2024 10th International Conference on Computers Communications and Control ICCCC 2024

Felix & Oradea, Romania, October 08-12, 2024

Conterence Program

Contents

Hybrid general programme - ICCCC 2024 At a glance	2
Hybrid Program ICCCC 2024	4
Presenter's Information	7
Home	8
Scope	8
Submission and Publications	9
Topics	9
Chairs and Committees	10
Keynote speakers at ICCCC 2024	12
Invited speakers at ICCCC 2024	14
Program Committee	16
Organizing Committee	16
ICCCC 2024 statistics	17
Photo gallery previous editions ICCCC	19
Map of the Campus and Hotel President	24
Notes	25

HYBRID* GENERAL PROGRAMME ICCCC 2024 AT A GLANCE

Day	Bucharest	Activity / Speakers P	
-	GMT (Hours)		
Tuesday,	<u>18:00 ÷ 20:00</u>	Registration (Business Corner – near to Reception)	Hotel President
October 8	15:00 ÷ 17:00		
	20:00 ÷ 22:00	Welcome dinner	Tavern
	17:00 ÷ 19:00		Hotel President
Wednesday,	07:30 ÷ 08:30	Breakfast +	Restaurant 1+
October 9	04:30 ÷ 05:30	Registration (Business Corner – near to Reception)	Hotel President
	09:00 ÷ 09:20	Official Opening Ceremony	Diamond Club
	06:00 ÷ 06:20	Simona DZITAC - General Chair,	President
		Florin Gheorghe FILIP - PC Chair,	+ on-line
	09:20 ÷ 10:00	Domnica DZITAC - OC Chair. Keynote lecture Prof. Barnabas BEDE,	Diamond Club
	$\frac{09.20 \div 10.00}{06:20 \div 07:00}$	DigiPen Institute of Technology, Redmond, Washington, USA	President
	00.20 • 07.00	Session chair: Bogdana STANOJEVIĆ	+ on-line
	10:00 ÷ 10:40	Keynote lecture Prof. Alfred BRUCKSTEIN,	Diamond Club
	07:00 ÷ 07:40	Technion, IIT, Haifa, ISRAEL	President
		Session chair: Attila SIMÓ	+ on-line
	10:40 ÷ 11:20	Keynote lecture Prof. Vitomir ŠTRUC,	Diamond Club
	07:40 ÷ 08:20	University of Ljubljana, Ljubljana, SLOVENIA	President
	44.00 1 44.50	Session chair: Ioan BUCIU	+ on-line
	<u>11:20 ÷ 11:50</u> 08:20 ÷ 08:50	Awarding the title of Doctor Honoris Causa of the Agora University of Oradea to Prof. Giovanna Palermo from the	Diamond Club President
	00.20 ÷ 00.30	Università degli Studi della Campania "Luigi Vanvitelli", Italy/	+ on-line
		Session chair: Alina-Angela MANOLESCU - OC Chair.	
	11:50 ÷ 12:30	A cup of champagne	Diamond Club
	08:50 ÷ 09:30		President + on-line
	12:30 ÷ 14:30	Oradea City Tour	Hotel President -
	09:30 ÷ 11:30		Oradea – Hotel
	14:30 ÷ 15:30	Lunch	President (Bus) Restaurant 1
	$14.30 \div 15.30$ 11:30 ÷ 12:30		Hotel President
		Invited talk Prof. Razvan ANDONIE	Hotel President/
	$13:00 \div 13:40$	Central Washington University, USA	Room S4 + on-line
	10.00 10.10	Session chair: Domnica DZITAC	
	16:40 ÷ 17:20	Invited talk Prof. Diana INKPEN,	Hotel President/
	13:40 ÷ 14:20	University of Ottawa, CANADA	Room S4 + on-line
	47.00 1 47.40	Session chair: Ioan BUCIU	Tarrada Daara 04
	<u>17:20 ÷ 17:40</u> 14:20 ÷ 14:40	Coffee break	Terrace Room S4 Hotel President
	14:20 ÷ 14:40 17:40 ÷ 18:20	Invited talk Prof. Karol MIKULA	Hotel President/
	17:40 ÷ 16:20 14:40 ÷ 15:20	Slovak University of Technology, Bratislava, SLOVAKIA	Room S4 + on-line
	14.40 • 10.20	Session chair: Alfred BRUCKSTEIN	
	18:20 ÷ 19:00	Invited talk Dr. Rajeeb DEY	Hotel President/
	15:20 ÷ 16:00	National Institute of Technology Silchar, INDIA	Room S4 + on-line
		Session chair: Valentina BALAS	
	<u>19:30 ÷ 23:00</u>	International Dinner	Tavern
	16:30 ÷ 20:00		Hotel President

Thursday, October 10	07:30 ÷ 09:00 04:30 ÷ 06:00	Breakfast	Restaurant 1 Hotel President
	09:00 ÷ 11:00 06:00 ÷ 08:00	Parallel Sessions	Hotel President/ Rooms S1, S2 + on-line
	11:00 ÷ 11:15 08:00 ÷ 08:15	Coffee break	Terrace Hotel President
	11:15 ÷ 14:15 08:15 ÷ 11:15	Parallel Sessions	Hotel President/ Rooms S1, S2 + on-line
	14:20 ÷ 15:20 11:20 ÷ 12:20	Lunch	Restaurant 1 Hotel President
	15:20 ÷ 17:20 12:20 ÷ 14:20	Free activities (Aqua park, walks through the forest, resort)	Aqua Park Hotel President
	17:30 ÷ 19:30 14:30 ÷ 16:30	Participation in the opening of the 10 th edition of International Symposium "Brainstorming in Agora students' scientific circle" BACSTUD 2024	Hotel President/ Room S4
	19:30 ÷ 20:00 16:30 ÷ 17:00	Awarding "Ioan Dziţac Prize" & Diplomas of excellence ICCCC 2024	Restaurant 2 Hotel President
	<u>20:00 ÷ 24:00</u> 17:00 ÷ 21:00	Romanian Dinner & Romanian songs & dances	Restaurant 2 Hotel President
Friday, October 11	07:30 ÷ 09:00 04:30 ÷ 06:00	Breakfast	Restaurant 1 Hotel President
	09:30 ÷ 17:30 06:30 ÷ 14:30	Excursion or relaxing at the spa	Bears' Cave / Aqua Park President
	<u>17:30 ÷ 19:30</u> 14:30 ÷ 16:30	Visiting the Baile Felix resort	Baile Felix Spa
	<u>19:30 - 24:00</u> 16:30 ÷ 21:00	Festive dinner	Hotel Amy/ Baile Felix Spa
Saturday, October 12	07:30 ÷ 11:00 04:30 ÷ 08:00	Breakfast	Restaurant 1 Hotel President
	<u>→12:00</u> →09:00	Departure of participants	-

***Important:** ICCCC 2024 will take place in a hybrid system; for those present online, online entry details will be posted in due course on the conference website.

