iceland route Andrzej Banaszek and Andrzej Lisaj
73	The impact of the algorithm AI, specifically method HS-PSO, on the issue trajectory ship Monika Rybczak
513	Predicting Gate Appointment Quotas in Container Terminals Using Time Series Forecasting Mohammed Al-Kharaz, Arthur Cartel Foahom Gouabou, Faouzi Hakimi and Tarek Khaled
647	A Data-Centric Contextual Residual Learning Approach for Energy Consumption Forecasting Marwa Boulakbech, Sana Sellami and Guillaume Graton

IS43 -- Intelligent Analytics, Decision Making and Automation

Chair: Professor Wojciech Sałabun

Wednesday 9th September 10:30-12:30

Room 8

Paper No	Paper Title / Authors
8	Application of the MOORA Method in Assessing E-Banking Service Quality in Poland – Empirical Results Marek Zborowski
59	Can We Trust AI to Detect Deception? A Robustness and Decision Reliability Analysis of Video-Based Models Mohand Braneci and Rebecca Deneckere
1009	KAIRA-TOPSIS: Acceleration-Aware Loss-Averse Temporal Multi-Criteria Decision Analysis for Sustainable Energy Transition Assessment Bartłomiej Kizielewicz and Aleksandra Bączkiewicz
700	Attribute and performance evaluation and in-class imbalance Urszula Stanczyk
960	Supply-Chain-Embedded Archetypes of Industrial Predictive Maintenance Use Cases Matthias Pohl, Christian Haertel, Daniel Staegemann and Klaus Turowski
1008	Risk-Informed Decision-Making in Football Player Selection: A Behavioral Approach under Performance Variability Jakub Więckowski, Michał Nowak and Marek Kolbowicz

IS43 -B- Intelligent Analytics, Decision Making and Automation

Chair: Professor Wojciech Sałabun

Wednesday 9th September 15:00-18:00

Room 8

Paper No	Paper Title / Authors
296	Towards a Framework for Expert Evaluation of Design Science Research in Software Engineering (FEEDS-SE) Micheal Tuape, Olivia Namusoke, Paweł Kędziora, Johnathan Ngugi, Damian Kedziora, Maria T Najjemba and Jussi Kasurinen
1022	Shared Tests for Distributed Data - Medical Case Study Kamil Jabłoński, Beata Zielosko, Maria Zakharowa, Azimkhon Ostonov and Mikhail Moshkov
1045	Sensitivity and Interpretability of Compromise in ICRA: A Simulation-Based Analysis Bartosz Paradowski and Wojciech Sałabun
1051	Tree Ensemble Rules Generated by Algorithm $\$A^{inh}\$$ Anton Dmytrenko, Beata Zielosko, Azimkhon Ostonov and Mikhail Moshkov
1065	Detecting Hidden Criterion Influence When Weights Mislead in Rule-Based Decision Support Systems Szymon Śniegowski, Adrianna Świder, Andrii Shekhovtsov and Wojciech Sałabun

IS43 -C-Intelligent Analytics, Decision Making and Automation

Chair: Professor Wojciech Sałabun

Thursday 3rd September 12:00-14:00

Online Room 14

Paper No	Paper Title / Authors
586	Integrated AI Pipeline for Predictive Analytics and Decision Support in Delivery Services Amira Dhokar, Olfa Mabrouk and Lobna Hlaoua
1019	Scale width and error robustness in pairwise-comparison weight elicitation: a Monte Carlo study of AHP, BWM, and RANCOM Andrii Shekhovtsov and Wojciech Sałabun
1026	An interactive application for Multi-criteria decision analysis using MABAC, TOPSIS, VIKOR, and ARAS methods Laura Białobrzeska and Michał Orszewski
1028	Fuzzy TOPSIS with temporal sensitivity analysis for multi-criteria evaluation of energy storage technologies Filip Ossowski
1027	Normalization as a Hidden Decision: Impact of Data Transformation on Entropy Weights and Rank Reversal in MCDA Michał Orszewski and Laura Białobrzeska

IS44 -A- Healthcare Systems using Artificial Intelligence, Deep Learning and Vision Transformers Techniques

