

# Raport de cercetare pe anul 2022

## Centrul de Cercetare “Sisteme Inteligente”

Data completării: 30.01.2023

### a) Articole științifice

#### - Articole publicate în reviste indexate/cotate ISI 2022

Nr. crt.	Autori	Titlul articolului	Revista	Volumul/ Numărul	Pag
1	SA Jose, R Raja, BI Omede, RP Agarwal, J Alzabut, J Cao, <b>VE Balas</b>	<a href="#">Mathematical modeling on co-infection: transmission dynamics of Zika virus and Dengue fever</a>	Nonlinear Dynamics ISSN: 0924-090X WOS:000885751600002 IF: 5,741, Q1	DOI 10.1007/s11071-022-08063-5 Early Access NOV 2022 Indexed 2022-12-02	1-36
2	SA Jose, R Ramachandran, D Baleanu, HS Panigoro, J Alzabut, <b>VE Balas</b>	<a href="#">Computational dynamics of a fractional order substance addictions transfer model with Atangana-Baleanu-Caputo derivative</a>	Mathematical Methods in the Applied Sciences ISSN 0170-4214 WOS:000883842700001 IF: 3,007, Q1	DOI 10.1002/mma.8818 Early Access NOV 2022 Indexed 2022-11-27	1-18
3	Dana Rad, Lavinia Denisia Cuc, Ramona Lile, <b>Valentina E Balas, Cornel Barna, Mioara Florina Pantea, Graziella Corina Bătcă-Dumitru, Silviu Gabriel Szentesi, Gavril Rad</b>	<a href="#">A Cognitive Systems Engineering Approach Using Unsupervised Fuzzy C-Means Technique, Exploratory Factor Analysis and Network Analysis-A Preliminary Statistical Investigation of the Bean Counter Profiling Scale Robustness</a>	International journal of environmental research and public health eISSN 1660-4601 WOS:000866955300001 IF: 4,614, Q1	Volume 19 Issue 19 Article Number 12821 DOI 10.3390/ijerph191912821 Published OCT 2022 Indexed 2022-10-21	1-19
4	MU Asad, J Gu, U Farooq, <b>VE Balas, MM Balas, G Abbas</b>	<a href="#">An Improved Composite State Convergence Scheme with Disturbance Compensation for Multilateral Teleoperation Systems</a>	Studies in informatics and control ISSN 1220-1766 WOS:000863974500004 IF: 1,826, Q3	31 (3)	43-52
5	SA Jose, R Raja, J Alzabut, G Rajchakit, J Cao, <b>VE Balas</b>	<a href="#">Mathematical modeling on transmission and optimal control</a>	Nonlinear Dynamics ISSN: 0924-090X WOS:000885751600002 IF: 5,741, Q1	Volume 109 Issue 4 DOI 10.1007/s11071-022-07581-6	3169-3187

		<a href="#">strategies of corruption dynamics</a>		Published SEP 2022 Early Access JUN 2022 Indexed 2022-07-06	
6	Dana Rad, Gilbert C Magulod Jr, Evelina Balas, Alina Roman, Anca Egerau, Roxana Maier, Sonia Ignat, Tiberiu Dughi, <b>Valentina Balas</b> , Edgar Demeter, Gavril Rad, Roxana Chis	<a href="#">A Radial Basis Function Neural Network Approach to Predict Preschool Teachers' Technology Acceptance Behavior</a>	Frontiers in Psychology ISSN 1664-1078 WOS:000815004300001 IF: 4,232, <b>Q1</b>	Volume 13 DOI 10.3389/fpsyg.2022.880753 Published JUN 9 2022 Indexed 2022-07-01	1-11
7	SA Jose, R Raja, Q Zhu, J Alzabut, M Niezabitowski, <b>VE Balas</b>	<a href="#">An Integrated Eco-Epidemiological Plant Pest Natural Enemy Differential Equation Model with Various Impulsive Strategies</a>	Mathematical Problems in Engineering ISSN 1024-123X WOS:000811244600011 IF: 1,42, <b>Q2</b>	DOI 10.1155/2022/4780680 Published MAY 31 2022 Indexed 2023-01-11	1-23
8	R Thomas, SA Jose, R Raja, J Alzabut, J Cao, <b>VE Balas</b>	<a href="#">Modeling and analysis of SEIRS epidemic models using homotopy perturbation method: A special outlook to 2019-nCoV in India</a>	International Journal of Biomathematics ISSN 1793-5245 WOS:000849394200001 IF: 2,129, <b>Q3</b>	Volume 15 Issue 08 DOI 10.1142/S1793524522500590 Published NOV 2022 Early Access APR 2022	1-18
9	SA Jose, R Ramachandran, J Cao, J Alzabut, M Niezabitowski, <b>VE Balas</b>	<a href="#">Stability analysis and comparative study on different eco-epidemiological models: Stage structure for prey and predator concerning impulsive control</a>	Optimal Control Applications and Methods ISSN 0143-2087 WOS:000747770200001 IF: 1,955, <b>Q2</b>	DOI 10.1002/oca.2856 Published MAY 2022 Early Access JAN 2022 43 (3)	842-866
10	Claudia Abineza, <b>Valentina E. Balas</b> , Philibert Nsengiyumva	<a href="#">A machine-learning-based prediction method for easy COPD classification based on pulse oximetry clinical use</a>	Journal of Intelligent & Fuzzy Systems ISSN: 1064-1246 WOS:000811435100002 IF: 1,737, <b>Q4</b>	Volume 43 Issue 2 DOI 10.3233/JIFS-219270 Published 2022 Indexed 2022-06-29	1683-1695
11	<b>Mihaela Popa</b> , <b>Daniel Alexuta</b> , <b>Valentina E. Balas</b>	<a href="#">Fuzzy-interpolative control of temperatures for the intelligent rooftop greenhouse</a>	Journal of Intelligent & Fuzzy Systems ISSN: 1064-1246 WOS:000811435100002 IF: 1,737, <b>Q4</b>	Volume 43 Issue 2 DOI 10.3233/JIFS-219270 Published 2022	1793-1797