HYBRID PROGRAMME ICCCC 2024

Thursday, October 10 Room S1 (On-line)	09:00 ÷ 11:00 11:15 ÷ 14:15 Bucharest	Chairpersons: Alfred BRUCKSTEIN, Valentina Emilia BALAS, Ioan BUCIU	Parallel Sessions /Regular papers Topics: T1: Complex control and communications systems; T2: Artificial Intelligence with particular emphasis on deep learning; T3: Soft computing with particular emphasis on fuzzy sets and systems
---	---	--	--

No.	On-site/ On-line	Authors / Affiliation	Title	
1.1.	On-site	Bogdana Stanojević, Milan Stanojević University of Belgrade, SERBIA	On approaching full fuzzy data envelopment analysis and its validation	
1.2.	On-site	Daniel Badulescu, Ramona Simut, Simona-Aurelia Bodog, Alina Badulescu, Ciprian Simut, Daniela Zapodeanu University of Oradea, ROMANIA	Shaping AI-related competencies for labor market and business. A PLS-SEM approach	
1.3.	On-site	Srikanth Bondalapati ¹ , Rajeeb Dey ¹ , Cornel Barna ² , Valentina Emilia Balas ² ¹ National Institute of Technology Silchar, Assam, INDIA, ² Aurel Vlaicu University of Arad, ROMANIA	<i>H</i> ∞ - Static Output Feedback based Load Frequency Control of an Interconnected Power System with Regional Pole Placement	
1.4.	On-site	 Shivam Gupta¹, Amit Kumar Naik², Rajeeb Dey¹, Abhinoy Kumar Singh³, Mihaela Popa^{4,5}, Alexandru Popa⁵ ¹National Institute of Technology Silchar, Silchar, Assam, INDIA, ²Indian Institute of Technology Indor, INDIA, ³Indian Institute of Technology Patna Bihta, INDIA, ⁴Petroleum-Gas University of Ploiesti, ROMANIA, ⁵Aurel Vlaicu University of Arad, ROMANIA 		
1.5.	On-site	Bogdana-Tania Gavrilă^{1,2}, Valentina Emilia Balas^{1,2} ¹ Petroleum-Gas University of Ploiesti, ROMANIA, ² Aurel Vlaicu University of Arad, ROMANIA	Mathematical models and control for an artificial pancreas	
1.6.	On-site	Alexuță Daniel ^{1,2} , Valentina Emilia Balas ^{1,2} ¹ Petroleum-Gas University of Ploiesti, ROMANIA, ² Aurel Vlaicu University of Arad, ROMANIA	Water quality, parameter prediction in an aquaponic system, literature review	
1.7.	On-site	Germán A. Montoya¹, Carlos Lozano-Garzón¹, CarlosA Mathematical OptimizatioD. Paternina-Arboleda², Yezid Donoso¹Priority-driven IoT Services¹Universidad de Los Andes, COLOMBIA,constrained Smart Cities²San Diego State University, USAPriority-driven IoT Services		
1.8.	On-site	Florin Timotei Avram , Dan-Ioan Țarcă, Dan Noje, Tiberiu Vesselenyi and Radu Țarcă University of Oradea, ROMANIA	Surface roughness determination with the help of Artificial Neural Networks as enabler of metal machining process con-trolling system	

1.9.	On-site	Vlad Ovidiu Mihalca ¹ , Ovidiu Moldovan ¹ , IaninaȚarcă ² , Daniel Anton ¹ , Dan Noje ¹ ¹ University of Oradea, ROMANIA, ² Università Bocconi, Milano, ITALY	Integrating deep learning in target tracking applications, as enabler of control systems	
1.10.	On-site	Stelian Mătase ¹ , Răzvan Andonie ^{2,1} ¹ Transilvania University of Braşov, ROMANIA, ² Central Washington University, USA	3D Generative Techniques and Visualization: A Brief Survey	
1.11.	On-site	Daniel Popa, Ioan Buciu University of Oradea, ROMANIA	Laravel and Vue.js as tools to control IoT devices over the internet. Current state-of-the-art	
1.12.	On-site	Sondra Preascilla Ioana Vacarescu ^{1,2} , Valentina Emilia Balas ^{1,3} , Nicolae Paraschiv ¹ ¹ Petroleum-Gas University of Ploiesti, ROMANIA, ² S.C. Continental Automotive Romania S.R.L., Timisoara, ROMANIA, ³ Aurel Vlaicu University of Arad, ROMANIA	A Systematic Review of Quality within the Automotive Industry 4.0	
1.13.	On-site	Dana Rad ^{1,2} , Csaba Kiss ³ , Gavril Rad ² , Nicolae Paraschiv ¹ , Marius Bălaș ² ¹ Petroleum-Gas University of Ploiesti, ROMANIA, ² Aurel Vlaicu University of Arad, ROMANIA, ³ Hyperyon University of Bucharest, ROMANIA	A multilayer perceptron neural network prediction approach to polygraph scoring	
1.14.	On-site	Adrian Gligor ¹ , Simona Dzitac ² , Cristian-Dragoș Dumitru ¹ , Attila Simo ³ ¹ George Emil Palade University of Medicine, Pharmacy, Sciences and Technology of Targu Mures, ROMANIA, ² University of Oradea, ROMANIA, ³ Politechnica University of Timisoara, ROMANIA	Augmented cyber-physical model for real- time smart-grid co-simulation	
1.15.	On-site	Giulia Lupi, Karol Mikula, Seol Ah Park Slovak University of Technology, Bratislava, SLOVAKIA	Understanding macrophage motion during wound healing - From Segmentation and Tracking to Classification	
1.16.	On-site	Lavinia Denisia Cuc ¹ , Dana Rad ¹ , Silviu Săplăcan ¹ , Cleopatra Șendroiu ² , Graziella Corina Bâtcă-Dumitru ² , Danusia Wysocki ³ , Alina-Angela Manolescu ⁴ ¹ Aurel Vlaicu University of Arad, ROMANIA, ² Bucharest University of Economic Studies, Bucharest, ROMANIA, ³ School of Management, University College London, London, UK, ⁴ Agora University of Oradea, Oradea, ROMANIA	A hierarchical clustering analysis of the management accounting practices perceptions in Romania	