Chair: Mihaela Luca and Adrian Iftene and Ciprian Ceașescu

Thursday 10th September 10:30-12:30

Room 8

Paper No	Paper Title / Authors
17	Which Features Matter? Distilling Continual Patch Memory Banks into Robust Medical Classifiers Ciprian-Mihai Ceausescu
27	Hierarchical MRI Analysis with Age-Based Representation Learning for Early Alzheimer’s Diagnosis Dominik Hahn, Luca Sorg, Christoph Mattmann, Marco Klaiber, Manfred Rössle and Marc Fernandes
32	Explainable Cross-Dataset Retrieval of Colonoscopy Polyp Images Using Medical Foundation Models Ciprian-Mihai Ceausescu
85	Artificial Intelligence in Dermoscopy: Benchmarking MedSigLIP and SigLIP for Fine-Grained Structure Detection Marcel Masiukiewicz, Bartłomiej Ruszaj, Szymon Szafraniec, Marcin Tkocz, Jacek Calik, Piotr Giedziun, Grzegorz Chodak and Jan Kocoń
100	Breast Cancer Prediction Using LASSO-SVM Approach Deployed in a Cloud Computing Environment Amal Ben Romdhane, Hassen Hamdi and Rihem Zorgati
110	Evaluating Explainability in CNN-Based ECG Image Classification: A Quantitative and Qualitative Study Dominik Hahn, Alexandra Sophie Pieri, Maxim Werner, Christoph Mattmann, Marco Klaiber, Manfred Rössle, Christian Koot and Marc Fernandes
235	XAI for Transformer-Based Medical Object Detection: A Study on RF-DETR for Lung Nodule Detection Christoph Mattmann, Manuel Graf, Gabriel Deubler, Dominik Hahn, Marco Klaiber, Christian Koot, Manfred Rössle and Marc Fernandes

IS44 -B- Healthcare Systems using Artificial Intelligence, Deep Learning and Vision Transformers Techniques

Chair: Mihaela Luca and Adrian Iftene and Ciprian Ceașescu

Thursday 10th September 15:00-18:00

Room 8

Paper No	Paper Title / Authors
427	Adaptive cDice Loss with Warm-Up Scheduling for Coronary Stenosis Segmentation in X-ray Angiography Rahma Melki, Afef Kacem and Christophe Lohou
454	A Dual-Task Residual U-Net for Multi-Dataset Brain Tumor Segmentation in MRI Marius-Ștefan Dincă and Ciprian-Mihai Ceașescu
596	A Saliency-Mapped CW β -VAE Framework for Interpretable Speech Biomarkers in Early Parkinson's Disease and Essential Tremor Zeineb Benmessaoud
688	CORTEX-CC: A cavity-conditioned dual-head network for post-treatment glioma segmentation on multi-parametric MRI Adrian Diepeveen, Dustin van der Haar and Hima Vadapalli
1060	Hybrid Quantum Vision Transformer for Lung Cancer Classification from CT Scans Bissen Abbassi

IS44 -C- Healthcare Systems using Artificial Intelligence, Deep Learning and Vision Transformers Techniques

Chair: Professor Mihaela Luca

Thursday 3rd September 09:00-11:00

Online Room 15

Paper No	Paper Title / Authors
50	Integrating Vision-Language Models and Multi-Agent LLM Systems for Clinical Reasoning in Brain Tumor Analysis Ines Slimene, Emna Masmoudi, Celia Marrakchi, Mariem Khiari, Nedhir Rhimi, Ahmadeche Hechmi, Houcem Eddine Ghribi and Sarra Zouari
77	Dual-Stream CNN-ViT Cross-Attention Architecture for Alzheimer’s Disease Diagnosis and MCI Progression Scoring from Structural MRI Hadil Belanes, Mohamed Hamroun, Benoit Crespın and Ryma Abassi
78	A Hybrid Triple-Stream Architecture for Arabic Sign Language Recognition: The Architectural Necessity of Multimodality Ibtihel Mansour, Mohamed Hamroun, Sonia Lajmi, Ryma Abassi and Damien Sauveron
125	From Metrics to Maps: Unraveling Attention Head Behavior in Vision Transformers for Brain MRI Classification Oscar Ramos-Soto, Ezequiel Perez-Zarate, Jorge Armando Ramos Frutos, Diego Oliva, Arturo Valdivia González, Francisco Carrasco-Hernandez and Sandra Balderas
174	Deep Learning for Automated Detection and Grading of Knee Osteoarthritis from Radiographs Djibrilla Idrissa Almoustapha, Belaid Samir, Guillaume Dardenne, Rim Grassa and Saoussen Zrour Hassen
318	From Raw Neuroimaging to Graph-Ready Data: A Reproducible Multimodal fMRI+MEG Pipeline for ASD Deep Learning Sirine Naifar, Rim Douss and Imed Riadh Farah
572	ADeep Learning and Multi-Agent System Approach for Automated Cardiac Diagnosis from Echocardiographic Images Aziz Trabelsi, Dhouha Maatar and Ines Thabet

IS44 -D- Healthcare Systems using Artificial Intelligence, Deep Learning and Vision Transformers Techniques