				Indexed 2022-06-29	
12	Benito G. Mng'ong'o, Dana Rad, David Koloseni, <b>Valentina E. Balas</b>	<a href="#">Application of fuzzy TOPSIS in assessing performance of agro-processed organic crops: A case of Sustainable Agriculture Tanzania (SAT) in Morogoro</a>	Journal of Intelligent & Fuzzy Systems ISSN: 1064-1246 WOS:000811435100002 IF: 1,737, Q4	Volume 43 Issue 2 DOI 10.3233/JIFS-219270 Published 2022 Indexed 2022-06-29	1811- 1826
13	AB Moghadam, MK Rafsanjani, <b>VE Balas</b>	<a href="#">PCG/PCGML evaluations: Introducing panda evaluation using the soft launch</a>	Journal of Intelligent & Fuzzy Systems ISSN: 1064-1246 WOS:000811435100002 IF: 1,737, Q4	Volume 43 Issue 2 DOI 10.3233/JIFS-219270 Published 2022 Indexed 2022-06-29	2191- 2210
14	Jose, Sayooj Aby; Raja, Ramachandran, Zhu, Quanxin; Alzabut, Jehad; Niezabitowski, Michal; <b>Balas, Valentina E.</b>	<a href="#">Impact of strong determination and awareness on substance addictions: A mathematical modeling approach</a>	Mathematical Methods in the Applied Sciences ISSN 0170-4214 WOS:000883842700001 IF: 3,007, <b>Q1</b>	45 (8) DOI 10.1002/mma.7859 Published MAY 30 2022 Early Access OCT 2021 Indexed 2021-11-11	4140- 4160
15.	Sabih Muhammad, Umer, Muhammad, Farooq Umar, Gu Jason, Balas Marius M., Asad Muhammad Usman, Qureshi Khurram Karim, Khan Irfan A., Abbas, Ghulam,	<i>Image processing based fault classification in power systems with classical and intelligent techniques</i>  WOS:000811435100 025 DOI10.3233/JIFS- 219293	Journal of Fuzzy and Intelligent Systems ( <b>Q4</b> ) Volume 43 Issue2 Special Issue SI ISSN 1064-1246 FI = 1.737 in 2021	<a href="https://www.webofscience.com/am-e-information.ro/wos/woscc/full-record/WOS:000811435100025">https://www- webofscience- com.am.e- nformation.ro/wos/ woscc/full- record/WOS:00081 1435100025</a>	1921- 1932
16	Chandrakanta Mahanty, Raghvendra Kumar, Brojo Kishore Mishra, <b>Cornel Barna</b>	<i>COVID-19 detection with x-ray images by using transfer learning</i>	Intelligent & Fuzzy Systems, vol. 43, no.2, pp 1717-1726, 2022, <b>DOI: 10.3233/JIFS- 219273</b> , ISSN: 10641246  [WOS:000811435100005, <b>ISI IF-1,737 – Q4</b> ]	<a href="https://www.webofscience.com/wos/woscc/full-record/WOS:000811435100005">https://www.webof science.com/wos/w oscc/full- record/WOS:0008 11435100005</a>	1717- 1726
17	Malaya Kumar Nath, Samarendra Dandapat, <b>Cornel Barna</b>	<i>Automatic detection of blood vessels and evaluation of retinal disorder from color fundus images</i>	<i>Journal of Intelligent &amp; Fuzzy Systems, Volume 38, Issue 5, Page 6019-6030</i> DOI: 10.3233/JIFS-179687, ISSN: 10641246 [WOS:000541708200064 <b>ISI IF-1,737 – Q4</b> ]	<a href="https://www.webofscience.com/wos/woscc/full-record/WOS:000541708200064">https://www.webof science.com/wos/w oscc/full- record/WOS:0005 41708200064</a>	6019- 6030