Thursday, October 10 Room S2 (On-site/ On-line)	09:00 ÷ 11:00 11:15 ÷ 14:00 Bucharest	Chairpersons: Attila SIMÓ, Bogdana STANOJEVIĆ, Mincong TANG	Parallel Sessions /Regular papers Topics: T1: Complex control and communications systems; T2: Artificial Intelligence with particular emphasis on deep learning; T3: Soft computing with particular emphasis on fuzzy sets and systems
---	---	--	--

No.	On-site/ On-line	Authors / Affiliation	Title	
1.1.	On-line	Lei Mei ¹ , Na Tang ¹ , Zhu Zeng ² , Wenwen Shi ¹ ¹ Geely University of China, CHINA, ² Sichuan Provincial Department of Human Resources and Social Security Scientific Research Institute, CHINA	Artificial Intelligence Technology in Live Streaming E-commerce: Analysis of Driving Factors of Consumer Purchase Decisions	
1.2.	On-line	Li Yindong, Chen Yang and Wang Wang Geely University of China, CHINA	Monitoring the growth status of rice based on hyperspectral satellite remote sensing data	
1.3.	On-line	Zhiyuan Li,¹ Desheng Wu², Cheng He², Xiaofeng Gan² ¹ Geely University of China, CHINA, ² Zhejiang Geely New Energy Commercial Vehicle Group Co., LTD, CHINA	Intelligent Scheduling of Automotive Stamping Workshops Based on an Enhanced Genetic Algorithm	
1.4.	On-line	Pengfei Lin, Yixin Cai, Huasen Wu, Jinghe Yin, Zhaxi Luorang Geely University of China, CHINA	AI-Driven Risk Control for Health Insurance Fund Management: A Data-Driven Approach	
1.5.	On-line	Wei Li ¹ , Cheng Cheng ² , Qian Wang ¹ , Chang-Song MA ¹ ¹ Geely University of China, CHINA, ² Yibin city Syzhou district Anju property services Co., LTD, Yibin, CHINA	Prediction of power battery health state based on data-driven Gaussian process regression algorithm	
1.6.	On-line	Wang Xiaofang ¹ , Wu Jialing ² , Chen Xin ² , Hou Junniang ¹ ¹ Geely University of China, CHINA, ² Chengdu College of University of Electronic Science and Technology of China, CHINA	Application of VGG Network Optimized with Dilated Residual Convolution and Path Enhancement in Crack Image Segmentation	
1.7.	On-line	Mariana Nagy ¹ , João Luís de Miranda ² ¹ Aurel Vlaicu University of Arad, ROMANIA, ² Portalegre Polytechnic University, PORTUGAL	Decision Making and Robust Optimization for Information Systems Oriented to Emergency Events	
1.8.	On-line	<i>Nicolaie Popescu-Bodorin¹ , Mariana Nagy²</i> ¹ Technical Civil Engineering University of Bucharest, ROMANIA, ² Aurel Vlaicu University of Arad, ROMANIA	Bodorin's axiomatization of binary logic for automated boolean circuit simplification	
1.9.	On-line	Fuad Aleskerov ¹ , Anna Delakhova ² , Alexander Derendyaev ² , Alexey Myachin ¹ , Olga Parfenova ² , Daniil Tkachev ¹ , Akradiy Weinstock ² , Vyacheslav Yakuba ¹ , Yury Zontov ¹ ¹ HSE University, RUSSIA, ² Institute for Information Transmission Problems of the Russian Academy of Sciences, RUSSIA	A man-machine system to analyze living conditions	

1.10.	On-line	Gaudence Nirere ¹ , Didacienne Mukanyiligira, ¹ Eric Hitimana ¹ , Valentina Emilia Balas ^{2,3} ¹ University of Rwanda, AFRICA, , ² Aurel Vlaicu University of Arad, ROMANIA, ³ Petroleum-Gas University of Ploiesti, ROMANIA	Diagnostic and Screening Techniques for Autism Spectrum Disorder Leveraging Internet of Things, Artificial Intelligence, and Machine Learning Algorithms: Advantages and Limitations	
1.11.	On-site/ On-line	Felisa M. Córdova ¹ , Cecilia Montt ² , Leonardo Correa ¹ , Nicolás Lagos ¹ ¹ University San Sebastián, Santiago, CHILE, ² University Santiago de Chile, Santiago, CHILE	Methodology for the Analysis and Evaluation of Traffic Accidents using the Business Intelligent Systems Approach	
1.12.	On-site/ On-line	Víctor E. Olivares, Astrid M. Oddershede, Luis E. Quezada, Manuel Vargas University of Santiago of Chile, Santiago, CHILE	Development of a Model for Generating Trajectories for an Autonomous Naval Vehicle Using Genetic Algorithms in MATLAB	
1.13.	On-line	Gastón Lefranc ¹ , Mario Peña-Cabrera ² ¹ Pontificia Universidad Católica de Valparaíso, CHILE, ² IIMAS, Universidad Nacional Autónoma de México, MÉXICO	Advanced Decision-Making Strategies and Technologies for Manufacturing: A Comprehensive Review, Case Studies and Future Research Directions	
1.14.	On-line	Irving García-Martínez ¹ , Mario Peña-Cabrera ² , Roman Osorio-Comparan ² , Gaston Lefranc ³ ¹ Ingeniería UNAM Ciudad de México, MÉXICO, ² IIMAS-UNAM Ciudad de México, MÉXICO, ³ Pontificia Universidad Católica de Valparaíso, CHILE	DWT powerful tool, one step further than FT to detect early failures in the squirrel cage. Theoretical Approach and Implementation	
1.15	On-line	Alejandro Salgado, Yezid Donoso Universidad de Los Andes, COLOMBIA	Detection of Integrity Failures in GPS Systems of Unmanned Aerial Vehicles (UAVs)	

Presenter's information

The time allocated to oral presentation will be following:

- Regular paper (parallel session): 15 minutes which include the time for discussion (usually 5 minutes);
- Keynote lecture / Invited paper (plenary session): 40 minutes which include the time for discussion (usually 5 minutes);
- PowerPoint (PPT or PPS) or Acrobat PDF slides (saved on Memory Flash) for presentation on a data projector are recommended for your talk at ICCCC 2024;
- Logistics, Technical tools and Supports: Laptop; Microphone; Laser Printer; Digital Copier; Colour Scanner; Video Projector; Flipchart.