Chair: Professor Mihaela Luca

Thursday 3rd September 14:30-16:30

Online Room 15

Paper No	Paper Title / Authors
322	Data-Efficient Detection of Early-Stage Parkinson's Disease from Spontaneous Speech via Stability-Aware Foundation Model Fusion Aymen Besbes, Zaineb Ben Messaoud, Mohamed Neji and Ali Wali
341	A Dual-Strategy Deep Learning Framework for Alzheimer's Disease Using Ensembled Fine-Tuned Models on Structural and Functional MRI Malek Jallali, Raouia Mokni and Boudour Ammar
358	Hybrid DenseNet–Swin Transformer Model for Multimodal Brain Tumor Classification Dhouha Boubdellaha, Raouia Mokni and Boudour Ammar
392	Hybrid Vision Transformer and Xception Network with Attention Fusion for Multi-Class Skin Lesion Classification on HAM10000 M'Hamed Abid, Wysem Fathallah and Hedi Sakli
497	A Robust ROI-Guided Deep Learning Framework for Meniscus Segmentation in Knee MRI Amel Sbita, Ekram Chamseddine, Lotfi Tlig, Anis Bousrih and Afef Kacem Echi
566	Vision Transformer-Based Multiclass Breast Cancer Classification Using Bio-Inspired Hyperparameter Optimization Uday Mayur Nama and Dr. Venkatanaresbhabu Kuppli
777	ROI-Guided and Attention-Enhanced Deep Learning for Breast Ultrasound Classification Abir Bedoui
782	DC-CLIP: A Data-Centric CLIP Framework for Domain Generalization in Diabetic Retinopathy Classification Dhekra Ben Sassi, Marouene Chaieb, Azza Khechine and Mohamed Borhen Khelifi
868	Readmission Prevention in Healthcare using AI Rajat Goel, Srikar Vuppala, Dr. Atif Farid Mohammad and Divya Praneetha Viswanadham

IS45 -- Intelligent E-Learning: Engagement, Motivation and Beyond

Chair: Professor Marcin Fojcik

Friday 11th September 14:30-16:30

Room 10

Paper No	Paper Title / Authors
789	Explainable AI for Early Student Risk Prediction: Submission Timing as a Cross-Dataset Invariant Signal Maha Mallek, Abderrazek Hacheni and Yosra Jmal
603	Simulation tool for embedded systems teaching - AVR Krzysztof Tokarz, Mateusz Drabik, Piotr Czekalski, Bartłomiej Zieliński and Godlove Suila Kuaban
655	Security factors in open educational systems - IOT-OPEN.EU and MultiASM projects Piotr Czekalski, Krzysztof Tokarz, Godlove Suila Kuaban, Raivo Sell, Bartłomiej Zieliński, Agris Nikitenko, Karlis Berkolds, Marcin Fojcik and Larisa Survilo
719	Students' experiences with remote engineering education Marcin Fojcik, Per Christian Engdal, Øystein Stavø Høvig, Joar Sande, Erlend Raa Vågset, Camilla Fluge Borthheim and Noa Ben-David

IS45 -B- Intelligent E-Learning: Engagement, Motivation and Beyond

Chair: Professor Marcin Fojcik

Thursday 3rd September 12:00-14:00

Online Room 14

Paper No	Paper Title / Authors
51	Storytelling in computer science education: a systematic literature review Bogdan Iudean and Crina-Georgiana Cheorbeja
411	Towards Trustworthy Hybrid Recommender Systems: A Multidimensional Taxonomy for Explainability in Gamified Collaborative Learning Khawla Elayadi, Nacim Yanes and Sihem Ben Sassi
733	Empowering Collaborative Learning through Context-Aware Intelligent Agents: A Multi-Agent Adaptive Framework Haythem Chniti, Asma Hadyaoui and Lilia Cheniti Belcadhi
989	Toward a Generic Explainable AI Framework for Interpretable Student Dropout Prediction Fatma Dhaoui, Kalthoum Rezgui and Nadia Ben Azzouna

IS46 -- Effective Program Design and Educational Development for the Next Digital Era

Chair: Professor Kayoko Kurita

Wednesday 09th September 15:00-18:00

Room 4

Paper No	Paper Title / Authors
505	Toward effective human-AI collaboration in organizations: A conceptual framework for AI training programs Jakub Kręzel
915	Teaching Expected Value Through Minecraft Education: A Curriculum Design for Japanese High School Mathematics Ryousuke Furukado, Sota Kono, Futa Yahiro and Goichi Hagiwara
917	Educational Use of Social Media for Self-Reflection: Reconsidering BeReal through Psychological Safety and Non-Coercion Futa Yahiro, Ryousuke Furukado and Goichi Hagiwara
919	Effects of Virtual Sports on Mood Changes and Their Applicability to Physical Education Classes among University Students: A Study of Virtual Boxcercise and Virtual Dance Goichi Hagiwara, Futa Yahiro, Ryousuke Furukado and Daisuke Akiyama
939	Initial Item Development and Preliminary Examination of an Early-Career Entrepreneurship Teaching Anxiety Scale Kana Tomita, Satori Hachisuka, Shin'Ichi Warisawa and Kayoko Kurita
941	Redesigning and evaluating the academic portfolio chart: A reflective tool bridging pre-FD and faculty development Kayoko Kurita
951	Design and exploratory evaluation of a corporate-collaborative ESD program: A case study of elementary school students and corporate staff Misaki Funabiki, Satori Hachisuka, Shin' Ichi Warisawa and Kayoko Kurita