18	Dana Rad, Gavril Rad, Roxana Maier, Edgar Demeter, Anca Dicu, <b>Mihaela Popa</b> , <b>Daniel Alexuta</b> , Dan Floroian, Vasile Doru Mărineanu	<a href="#">A fuzzy logic modelling approach on psychological data</a>	<a href="#">Journal of Intelligent &amp; Fuzzy Systems</a> , vol. 43, no. 2, pp. 1727-1737, 2022	<a href="https://content.iospress.com/articles/journal-of-intelligent-and-fuzzy-systems/ifs219274">https://content.iospress.com/articles/journal-of-intelligent-and-fuzzy-systems/ifs219274</a>	1727-1737
19					

Nr. crt.	Autori	Titlul articolului	Conferinta	Volumul/ Numărul	Pag
1	Asad, Muhammad Usman; Gu, Jason; Farooq, Umar; Dey, Rajeeb; <b>Balas, Valentina E.</b> ; Abbas, Ghulam	<a href="#">Intelligent Obstacle Avoidance Controller for QBot2</a>	<a href="#">7th International Conference on Advances in Control and Optimization of Dynamical Systems (ACODS)</a> 2022   May 2022 (Early Access)   IFAC PAPERSONLINE Volume 55, Issue 1 NIT Silchar WOS:000801203200020 ISSN 2405-8963	DOI 10.1016/j.ifacol.2022.04.020 Published 2022 Early Access MAY 2022 IFAC PAPERSONLINE ISSN 2405-8963 Current Publisher ELSEVIERRADA RWEG 29, 1043 NX AMSTERDAM, NETHERLANDS	120-125
2	Asad, Muhammad Usman; Gu, Jason; Farooq, Umar; Dey, Rajeeb; <b>Balas, Valentina E.</b> ; Abbas, Ghulam	<a href="#">Teleoperation of Multi-Degrees-of-Freedom Manipulator through Composite State Convergence Scheme</a>	<a href="#">7th International Conference on Advances in Control and Optimization of Dynamical Systems (ACODS)</a> 2022   May 2022 (Early Access)   IFAC PAPERSONLINE Volume 55, Issue 1 NIT Silchar WOS:000801203200021 ISSN 2405-8963	DOI 10.1016/j.ifacol.2022.04.021 Published 2022 Early Access MAY 2022 IFAC PAPERSONLINE ISSN 2405-8963 Current Publisher ELSEVIERRADA RWEG 29, 1043 NX AMSTERDAM, NETHERLANDS	126-139
3	Cherfouh, Koceila; Gu, Jason; Farooq, Umar; Asad, Muhammad Usman; Dey, Rajeeb; <b>Balas, Valentina E.</b>	<a href="#">Bilateral Teleoperation Control of a Bipedal Robot Gait Using a Manipulator</a>	<a href="#">7th International Conference on Advances in Control and Optimization of Dynamical Systems (ACODS)</a> 2022   May 2022 (Early Access)	DOI 10.1016/j.ifacol.2022.04.125 Published 2022 Early Access MAY 2022 IFAC PAPERSONLINE	765-770

			IFAC PAPERSONLINE Volume 55, Issue 1 NIT Silchar WOS:000799193600005 ISSN 2405-8963	ISSN 2405-8963 Current Publisher ELSEVIERRADA RWEG 29, 1043 NX AMSTERDAM, NETHERLANDS	
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## - Reviste BDI

Nr. crt.	Autori	Titlul articolului	Revista	Volumul/ Numărul	Pag
1	SR Gampa, SK Mangipudi, K Jasthi, P Goli, D Das, <b>VE Balas</b>	<a href="#">Pareto optimality based PID controller design for vehicle active suspension system using grasshopper optimization algorithm</a>	Journal of Electrical Systems and Information Technology	Vol. 9, Issue 1	1-18
2	W Liu, J Liu, T Peng, G Wang, <b>VE Balas</b> , O Geman, HW Chiu	<a href="#">Prediction of Parkinson's disease based on artificial neural networks using speech datasets</a> 1-14	Journal of Ambient Intelligence and Humanized Computing,	12 Aprilie 2022	1-14

## b) Comunicari cu rezumate publicate la conferinte/ simpozioane

### - Sesiuni Stiintifice Studentesti

- 1. Conferinta Internationala studenteasca, editia 24, de la UAV, Arad 15-16 iunie, 2022**  
<https://cdn.uav.ro/documente-inginerie/Manifestari-Studentesti/Program-Sesiunea-studenti-XXIV-2022.pdf>

Nr.crt.	Numele si prenumele	Anul	Titlul	Coordonatori
1	Bumbu Eduard, Hanes Daniel	An IV AIA	Sistem reglare automata a presiunii	Prof.univ.dr.habil.ing. Valentina Balas
2	Berindei Andreea	An I ASI	Sisteme pentru controlul traficului intr-un oras inteligent	Prof.univ.dr.habil.ing. Valentina Balas