2024 10th International Conference on Computers Communications and Control (ICCCC)

https://www.univagora.ro/en/conferinte/icccc/icccc2024/

Home

Place: <u>Hotel President</u> (4 stars, aqua-park, spa), Băile Felix, Oradea, România Period: October 08-12, 2024

Organizers: <u>Cercetare Dezvoltare Agora</u> (Research & Development Center of Agora University), <u>Agora University of</u> <u>Oradea</u> under the aegis of the <u>Romanian Academy</u>- Information Science and Technology Section.

Partner: Association Cluster of Scientific Research, Innovation and European Studies from Oradea.

Award: The Dziţac Family (wife Simona & daughter Domnica) will award the "Ioan Dziţac Prize", founder of ICCCC, worth 500 EURO for the most appreciated scientific paper presented at ICCCC 2024 by a promising young researcher. **Dedication:** This edition is dedicated in memory of Prof. Univ. Dr. Ing. Mişu-Jan Manolescu – co-organizer of 9 editions of the International Conference on Computers, Communications and Control (ICCCC).



Photo Mișu-Jan Manolescu (30.09.1958 – 04.07.2024)

DHC: On the occasion of ICCCC 2024, *the title of Doctor Honoris Causa of the Agora University of Oradea* will be awarded to Prof. Giovanna Palermo from the Università degli Studi della Campania "Luigi Vanvitelli", Italy.

Scope

The International Conference on Computers Communications and Control (ICCCC) has been founded in 2006 by I. Dzitac, F.G. Filip and M.-J. Manolescu and organized every even year by Agora University of Oradea, under the aegis of the Information Science and Technology Section of Romanian Academy.

The goal of this conference is to bring together international researchers, scientists in academia and industry to present and discuss in a friendly environment their latest research findings on a broad array of topics in computer networking and control.

The Program Committee is soliciting paper describing original, previously unpublished, completed research, not currently under review by another conference or journal, addressing state-of-the-art research and development in all areas related to computer networking and control.

Submission and Publications

SUBMISSION via EasyChair:

https://easychair.org/conferences/?conf=icccc2024

INSTRUCTION TO AUTHORS

I. Length of paper and format

Each paper must consist of a between 8 and 20 pages (one column, A4).

The papers must be prepared using Word when first submitted for evaluation (the post conference extended version of an accepted and presented paper should be in LaTeX typesetting system: IJCCC Template (3.0 MB)

II. Duplicate submission and plagiarism

The submissions to ICCCC 2024 must represent original material.

Papers are accepted for review with the understanding that the same work has been neither submitted to, nor published in, another conference or journal.

Concurrent submission is viewed as a serious breach of ethics and, if detected, will result in immediate rejection of the submission.

The author(s) warrants that the submitted paper is based on their original work. It is the author's responsibility to obtain written permission to quote material that has been previously published in any form.

All submissions will be scanned by software for detect the similarities (maximum 30% similarities tested with Plagiarism Detection Software | iThenticate).

III. Important etape

1. The papers accepted at ICCCC 2024 will be submitted to via EasyChair

(https://easychair.org/conferences/?conf=icccc2024) also to the address of the simona@dzitac.ro in format .word between July 22 - August 23, 2024.

2. The papers accepted/presented at ICCCC 2024 will be submitted to via IJCCC:

<u>https://www.univagora.ro/jour/index.php/ijccc/about/submissions</u> also to the address of the simona@dzitac.ro in the final format requested by IJCCC, accompanied by IJCCC-2024-Copyright-Transfer-Statement & Cover_letter_template IJCCC_2024 between October 14 – November 30. *Papers accepted/presented to ICCCC 2024 will undergo a final review process prior to publication as required by the IJCCC!*

PUBLICATION

The extended versions of the papers accepted and presented at ICCCC 2024 will be published starting with issue 6/2024, as well as in issues 1-6/2025 (maximum 10 papers per issue with different geographical distribution of authors) of the <u>International Journal of Computers, Communications & Control</u>, being subject to a final review process before publication.

Until 02.11.2024, authors will be notified with the distribution of papers definitively accepted for publication in IJCCC!

Topics

- T1: Complex control and communications systems;
- T2: Artificial Intelligence with particular emphasis on deep learning;
- T3: Soft computing with particular emphasis on fuzzy sets and systems.

Chairs and Committees

General Chair



Assoc. prof. Simona DZITAC General Chair (Oradea, Romania) University of Oradea / Software System Engineer & Researcher at R&D Agora, simona@dzitac.ro

Dr. Simona Dzitac is an Associate Professor at Energy Engineering Department, Faculty of Energy Engineering and Industrial Management, University of Oradea, Romania and Software System Engineer & Researcher at R&D Agora. She received her B.Sc. in Mathematics (2000), Energy Engineering (2005), Economic Informatics (2007) and PhD in Energy Engineering (2008). Her current research interests include different aspects of reliability, modelling, simulation, quality management, IT management. She has published 11 books/courses and materials for students and more than 140 scientific papers in journals and conferences proceedings. Her research activity includes participation in 42 grants/projects. The impact of her published works are over 690 citations and h-index 14 in ISI Web of Science, h-index 15 in Scopus and h-index 18 in Google Scholar.