IS46-B- Effective Program Design and Educational Development for the Next Digital Era

Chair: Professor Kayoko Kurita

Thursday 3rd September 12:00-14:00

Online Room 15

Paper No	Paper Title / Authors
297	Collaborative Approaches to Digital Entrepreneurial Education in Support of Digital Entrepreneurship Marcella Abudho

IS47-- Longevity@Home powered by Electronic Systems

Chair: Prof. Dr. Petra Friedrich

Friday 11th September 10:00-12:00

Room 1

Paper No	Paper Title / Authors
933	Assessment of health status using a large-area sensor floor Axel Steinhage, Miguel Sousa, Sadina Arifagic, Charles Eneh, Mohamed Elbeltagui, Christl Lauterbach and Axel Techmer
940	Single-Sensor Fall Prevention Integrating Activity Gating, TUG Estimation, and Real-Time Detection Tobias Burkhardt, Gabriel Kofler, Simon Winkler and Yeongmi Kim

IS47-B- Longevity@Home powered by Electronic Systems

Chair: Prof. Dr. Petra Friedrich

Thursday 3rd September 14:30-16:30

Online Room 15

Paper No	Paper Title / Authors
946	A Machine Learning Pipeline for Unobtrusive Sleep Posture Classification Using Under Mattress Sensors Tobias Latt, Daniel Velez Gutierrez, Giulia Maria Mattia and Ralf Seepold

IS48-- Artificial Intelligence in Cybersecurity: Emerging Trends in Defensive and Offensive Operations

Chair: Professor Kashif Naseer Qureshi

Friday 11th September 10:00-12:00

Room 7

Paper No	Paper Title / Authors
136	Deep reinforcement learning for continuous intrusion detection using unsupervised fuzzy clustering-based rewards Bilel Saghrouchni, Frédéric Le Mouël and Bogdan Szanto
503	Enhancing Internet of Energy Cybersecurity Using Generative and Segmented Deep Learning–Based IDS Frameworks Raziqa Abdelmeraim, Djallel Eddine Boubiche, Sabrina Boubiche and Abdellah Chehri
651	Automated Compliance Mapping in Cloud Security with Domain-Adapted Sentence Transformers John Bianchi, Luca Petrillo, Fabio Martinelli and Marinella Petrocchi
952	Closing the Triage Loop: MCP-mediated KLEE Validation of LLM-Reported C/C++ Vulnerabilities Christopher Scherb, Alexander Trapp, Ruben Hutter, Nico Bachmann and Luc Bryan Heitz

IS48-B- Artificial Intelligence in Cybersecurity: Emerging Trends in Defensive and Offensive Operations

Chair: Professor Kashif Naseer Qureshi

Thursday 3rd September 12:00-14:00

Online Room 15

Paper No	Paper Title / Authors
37	A Hybrid Intelligent Deep Learning Framework for Multi-Class Intrusion Detection in Real-Time IoT Environments Ekram Chamseddine, Ahmed Burhan Mohammed, Lotfi Tlig and Mounir Sayadi
201	A New Chaotic Image Watermarking Scheme based on DWT, SVD and the 2D-BCM Najet Elkhailil and Ridha Ejbalil
829	HyG-DDoS: A Hybrid DDoS Attacks Detection Model Using A Multi-output Graph Neural Network Ahmed Saidane, Ali Elkamel and Habib Youssef
205	FedRec-RDP-HE with HMAC: A Privacy-Preserving Federated Recommendation Framework Using RDP and Additive Homomorphic Encryption Ibtissem Ben Ouhiba, Jihene Latrech, Zahra Kodia and Nadia Ben Azzouna
706	Interpretable Learning for Ethereum Anomaly Detection Under Extreme Class Imbalance Elloh Adja and Nida Meddouri
786	PaTEx: Decision-Aware Partitioning for Tree-Structured Explanations in Neural Malware Classification Peter Anthony, Rimamnuskeb Galadima Kefas, Martin Homola, Štefan Balogh, Ján Kľuka, Peter Švec, Roderik Ploszek and Zekeri Adams

IS48-C- Artificial Intelligence in Cybersecurity: Emerging Trends in Defensive and Offensive Operations

