

# Focus & Scope

**ISSN 1841-9836**; **Frequency:** 6 issues/ year; **Acronym:** IJCCC; **ISO Abbrev:** Int. J. Comput. Commun. Control; **JCR Abbrev:** INT J COMPUT COMMUN;

## Impact Factor in JCR2016: IF=1.374.

**International Journal of Computers Communications & Control (IJCCC)** is directed to the international community of scientific researchers in computers, communications and control, from the universities, research units and industry. To differentiate from other similar journals, the editorial policy of IJCCC encourages the submission of original scientific papers that focus on the integration of the 3 "C" (Computing, Communications, Control). In particular, the following topics are expected to be addressed by authors:

(1) Integrated solutions in computer-based control and communications;

(2) Computational intelligence methods & Soft computing (with particular emphasis on fuzzy logic-based methods, computing with words, ANN, evolutionary computing, collective/swarm intelligence);

(3) Advanced decision support systems (with particular emphasis on the usage of combined solvers and/or web technologies).

**IJCCC is indexed and/or abstracted by:** EBSCO; CrossRef/DOI; Google Scholar; Research Gate; Scimago J.; Scilit; <u>DOAJ</u>; Scopus: <u>CiteScore2016=1.06</u>; <u>SJR2016=0.319</u>; <u>SNIP2016=0.701</u>; Clarivate Analytics/Web of Science (ISI): <u>Science Citation Index Expanded (SCI-Expanded)</u>, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC, <u>JCR.</u>

**Submission:** IJCCC is an open access peer-reviewed journal publishing original research papers and review articles. The authors must read the <u>IJCCC Rules</u> before online <u>Submission</u>. The manuscripts submitted via e-mail will be ignored by the <u>Editorial Team</u>. All submitted manuscripts will be scanned for identification of similiraties and will be analized by editors for plagiarism prevention (for this reason <u>submission tax is required</u>).

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Editors-in-Chief (2018): Ioan DZITAC & Florin Gheorghe FILIP.

### **EDITORIAL ADDRESS**

### Dr. Ioan Dzitac (Editor-in-Chief)

Agora University of Oradea Piata Tineretului, no. 8 410526 Oradea, jud. Bihor, Romania Ph/Fax +40 359 101 032 Email address: ijccc@ univagora.ro URL: http://univagora.ro/jour/index.php/ijccc/

## **Founders of IJCCC**





Dr. <u>Ioan DZITAC</u>, <u>ioan@dzitac.ro</u> <u>rector@univagora.ro</u>



Acad. <u>Florin Gheorghe</u> <u>FILIP, ffilip@acad.ro</u>



Dr. <u>Misu-Jan</u> <u>MANOLESCU</u>, <u>mmj@univagora.ro</u>

**Prof. Ioan Dzitac** received his B.Sc.(eq.M.Sc.) in Mathematics (1977) and Ph.D. in Information Sciences (2002) from Babes-Bolyai University of Cluj - Napoca, Romania. He is an information sciences professor at Aurel Vlaicu University of Arad (since 2009). He was an Adjunct Professor at University of Chinese Academy of Sciences - Beijing, China (2013-2016) and since 2016 is an Advisory Board Member at Graduate School of Management of Technology, Hoseo University, south Korea. He was a rector of Agora University of Oradea in period 2012-2016 and was reelected for a new mandate (2016-2020). Also he was member of the IPC of more than 70 international conferences. He is a Senior Member of IEEE (since 2011). He is included in the monograph "100 Romanian Theoretical Computer Scientists" (in the last 100 years in Romania and Republic of Moldova: 1918-2018). He has published 3 books, 12 courses and materials for students, 5 conference proceedings and more than 80 scientific papers in journals and conferences proceedings.

Prof. Florin Gheorghe Filip is a full member of Romanian Academy, President of "Information Science and Technology" Section of Romanian Academy, and director of Library of Romanian Academy. He was a Vice-President of the Romanian Academy (2000 - 2010), Managing director of National Institute for R&D in Informatics (19911997). He authored/coauthored over 250 papers published in international journals (IFAC J Automatica, IFAC J Control Engineering Practice, Annual Reviews in Control, Computers in Industry, System Analysis Modeling Simulation, Large Scale Systems etc) and contributed volumes printed by international publishing houses (Pergamon Press, Springer, Kluwer, Chapmann & Hall etc). He is also the author/coauthor of ten monographs.

**Prof. Misu-Jan Manolescu** is a Professor of Risk Management and President of Administration Council of Agora University. He is an Engineer, PhD in Energy Engineering, PhD in Management, President of Agora Foundation, Founder of Agora University and co-founder and Managing Editor of International Journal of Computers Communications & Control and co-founder of International Conference Computers Communications & Control. He was a rector of Agora University between 2000-2012. His publications and research results consist in 10 books, over 60 papers and 2 inventions.

# **Editorial Team**

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- 2. <u>Florin Gheorghe FILIP</u>, Romanian Academy, Romania

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    - 36. Dan TUFIS, Research Institute for Artificial Intelligence, Romanian Academy, Romania

# FAMOUS FORMER MEMBER IN THE EDITORIAL BOARD OF IJCCC



Lotfi A. Zadeh (Feb. 4, 1921 - Sept. 6, 2017) The inventor of Fuzzy Sets, Fuzzy Logic, and Soft Computing Former member in the Editorial Board of IJCCC between 2008-2017



# Interview with editor-in-chief Ioan Dzitac



Elsevier: How do you feel about being nominated for Scopus Awards 2015?

## **Editor-in-Chief Ioan Dzitac:**

The whole team is honored by the nomination which we believe is an acknowledgement of all the hard work that stands behind the publishing of International Journal of Computers Communication & Control (IJCCC). We would like to thank our authors, reviewers and the entire team for all their dedication, originality and hard work.

Elsevier: What gap do you think your journal fills in your respective field of research?

## **Editor-in-Chief Ioan Dzitac:**

IJCCC has been focused from the very beginning on promoting research that integrates the "3Cs" – Computing, Communication and Control as to N. Wiener's theory in order to try and differentiate ourselves from the other journals indexed in the same category by Scopus.

**Elsevier:** If you could pick 5 articles of great importance for your field of research that have been published in your journal which would those be and why?

## **Editor-in-Chief Ioan Dzitac:**

I have decided to choose 5 of the most cited articles according to international databases such as Scopus and SCI Expanded:

- 1. Spiking neural P systems with anti-spikes, by Pan, L., Păun, G., 2009.
- 2. Tissue P systems with cell division, by Păun, G., Pérez-Jiménez, M.J., Riscos-Núñez, A., 2008.
- 3. Computing Nash equilibria by means of evolutionary computation, by Lung, R.I., Dumitrescu, D., 2008.
- 4. Lorenz system stabilization using fuzzy controllers, by Precup, Radu-Emil; Tomescu, Marius L.; Preitl, Stefan, 2007.
- 5. Neuro-fuzzy based approach for inverse kinematics solution of industrial robot manipulators, by Alavandar, S., Nigam, M.J., 2008.

Elsevier: For you, as Editor-in-chief, what is the most important development objective for 2016?

## **Editor-in-Chief Ioan Dzitac:**

Reinforcing the intellectual current we have created through publishing high quality articles that bring new ideas and multidisciplinary approaches.

