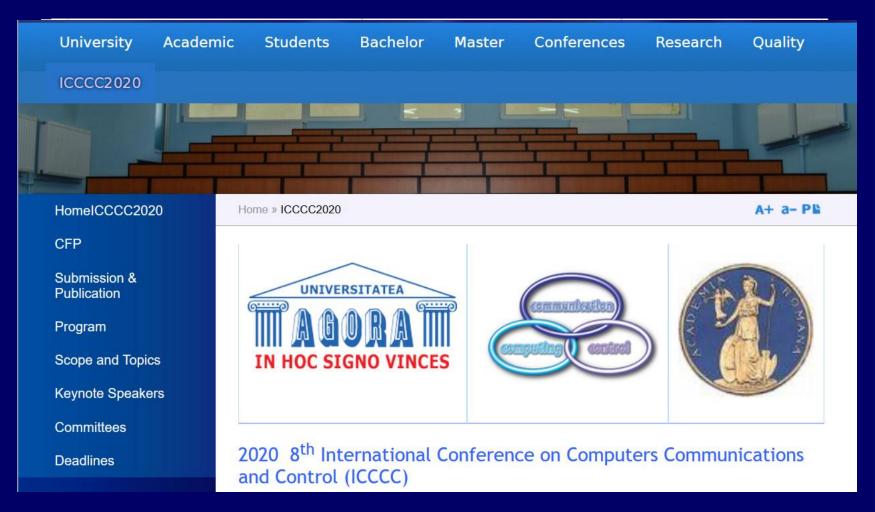
#### **WELCOME TO THE VIRTUAL ICCCC 2020!**





## Agora University of Oradea: Blue Aula Ready for Official Opening of ICCCC2020

**Unfortunately is EMPTY ⊗** 





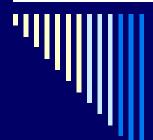
#### **NSTITUTIONAL ORGANIZER OF ICCCC 2020**

#### **CERCETARE DEZVOLTARE AGORA/**

Research & Development Center of Agora University
(Ioan DZITAC & Misu - Jan MANOLESCU – administrators,
and Simona DZITAC – economic manager),
under the aegis of the Romanian Academy - Information
Science and Technology Section (President: Florin FILIP).



Abstracts of ICCCC Papers, ISSN/ ISSN-L 1844-4334, Agora University Press, 2010



#### **ZOOM PRO**

#### On site event has been canceled due to corona virus COVID - 19.

#### **ICCCC2020** will be held online instead of in person!

ICCCC2020 (May 11-15): For the first time in our organizational portfolio, after seven editions face-to-face, is time for the online meeting, via Zoom Pro, with our colleagues from Chile, China, Colombia, France, Greece, India, Israel, Italy, Japan, Lithuania, Mexico, Poland, Romania, Russia, Serbia, Switzerland, UK, and USA.



i

#### UNIVAGORA.RO

#### Program - Agora University of Oradea

The web site of the Agora University of Oradea, Romania.