Chair: Professor Kashif Naseer Qureshi

Thursday 3rd September 14:30-16:30

Online Room 15

Paper No	Paper Title / Authors
520	LLM-based Deobfuscation of .NET Malware: A Fundamental Evaluation towards Proof-of-Concept Hokuto Kurihara, Ryunosuke Kono and Takeshi Okamoto
551	AI-Enhanced Blockchain Security Using ECC over F2n and ESG-Driven Trust Fatma Mallouli, Lobna Amouri, Asma Ibrahim Gamar Eldeen, Nahla O. A. Mustafa, Amel Mohamed Essaket Zahou, Ikhlas Saad Ahmed, Imen Gmachd, Rimah Amami, Hassan Ahmad Eleraky, Rim Amami, Ahmad Abas, Mohamed Elkawkagy and Heba Mohamed Atef Elbih
612	MR-GNN: A MapReduce–GNN Framework for Scalable Intrusion Detection in Wireless Sensor Networks Naima Samout, Thouraya Gouasmi and Nejeh Nasri
226	Neural Network–Based Intrusion Detection for Imbalanced NetFlow Data Matei-Vasile Căpîlnaş, Horea-Bogdan Mureşan and Adriana Mihaela Coroiu
265	Detecting Zero-Day Attacks in Internet of Medical Things Networks via Multi-Signal Open-Set Detection Mohammed Yacoubi, Cyril Drocourt, Omar Moussaoui and Gil Utard
642	A Systematic Survey on DDoS Attack Detection Using Graph Neural Networks Ahmed Saidane, Ali Elkamel and Habib Youssef
676	Efficient Agentic AI at the Edge: Exception-Triggered Reasoning for IoT Microservices Zahid Khan, Maha Driss, Junchao Ma and Wadii Boulila

IS50-- AI-Enhanced Blockchain Systems: Intelligent, Trustworthy, and Decentralised Solutions

Chair: Professor Kashif Hajer Nabli

Friday 11th September 14:30-16:30

Room 11

Paper No	Paper Title / Authors
809	FALB-IDS: A Privacy-Preserving Federated Learning and Blockchain Framework for Scalable IoT Intrusion Detection Ferdaous Bessaad, Raoudha Ben Djemaa, Farah Barika Ktata and Layth Sliman
831	BioCert: A Decentralized Bio-Certification Framework Based on Blockchain and Artificial Intelligence Wafa Ben Slama, Mohamed Amine Hattab, Layth Sliman and Raoudha Ben Djemaa
857	A Multi-Dimensional Analysis of Blockchain Scalability Architectures and Trade-offs Essra Jegham, Hajer Nabli, Raoudha Ben Djemaa and Layth Sliman
876	SMART: A Semantic Modular Architecture for AI-Driven Cross-Chain Interoperability Sarrah Ben Abdelghani, Hajer Nabli, Raoudha Ben Djemaa and Layth Sliman

IS50-B- AI-Enhanced Blockchain Systems: Intelligent, Trustworthy, and Decentralised Solutions

Chair: Professor Kashif Hajer Nabli

Thursday 3rd September 12:00-14:00

Online Room 13

Paper No	Paper Title / Authors
834	An ontology-based approach to negotiating SLA for smart contracts Nawel Hamdi, Chiraz El Hog, Raoudha Ben Djemaa and Layth Sliman
843	A Unified Taxonomy and Design Space for Efficient and Verifiable Blockchain Querying: A Survey Yasmine Zorguati, Hajer Nabli, Raoudha Ben Djemaa and Riadh Robbana
844	Toward Secure Smart Homes: Integrating Blockchain, AI-based Anomaly Detection, and Formal Verification Lazhar Hamel, Ikbel Haouas, Sonia Kotel, Aida Lahouij, Raouda Maraoui Kamoun and Mohamed Graiet

IS51-- Modern technologies, intelligent systems, and human impact on the transformation of contemporary organisations

Chair: Professor Grzegorz Chmielarz

Wednesday 9th September 10:30-12:30

Room 9

Paper No	Paper Title / Authors
542	Access-Aware Intelligent Search for Federated Service Ecosystems: Insights from Higher Education Alliances Patrik Żywica, Marek Kubis, Andrzej Wójtowicz, Krzysztof Dyczkowski and Jacek Marciniak
990	Artificial Intelligence in Human Resource Management: Employee Experiences and Concerns Based on Polish Organizations Waldemar Jędrzejczyk
1003	The applicability of Artificial Intelligence solutions in the management of the automotive industry Leszek Ziora
1010	Organizational readiness of higher education institutions for generative transformation: educators facing GenAI challenges Dariusz Dudek

IS51-B- Modern technologies, intelligent systems, and human impact on the transformation of contemporary organisations

Chair: Professor Grzegorz Chmielarz

Thursday 3rd September 12:00-14:00

Online Room 16

Paper No	Paper Title / Authors
92	Predicting Algorithm Choice Using AutoML: A Methodological Extension of Research on Algorithm Aversion Rafał Niedbał and Ilona Pawełoszek
1036	Management in the Creative Sector in the Context of Digital Transformation Tomasz Lis and Aleksandra Piech
1037	Influencing Consumer Energy Choices Through Sustainability-Focused Communication Aleksandra Piech and Tomasz Lis

IS52-- Generative AI at the Edge: From Smart Devices to Agentic IoT

Chair: Professor Maha Driss

Friday 11th September 14:30-16:30
Room 1

Paper No	Paper Title / Authors
639	A Quantum-Enhanced Reinforcement Learning Agent for Cyber Defence Muhammad Shahbaz Khan, Jawad Ahmad, Nikolaos Pitropakis, Jose M Alcaraz Calero and Tony Dodd
905	Design and Optimization of TinyML-Based Speech Biomarker Models for Edge-Enabled Neurological Disease Detection Saad Arif and Muhammad Hanif