Program Committee Chair



Acad. Florin Gheorghe FILIP PC Chair (Bucuresti, Romania) Member of the Romanian Academy, ffilip@acad.ro

Acad. Florin Gheorghe Filip was born in 1947 in Bucharest, Romania. He graduated in Control Engineering at Technical University of Bucharest in 1970 and received his PhD degree from the same university in 1982. He was elected as corresponding member of the Romanian Academy in 1991 and became full member of the Academy in 1999. During 2000-2010, he was vice-president of the Romanian Academy (elected in 2000, re-elected in 2004, and 2006). In 2010, he was elected president of the Information Science and Technology section of the Academy (re-elected in 2015, and 2019). He was the managing director of National Institute for R&D in Informatics-ICI Bucharest (1991-1997). He is honorary member of the Romanian Academy of Technical Sciences, and Academy of Sciences of Republic of Moldova. He was the chair of IFAC TC 5.4 (Large-scale Complex Systems) from 2002 to 2008. His main scientific interests include optimization and control of large-scale complex/collaborative systems, decision support systems, technology management and foresight, and IT applications in the cultural sector. He authored/co-authored over 350 papers published in international journals (IFAC J Automatica, IFAC J Control Engineering Practice, Annual Reviews in Control, Computers in Industry, Large-Scale Systems, Technological and Economic Development of Economy, and so on) and contributed to volumes printed by international publishing houses (Pergamon Press, Elsevier, Kluwer, Chapman & Hall and so on). He is also the author/co-author of thirteen monographs (published by Editura Tehnică, Hermès-Lavoisier, J. Wiley & Sons, Springer) and editor/co-editor of 30 volumes of contributions (published by Editura Academiei Române, Pergamon Press, North Holland, Elsevier, IEEE Computer Society, and so on). He presented invited lectures in universities and research institutes, and plenary papers at scientific conferences in Brazil, Chile, China, France, Germany, Lithuania, Poland, Portugal, Republic of Moldova, Romania, Spain, Sweden, Tunisia, and UK. More details can be found at: http://www.academiaromana.ro/sectii/sectia14 informatica/sti FFilip.htm

Organizing Committee Chairs



Assoc. prof. Alina_Angela MANOLESCU OC Chair (Oradea, Romania) Rector of Agora University of Oradea, Romania, a.a.manolescu@gmail.com



Domnica DZITAC OC Chair (Abu Dhabi, UAE) Policy & Strategy Analyst, Tamkeen / NYU Abu Dhabi domnica.dzitac@nyu.edu

Dr. Alina Angela Manolescu (b. 1984) is currently rector of Agora University of Oradea, Romania, associate professor at the Faculty of Economic Sciences and at the Faculty of Juridical and Administrative Sciences (starting 2008) at the same university. Between 2005 and 2008 she was lecturer at the "S. Pio" University of Roma, Italy.

She published 2 doctoral thesis, 3 books, coordinated the scientific comittee of 2 books, published chapters in 2 books, and 26 scientific articles indexed in several international databases (including WOS indexed articles).

She holds a PhD. Degree in Management (awarded in 2020) with the thesis on "Talent Management in Education Organizations" and a PhD. in Law and Economics of International Relations with the thesis on "The right of human security in the region of Black Sea", alongside of a Master Degree in Administrativ Law (2007), a Bachelor Degree in Law (2006) and in Poliitical Sciences (2005).

Besides her teaching and administrative duties at Agora University of Oradea, she is founder and manager of the European Information Centre, Europe Direct Centre (2009-2017), founder and manager of the Agora International School (since 2012), member of the Centre for preventing and fighting the transborder crime (since 2012), member of the Agora Centre for Private Law, founder of the Italian Romanian Centre of Research CONEXIS, and member of the Jean Monnet Cathedra European Public Space, and of 5 european POSDRU projects.

Additional formation: trainer of trainers, project manager, entrepreneurial competences, management in education, NLP practitioner, NLP master, NLP coach (IANLP certification), senior coach ANC.

Domnica Dzitac is graduate from New York University Abu Dhabi from where she obtained a degree in Computer Science with concentrations in Applied Mathematics and Political Science. Domnica conducted meaningful research and studied in global locations such as Abu Dhabi (UAE), Paris (France), Washington D.C. (USA) and New York City (USA). Her research interests consist of applying computational tools to answer questions about human behavior, contributing to fields such as Computational Social Science, Natural Language Understanding, Machine Learning, Data Science and Behavioural Economics.

Publication Chair



Lecturer Horea OROS Publication Chair (Oradea, Romania) horea.oros@gmail.com

Dr. Horea Oros (b. August 22, 1977) received his PhD in Computer Science (2009) from "Babeş Bolyai" University of Cluj-Napoca, Romania. Since 2001 he is working within the Department of Mathematics and Computer Science, Faculty of Informatics and Sciences, University of Oradea, Romania, where currently he is a lecturer. He also was a former lecturer at Agora University of Oradea for several years. He coauthored five books in the field of computer science and published twenty-one articles in several journals and proceedings of international conferences. His main research interest is in the field of cryptology and computer security.

Topical Editors:

T1: Attila Simó, Politehnica University Timisoara, Romania;

T2: Ioan Buciu, University Of Oradea, Romania;

T3: Bogdana Stanojević, University of Belgrad, Serbia.

Keynote speakers at ICCCC 2024



Prof. Barnabas BEDE, DigiPen Institute of Technology, Redmond, Washington, USA bbede@digipen.edu

Dr. Barnabas Bede earned his Ph.D. in Mathematics from Babes-Bolyai University of Cluj-Napoca, Romania. His research interests include Machine Learning, Fuzzy Sets and Fuzzy Logic, and Modeling under Uncertainty.

He is a Professor of Mathematics at DigiPen Institute of Technology in Redmond, WA, USA, and he serves as Department Chair of Mathematics, and Program Director of the Bachelor of Science in Computer Science in Machine Learning. Before that, he held positions at the University of Rio Grande Valley, Texas, the University of Texas at El Paso, the University of Oradea Romania, and Óbuda University in Hungary.

He has published more than 100 research publications, including three research monographs. His work has received more than 6000 citations according to google scholar. Current research interests include Explainable AI, investigating connections between Deep Neural Networks and Fuzzy Systems. He serves as the President of the North American Fuzzy Information Processing Society (NAFIPS) and as conference chair for the upcoming NAFIPS 2024 International Conference on Fuzzy Systems, Soft Computing, and Explainable AI, to be help in South Padre Island, May 27-29, 2024.



Prof. Alfred BRUCKSTEIN, Technion, Haifa, Israel freddy@cs.technion.ac.il

Dr. Alfred M. Bruckstein holds the Ollendorff Chair in Science at the Technion, IIT, in the Deppartment of Computer Science, A graduate of the Technion, with a BSc and an MSc in EE, he earned a PhD at Stanford University, in the EE Department, in 1984. Since then he is on faculty at the Technion, with long-term visiting professorship positions at Bell Laboratories at Murray Hill, NJ, USA (from 1987 to 2000), and at Nanayang Technological University, in Singapore (from 2009-present). His shorter visiting positions include Tsing-Hua University in Beijing, China (2002-2003), and visiting positions at Universite d'Evry, Paris France, at CEREMADE, University Dauphine, Paris, france, and Karlsruhe University in Germany. At the Technion, Professor Bruckstein served as the elected Dean of the Graduate School, from 2002 to 2005, and as the Head of the Technion Excellence Program for Undergraduates, from 2006 to 2012. He is a member of the MAA and AMS, and in 2014 he was elected Fellow of SIAM for contributions to Signal Processing, Image Analysis and Ant Robotic.