http://univagora.ro/en/icccc2020/program/



P R O G R A M A T A G L A N C E

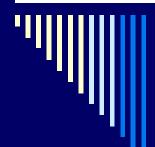
v. rioda. validot 10 tot 12 ftt, i oliofi riodadolly of colonoco, marcam, i oliulia					
Day	GMT Hours	Bucharest Hours	Activity	Speakers	
Monday, May 11	14:00- 16:00	17:00- 19:00	Connection with Zoom Pro/ Official opening Break/Surprise	Ioan DZITAC (General Chair) Misu-Jan MANOLESCU (Chair) Florin Gheorghe FILIP (PC Chair) Domnica DZITAC (Virtual Chair) Simona DZITAC (Chair)	
Tuesday, May 12	11:00- 13:00	14:00- 16:00	Regular papers Chairperson: Alfred BRUCKSTEIN	Chapter 1. Integrated solutions in computer- based control and communications (ID 10, 12, 21, 35, 38, 53)	
			Break/Surprise		
	14:00- 16:30	17:00- 19:30	Keynote lectures Chairperson: Janusz KACPRZYK	Alfred BRUCKSTEIN Valeriu BEIU Yezid DONOSO	
Wednesday, May 13	11:00- 13:00	14:00- 16:00	Regular papers Chairpeson: Gintautas DZEMYDA Chairperson: Ioan DZITAC	Chapter 2. Computational intelligence methods (ID 6, 11, 54) Chapter 3. Fuzzy methods and soft computing (ID 44, 50, 61, 64)	
			Break/Surprise		
	14:00- 16:30	17:00- 19:30	Keynote lectures Chairperson: Florin Gheorghe FILIP	Janusz KACPRZYK Gintautas DZEMYDA Razvan ANDONIE	
Thursday, May 14	11:00- 13:00	14:00- 16:00	Regular papers Chairperson: Enrique HERRERA-VIEDMA	Chapter 4. Decision making issues. Methods and support systems (ID 18, 36, 37, 42, 51, 62)	
			Break/Surprise		
	14:00- 15:40	17:00- 18:40	Keynote lectures Chairperson: Yezid DONOSO	Enrique HERERRA-VIEDMA Felisa CORDOVA	
Friday, May 15	11:00- 13:00	14:00- 16:00	Regular papers Chairperson: Valeriu BEIU	Chapter 5. Theory for Computing, Control and Communication Systems (ID 14, 15, 16, 22, 28, 31, 52, 57)	
			Break/Surprise		
	14:00- 16:00	17:00- 19:00	Official Closing Surprise	Ioan DZITAC (General Chair) Misu-Jan MANOLESCU (Chair) Florin Gheorghe FILIP (PC Chair) Domnica DZITAC (Virtual Chair) Simona DZITAC (Chair)	



#### **AGENDA**

**Dedication:** This edition is dedicated to the:

- 100th anniversary of <u>Isaac Asimov (1920-1992)</u>;
- 20th anniversary of <u>Agora University of Oradea</u>;
- 15th anniversary of <u>International Journal of Computers Communications & Control</u>;
- 10th commemoration since <u>Acad. Mihai Drăgănescu</u>(1929-2010) passed away.
- Previous editions in images: 2004, 2006, 2008, 2010, 2012, 2016, 2018
- Keynote speakers at ICCC2020



#### First dedication:

100th anniversary of Isaac Asimov (1920-1992);

## Presented by Domnica Dzitac New York University Abu Dhabi, UAE

#### The·Isaac·Asimov·Centennial·Year¶



January 2, 2020 is the one hundredth anniversary of Isaac Asimov's birth. In this centennial year, I hope to update and modernize Asimov Online, which has been neglected for far too long. You can expect new content, including information about all of the editions of his books, a greatly expanded bibliography, with details about all of his fiction and nonfiction essays, and much, much more.

"Whereas the second week in April each year is designated as 'National Robotics Week', recognizing the accomplishments of Isaac Asimov, who immigrated to America, taught science, wrote science books for children and

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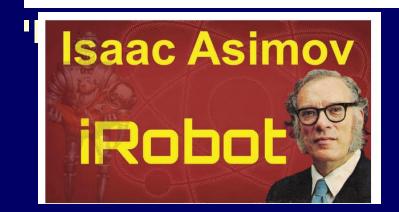
#### Domnica Dzitac

Studied, lived and traveled in many countries, currently studying at New York University Abu Dhabi. Experience with C++, Python, algorithms, data structures.

Software Engineer ♀ Abu Dhabi ★ New York University '21 in f







In 1950, Asimov published a book of his previously printed short stories called "I, Robot", pondering about the ethics of building intelligent machines as well as the expectations to come out of it. In this book he proposed The three laws of Robotics.

These laws should be governing robots behavior according to Asimov:

- "1. A robot may not injure a human being or, through inaction, allow a human being to come to harm.
- 2. A robot must obey orders given to it by human beings except where such orders would conflict with the First Law.
- 3. A robot must protect its own existence as long as such protection does not conflict with the First or Second Law."