Elsevier: Why did you choose to publish your journal Open Access?

### **Editor-in-Chief Ioan Dzitac:**

We have never followed financial gain as our main goal has been to publish high quality articles with a real effect on the evolution of society.

Elsevier: What do you think makes your journal stand out?

### **Editor-in-Chief Ioan Dzitac**:

First of all it stands out through the approach of the subject by integrating the 3Cs. On top of this I would add the geographical distribution of the authors that come from over 45 countries and are affiliated to more than 150 universities. The prestige of the editorial board that included researchers from 14 countries

<u>The editorial team</u> is another strong point as it includes researchers affiliated to high ranked universities from top 100 QS (1. Massachusetts Institute of Technology (MIT), 17. Cornell University, 24. McGill University, 25. Tsinghua University, 26. University of California Berkeley, Berkeley (UCB), 56. Tokyo Institute of Technology, 70. Shanghai Jiao Tong University, 80. University of Sheffield, 89. Purdue University, 96. University of Alberta). Finally I would like to point out our association with the <u>International Conference on Computers Communications and Control</u>.

JCR	AUTOMATION &	CONTROL SYS	TEMS	COMPUTER SCI	ENCE, INFORMA	TION SYSTEMS
Year 🔻	Rank	Quartile	JIF Percentile	Rank	Quartile	JIF Percentile
2016	43/60	Q3	29.167	96/146	Q3	34.589
2015	48/59	Q4	19.492	116/144	Q4	19.792
2014	47/58	Q4	19.828	96/139	Q3	31.295
2013	46/59	Q4	22.881	96/135	Q3	29.259
2012	49/59	Q4	17.797	109/132	Q4	17.803
2011	46/58	Q4	21.552	109/135	Q4	19.630
2010	38/60	Q3	37.500	97/128	Q4	24.609
2009	50/59	Q4	16.102	108/116	Q4	7.328

IJCCC in JCR - ISI Web of Science

# International Journal of Computers Communications &

### Control

ISSN: 1841-9836

CCC PUBL-AGORA UNIV PIATA TINERETULUI 8, ORADEA, JUD, BIHOR 410526, ROMANIA ROMANIA

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Titles

ISO: Int. J. Comput. Commun. Control JCR Abbrev: INT J COMPUT COMMUN

Categories AUTOMATION & CONTROL SYSTEMS - SCIE; COMPUTER SCIENCE, INFORMATION SYSTEMS - SCIE;

#### Languages ENGLISH

6 Issues/Year;

Key In	dicators												
Year 🔻	Total Cites Graph	Journal Impact Factor Graph	Impact Factor Without Journal Self Cites	5 Year Impact Factor Graph	Immediacy Index Graph	Citable Items Graph	Cited Half-Life Graph	Citing Half-Life Graph	Eigenfacto Score Graph	Article Influence Score Graph	% Articles in Citable Items Graph	Normalizec Eigenfacto Graph	Average JIF Percentile Graph
			Graph										
2016	649	1.374	1.265	1.193	0.297	64	4.0	7.8	0.00	0.159	100.00	0.09	31.878
2015	391	0.627	0.537	0.635	0.297	74	4.2	8.2	0.00	0.131	100.00	0.08	19.642
2014	391	0.746	0.615	0.739	0.178	73	4.2	7.9	0.00	0.185	100.00	0.118	25.561
2013	305	0.694	0.585	0.622	0.165	85	3.7	7.8	0.00	0.126	100.00	0.09	26.070
2012	175	0.441	0.289	0.436	0.060	84	4.0	7.8	0.00	0.093	100.00	Not	17.800
2011	144	0.438	0.335	Not A	0.095	63	3.2	84	0.00	Not	100.00	Not	20.59

		2014	2015	2016	2017	2018	Total	Average Citations per Year
		413	418	475	488	59	2884	262.18
L	Title: Spiking Neural P Systems with Anti-Spikes By: Pan, Linqiang: Paun, Gheorghe Source: INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS & CONTROL Volume: 4 Issue: 3 Pages: 273-282 Published: SEP 2009	23	15	8	8	3	77	7.70
2.	Title: Tissue P systems with cell division By: Paun, Gheorghe; Perez-Jimenez, Mario J.; Riscos-Nunez, Agustin Source: INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS & CONTROL Volume: 3 Issue: 3 Pages: 295-303 Published: 2008	8	5	6	10	1	57	5.18
3.	Title: Ant systems & local search optimization for flexible job shop scheduling production By: Liouane, Noureddine; Saad, Ihsen; Hammadi, Slim; et al. Source: INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS & CONTROL Volume: 2 Issue: 2 Pages: 174-184 Published: 2007	4	2	4	3	0	46	3.83
4.	Title: Fuzzy Logic Control System Stability Analysis Based on Lyapunov's Direct Method By: Precup, R-E; Tomescu, ML.; Preitl, St. Source: INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS & CONTROL Volume: 4 Issue: 4 Pages: 415-428 Published: DEC 2009	3	9	20	7	3	44	4.40
5.	Title: Determining Basic Probability Assignment Based on the Improved Similarity Measures of Generalized Fuzzy Numbers By: Jiang, W.; Yang, Y.; Luo, Y.; et al. Source: INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS & CONTROL Volume: 10 Issue: 3 Pages: 333-347 Published: JUN 2015	0	6	25	11	1	43	10.75
б.	Title: Computing Nash equilibria by means of evolutionary computation By: Lung, Rodica Ioana; Dumitrescu, Dan Source: INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS & CONTROL Volume: 3 Supplement: S Pages: 384-388 Published: 2008	3	3	5	6	0	38	3.45
7.	Title: EECDA: Energy Efficient Clustering and Data Aggregation Protocol for Heterogeneous Wireless Sensor Networks By: Kumar, D.; Aseri, T. C.; Patel, R. B. Source: INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS & CONTROL Volume: 6 Issue: 1 Pages: 113-124 Published: MAR 2011	4	9	6	5	2	37	4.63
8.	Title: Lorenz system stabilization using fuzzy controllers By: Precup, Radu-Emil; Tomesou, Marius L.; Preitl, Stefan Source: INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS & CONTROL Volume: 2 Issue: 3 Pages: 279-287 Published: 2007	11	7	2	0	0	35	2.92
9.	Title: A Decision-Making Perspective for Designing and Building Information Systems By: Filip, F. G. Source: INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS & CONTROL Volume: 7 Issue: 2 Pages: 284-272 Published: JUN 2012	10	9	2	6	0	31	4.43
10.	Title: Artificial Intelligence plus Distributed Systems = Agents By: Dzitac, Ioan; Barbat, Boldur E. Source: INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS & CONTROL Volume: 4 Issue: 1 Pages: 17-28 Published: MAR 2009	2	0	0	2	0	30	3.00

### **Ethics**

This journal is <u>a member</u> of, and subscribes to the <u>principles</u> of, the <u>Committee on Publication</u> <u>Ethics (COPE)</u>.