Prof. Vitomir ŠTRUC, University of Ljubljana, Ljubljana, Slovenia vitomir.struc@fe.uni-lj.si

Dr. Vitomir Štruc is a Full Professor at the University of Ljubljana, Slovenia. His research interests include problems related to biometrics, computer vision, image processing, and machine learning. He (co-)authored more than 150 research papers for leading international peer reviewed journals and conferences in these and related areas. Vitomir is a Senior Area Editor for the IEEE Transactions on Information Forensics and Security, a Subject Editor for Elsevier's Signal Processing and an Associate Editor for Pattern Recognition, and IET Biometrics. He serves regularly on the organizing committees of visible international conferences, including IJCB, FG, WACV and CVPR. He currently acts as a Program Chair for IEEE Face and Gesture 2024, WIFS 2024 and WACV 2025 and a Tutorial Chair for CVPR 2024. Dr. Struc is a Senior member of the IEEE. a member of IAPR. EURASIP. Slovenia's ambassador for the European Association for Biometrics (EAB) and the former president and current executive committee member of the Slovenian Pattern Recognition Society, the Slovenian member of IAPR. Vitomir is also the current VP Technical Activities for the IEEE Biometrics Council, the secretary of the IAPR Technical Committee on Biometrics (TC4) and a member of the Supervisory Board of the EAB.

Invited speakers at ICCCC 2024



Prof. Razvan ANDONIE Central Washington University, USA andonie@ cwu.edu



Prof. Diana INKPEN, University of Ottawa, Canada diana.inkpen@uottawa.ca

Dr. Razvan Andonie received the M.S. degree in mathematics and computer science from University of Cluj-Napoca, Romania, and the Ph.D. degree from University of Bucharest, Romania. His Ph.D. advisor was Solomon Marcus, Fellow of the Romanian Academy. He is currently a Professor of Computer Science at both Central Washington University and Transilvania University of Brasov, Romania. He has published more than 130 research papers and was an invited professor at many universities. His actual research interests are computational intelligence techniques and applications, parallel/distributed computing, machine learning, and big data analytics.

Dr. Diana Inkpen is a Professor at the University of Ottawa, in the School of Electrical Engineering and Computer Science. She obtained her Ph.D. from the University of Toronto, Department of Computer Science. She has a M.Sc. and B.Eng. degree in Computer Science and Engineering from the Technical University of Cluj-Napoca, Romania. Her research is in applications of Natural Language Processing and Text Mining. She organized seven international workshops and she was a program co-chair for the 25th Canadian Conference on Artificial Intelligence (AI 2012, Toronto, ON, May 2012) conference. She is the editor-inchief of the Computational Intelligence journal and an associate editor for the Natural Language Engineering journal. She was an invited speaker for the Applied Natural Language Processing track at the 29th Florida Artificial Intelligence Research Society Conference (FLAIRS 2016, Key Largo, FL, May 2016), for the 28th Canadian Conference on Artificial Intelligence (AI 2015, Halifax, NS, June 2015), and International Symposium on Information Management and Big Data (SimBig 2015, Cuzco, Peru, September 2015). She published a book on Natural Language Processing for Social Media (Morgan and Claypool Publishers, Synthesis Lectures on Human Language Technologies, the third edition appeared in 2020), 10 book chapters, more than 35 journal articles and more than 120 conference papers. She received many research grants, from which the majority include intensive industrial collaborations.



Prof. Karol MIKULA Slovak University of Technology, Bratislava, Slovakia karol.mikula@gmail.com



Dr. Rajeeb DEY National Institute of Technology Silchar, India rajeeb.iitkgp@gmail.com

Dr. Karol Mikula is a full professor of Applied mathematics at the Slovak University of Technology in Bratislava (STUBA). He made fundamental contributions to mathematical and computational modelling methods in various branches of applied science and technology, such as digital image processing and analysis in biology, medicine and remote sensing, computational fluid dynamics and physical geodesy. He published more than 200 original research papers on these topics and has received numerous invitations to foreign universities' scientific seminars and plenary and minisymposia lectures at international conferences worldwide. Karol Mikula was a principal investigator of 2 NATO grants, 4 European Union research projects and 3 projects of the European Space Agency (ESA), resulting in the world first digital reconstruction of the early vertebrate embryogenesis in space and time from 3D+time confocal microscopy videos, determination of the new world constant W0, a conventional value for the geoid reference potential determining the physical shape of the Earth for our epoch, and creation of the environmental software NaturaSat devoted to Natura 2000 protected sites automatic identification and monitoring from satellite images. He was the President of the Slovak Mathematical Society and was awarded the independent iournalists' prize "The Scientist of the Year of the Slovak Republic" for his work on European Union projects, and the "Prize of Minister of Education, Science, Research and Sport of the Slovak Republic" for his exceptional scientific achievements. He founded and is responsible for the study program Mathematical and Computational Modelling at STUBA.

Dr. Rajeeb Dey is Associate Professor in the Department of Electrical Engineering, at National Institute of Technology Silchar, India. He has worked as a post-doctorate fellow in the Department of Automatic control, CINVESTAV-IPN at Mexico City during 2015-2016.

Dr. Dey obtained his PhD in Control System Engineering from the Department of Electrical Engineering, Jadavpur University, India in 2012. He is a recipient of post-doc fellowship from, The world Academy of Science (TWAS), Italy in 2015, National Associateship of Department of Bio-Technology in 2013, ERASMUS+ fellowship of European Union for teaching to the UAV Arad, Romania during 2018-2023. In 2020 August he has been appointed as a visiting professor by UAV, Arad, Romania.