3	Alexuta Daniel	drd	Aqvaponia	Prof.univ.dr.habil.ing. Valentina Balas
4	Gavrila Tania Bogdana	drd	Modelarea matematica a pancreasului artificial	Prof.univ.dr.habil.ing. Valentina E. Balas
5	Popa Mihaela	drd	Sere inteligente pe acoperis	Prof.univ.dr.habil.ing. Valentina Balas
6	Rohatinovici Noemi	drd	Rețele Hammac	Prof.univ.dr.habil.ing. Valentina Balas

- 2. Simpozionul Internațional ”Brainstorming în Agora Cercurilor Studențești”, BACStud2021, Ediția a VII-a - Ediție dedicată în memoria Prof. Univ. Dr. Habil. Dzițac Ioan - cofondator BACStud, 13-15 octombrie 2022, Universitatea Agora din Municipiul Oradea, Băile Felix, Băile 1 Mai,  
<http://ns1.dzitac.ro/ro/conferinte/bacstud2022/>**

Nr.crt.	Numele si prenumele	Anul	Titlul	Coordonatori
1	Alexuta Daniel	drd	Recuperarea energiei electrice consummate intr-un sistem acvaponic, cu ajutorul principiului de flotabilitate	Valentina E. Balas si Marius M. Balas

**c) Brevete de inventie -**

**d) Carte/Capitol de carte  
Internationale**

Nr. crt.	Autor/Autori	Titlul cărții	Titlul capitolului	Editura
1	Y Venkatraman, KN Yegnanarayanan, <b>VE Balas</b>	Biomedical Engineering Applications for People with Disabilities and the Elderly in the COVID-19 Pandemic and Beyond, Pag. 105-108, Cap.11 ISBN 978-0-323-85174-9	<a href="https://doi.org/10.1016/B978-0-323-85174-9.00017-0">Comprehending COVID-19 as a contact network</a> <a href="https://doi.org/10.1016/B978-0-323-85174-9.00017-0">https://doi.org/10.1016/B978-0-323-85174-9.00017-0</a>	Academic Press Elsevier
2	Dana Rad, <b>Valentina Emilia Balas</b> , Edgar Demeter, Tiberiu Dughi, Roxana Maier, Vasile Marineanu, Ramona Lile, Alina Roman, Anca Egerău, Gavril Rad, Ovidiu Toderici, Roxana Chiș	Biomedical Engineering Applications for People with Disabilities and the Elderly in the COVID-19 Pandemic and Beyond, Pag. 85-92, Cap.9 ISBN 978-0-323-85174-9	<a href="https://doi.org/10.1016/B978-0-323-85174-9.00018-2">The emerging association between boredom, COVID-19 anxiety, and aggressiveness in imposed prolonged social isolation</a> <a href="https://doi.org/10.1016/B978-0-323-85174-9.00018-2">https://doi.org/10.1016/B978-0-323-85174-9.00018-2</a>	Academic Press Elsevier

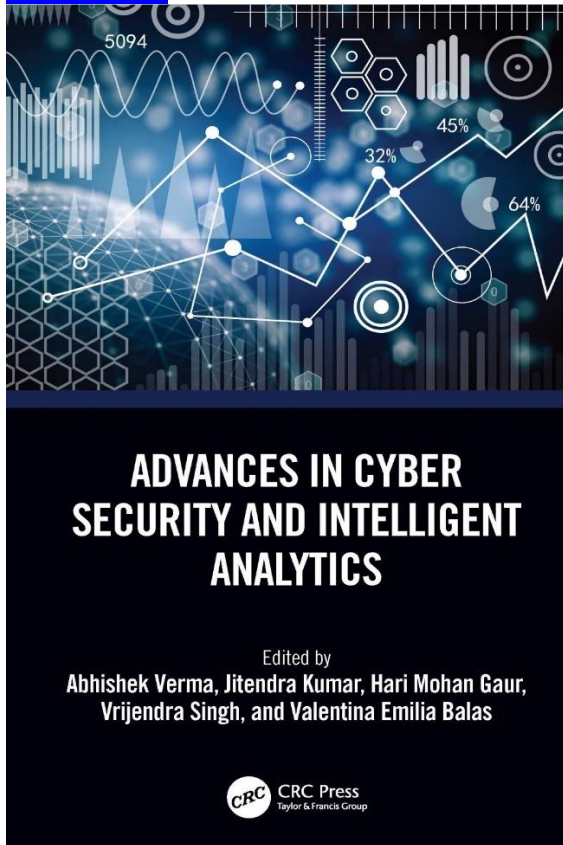
3	A Nath, R Dey, VE Balas – carte de autor	<p><a href="#">Nonlinear Control for Blood Glucose Regulation of Diabetic Patients: An LMI Approach</a> 147 pag. ISBN 978-0-323-90776-7</p>		Elsevier
4.	Yasin M.I., Afzal M.J., Tayyaba S., Ashraf M.W., Cornel B., Balas M.	<p><i>Advances in Intelligent Data Analysis and Applications. Smart Innovation, Systems and Technologies, vol 253.</i> Pan, JS., Balas, V.E., Chen, CM. (eds) <a href="https://doi.org/10.1007/978-981-16-5036-9_33">https://doi.org/10.1007/978-981-16-5036-9_33</a>. Print ISBN978-981-16-5035-2 Online ISBN978-981-16-5036-9</p>	<p><i>Fuzzy Parametric Estimation of Curvilinear Microchannel for Retinal Vein Occlusion (RVO)</i> pp. pp 355–362</p>	<p>Springer, Singapore <a href="https://link.springer.com/chapter/10.1007/978-981-16-5036-9_33">https://link.springer.com/chapter/10.1007/978-981-16-5036-9_33</a></p>