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# International Journal of Computers Communications and Control

#### Description:

International Journal of Computers Communications & Control is directed to the international communities of scientific researchers in computers, communications and control, from the universities, research units and industry. To differentiate from other similar journals, the editorial policy of IJCCC encourages the submission of original scientific papers that focus on the integration of the 3 "C" (Computing, Communications, Control). In particular, the following topics are expected to be addressed by authors: (1) Integrated solutions in computer-based control and communications; (2) Computational intelligence methods & Soft computing (with particular emphasis on fuzzy logic-based methods, computing with words, ANN, evolutionary computing,



From the same publisher

Computers Communications and Control

collective/swarm intelligence); (3) Advanced decision support systems (with particular emphasis on the usage of combined solvers and/or web technologies).

Contact: Editors-in-Chief: Ioan Dzitac and Florin Gheorghe Filip

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This is to certify that

**Ioan Dzitac** 

Associate Editor in Chief, International Journal of Computers Communications & Control, Agora University of Oradea

Attended

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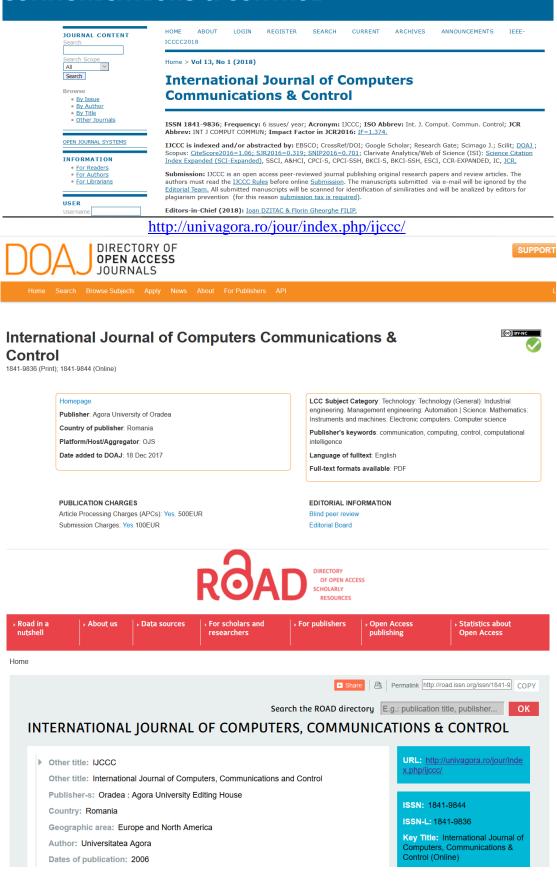
at the Representation of the State of Hessen to the European Union, Rue Montoyer 21, 1000 Brussels, Belgium

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# COMMUNICATIONAL JOURNAL OF COMPUTERS



# **INDEXING AND ABSTRACTING**

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Subject Category: (1) Automation & Control Systems: Q4(2009, 2011, 2012, 2013, 2014, 2015), Q3(2010, 2016); (2) Computer Science, Information Systems: Q4(2009, 2010, 2011, 2012, 2015), Q3(2013, 2014, 2016).

Impact Factor/3 years in JCR: 0.373(2009), 0.650 (2010), 0.438(2011); 0.441(2012), 0.694(2013), 0.746(2014), 0.627(2015), 1.374(2016).

Impact Factor/5 years in JCR: 0.436(2012), 0.622(2013), 0.739(2014), 0.635(2015), 1.193(2016).

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June 4, 2008

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Dear Dr. Ioan Dzitac,

I am pleased to inform you that *International Journal of Computers Communications & Control* has been selected for coverage in Thomson Reuters products and custom information services. Beginning with V. 2 (1) 2007, this publication will be indexed and abstracted in the following:

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Thank you very much.

Sincerely,

. Hollingsworth

Marian Hollingsworth Director, Publisher Relations



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	Impact Factor <b>1.374 1.193</b> 2016 5 year							
	JCR® Category	Rank in Category	Quartile in Cate	-				
	AUTOMATION & CONTROL SYSTEMS	43 of 60	Q3					
	COMPUTER SCIENCE, INFORMATION SYSTEMS	96 of 146	Q3	-				
	Data from the 2016 edition of Journal Citatio	n Reports						
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EBSCO								
Since 2007, 2(1), IJCCC is i EBSCO Information Ser			TITLE LISTS	PUBLISHERS & PARTNERSHIPS SUPPOR				
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International Journal of Computers, Communication Scopus coverage years: from 2008 to 2017 Publisher: CCC Publications, R & D Agora ISSN: 1841-9836 E-ISSN: 1841-9844 Subject area: Computer Science: Computer Science Applications Computer Science: Computer Science: Computer Science Applications			Visit Scopus Journal Metrics >> CiteScore 2016 1.06
Computer Science: Computer Networks and Communications View all documents > Set document alert Journal Homepage			0.319 SNIP 2016 0.701

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**Quartiles by Subject Category in Scopus:** 

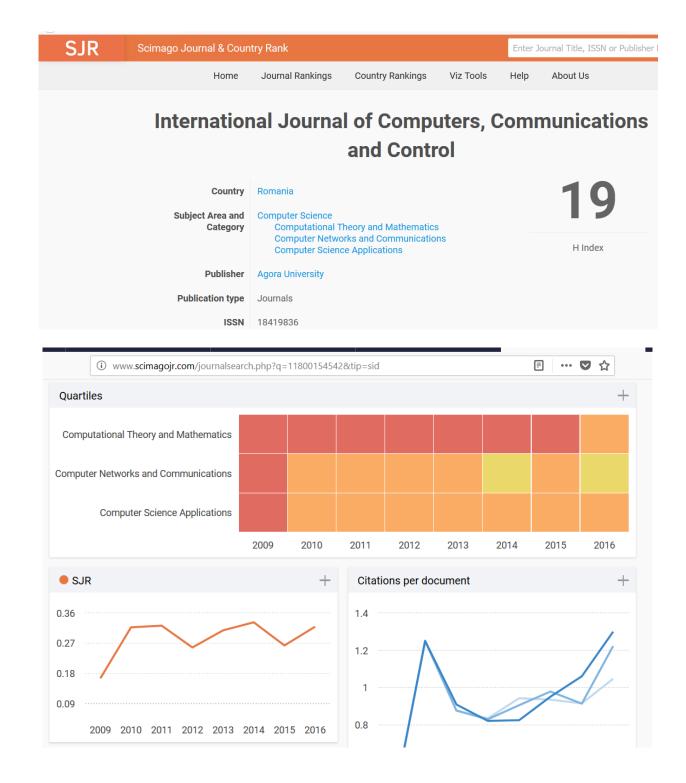
(1) Computational Theory and Mathematics: Q4(2009, 2010, 2012, 2015), Q3(2011,2013,2014, 2016);

(2) Computer Networks and Communications: Q4(2009), Q3(2010,2012,2013,2015), **Q2**(2011, 2014, **2016**);

(3) Computer Science Applications: Q4(2009), Q3(2010, 2011, 2012, 2013, 2014, 2015, 2016). SJR:

0.178(2009), 0.339(2010), 0.369(2011), 0.292(2012), 0.378(2013), 0.420(2014), 0.263(2015), **0.319(2016).** 

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Journal Title*: Internat	Journal Title*: International Journal of Computers Communications & Control							
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Subscription End Date*: 12/31/2028 EISSN: 1841-9844								
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Submission





# 2018 7<sup>th</sup> International Conference on Computers Communications and Control (ICCCC)

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Period: May 08-12, 2018

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under the aegis of Romanian Academy: - Information Science and Technology Section.