#### Second dedication: 20 years of Agora

**Presented by Misu-Jan Manolescu** 



20

#### **AGORA UNIVERSITY**



20 YEARS
OF PRIVATE EDUCATION IN ORADEA
~2000 - 2020~

AGORA 20

AGORA UNIVERSITY OF GRADEA IS ACREDITED BY



Agenția Română de Asigurare a Calității în Invațământul Superior





### Agora University of Oradea, Romania

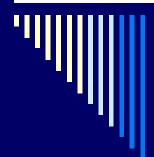
Founders of Agora University:
Prof. Misu-Jan Manolescu &
Prof. Adriana Manolescu (2000)

English Site map

University Academic Students Bachelor Master Conferences Research Quality



Lectures at Southeastern University, Lakeland, Florida, USA



#### **RECTORS OF AGORA UNIVERSITY**

loan Dzitac: 2012-2016; 2016-2020

Misu-Jan Manolescu: 2000-2012; 2020-2024





## Dr. Eng. MISU-JAN MANOLESCU, OC Chair professor of management at Agora University



President of Agora University (since 2012)
Founder Rector of Agora University (2000-2012)
Rector of Agora University (2020-2024)



Co-founder of ICCCC (since 2006)

Co-founder and Managing Editor of IJCCC (since 2006)

Bad news: unfortunately, Mr. Rector Manolescu suddenly became ill Sood news: fortunately, it's just a toothache, not Covid -19 Covid -19





## **3th dedication: 15 years of IJCCC Presented by Ioan Dzitac**



IJCCC-founded 15 years ago Expected Impact Factor in JCR2019 > 2 The IJCCC was considered in 2015 by Elsevier as No. 1 in Romania in the field of Computer Science-Information Systems and was nominated for the Scopus Awards 2015. Elsevier: How do you feel about being nominated for Scopus Awards 2015?: <u>Interview Elsevier</u>. Editor in Chief







#### Dr. IOAN DZITAC, General Chair,

Professor of Al at Aurel Vlaicu University of Arad, Professor of IT Agora University of Oradea PhD supervisor at University of Craiova Former rector of Agora University of Oradea (2012-2016); (2016- May 02,2020)

Elsevier: Interview with Ioan Dzitac - nomination of IJCCC...

Written on Nov. 1, 2015.

## International Journal of Computers Communication & Control

Interview with editor-in-chief <u>loan</u>

<u>Dzitac</u>

**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







Scopus Awards Romania 2015

recognizes

International Journal of Computers, Communications and Control

as a nominee for

Journal Excellence Award

In Timișoara, Romania October 29, 2015

RS Cela

Endre Béky Regional Director astern Europe & Russia Elsevier, B.V.

## communication computing () control

#### Founders of ICCCC & IJCCC (2006):

I. Dzitac, F.G. Filip, M.J. Manolescu



Member since 2012 JM08090

#### Web of Science





#### **CCC Publications**



#### International Journal of Computers,...

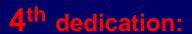


#### Web of Science

**Search Results** Tools **▼** Searche Search Citation report for 1,030 results from Web of Science Core Collection between 1975 and 2020 🔻 Go You searched for: PUBLICATION NAME: (INT J COMPUT COMMUN) ...More This report reflects citations to source items indexed within Web of Science Core Collection. Perform a Cited Reference Search to include citations to items not indexed a **Sum of Times Cited** a **Total Publications** h-index 4,787 1,030 29 Analyze Average citations per item Without self citations 4.65 4,145 2001 2020 Last updated on 09 April, 2020 CiteScoreTracker 2019 ① Updated monthly 406 Citations to date > Signature Count 2019 Documents 2016 - 2018

181 Documents to date>

Scopus



mmemoration since Acad. M. Draganescu (1929-2010) passed away.

Thai Draganescu and The Birth of the Romanian ICT Sector"

Presented by Florin Gheorghe Filip



RESEARCH INSTITUTE FOR ARTIFICIAL INTELLIGENCE "MIHAI DRĂGĂNESCU", ROMANIAN ACADEMY

ABOUT ICIA ▼

RESEARCH ACTIVITIES ▼

**PUBLICATII** 

LATEST N

10

Mihai Drăgănescu (1929-2010)



About Acad. Mihai Drāgānescu Curriculum Vitae Categories and Functors for the Integrative Science

E-prints: Internet books Mind and Consciousness Science and Technology of Information

Information Society – Knowledge Society Consciousness Society History of the Science and Technology

#### About Acad. Mihai Drăgănescu





#### WELCOME IPC Chair

#### Acad. Florin Gheorghe FILIP

Full Member of the Romanian Academy
Member of the Presidium of the Romanian Academy
President of the Section for the Science and
Technology of Information
Former Director of Library of Romanian Academy
Past Vice-President of Romanian Academy (2000-2010)

#### **Editor in Chief of two ISI journals:**

- Studies in Informatics and Control (ICI Bucharest)
- International Journal of Computers, Communication & Control (Agora Univ.)