### Carti editate in 2022

1. Advances in Cyber Security and Intelligent Analytics,  
in CRC Press, Taylor & Francis Group

Editors: Abhishek Verma – INDIA, Jitendra Kumar – INDIA, Hari Mohan Gaur - INDIA  
Vrijendra Singh – INDIA, [Valentina Emilia Balas](#) – ROMANIA

[https://www.letmread.net/advances-in-cyber-security-and-intelligent-analytics/?fbclid=IwAR0\\_nz10aElkWNiBVnE5In8KJ77QinQWxJdRgSNQiKNkKRCTv27QlcKsz7cv](https://www.letmread.net/advances-in-cyber-security-and-intelligent-analytics/?fbclid=IwAR0_nz10aElkWNiBVnE5In8KJ77QinQWxJdRgSNQiKNkKRCTv27QlcKsz7cv)

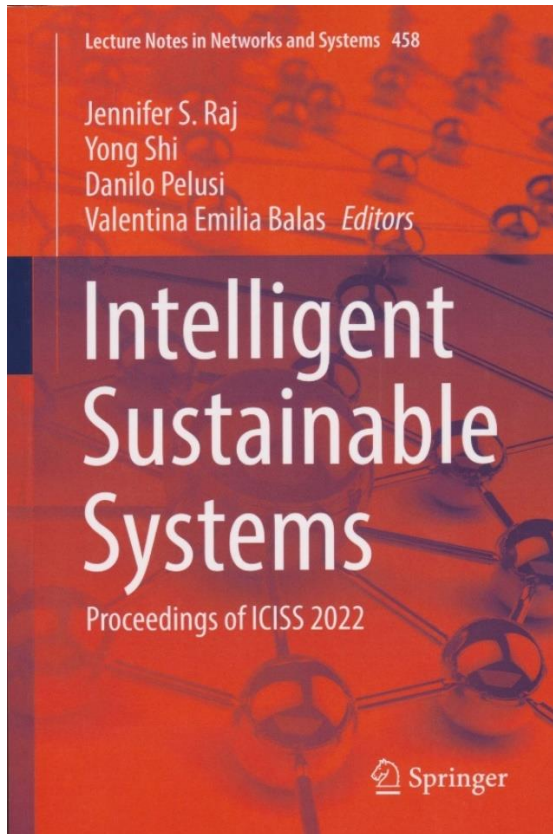


2. Intelligent Sustainable Systems: Proceedings of ICISS 2022

Guest Editors: Jennifer S. Raj – INDIA, Yong Shi – USA, Danilo Pelusi – ITALY, [Valentina Emilia Balas](#) - ROMANIA

<https://link.springer.com/book/10.1007/978-981-19-2894-9>





3. Proceedings of the 2022 International Conference on Connected Systems & Intelligence (CSI), August 31, September 1-2, 2022, Trivandrum, Kerala, INDIA.

Sabu M. Thampi, Kerala University of Digital Sciences, Innovation and Technology, India  
 Ljiljana Trajkovic, Simon Fraser University, Canada  
 Erol Gelenbe, Institute of Theoretical and Applied Informatics, Polish Academy of Sciences, Poland  
 Mohammed Atiquzzaman, University of Oklahoma, USA  
 Stefano Berretti, University of Florence, Italy  
 Valentina E. Balas, Aurel Vlaicu University of Arad, Romania

<https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9924015>

International Conference on Connected Systems & Intelligence (CSI'22)  
 August 31, September 1-2, 2022 | Trivandrum, Kerala, India

**Proceedings of the**  
**2022 International Conference on Connected Systems & Intelligence (CSI)**  
**August 31, September 1-2, 2022**  
**Trivandrum, Kerala, India**

**Editors:**  
 Sabu M. Thampi, Kerala University of Digital Sciences, Innovation and Technology, India  
 Ljiljana Trajkovic, Simon Fraser University, Canada  
 Erol Gelenbe, Institute of Theoretical and Applied Informatics, Polish Academy of Sciences, Poland  
 Mohammed Atiquzzaman, University of Oklahoma, USA  
 Stefano Berretti, University of Florence, Italy  
 Valentina E. Balas, Aurel Vlaicu University of Arad, Romania