Dedication: This edition is dedicated to the 100th anniversary of

<u>RICHARD P. FEYNMAN</u> (1918-1988) - American <u>theoretical physicist</u> known for his work in the <u>path integral</u> <u>formulation</u> of <u>guantum mechanics</u>, the theory of <u>guantum electrodynamics</u> and others.







Acad. Paul Dan Cristea Romania



Prof. A. Willi Petersen Germany



Acad. Gheorghe Paun Romania



Prof. Antonio di Nola Italy



Acad. H.-N. Teodorescu Romania



Prof. Athanasios Styliadis Greece





Prof. Kaoru Hirota Japan



Prof. Gabriel Ciobanu Romania



Prof. Janos Fodor Hungary



Prof. Angel Garido Spain



Acad. Dan Tufis Romania



Prof. Afrodita Iorgulescu Romania





Prof. Lotfi A. Zadeh USA



Prof. Stephan Olariu USA



Acad. Florin Gheorghe Filip Romania



Acad. Gheorghe Paun Romania



Acad. Dan Tufis Romania



Prof. Pierre Borne France





Prof. Razvan Andonie USA



Prof. Gaston Lefranc Chile



Acad. Florin Gheorghe Filip Romania



Prof. Ioana Moisil Romania



Prof. Felisa Cordova Chile



Prof. Carolina Lagos Chile





Prof. Yong Shi USA



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Acad. Florin Gheorghe Filip Romania



Prof. Milan Stanojevic Serbia



Prof. Gang Kou China



Prof. Astrid Oddershede Chile





Prof. Yong Shi China



Prof. Angel Ortiz Spain



Prof. Fuad Aleskerov Russia



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Prof. Pascale Zarate France



Prof. Vinod Madan India





Prof. Enrique Herrera-Viedma Spain



Prof. Zenonas Turksis Lithuania



Prof. Gang Kou China



Prof. Ioana Moisil Romania



Acad. Gintautas Dzemyda Lithuania



Acad. Florin Gheorghe Filip Romania

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Special Sessions

Committees

Deadlines

General Program

Conference Fees

Venue: Information & Contact

Publication: Instructions to authors





# 2018 7<sup>th</sup> International Conference on Computers Communications and Control (ICCCC)

Place: <u>Hotel President</u> (4 stars, aqua-park, spa), Báile Felix, Oradea, România Period: May 08-12, 2018

Co- Sponsored by

IEEE Region 08 -Europe, Middle East, Africa



Prof. Barnabas Bede USA Spain



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Prof. Alfred M. Bruckstein Israel



Prof. Arturas Kaklauskas Lithuania



Prof. Yezid Donoso Colombia



Acad. Gheorghe Paun Romania

# **ABOUT AGORA UNIVERSITY**



**Agora University of Oradea**, established and accredited by Law 59/2012, identifies itself by the following elements (From University's Charter 2016):

Official name: Agora University; 2) Acronym: UAO; 3) Headquarter: Piața Tineretului no. 8, 410526, Oradea, Bihor, Romania; 4) Motto: Access to Success!; 5) The University' Day: 17 March; 6) Website: http://univagora.ro; 7) Distinguished signs: the emblem (the sign in the header), the seal, the flag (the emblem of the University on white flag), ceremonial clothing: robe and toque.

# Accredited by ARACIS



# 2010 (Grade: Confidence); 2018 (Grade: Confidence)

## **UAO founding managers:**

Agora Foundation, established on 10.01.2000, decided to found a private university (the General Meeting of Founders of 17.03.2000): Universitatea Agora (Agora University).



- Prof. Misu-Jan Manolescu, PhD, rector (2000-2012) / president of CA-UAO (2012-2020)
- Prof. Adriana Manolescu, PhD, dean (2000-2010) / president of Senate (2012-2020).

UAO is a young institution of higher education (2015 celebrated 15 years of its foundation), with a brief but dense history, proud to have many collaborators famous worldwide.

**Agora University of Oradea** rewards diplomas given by the National Education Ministry recognized in Romania, European Union and other countries that Romania has agreements with (<u>MEN</u>).

UAO was characterized by EUA-IEP team (2014) as "an entrepreneurial university":

**EUA-IEP Team** (**PDF**): "The team has enjoyed learning about the characteristics of Agora University and its role as an entrepreneurial providerof higher education in the fields of law, management and social science. It has been an interesting experience to discuss with staff, students, and external stakeholders the challenges faced by UAO and the university's efforts to address constraints and to explore future opportunities. We believe the university has the potential to take successful steps in its next stage of development."



# **Members of Senate**

## Full Members elected for the 2016-2020 mandate

- 1. Prof. Adriana MANOLESCU, Ph.D.
- 2. Prof. Elena Ana IANCU, Ph.D.
- 3. Assoc. Prof. Ioan STAN, Ph.D.
- 4. Assoc. Prof. Casian-Valentin BUTACI, Ph.D.
- 5. Lect. Radu Gheorghe FLORIAN, Ph.D.
- 6. Patricia Carmen POLEAC student FSJA
- 7. Loredana Gabriela MOCANU student FSE

## Honorary Members (in chronological order of election)

- 1. Prof. Robert Joseph CHILDS, Southeastern University, Florida, USA
- 2. Prof. Salvo ANDO, Università della Sicilia Centrale "Kore" di Enna, ITALIA
- 3. Prof. Luca REFRIGERI, Universita Degli Studi Del Molise, ITALIA
- 4. Prof. Alfio D'URSO, Università di Catanzaro, ITALIA
- 5. Prof. Eva PFOSTL, Istituto "San Pio V" di Roma, ITALIA
- 6. Prof. Sabia BUCCI, ITALIA
- 7. Acad. Florin Gheorghe FILIP, Romanian Academy, ROMANIA
- 8. Prof. Pierre BORNE, L'Ecole Centrale de Lille, FRANCE
- 9. Prof.. George METAKIDES, University of Patras, GREECE
- 10. Prof. Felisa CORDOVA, University of Santiago of Chile, CHILE
- 11. Prof. Yezid DONOSO University of the Andes, Bogotá, COLUMBIA
- 12. Prof. Gang KOU, Southwestern Univ. of Finance and Economics, CHINA
- 13. <u>Prof. Yong SHI</u>, University of Nebraska at Omaha, USA & University of Chinese Academy of Sciences, CHINA
- 14. Dr. K. SRIDHARAN, Cancelar Kalasalingam University, INDIA
- 15. Ing. Gheorghe GRIGUTA, Director General- Coniz Romarg, ROMANIA
- 16. Ec. George OFRIM, Director General, ARCER, ROMANIA



# Prof. Adriana MANOLESCU, Ph.D. President of the Senate

# **Executive Staff**



Prof. Ioan DZIŢAC, PhD Rector



Assoc. Prof. Gabriela BOLOGA, PhD Vice-Rector



Prof. Misu-Jan MANOLESCU, PhD President of CA-UAO



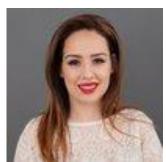
Lect. Radu Gheorghe FLORIAN, Ph:D. Chancellor