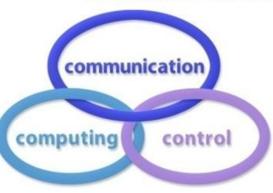
**Co-founder of ICCCC and IJCCC (2006)** 

Dr.H.C. of Agora University (2012)

## PREVIOUS EDITIONS OC Co- Chair: Associate Professor Simona Dzitac, PhD



#### Member in Editorial Board of IJCCC



# INTERNATIONAL JOURNAL of COMPUTERS COMMUNICATIONS & CONTROL With Emphasis on the Integration of Three Technologies Gomputing Gondrol UCCC Fair 2229 Volume: 27 Nomber: 2 Marth: April A Bimonthly Journal

#### 2. Simona DZITAC

Researcher at R&D Agora, rd.agora@univagora.ro, 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. 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 80 scientific papers in journals and conferences proceedings. Her research activity includes participation in 30 grants/projects. The impact of her published works are over 60 citations and h-index 5 in ISI Web of Science,



#### Pre - ICCCC: ICCC2004

-Keynote speakers-



-General Chair-

Domnica Dzitac -Mascot of ICCCC-



Acad. Paul Dan Cristea Romania



Prof. A. Willi Petersen Germany



Acad. Gheorghe Paun Romania



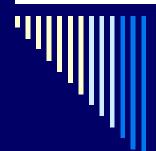
Prof. Antonio di Nola Italy



Acad. H.-N. Teodorescu Romania



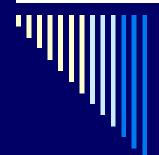
Prof. Athanasios Styliadis Greece





Felix Spa, June 1-3
Organized by Agora University
under aegis of IEEE Romania Section







Felix Spa, May 15-17
Organized by Agora University under aegis of Romanian Academy and IEEE Romania Section

With an exceptional participation of Lotfi A. Zadeh (1921-2017)
The father of Fuzzy Sets and Fuzzy Logic (more 195.000 citations!!!)



D. Tufis, I. Dzitac, L.A. Zadeh, M.J. Manolescu, F.G. Filip

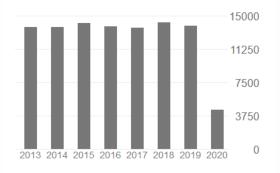


INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS & CONTROL ISSN 1841-9836, 12(6), 748-789, December 2017.

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

I. Dzitac, F.G. Filip, M.J. Manolescu

Cited by		VIEW ALL
	All	Since 2015
Citations	240348	74196
h-index	112	62
i10-index	379	183





Former Member in Editorial Board of IJCCC and Keynote speaker at ICCCC2008

Lotfi A. Zadeh (1921-2017)



## Epidemiologic context is a fuzzy/nondeterministic environment: ambiguous data, noisy, imprecise, uncertainty etc.

778

I. Dzitac, F.G. Filip, M.J. Manolescu

Table 1: Hard Computing vs. Soft Computing

Hard Computing	Soft Computing	
Deterministic environment	Nondeterministic environment	
(closed, static, known)	(open, dynamic, uncertain)	
Well-defined problem	Fuzzy-defined Situation	
(quantity, precision, certainty)	(quality, imprecision, uncertainty)	
Solving accurately problems	Managing "Just In Time" situations	
(imperative, firm, reliable)	(descriptive, flexible, robust)	
Optimal, lasting, solution	Suboptimal, temporary, answer	
(algorithmic, apodictic, general)	(non-algorithmic, revisable, local)	
Technocentric design	Anthropocentric design	
Software entity: PROGRAM	Software entity: $AGENT$	
(object devised as tool)	$(process\ devised\ as\ interactant)$	
Client-Server paradigm	"Computing as Interaction" paradigm	
(object-oriented, sequential)	(agent-oriented, parallel)	