IS52-B- Generative AI at the Edge: From Smart Devices to Agentic IoT

Chair: Professor Maha Driss

Thursday 3rd September 12:00-14:00

Online Room 16

Paper No	Paper Title / Authors
26	Edge-Deployable Video Action Recognition with Budget-Aware Token Pruning and Lightweight Adaptation Rahim Pasbanigoloojeh, Bangli Liu, Yingjie Yang, Muhammad Kazim and Mujeeb Ur Rehman
84	Sensitivity Aware Edge Adaptive Encryption for Autonomous Aerial Platforms Mujeeb Ur Rehman
281	An SLM-Based Agentic Federated Paradigm for Privacy-Preserving Energy Orchestration Faizan Hamayat, Ayesha Ameer, Tamara Zhukabayeva and Zhanganur Kairat

***IS53-B- GI*Information Disorder Challenges in the Era of AI-Generated Contents Manipulation: Security, Trustability and Faithfulness of Shared Knowledge**

Chair: Professor Fiammetta Marulli

Thursday 3rd September 09:00-11:00
Online Room 14

Paper No	Paper Title / Authors
328	Tackling Information Disorder: A Multimodal Heterogeneous Graph Transformer for Assessing Content Trustability and Social Dynamics Hamza Bargougui, Imtiez Fliss and Moncef Tagina
376	A Novel Optimized Approach for Applications and Information Security with Deep Learning Dhuha Al-Adhami, Hamza Gharsellaoui and Olfa Belkahla Driss
148	MARC: Agent-Based Adaptive Routing for Multimodal Fact Verification Huy Trieu, Duy-Minh Nguyen Tran, Nguyen Tien Huy and Tung Le
1061	Effective Methodologies for Identifying and Reporting Misleading Online Content: The Decentralized Community Notes Approach. Luigi Catuogno, Clemente Galdi, Gennaro Ragucci and Fiammetta Marulli
259	Efficient Multimodal Fact Verification through Learned Compression and Structured Fusion Tri-Vu Chau Minh, Nam-Uong Nhat, Duy-Minh Nguyen-Tran, Nguyen Tien Huy and Tung Le

IS55-- Signal Processing and Edge AI Algorithms for Embedded Systems and Sensors

Chair: Professor Paolo Crippa

Thursday 10th September 15:00-18:00

Room 9

Paper No	Paper Title / Authors
402	A Hardware-Aware Framework for Real-Time Road Surface Classification from Dashcam Video on Edge Devices Victor-Andrei Căbulea, Marian Flămînzanu-Mateiuc and Stefan Daniel Achirei
602	Bird Classification with Acoustic Fingerprints Lucas Mallen, Julio A. Sanguesa, Alfonso Blesa, Francisco J. Martinez, Pietro Manzoni and Carlos T. Calafate
649	Towards robust and energy-efficient low-precision DNN for non-intrusive load monitoring Haifa Bahlouli, Pascal Scalart, Yousra Ben Jemaa, Rim Amara and Baptiste Vrigneau
966	Optical Character Recognition Optimization on Low-End Edge Devices Teodor Gorghe, Maria-Gabriela Fodor and Stefan Daniel Achirei
1023	EEG-Based Multi-Class Recognition of Neurodegenerative Diseases Using Robust-PCA Enhanced LSTM Neural Networks Michele Alessandrini, Giorgio Biagetti and Paolo Crippa

IS55-B- Signal Processing and Edge AI Algorithms for Embedded Systems and Sensors

Chair: Professor Paolo Crippa

Thursday 3rd September 14:30-16:30

Online Room 16

Paper No	Paper Title / Authors
395	Performance Analysis of RIS-Assisted SISO Systems Under α -Stable Noise Asma Bouhlel, Ayoub Mhaouch and Anis Sakly
442	A Lightweight Two-Stage Vision Pipeline for Real-Time Plant Growth Stage Prediction on Edge IoT Devices Nejla Essaddi

IS57-- Intelligent decision support and process optimization under uncertainty

Chair: Professor Aleksandra Radomska-Zalas

Friday 11th September 10:00-12:00

Room 11

Paper No	Paper Title / Authors
118	A Hybrid Decision Support Framework for Cost–Benefit Evaluation of Blockchain Adoption in Supply Chains under Uncertainty Massoma Barbari and Pedro Espadinha-Cruz
251	MARIE: An Evidential and Semantic Approach for Adaptive Resource Recommendation in Uncertain MCQ Learning Dorra Sassi, Constance Thierry and David Gross-Amblard
962	Ray-Tracing-Based Assessment of Focus Breathing in Imaging Lenses under Uncertainty Jakub Baraniecki, Szymon Prochacki and Łukasz Lemieszewski
1016	Multicriteria Classification-Based Selection of Natural Fibre– Polypropylene Composite Parameters for Door Panel Thermoforming Łukasz Lemieszewski, Anna Konstanciak and Dorota Bujak