Prof. Elena-Ana IANCU, PhD Dean of FSJA



Assoc. Prof. Casian Valentin BUTACI, PhD Dean of FSE



Assoc. Prof. Alina MANOLESCU, PhD Director of DSS



Assoc. Prof. Viorina JUDEU, PhD Associate Director of DSS



# **Doctor Honoris Causa of Agora University**

1. Acad. Florin Gheorghe Filip, Romanian Academy, Romania



2. Prof. dr. Robert Joseph Childs, Southeastern University, Florida, USA



Prof.dr. R. Joseph Childs

3. Prof. dr. em. Grigor Moldovan, Universitatea Babeș-Bolyai din Cluj Napoca, România



Prof.dr.em. Grigor Moldovan

4. Prof. dr. em. Constantin Roșca, Universitatea din Craiova, România



5. Prof. Yong Shi, University of Chinese Academy of Sciences, Beijing, China



Prof. Yong Shi

6. Acad. Solomon Marcus, prof.univ.dr. em. At University of Bucharest, România



Acad. Solomon Marcus

# 7. Acad. Gheorghe Păun, IMAR, Romanian Academy



Acad. Gheorghe Paun

8. Prof. Gang Kou, Southwestern University of Finance and Economisc, Chengdu, China



Prof. Gang Kou

9. Prof. Salvo Andò, University KORE of Enna, Sicily, Italy



**Prof. Salvo Ando** 



# **Profesor Honoris Causa of Agora University**

1. Prof. Ioana Moisil, Lucian Blaga University of Sibiu, Romania



Prof. Ioana Moisil

# **International Partners**

## **EUROPE**

- Universita degli studi della Campania "Luigi Vanvitelli", Caserta, Italy
- <u>Libera Universita degli studi "San Pio V"</u>, Rome, Italy
- Instituto di Studi Politici "S. Pio V", Rome, Italy
- Associazione Culturale "PF-ON-LINE", Rome, Italy
- Associazione Nuovi Cittadini Ciociari, Italy
- Consorzio Universitario d'Isernia, Italy
- Istituto di Ricerche Sociali Economiche e Ambientali (IRSEA), Rome, Italy
- Istituto di Scienze e Tecnologie della Cognizione (ISTC)-CNR, Rome,
- Universita degli Studi di Cassino (Frosinone), Italia
- Universita degli Studi di Modena e Reggio Emilia,
- University of Belgrade, Belgrad, Serbia
- <u>University of Montenegro</u>, Montenegro

## USA

• Southeastern University Lakeland, Florida, USA

## **CHINA**

- <u>University of Chinese Academy of Sciences</u>
- Beijing Jiatong University
- Southwestern University of Finance and Economics

### **INDIA**

- Kalasalingam University
- Jaypee Institute of Information Technology

## **International Consortium**

• University Consortium Africa and Mediterranean

## **European Programs**

- Economic and Monetary Union (UEM, Jean Monnet)
- Europe Direct Agora
- Free circulation (Jean Monnet)
- Erasmus +



# **International Relations (a selection)**

# Southeastern University of Florida, USA

• <u>http://univagora.ro/ro/parteneri/mba-usa/</u>







# Beijing Jiatong University, China

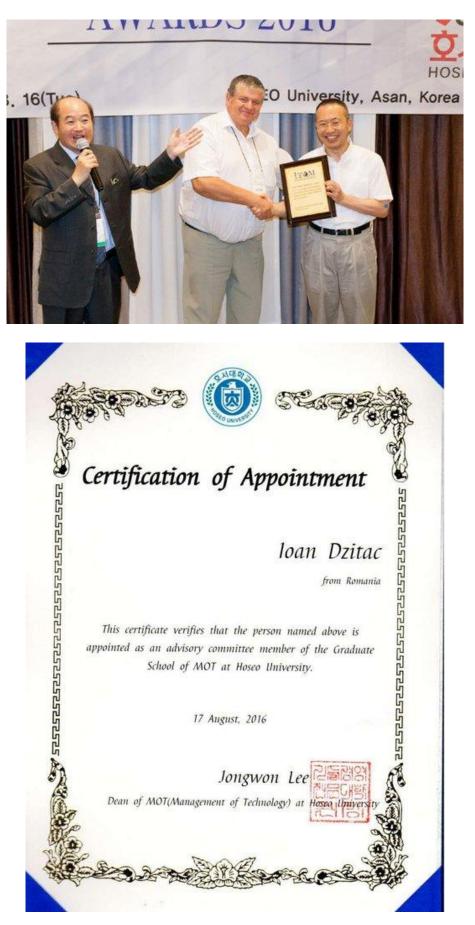
• http://www.aasmr.org/jsms/editorial.html



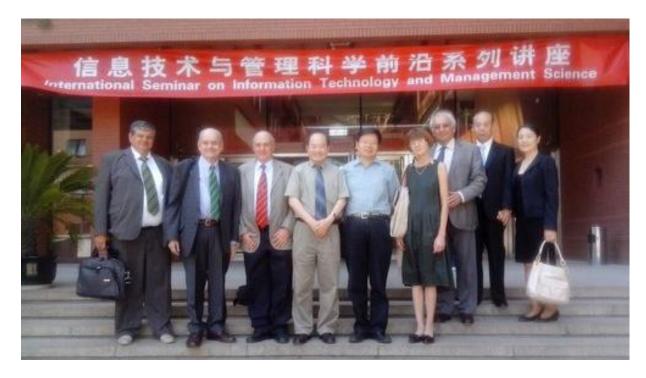


### Hoseo University, Asan, South Korea

• Tutorial at ITQM2016, South Korea



### University of Chinese Academy of Sciences, Beijing, China



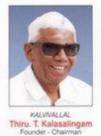








### Genesis of Kalasalingam University



(AKCE), the parent institute to the University, was started in a humble way by Kalasalingam and Anandam Ammal Charities in 1984 with "Kalvivallal" Thiru T. Kalasalingam, a veteran freedom fighter as the Founder-Chairman. The Ministry of Human Resources Development, Government of India, New Delhi granted the University status (Under Section 3 of UGC Act 1956) to AKCE wide notification No. F.9-2/2002/U.3 on 20th October 2006. The University is located at the foot hills of the Western Ghats in the rural setting of Virudhunagar District, Tamil Nadu. The founding philosophy of the Institute is to Empower Youth for development through technology.