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#### 4. "IoT Based Smart Applications"

Guest Editors: Nidhi Sindhvani - INDIA

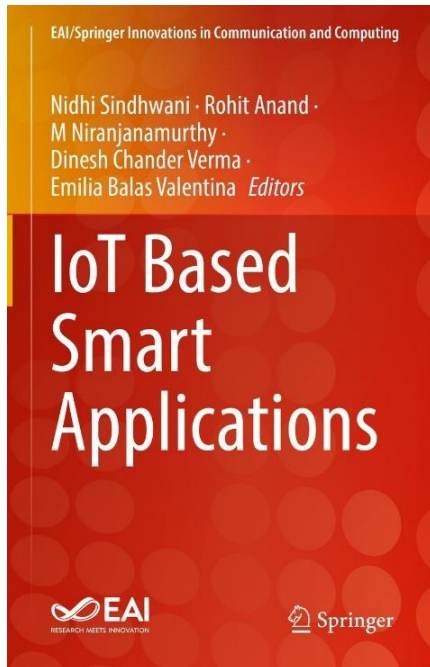
Rohit Anand - INDIA

M Niranjanamurthy - INDIA

Dinesh Chander Verma - INDIA

[Valentina Emilia Balas](#) - ROMANIA

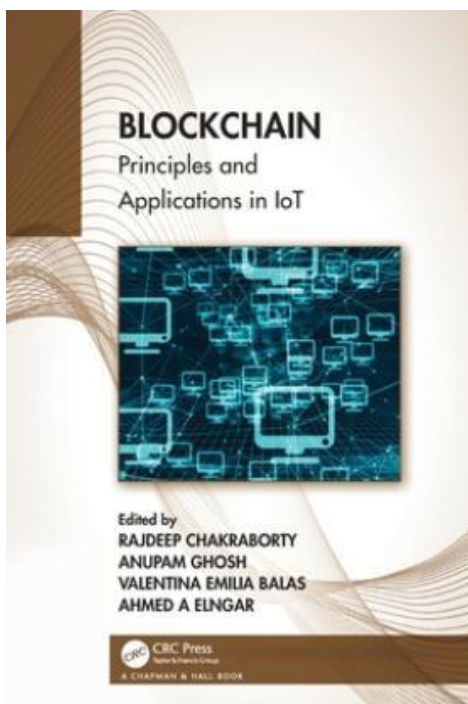
<https://rd.springer.com/book/10.1007/978-3-031-04524-0>



#### 5. Blockchain. Principles and Applications in IoT

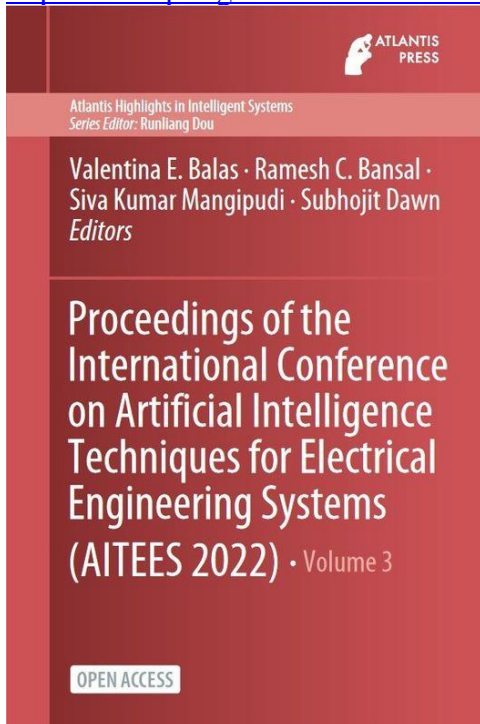
Editors: Rajdeep Chakraborty- INDIA, Anupam Ghosh – INDIA, Valentina Emilia Balas – ROMANIA, Ahmed A Elngar – EGYPT, CRC Press, Taylor & Francis Group

[https://www.enbook.ro/catalog/product/view/id/1889780?gclid=Cj0KCCQiAofieBhDXARIsAHTTldqjbFjvLjrM5Qebo2-AyRBJ7W8vGqpD\\_54NLrLXFTs\\_xd-Bss86P4aAvMjEALw\\_wcB](https://www.enbook.ro/catalog/product/view/id/1889780?gclid=Cj0KCCQiAofieBhDXARIsAHTTldqjbFjvLjrM5Qebo2-AyRBJ7W8vGqpD_54NLrLXFTs_xd-Bss86P4aAvMjEALw_wcB)