IS57-B- Intelligent decision support and process optimization under uncertainty

Chair: Professor Aleksandra Radomska-Zalas

Thursday 3rd September 09:00-11:00

Online Room 16

Paper No	Paper Title / Authors
949	Application of the Vikor multi-criteria method in the process of cutting 18CrNiMo7-6 steel with abrasive water jet Aleksandra Radomska-Zalas
245	Towards a Generalized Framework for Brewery Production Scheduling Krzysztof Rewak
142	Rare-Group Detection in Categorical Data Using Categorical Multiway Isolation Forest Weronika Lazarz and Agnieszka Nowak-Brzezińska
448	Exploring Inverse Fuzzy Implications: Theoretical Foundations and Experimental Evaluation of Reasoning Efficiency Zbigniew Suraj and Piotr Grochowalski
605	Transformers and ANFIS-based multimodal hybrid approach for dysgraphia subtype identification and severity assessment Asma Mekki and Ines Bayoudh Saâdi
944	Digital Competitiveness of Enterprises in European Union Countries – A Cluster Analysis Based on 2025 Eurostat Data Jarosław Becker and Aneta Becker
961	Quasi-Differential GNSS Positioning for Leader-Follower UAV Swarm Control in Humanitarian Demining Łukasz Lemieszewski, Jaroslaw Becker, Jan Kołaciński and Evgeny Ochinnikov
985	Analysis and support for the selection of AWJ cutting parameters for 21CrMoV5-7+QT steel using the Analytical Hierarchical Process method Aleksandra Radomska-Zalas

IS58-- Generative AI and Data-Driven Intelligent Optimization for Decision Making

Chair: Professor Xiangpei Hu

Friday 11th September 10:00-12:00

Room 8

Paper No	Paper Title / Authors
418	Ex-ante Gatekeeper vs. Interim Filter: Strategic Competition of Inspection Mechanisms in C2C Markets Yutong Xiao and Haiyan Wang
447	Data pricing and empowerment strategies with game models in a commercial health insurance supply chain Shuang Liu, Junxiu Jia, Wanting Zhang and Tao Wu
455	Optimization of UAV-UGV Crop Protection Operations on an Agricultural Machinery Scheduling Platform Shilin Shi, Liangliang Shi, Yue Wang and Xiaochun Feng
579	A Proactive Fault Early Warning Approach for Photovoltaic Microgrids Based on LLM-Enhanced Knowledge Graph and Bayesian Network Liqin Xiong, Jingru Li, Weijia Min, Xiangyun Meng and Minfang Huang
592	Customers' willingness to pay for blockchain-based traceable agricultural products with geographical indication: Evidence from online experiments in China Haoyue Shen, Qi Chen, Yonggang Li and Xiangpei Hu

IS58-B- Generative AI and Data-Driven Intelligent Optimization for Decision Making

Chair: Professor Xiangpei Hu

Friday 11th September 14:30-16:30
Room 8

Paper No	Paper Title / Authors
787	A Population-Based Large Language Model Evolutionary Framework for the Capacitated Vehicle Routing Problem Yuanhan Wei, Xiangpei Hu, Bo Zhang and Lili Zhang
796	User-centric recommendation: exploring check-in intents via deep learning for POI recommendation Jingmin An, Ming Gao and Jiafu Tang
819	Review of LLM-enabled Optimization for Decision Making: From Manual Customization to Intelligent Generation Xinxin Li, Na Lin, Qianlong Dang, Jiliang Han and Junhu Ruan
836	Improving Bus Timetabling: From Point Forecasting to Probabilistic Forecasting Weining Guo, Ming Gao, Jingmin An, Jiafu Tang and Zhiqiao Wu
898	An Empirical Verification Study on the Software System Architecture Generated by Large Language Models Dequan Meng, Xiangpei Hu, Yonggang Li and Jun Guan
931	Trust governance mechanism for physical entity consistency of Hetian Jade based on physical unclonable function and blockchain Junyu Song, Lijun Sun and Bomin Bian

IS59-- Design of Nigiwai: Places Embracing Values

Chair: Professor Akinori Abe

Friday 11th September 10:00-12:00

Room 1

Paper No	Paper Title / Authors
31	Cognitive Dynamics of Radiological Expertise: A Vision-Transformer Approach to Intention Modeling in CT Reading Jun Nakamura, Sanetake Nagayoshi and Yoshinobu Ishiwata
1006	When Self- and Other-Pole Beliefs Collide: How Internal Conflict Generates Abductive Frame Switching in Dialogue Yukiko Furuya

IS60-- Specialized Decision Techniques for Data Mining, Transportation and Project Management