Arulmigu Kalasalingam College of Engineering



Thiru, K. Sridharan -aline

Vision To be a Centre of Excellence of International Repute In Education and Research

Mission To Produce Technically Competent, Socially Committed Technocrats and Administrators through Quality Education and Research

### **Global Associations**

### Kalasalingam University has academic collaboration with the following leading foreign Universities

- Carnegie Mellon University, USA
- Soongsil University, South Korea
- University of Applied Sciences. Switzerland
- Aachen University of Technology (RWTH), Germany
- Multimedia University, Malaysia
- + Ball State University USA
- + Oklahoma University, USA
- + East Tennessee State University, USA
- + Lebniz Institute, Germany
- + Hannam University, South Korea
- + Technical University of Kosice, Slovak Republic
- + Agora University of Oradea, Romania
- + University of Arad, Romania



Kalasalingam University has International Advisory Committee with members from the leading academic institutions around the world

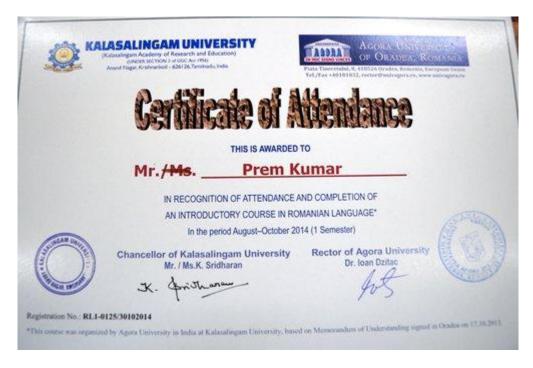
#### Placements Excellent placement opportunities through various on-campus and off-camp

- Tata Consultancy Services
- + Consortium Clinical Research
- + HCL Technologies
- Athena Health Technologies HCL BServ
- Proscape LLC, Dubai
- + Adecco India Pvt Ltd
- Ceasefire Industries Ltd
- SRM Technologies

HDFC Bank

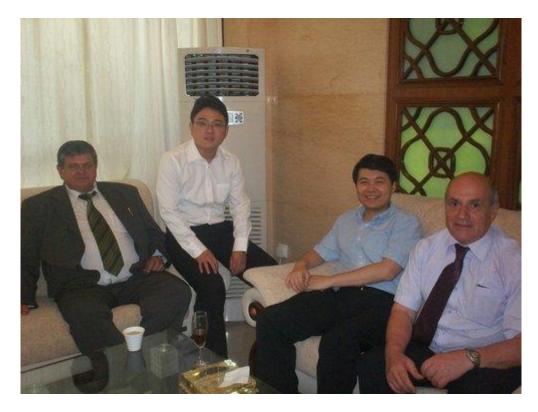
- + Data Mining & Research India Pvt. Ltd + Green Building Academy, Dubai
- Zifo Technologies
- Susee Group of Companies
   Abhilitet Group of Thermal Power Plant, Noida
- Sutherland Global Services
   Oil Emirates, Dubai UAE
  - + Taj Hotels, Resorts & Palaces
  - + L&T Infotech
- Clearpath Technology
   Solartis Technologies
   Madras Cements
   Glaxo Smithkline Pharmaceuticals Ltd

### www.kalasalingam.ac.in



Southwestern University of Finance and Economics (SWUFE), Chengdu, China

• https://e.swufe.edu.cn/eswufe/a/International/Partners/





### Agora's Students at Summer School "Discover SWUFE", China

From 2014, every two UAO students participating in the Summer School "Discover SWUFE" Southwestern University of Finance and Economics (SWUFE), Chengdu, China.



UAO is a young institution of higher education (2015 celebrated 15 years of its foundation), with a brief but dense history, proud to have many collaborators famous worldwide. Here are just a few of them:



Acad. D. Tufiș, Prof. I. Dzițac, Prof. L.A. Zadeh (USA), Prof. M.-J. Manolescu, Acad. F.G. Filip



Prof. Y. Shi (China), Acad. F.G. Filip, Prof. P. Zarate (France), Prof. M.-J. Manolescu, Prof. F. Aleskerov (Russia), Prof. I. Dumitrache



Prof. I. Dziţac, Acad. F.G. Filip, Prof. G. Lefranc (Chile), Prof. R. Andonie (USA), Prof. A. Manolescu, Prof. V. Olivares (Chile), Prof. C. Lagos (Chile), Prof. M.-J. Manolescu, Prof. F. Cordova (Chile)



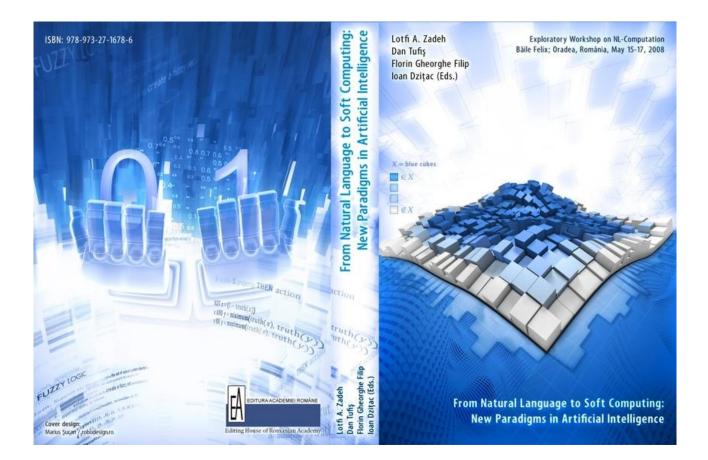
Prof. J. Fodor (Hungary), Prof. K. Hirota (Japan), Acad. D. Tufiş, Prof. P. Filip, Prof. M.-J. Manolescu, Prof. I. Dziţac, Prof. A. Iorgulescu, Prof. A. Styliadis (Greece)



Acad. F.G. Filip, Prof. A..Jain (Costa Rica), Prof. V. Madan (India), Prof. A. Manolescu, Prof. R. Singh (India), Prof. M.-J. Manolescu, Prof. I. Dziţac, Prof. S. Karamanchandani (India)



Prof. I. Dzitac, Mr. Chancellor K. Sridaran (India), Assoc. Prof. G. Bologa, Prof. M. Duțu, Prof. O. Predescu, Prof. E.A. Iancu

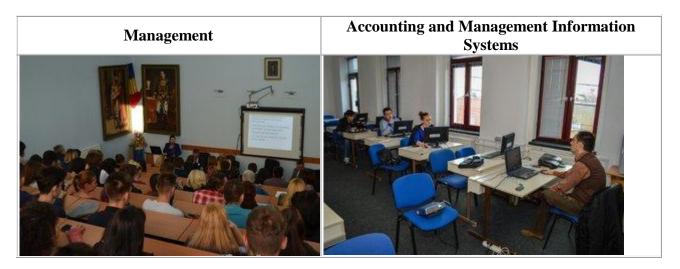


### **Faculties and Specializations**

In 2015, in line with the recommendations of ARACIS (2010), Faculty of Law and Economics was divided into two faculties:

### 1. Faculty of Economic Sciences

- Bachelor: Management & Accounting and Management Information Systems;
- Master: Management of Human Resources



### 2. Faculty of Juridical and Administration Sciences

- Bachelor: *Law & Local police*;
- Master: Criminal and Penal Sciences, Applied Criminal Researches.





### University

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LAW



LOCAL POLICE



MANAGEMENT



Universitatea Agora din Oradea (UAO) este o instituție de învățământ superior, de drept privat și utilitate publică, înființată/ acreditată prin Legea 59/2012. A fost fondată în 2000 de prof.univ.dr.ing. Mişu-Jan Manolescu (rector fondator al universității, în prezent fiind președintele CA) și prof.univ.dr. Adriana Manolescu (decan fondator al Facultății de Drept și Științe Economice, în prezent fiind președintele Senatului UAO).