Soft Computing can deal with ambiguous or noisy data and is tolerant of imprecision, uncertainty, partial truth, and approximation. In effect, the role model for SC is the human mind. Artificial Intelligence and Computational Intelligence based on SC provide the background for



#### **Springer** Link



#### Fuzzy Logic in Action: Applications in Epidemiology and Beyond

#### **Authors**

Eduardo Massad, Neli Regina Siqueira Ortega, Laecio Carvalho de Barros,

Claudio José Struchiner

Book



Part of the <u>Studies in Fuzziness and Soft Computing</u> book series (STUDFUZZ, volume 232)



International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-9 Issue-6, April 2020

## Fuzzy Logic Inference System for Identification and Prevention of Coronavirus (COVID-19)

Nitesh Dhiman, M.K. Sharma

Abstract: Now a days Novel Coronavirus named COVID-19 becomes major health concern causing severe health issue in human beings and it becomes a pandemic. It's a kind of zoonotic that means it can transmit animals to humans. It may spread via polluted hands or metals. No specific treatment is available so far for COVID-19, so initial identification and preventions for COVID-19 will be crucial to control or to break down the chain of COVID-19. For this purpose, we have proposed a fuzzy inference system to diagnose the COVID-19 disease by taking six input factor like as; Ethanol, Atmospheric Temperature (AT), Body Temperature (BT), Breath Shortness (BS), Cough and Cold and the output factor has divided into three linguistic categories which denotes the severity level of the infected patients.

Keywords: Coronavirus (COVID-19), Gaussian Membership Function, Fuzzy Inference System, Medical Diagnosis symptoms like; cough, fever, breathing difficulties and it may cause pneumonia and kidney failure or patient may death, in some cases patient might show no symptoms at all. According to the study of the Centers for Disease Control and Prevention (CDC) [6] these symptoms usually appear between two days and two weeks of exposure to the virus. Journal of the American Medical Association reports say that out of all COVID-19 patients 11-44% has fatigue, 76-82% has coughed and 98% have a fever. The severity level of the disease increases in the human of age between 28 to 85 years-old. Currently more than fifteen Italian citizens cases test have been found positive in India by March 2020. Present research paper has been divided into five sections; in the second section, we have shown the effects of COVID-19 in different types of metal. In the third section of the

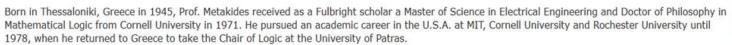


#### Invited at ICCCC2008 and on Editorial Board of IJCCC

#### **EDITORIAL TEAM**

#### **George METAKIDES**

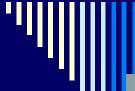
George METAKIDES Latter Metakides.net/business.htm
University of Patras, Greece



He has published numerous articles and books in the areas of Mathematical Logic, Computer Science and Science Policy and is a frequent invited speaker at major international conferences. He holds honorary doctorates from the University of Newcastle-upon-Tyne, the Technical University of Bucharest and the University of Thessaloniki and is an honorary professor of the University of Moscow. He is a foreign member of the Russian Academy of Natural Sciences and an honorary member of the Romanian Academy of Science. He has received the Medal of Honour of the Bulgarian Academy of Science, the Polish Information Society Recognition Award, for his efforts to build co-operation between IT professionals in Poland and the EU, and the Telecom Europe Prize Salvà I Campillo for his contribution to the development and dissemination of new information and communication technologies in Europe.

Since 1984 he has held senior positions with responsibility for R&D policy, funding and international co-operation in European institutions, including president of the Research Group of the European Council and member of the ESPRIT (European Strategic Programme of Research in Information Technology) Management Committee and of the NATO Science Committee at different times between 1984 and 1987. He established and headed the department for Basic Research and International Scientific Relations in Information Technologies at the European Commission from 1988 to 1993. He was the director of the 2 billion Euro ESPRIT Programme in the European Commission's Industry Directorate General from 1993 until its completion in 1998.

Until November 2002 he was director of Essential Technologies and Infrastructures in Europe's 4 billion Euro Information Society Technologies (IST) Programme (1998-2002), in the Information Society Directorate General which - besides funding and co-ordinating R&D in information and communication technologies in the European Union - also covers information society and telecommunications policy and regulation.