Dr. Dey is SMIEEE'2013, FIE(I)'2021. Currently he is the Honorary Secretary of The Institution of Engineers (India) Silchar Centre, IFAC (Technical Committee) TC 3.2 Member. In the past he has served as a General Secretary, ACDOS (Advanced Control and Dynamic Optimization Society), Executive member of ACDOS, Executive Member of IEEE Joint CMS Kolkata Chapter, Executive Member (Electrical) of IE(I) Silchar Centre.

Dr Dey's current research includes Time-delay control, Control applications in Biomedical and Electrical Power System, Cyber Physical Systems, Socio-Psychological System modelling. He has guided several PhD and Master thesis, executed Government sponsored projects. Dr. Dey has published 06 books and research monographs, 60 journal and conference articles and, 01 Indian patent is granted in his name.

Program Committee

- Fuad ALESKEROV, National Research University 'Higher School of Economics, Moscow, Russia;
- Răzvan ANDONIE, Central Washington University, USA;
- Valentina BALAS, Aurel Vlaicu University of Arad, Romania;
- Barnabas BEDE, DigiPen University, USA;
- Valeriu BEIU, Aurel Vlaicu University of Arad, Romania;
- Hector BENITEZ-PEREZ, IMAS, UNAM, Mexico;
- Pierre BORNE, Ecole Centrale de Lille, France;
- Dominic BUCERZAN, Aurel Vlaicu University of Arad, Romania;
- Felisa CORDOVA; Universiy of Finis Terrae, Chile;
- Bogdan CRIVAT, Predixion Software, USA;
- Gabriela CRISTESCU, Aurel Vlaicu University of Arad, Romania;
- Antonio DI NOLA, University of Salerno, Italy;
- Yezid DONOSO, Universidad de los Andes, Colombia;
- Gintautas DZEMYDA, University of Vilnius , Lithuania;
- Ömer EĞECİOĞLU, University of Santa Barbara, USA;
- Florin Gheorghe FILIP, Romanian Academy, Romania;
- Daniela GIFU, Alexandru Ioan Cuza University, Iasi, Romania & Romanian Academy Iasi Branch;
- Marian GHEORGHE, The University of Bradford, UK;
- Enrique HERERRA-VIEDMA, University of Granada, Spain;
- Kaoru HIROTA, Tokyo Institute of Technology, Japan;
- Arturas KAKLAUSKAS, Vilnius Gediminas Technical University, Lithuania;
- Gang KOU, Southwestern University of Finance and Economics, Chegdu, China;
- Ioana MOISIL, Lucian Blaga University of Sibiu, Romania;
- Radu NICOLESCU, The University of Auckland, New Zealand;
- Sorin NADABAN, Aurel Vlaicu University of Arad, Romania;
- Mariana NAGY, Aurel Vlaicu University of Arad, Romania;
- Shimon Y. NOF, Purdue University, USA;
- Stephan OLARIU, Old Dominion University, USA;
- Gheorghe PĂUN, Romanian Academy, IMAR, Romania;
- Yi PENG, University of Electronic Science and Technology of China, China;
- Mario de J. PEREZ-JIMENEZ, University of Seville, Spain;
- Lorena POPA, Aurel Vlaicu University of Arad, Romania
- Radu-Emil PRECUP, Politehnica University of Timisoara, Romania (Senior Member of IEEE);
- Imre J. RUDAS, Óbuda University, Hungary (Member of IEEE);
- Yong SHI, University of Chinese Academy of Sciencies;
- Milan STANOJEVIC, University of Belgrad, Serbia;
- Codruta STOICA, Aurel Vlaicu University of Arad, Romania;
- Athanasios D. STYLIADIS, Kavala Institute of Technology, Greece;
- Ioan Alexandru ŞUCAN, Google [x], USA;
- Mincong TANG, Beijing Jiatong University, China;
- Gheorghe TECUCI, George Mason University, USA (Full Member of Romanian Academy);
- Horia-Nicolai TEODORESCU, Technical Univ. Gh. Asachi Iasi, Romania (Full Member of Romanian Academy);
- Dan TUFIŞ, Romanian Academy Institute of Artificial Intelligence "Mihai Draganescu", Romania (Full Member of Romanian Academy);
- Zenonas TURSKIS, Vilnius Gediminas Technical University, Lithuania.

Organizing Committee

- Dan BENTA, Agora University of Oradea, Romania;
- Ioan BUCIU, University of Oradea, Romania;
- Horea OROS, University of Oradea, Romania;
- Adrian-Claudiu CHEREGI, Association Cluster of Scientific Research, Innovation and European Studies from Oradea;

- Gabriela BOLOGA, Agora University of Oradea, Romania;
- Casian BUTACI, Agora University of Oradea, Romania;
- Adriana MANOLESCU, Agora University of Oradea, Romania;
- Razvan MEZEI, Lenoir-Rhyne University, USA;
- Ioana MOISIL, "Lucian Blaga" University of Sibiu, Romania;
- Attila SIMÓ, Politehnica University Timisoara, Romania;
- Marius SINCA, Agora University of Oradea, Romania;
- Bogdana STANOJEVIC, University of Belgrad, Serbia;
- Mincong TANG, Beijing Jiatong University, China;
- Filip TUTU, University of Oradea, Romania.

ICCCC 2024 statistics

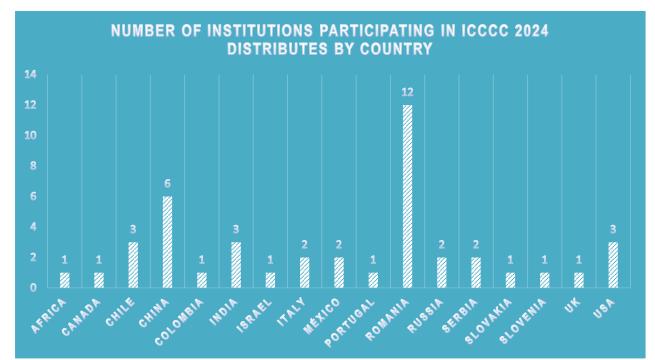


Figure 1. Number of institutions participating in ICCCC 2024 distributes by country