Decan FSJA:

Prof.univ.dr.

Elena lancu



Director DSS

Conf.univ.dr

Alina Manolescu

DARMA Courses E-Biblioteci/ BDI - < ANELIS Mobil Baze de date academice Bibioteca Academiei Biblioteca Natională DBI P Google Academic Oxford UP Reviste DOAJ Reviste ISI (RO)

Sciencedirect

"Find o universitate tânâră, centrată pe educație și cercetare științifică în domeniul științelor sociale, Universitatea Agora Își asumă misiunea să transmită studenților săi spiritul Agorei, bazat pe valorile democrației și unanismului transdisciplinar, spirit pe care absolvenții, la rândul lor, să-l propage mai departe în societate. Pornind de la acumulările prezente și valorificarea potențialului intern, cu deschidere spire colaborări externe, Universitatea Agora își propune ca, într-un timp rezonabil, să adeuge valori noi cunoașterii umane, prin promovarea și încurajarea corectării, tinzând în viitor spire o misiune de educație și cercetare științifică, astifel încât să devină recunoscută în mediul academic românesc și cercener științifică, astifel încât să devină recunoscută în mediul academic românesc și cercener științifică a dire la cateratere și lo proce tati în care încăte de devineție î (tire a tine european ca un model eficient al accesului la succes într-o societate dinamică." (Extras din Carta 2015: Misiunea Universității Agora).

Cancelar:

Lect.univ.dr.

Radu Florian

Prorector:

Conf.univ.dr.

Gabriela Bologa

Rector:

Prof.univ.dr.

Ioan Dziţac

Conducerea executivă pentru legislatura 2016-2020:





Conf.univ.dr.

Casian Butaci

Profesorii din învăţământul preuniversitar bihorean, care doresc găzduire gratuită pe platforma noastră, sunt invitați să trimită o solicitare la rector@univagora.ro.

### Rector, prof.univ.dr. Ioan Dzitac

Înregistrare în platforma Moodle (cont pentru studenții din anul I):



You are not logged in. (Log in) English (en) ~

Platforma Moodle este un sistem de e-learning, performant și gratuit, de management online al învățării, care vă asigură posibilitatea de a învăța de la distanță, oricând și oriunde v-ati aflal

Studenții noștri își pot Studenții noștri iși pot descărca/vizualiza cursurile în format electronic, să rezolve teste online, să folosească forumul de grup, e-mail ș.a.

## Prof. Ioan Dzitac at 65 Years



Prof. Ioan Dzitac, PhD

Born: February 14, 1953, Poienile de sub Munte, Maramures, Romania

Bachelor/eq. Master in Mathematics at Babes-Bolyai Univ. Cluj Napoca (1977)

PhD in Information Sciences at Babes-Bolyai Univ. Cluj Napoca (2002) Rector of Agora University (2012-2016; 2016-2020)

Founder and General Chair of International Conference on Computers Communications and Control

Founder and Editor in Chief of International Journal of Computers Communications and Control

Included in the Top of the 100 Romanian Theoretical Computer Scientists in the last 100 years (Romania and Republic of Moldova, 1918-2018)

# 100 Romanian Theoretical Computer Scientists

Edited by

### Svetlana COJOCARU Chişinău Corresponding Member of the Academy of Sciences of Moldova

Acad. Gheorghe PĂUN Curtea de Argeș

Prof. Dragoş VAIDA Bucharest

Editura Academiei Române București, 2018

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- 86. Şerbănuță, Traian Florin
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- 90. Tîrnăucă, Cristina
- 91. Tomescu, Ioan
- 92. Trăuşan-Matu, Ștefan
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### 26. DZIŢAC, Ioan

Born on February 14, 1953, in Poieni de sub Munte, Maramureş, Romania.

**Education:** "Babeş-Bolyai" University of Cluj-Napoca (1972–1977), Bachelor/eq. Master in Mathematics (1977).

**PhD** in informatics at "Babeş-Bolyai" University of Cluj-Napoca, 2002. Thesis title: *Parallel and Distributed Methods for Some Operator Equations Resolution*. Scientific advisor: Grigor Moldovan.

**Positions:** Mathematics teacher in Oradea, Bihor County (1977–1991); Lecturer at University of Oradea (1991–2003); Associate professor at University of Oradea (2003–2005); Associate professor at "Agora" University of Oradea (2005–2009); Adjunct professor at University of Chinese Academy of Sciences, Beijing (2013–2016); Full professor at "Aurel Vlaicu" University of Arad (2009–2018).

**Research areas:** Parallel and distributed computing, information systems, computational intelligence, artificial intelligence, soft computing, e-learning, applications of fuzzy logic in technology and economy.

### Main results:

In my PhD thesis there are mathematical and computer science contributions related to parallel and distributed computing: an original synthesis of taxonomy of parallel architectures); computing methods of parallel fixed points in  $\mathbf{R}^n$  (parallelization of classical algorithms, new proofs of some fixed point theorems, the introduction of randomized filtered asynchronous iterations method – RFAIM); systems of algebraic equations (parallelization of classical algorithms for solving nonlinear algebraic equations and comparative studies with RFAIM); ordinary algebraic equations (the most efficient parallel methods for solving the polynomial equations of higher grade).

In the fuzzy theory and applications area are established some properties of fuzzy quasipseudo-metric spaces. An important result is that any partial ordering can be defined by a fuzzy quasi-metric, which can be applied both in theoretical computer science and in information theory, where it is usual to work with sequences of objects of increasing information. Also are obtained decomposition theorems of a fuzzy quasi-pseudo metric into a right continuous and ascending family of quasi-pseudometrics.

I have also introduced (in a joint paper with S. Nadaban) the concept of atomic decomposition of fuzzy normed linear spaces, which play a key role in the development of fuzzy wavelet theory. We obtained decomposition theorems for fuzzy norms into a family of semi-norms, within more general settings. The results hold both for Bag-Samanta fuzzy norms and for Katsaras fuzzy norms. As a consequence, locally convex topologies induced by these types of fuzzy norms are obtained.

Together with B. Stanojevic and S. Dziţac, I have proposed a new approach to solving the full fuzzy linear fractional programming problem, which leads to good decisions in certain problems where the goals may be modelled by linear fractional functions under linear constraints, and when only vague data are available.

Administrative positions: Director of Math & Informatics Department at University of Oradea (2004–2005). Head of IT Chair at "Agora" University (2005–2008). Director of R&D Center at "Aurel Vlaicu" University of Arad (2009–2017). Rector of "Agora" University (2012–2020).

### **Editorial boards:**

International Journal of Computers Communications & Control (IJCCC; Oradea, Romania; founder and editor-in-chief), Financial Innovation (Springer), Journal of System and Management Sciences (Beijing Jiatong University, China), Broad Research in Artificial Intelligence and Neuroscience (Romania), Mathematics, Informatics, Physics Series – Bulletin of PG University of Ploiesti, Theory and Applications in Mathematics and Computer Science (Arad, Romania; associate editor), Scientific and Technical Bulletin, Series: Electrotechnics, Electronics, Automatic Control and Computer Science (Arad, Romania), Journal of Systemics, Cybernetics and Informatics (The International Institute of Informatics and Systemics, USA), Business, Management and Education (Vilnius Gediminas Technical University, Lithuania), Baltic Journal of Modern Computing.