C. Lagos, F.G. Filip, I. Dzitac, M.J. Manolescu, R. Andonie



I. Dzitac, F. Cordova, F.G. Filip, M.J. Manolescu, Y. Shi, G. Kou



I. Dzitac, Y. Shi, F.G. Filip, P. Zarate, M.J. Manolescu, F. Aleskerov, I. Dumitrache

#### •



IEEE - ICCCC2016 6<sup>th</sup> Internat Communications and Control Keynote and special invited speakers at ICCCC 2016





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



2018 7<sup>th</sup> International Conference and Control (ICCCC)





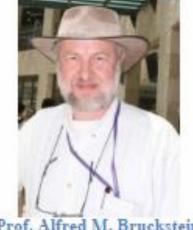
Prof. Amlan Chakrabarti India



Prof. Barnabas Bede USA Spain

Prof. Valeriu Beiu

Romania



Prof. Alfred M. Bruckstein Israel



Prof. Arturas Kaklauskas Lithuania



Prof. Yezid Donoso Colombia



Acad. Gheorghe Paun Romania



## Springer



#### 8th International Conference on Computers Communications and Control.

**ICCCC 2020** 



May 11-15, 2020, Oradea, Romania

#### Organized Online by:

Research & Development Center of Agora University Agora University of Oradea

Romanian Academy

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











Dr. Ioan Dzitac



Acad. Florin Gheorghe Filip





Organizing Committee Chairs: Dr. Misu-Jan Manolescu Dr. Simona Dzitac

#### Special Sessions of ICCCC2020:

Special Session 1: Integrated solutions in computer-based control and communications

Special Session 2: Computational intelligence methods

Special Session 3: Fuzzy methods and soft computing

Special Session 4: Decision making issues. Methods and support systems

Special Session 5: Theory for Computing, Control and Communication Systems

#### Welcome to ICCCC 2020! Details on the ICCCC 2020 web page: http://univagora.ro/en/icccc2020/







Prof. Euripee Hererra - Viedna University of Granada, Spain





## 'I Melppme! Keynote speakers at ICCCC2020 via Zoom Pro

#### 1. Prof. Razvan ANDONIE

Title of lecture: "Practical Hyperparameter Optimization for Deep Learning"





Prof. Răzvan ANDONIE, Central Washington University, 400 East University Way, Ellensburg, WA 98926, USA, Phone: (509) 963-1430, FAX: (509) 963-1449, andonie@ cwu.edu



#### 2. Dr. Valeriu BEIU

Title of lecture: "Land of the Giants ... AI Chips"



Department of Mathematics and Computer Science, Aurel Vlaicu University of Arad, Romania, valeriu.beiu@uav.ro

#### 3. Dr. Alfred M. BRUCKSTEIN

Title of lecture: "Erratic Extremism Leads to Dynamic Consensus"





Alfred M. Bruckstein, Ollendorff Chair in Science, Technion, IIT, Haifa, Israel, freddy@cs.technion.ac.il

#### 4. Prof. Felisa CORDOVA

Title of lecture: "Trends and challenges of cyber-social-technologicalcognitive approach in ecosystems"





**Prof. Felisa Córdova**, Director School of Engineering, Faculty of Engineering, University Finis Terrae, Santiago, Chile, fcordova@uft.cl



#### 5. Dr. Yezid DONOSO

Title of lecture: "Methodologies for Solving Complex Multi-Objective Combinatorial Problems in Engineering: An Evolutionary Approach Applied to Computer Networks"



Professor, Academic ViceDirector, Head of the Master Program in Information Security Systems and Computing Engineering Department, Universidad de los Andes, Bogotá, Colombia, South America, 57-1-3394949 Ext 1723, ydonoso@uniandes.edu.co



#### 6. Prof. Gintautas DZEMYDA

**Title of lecture:** "Recent advances in data dimensionality reduction using multidimensional scaling"





#### **Gintautas Dzemyda**

Prof. Dr. Habil.