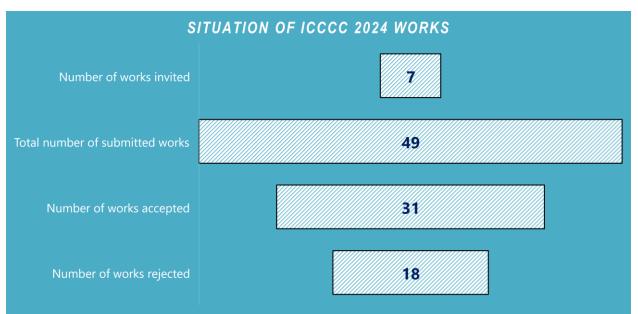


Figure 2. Situation of ICCCC 2024 works

Country Institution No. crt Africa University of Rwanda 1. 2 University of Ottawa Canada Chile University San Sebastián, Santiago 3. University Santiago de Chile, Santiago Pontificia Universidad Católica de Valparaíso 4. China Geelv University of China Sichuan Provincial Department of Human Resources and Social Security Scientific **Research Institute** Zhejiang Geely New Energy Commercial Vehicle Group Co., LTD Yibin city Syzhou district Anju property services Co., LTD, Yibin Chengdu College of University of Electronic Science and Technology of China Beijing Jiaotong University 5. Universidad de Los Andes Colombia 6. National Institute of Technology Silchar, Assam India Indian Institute of Technology Indor Indian Institute of Technology Patna Bihta Technion, IIT, Haifa Israel Università Bocconi, Milano 8. Italy Università degli Studi della Campania "Luigi Vanvitelli" IIMAS, Universidad Nacional Autónoma de México 9. México Ingeniería UNAM Ciudad de México 10. Portugal Portalegre Polytechnic University Romanian Academy 11. România University of Oradea Aurel Vlaicu University of Arad Petroleum-Gas University of Ploiesti Agora University of Oradea Transilvania University of Brasov George Emil Palade University of Medicine, Pharmacy, Sciences and Technology of Targu Mures Politechnica University of Timisoara S.C. Continental Automotive Romania S.R.L., Timisoara Hypervon University of Bucharest Bucharest University of Economic Studies, Bucharest Technical Civil Engineering University of Bucharest 12. **HSE Universitv** Russia Institute for Information Transmission Problems of the Russian Academy of Sciences 13. Serbia Mathematical Institute of the Serbian Academy of Sciences and Arts University of Belgrade 14. Slovakia Slovak University of Technology, Bratislava 15. Slovenia University of Ljubljana, Ljubljana School of Management, University College London, London 16. UK USA DigiPen Institute of Technology, Redmond, Washington Central Washington University San Diego State University

Table 1. Affiliation of the authors of the papers invited/accepted for presentation at ICCCC 2024

Photo gallery previous editions ICCCC



ICCCC 2006



ICCCC 2008



ICCCC 2010



ICCCC 2012



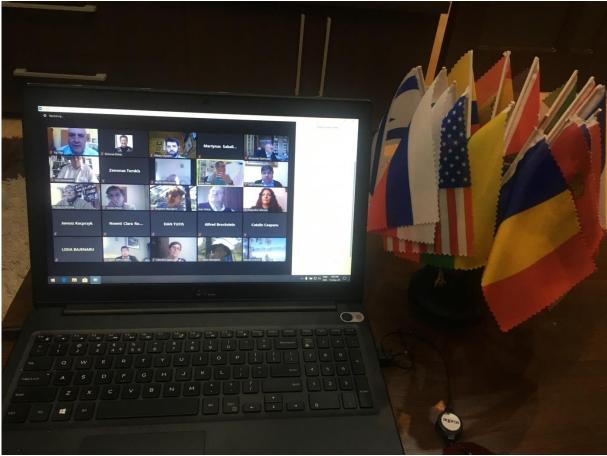
ICCCC 2014



ICCCC 2016



ICCCC 2018



ICCCC 2020



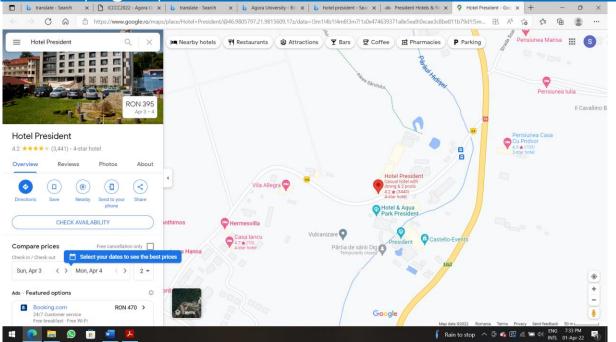


ICCCC 2022

Map of the Campus and Hotel President

gora University o	of Oradea			
iata Tineretului,				
		5, Long. E: 21.950868387444626	þ	
10526 Oradea, ii	ud. Bihor, ROMA	NIA		
	398, +40 259 472			
TI. 40 200 421			- 0 ×	
		rsity8esatid=id.sid%3Addf78249-ca93-551f-3461-79d3885db5bb8kmb=47.183487~21.75414		
Microsoft Bing universitatea agora		C C C C C C C C C C C C C C C C C C C	≈ ≡	
			Road	
			Brusturi	
UNIVERSITATEA	NAGYZOMUN	Biharea Cetariu	• Romania - Bihor 🗇	
TAADBAM		A fin and the second of the	+	
IN HOC SIGNO VINCES	Bors			
100 A		I DIREA DE CARACTERISTA	and the stand	
S		Ineu		
Agora University	le Criş	Sintandrei	Lugașu de Jos	
Organization			Setche	
Directions	📩 Nearby	Agora University Osorheiu Săcădat	Aştileu	
	Agora Foundation as		Màgești	
Directions to here	dependent trimonial purpose	Sânmartin Nojorid	mugești	
Directions from here		Báile Felix Copácel	A COL STATE	
Founded: 2000 Campus: Urban		La standard Carlos	Värciorog	
campus. orban	/		VALUE	
Nearby		Hidiselu de Sus	with the	
P Parking 🛌 Hote	els Gepiu	The state of the second s	ANNOR CALL	
🌱 Restaurants 🗧 Goff	ee 🖉		Feedback	
🔐 Gas stations 🚽 Nea	rby Transit	Miersig	2 mits _ 2 km	
Q Search nearby ivacy and Cookies Legal Advertise	Help Feedback		© 2022 Tentom, © 2022 Microsoft	
o 📄 💿 💼 🐖		Raini	ing now \land 🖗 🍖 🔯 🌾 🛥 🕬 🔤 7:30 PM 😽	

Hotel President: https://www.baile-felix.ro/ro/contact.html Adresă: Băile Felix, 417500, jud. Bihor, România E-mail: receptie@hotelpresident-felix.ro



Notes