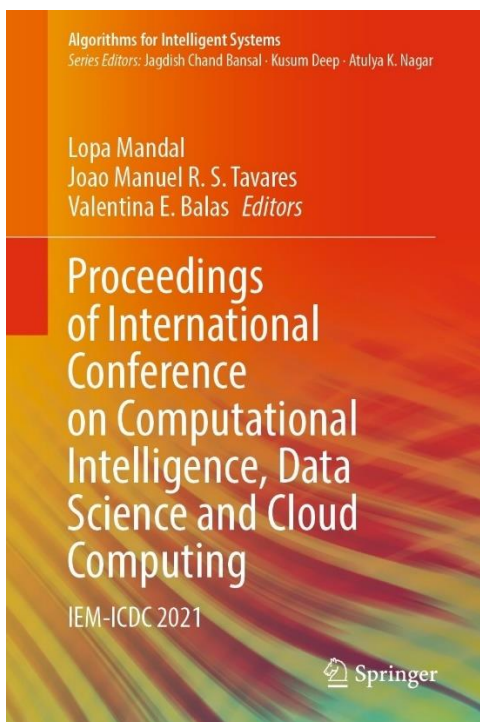
6. Proceedings of the International Conference on Artificial Intelligence Techniques for Electrical Engineering Systems (AITEES 2022), Volume 3  
Editors: [Valentina Emilia Balas](#) – ROMANIA, Ramesh C. Bansal – INDIA, Siva Kumar Mangipudi – INDIA, Subhojit Dawn - INDIA  
"Atlantis Highlights in Intelligent Systems" series in ATLANTIS Press - part of SPRINGER NATURE

<https://link.springer.com/book/9789462392656?page=2>



7. Proceedings of International Conference on Computational Intelligence, Data Science and Cloud Computing, IEM-ICDC 2021

Editors: Lopa Mandal – INDIA, João Manuel R.S. Tavares – PORTUGAL, [Valentina Emilia Balas](#) – ROMANIA, <https://link.springer.com/book/10.1007/978-981-19-1657-1>



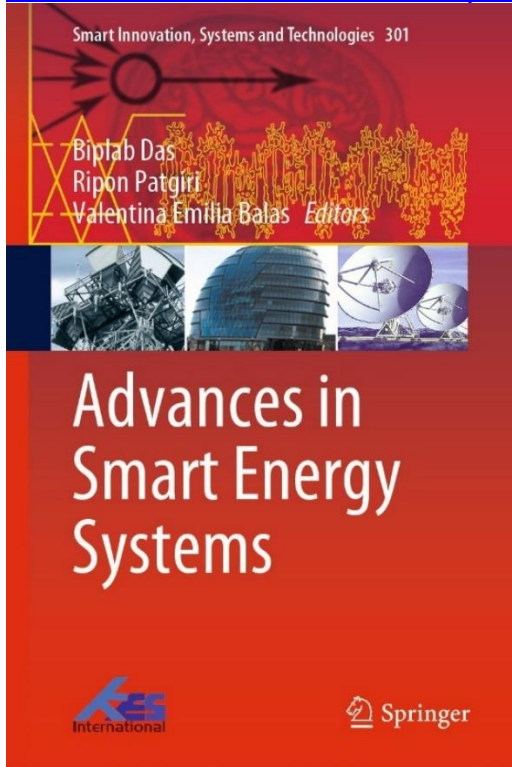
## 8. Advances in Smart Energy Systems

Editors: Biplab das, Ripon Patgiri, Valentina Emilia Balas

[Smart Innovation, Systems and Technologies](https://link.springer.com/book/10.1007/978-981-19-2412-5?fbclid=IwAR3Y53Ybn1GXk4UhyJz5Gs5XYulO0tMZSIJ8Ag6LVOaO5ipMtBGLQtoS4X0) (SIST, volume 301)

[https://link.springer.com/book/10.1007/978-981-19-2412-](https://link.springer.com/book/10.1007/978-981-19-2412-5?fbclid=IwAR3Y53Ybn1GXk4UhyJz5Gs5XYulO0tMZSIJ8Ag6LVOaO5ipMtBGLQtoS4X0)

[5?fbclid=IwAR3Y53Ybn1GXk4UhyJz5Gs5XYulO0tMZSIJ8Ag6LVOaO5ipMtBGLQtoS4X0](https://link.springer.com/book/10.1007/978-981-19-2412-5?fbclid=IwAR3Y53Ybn1GXk4UhyJz5Gs5XYulO0tMZSIJ8Ag6LVOaO5ipMtBGLQtoS4X0)