Full member of the Lithuanian Academy of Sciences

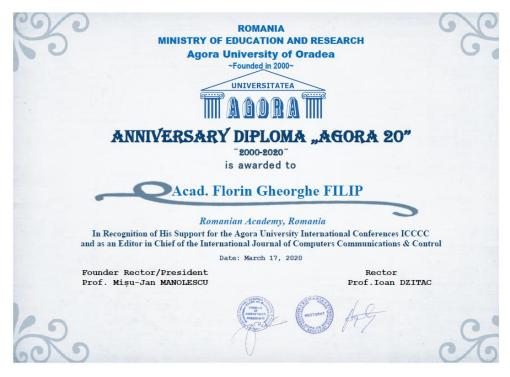
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### 7. Prof. Florin Gheorghe FILIP

Title of lecture: "10th commemoration since Acad. M. Draganescu (1929-2010) passed away"



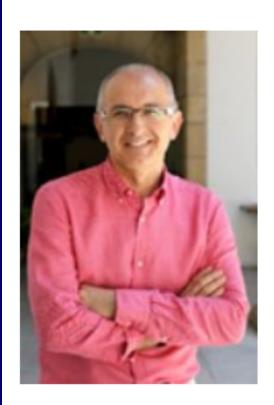
Florin Gheorghe FILIP



President of "Information Science and Technology" Section of Romanian Academy, Romania, ffilip@acad.ro

#### 8. Prof. Enrique HERERRA - VIEDMA

#### Title of lecture: "Consensus in Group Decision Making and Social Networks"





#### Janusz KACPRZYK

## Advances in Intelligent Systems and Computing

(Series Editor; J. Kacprzyk)

🖺 Springer

Title of lecture: "Decision aid, decision advice, decision support: when,

why, for whom"





Professor, Ph.D., D.Sc. Janusz Kacprzyk

Systems Research Institute, Polish Academy of Sciences

Head of Intelligent Systems Laboratory

Studies in Fuzziness and Soft Computing

Shahnaz N. Shahbazova Michio Sugeno Janusz Kacprzyk *Editors* 

# Recent Developments in Fuzzy Logic and Fuzzy Sets

Dedicated to Lotfi A. Zadeh



Recent Developments in Fuzzy Logic and Fuzzy Sets pp 153-174 | Cite as

## **Fuzzy Normed Linear Spaces**

Authors Authors and affiliations

Sorin Nădăban, Simona Dzitac, Ioan Dzitac 🖂

Chapter

First Online: 06 March 2020



Part of the Studies in Fuzziness and Soft Computing book series (STUDF

#### Abstract

In this chapter we will present different concepts of fuzzy by various authors from different points of view. Thus, in introduced the notion of fuzzy norm, this being of Minkov convex and absorbing fuzzy set. In 1992, Felbin introduce

### **Publishing Agreement**



The following agreement has been approved by and entered into between

Prof. Dr. Habil Ioan Dzitac, Agora University of Oradea, Piata Tineretului 8, 410526 Oradea, Romania Simona Dzitac, University of Oradea, Universitatii 1, 410087 Oradea, Romania

Prof. Dr. Florin Gheorghe Filip, Academia Romana, Calea Victoriei 125, 010071 Bucharest, Romania

Prof. Janusz Kacprzyk, Systems Research Institute, Polish Academy of Sciences, Ul. Newelska 6, 01-447 Warszawa,

Poland

Prof. Dr. Misu-Jan Manolescu, Agora University of Oradea, Piata Tineretului 8, 410526 Oradea, Romania

Dr. Horea Oros, University of Oradea, 410087 Oradea, Romania

#### § 1 Rights Granted

1.1 Editor, in cooperation with further contributing authors to the work (hereinafter called Authors), undertakes to prepare for publication by Publisher a work provisionally entitled:

8th International Conference on Computers Communications and Control (ICCCC) 2020

(hereinafter called Work)

comprising approximately 400 pages, including approximately 100 illustrations, whereas the Publisher intends to publish the Work under the imprint Springer. The work may be published in the book series **Advances in Intelligent Systems and Computing.** 



Aurel Vlaicu University of Arad (Rector: Ramona LILE),
 Association Cluster of Scientific Research, Innovation and European Studies from Oradea (President: Simona DZITAC),
 Springer (Advances in Intelligent Systems and Computing, Series Editor: Janusz KACPRZYK).





## **NEXT PRESENTATIONS TODAY:**

- -- Acad. Florin Gheorghe Filip (keynote)
- -- Prof. Ioan Dzitac (surprise)