### Membership to professional organizations:

The International Academy of Information Technology and Quantitative Management – in Board (since 2014).

IEEE Senior Member (since 2011).

IEEE Computational Intelligence Society Member (since 2011).

ROMAI: Romanian Society of Applied and industrial Mathematics (Member since 1995; vice-president: 1996–2011).

SRAIT – Romanian Society of Automation and Applied Informatics – Arad branch (secretary: 2010–2014)

RNG–ISCB: Romanian National Group of International Society for Clinical Biostatistics (since 2007).

SSMAR - Scientific Society of Management from Romania (since 2010).

Advisory Board Member at Graduate School of Management of Technology, Hoseo University, Asan, South Korea (since 2016).

### Honors, prizes, scientific distinctions:

Diploma of Excellence for Research, Senate of "Aurel Vlaicu" University of Arad, 2015 and 2016.

Certificate of Excellence for software – the Senate of "Aurel Vlaicu" University of Arad, 2010.

Diploma "Teacher of the Year 2008" - Senate of University "Agora", Oradea.

Diploma of Excellence – Economic Faculty Association in Romania (AFER).

Popularity Award for his work entitled "A Distributed Database for Generating Benchmark Test Informatics" presented at the *NVIC*, 2006, Bucharest, 2006.

Prize ROMAI – Romanian Society of Applied and Industrial Mathematics 2003. The title "Professor highlighted" granted by Ministry of Education, 1988.

### **Books:**

1. Parallel Computing, Ed. Univ. Oradea, 2001 (397 pages, in Romanian).

2. Parallel and Distributed Methods for Algebraic Systems Resolution, CCC Publications, 2006 (150 pages).

3. Artificial Intelligence, Ed. Univ. "Aurel Vlaicu", Arad, 2008 (182 pages, in Romanian).

4. (with L.A. Zadeh, D. Tufiş, F.G. Filip) From Natural Language to Soft Computing: New Paradigms in Artificial Intelligence, The Publ. House of the Romanian Academy, Bucharest, 2008 (268 pages).

### **Representative articles:**

1. (with F.G. Filip, M.J. Manolescu) Fuzzy Logic Is Not Fuzzy: World-Renowned Computer Scientist Lotfi A. Zadeh, *International Journal of Computers Communications & Control*, 12, 6 (2917), 748–789.

2. (with S. Nadaban) Some Properties and Applications of FuzzyQuasi–Pseudo-Metric Spaces, *Informatica*, 27, 1 (2016), 141–15.

3. (with B. Stanojevic, S. Dziţac) On the Ratio of Fuzzy Numbers Exact Membership Function Computation and Applications to Decision Making, *Technological and Economic Development of Economy*, 21, 5 (2015), 815–832.

4. The Fuzzification of Classical Structures: A General View, *International Journal of Computers Communications & Control*, 10, 6 (2015), 775–793.

5. (with S. Nadaban) Atomic Decompositions of Fuzzy Normed Linear Spaces for Wavelet Applications, *Informatica*, 25, 4 (2014), 643–662.

6. (with T. Vesselenyi, R.C. Tarca) Identification of ERD Using Fuzzy Inference Systems for Brain-Computer Interface, *International Journal of Computers Communications & Control, Special Issue on Fuzzy Sets and Systems*, 6, 3 (2011), 403–417.

7. (with D.C. Secui, S. Dziţac, G.V. Bendea) An ACO Algorithm for Optimal Capacitor Banks Placement in Power Distribution Networks, *Studies in Informatics and Control*, 18, 4 (2009), 305–314.

8. (with B.E. Bărbat) Artificial Intelligence + Distributed Systems = Agents, *International Journal of Computers Communications & Control*, 4, 1 (2009), 17–26.

9. (with I. Moisil) Advanced AI Techniques for Web Mining, Proc. of MAMECTIS '08, 2008, 343–346.

10. (with T. Vesselenyi, S. Dziţac, M.-J. Manolescu) Fuzzy and Neural Controllers for a Pneumatic Actuator, *International Journal of Computers Communications & Control*, 2, 4 (2007), 375–387.

### **Further information:**

– Invited talks at many universities from Europe, China, India, South Koreea.

- Initiator of Computer science courses and master programs (parallel computing, didactics of information, distributed systems, etc.) at universities from Oradea and Arad.

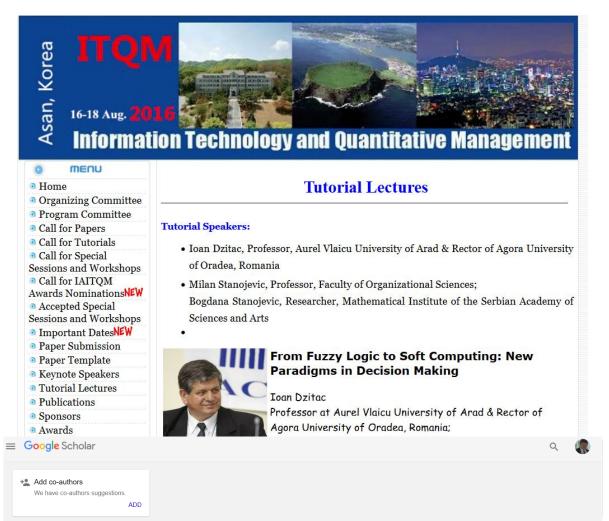
- Founder of the International Conference on Computers Communications and Control at University "Agora" of Oradea (2006).

- Founder of the International Journal of Computers Communications & Control at University "Agora" of Oradea(2006).

Personal web page: http://dzitac.ro/en/ioan



Ioan Dzitac & Lotfi A. Zadeh at ICCCC2008 (Oradea, Romania)





#### Ioan Dzitac 🗸 VIEW ALL Cited by Professor at Aurel Vlaicu University of Arad & Rector of Agora University All Since 2013 Verified email at uav.ro - Homepage Fuzzy Logic Applications Soft Computing Artificial Intelligence Citations 372 229 h-index 11 i10-index 12 8 TITLE : CITED BY YEAR 60 Fuzzy and neural controllers for a pneumatic actuator 42 2007 S Dzitac, I Dzitac, MJ Ma International Journal of Computers Communications & Control 2 (4), 375-387 E-learning platforms in higher education. Case study 41 2014 D Benta, G Bologa, I Dzitac Procedia Computer Science 31, 1170-1176 Artificial intelligence+ distributed systems= agents 41 2009 Clarivate Web of Science Search Search Results Marked List Search History My Tools

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### Fuzzy Logic Is Not Fuzzy: World-renowned Computer Scientist Lotfi A. Zadeh

Ioan Dzitac, Florin Gheorghe Filip, Misu-Jan Manolescu

### Abstract

In 1965 Lotfi A. Zadeh published "Fuzzy Sets", his pioneering and controversial paper, that now reaches almost 100,000 citations. All Zadeh's papers were cited over 185,000 times. Starting from the ideas presented in that paper, Zadeh founded later the Fuzzy Logic theory, that proved to have useful applications, from consumer to industrial intelligent products. We are presenting encoding to FZ define the device for Computing Computi