Chair: Professor Ireneusz Czarnowski

Friday 11th September 14:30-16:30

Room 7

Paper No	Paper Title / Authors
273	Hybrid Reinforcement Learning Framework for Extremal GraphConstruction and Selected Ramsey Numbers Tomasz Dzido
600	Growth Potential of the Polish AI Companies Natalia Pawłowska and Piotr Jędrzejowicz
683	Stability of communities in dynamic co-authorship networks: a multi-measure perspective Paweł Szyman and Dariusz Barbucha
734	Experimental Evaluation of Parallelized Population-Based Multi-heuristic for Solving RCPSP Piotr Jędrzejowicz and Ewa Ratajczak-Ropel
744	Hybrid Graph-Factorization Recommendation Algorithm for e-Commerce Patrik Chatys, Kacper Biegański and Ewa Ratajczak-Ropel
1018	Multi-criteria heat pump selection using SAW and AHP methods Ireneusz Czarnowski and Piotr Kolasinski
1044	DE-2opt and PSO-2opt: Two Effective Memetic Algorithms for the Traveling Salesman Problem Piotr Jędrzejowicz, Cezary Piernikowski and Aleksander Skakovski

IS61-- Studying Soft Computing for Business Applications

Chair: Professor Yoshiyuki Yabuuchi

Thursday 10th September 10:30-12:30

Room 9

Paper No	Paper Title / Authors
250	Longitudinal Analysis of Personality Development through PMBOK-Based PBL: A One-Year Follow-Up Study Using YG Personality Inventory Rena Shimmoto and Yukio Kodono
863	A Mixed-Methods Study of Chinese Tourists' Shopping Experiences in Osaka: Evidence from SNS Posts and Follow-Up Interviews Yi Lu and Yukio Kodono
864	Analysis of Reasons to Watch and Reasons to Purchase in Live Commerce: A Comparative Study of TikTok and Taobao Yifan Wang
880	From Hardware to Data Capital: How Medical Device Firms Build Competitive Advantage in the AI Era Qian Zhang and Yukio Kodono
897	Visible Engagement, Comment Processing, and Purchase Intention: A Stimulus–Organism–Response Analysis of RED UGC Lu Jiang
918	Examination of the Usefulness of Fuzzy Exponential AHP Yukio Kodono
920	Exploring University Students' Career Anchors in the Context of Project-Based Learning Ayane Koizumi and Yukio Kodono
923	Type-2 possibilistic-robust regression model constructed in two steps and its regression center Yoshiyuki Yabuuchi

IS61-B- Studying Soft Computing for Business Applications

Chair: Professor Yoshiyuki Yabuuchi

Thursday 3rd September 14:30-16:30
Online Room 16

Paper No	Paper Title / Authors
896	Temporal Diversity and Team Performance: A Multi-Method Study of Team Heterogeneity Mingxuan Li and Yukio Kodono
903	A 3C–PT–S Model of Platform Trust and Satisfaction in C2C Flea Market Apps: Evidence from User-Generated Reviews Xiuyi Yue

IS62- Sustainable Innovation for the Digital IT era

Chair: Prof. Yoshimasa Masuda

Thursday 10th September 10:30-12:30

Room 10

Paper No	Paper Title / Authors
1063	Directions of enabling Agentic AI based Platforms: Digital Transformation with AI Strategy Yosimasa Masuda, Michael Chuang, Joseph Taylor and Rashmi Jain
1064	Governing Agentic AI in Healthcare Administration: A Risk-Tiered Framework for Human Oversight, Cybersecurity, and Responsible Deployment Joseph Taylor, Yoshimasa Masuda and Masahiro Jinzaki
1071	Autonomous Vehicles with Digital Platforms: Digitization of Societies toward Ecosystem Yoshimasa Masuda, Joseph Taylor, Michael Chuang, Tetsuya Toma and Seiko Shirasaka



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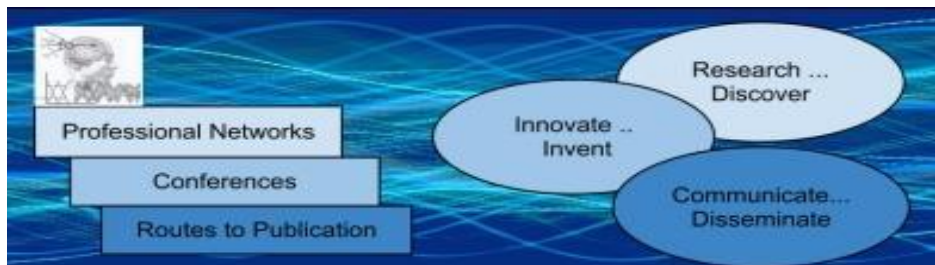
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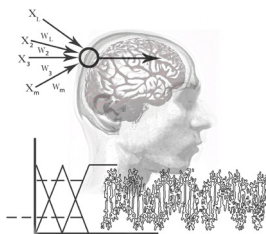
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