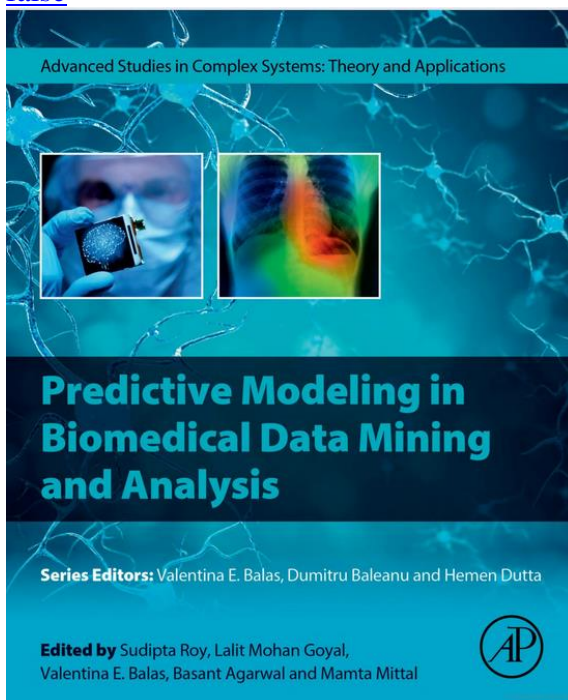


## 9. "Predictive Modeling in Biomedical Data Mining and Analysis"

Editors: Sudipta Roy – INDIA, Lalit Mohan Goyal – INDIA, [Valentina Emilia Balas](#) - ROMANIA

Basant Agarwal – INDIA, Mamta Mittal - INDIA

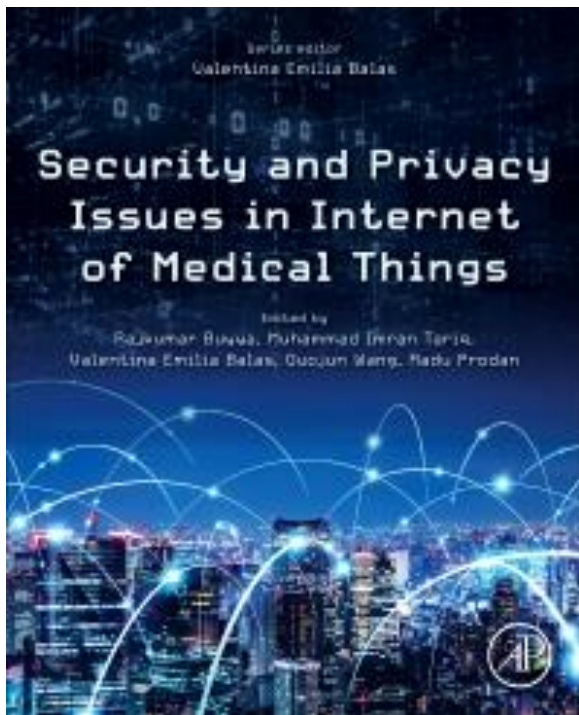
[https://books.google.ro/books/about/Predictive\\_Modeling\\_in\\_Biomedical\\_Data\\_M.html?id=2Bx1EAAAQBAJ&printsec=frontcover&source=kp\\_read\\_button&hl=en&redir\\_esc=y#v=onepage&q&f=false](https://books.google.ro/books/about/Predictive_Modeling_in_Biomedical_Data_M.html?id=2Bx1EAAAQBAJ&printsec=frontcover&source=kp_read_button&hl=en&redir_esc=y#v=onepage&q&f=false)



**10. Security and Privacy Issues in Internet of Medical Things**

Editors: Rajkumar Buyya – AUSTRALIA, Muhammad Imran Tariq – PAKISTAN, Valentina E. Balas – ROMANIA, Guojun Wang – CHINA, Radu Prodan – AUSTRIA

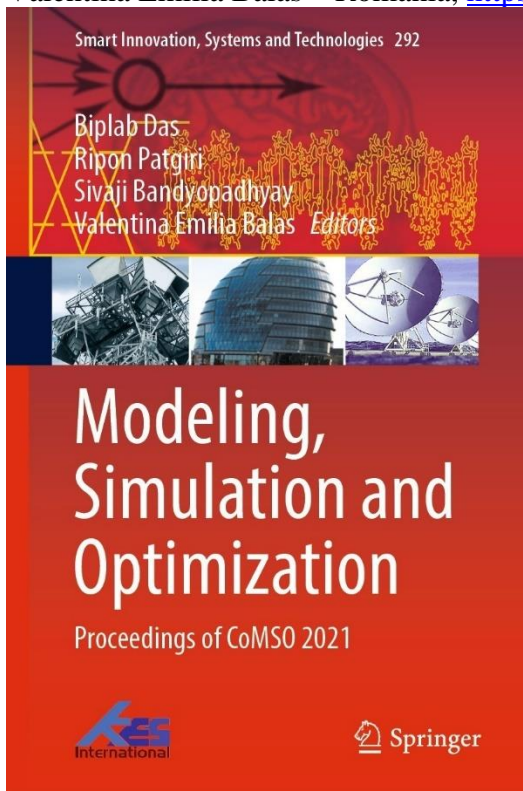
<https://www.elsevier.com/books/security-and-privacy-issues-in-internet-of-medical-things/buyya/978-0-323-89872-0>



**11. Modeling, Simulation and Optimization. Proceedings of CoMSO 2021**

Editors: Biplab Das – INDIA, Ripon Patgiri – INDIA, Sivaji Bandyopadhyay - INDIA

Valentina Emilia Balas – Romania, <https://link.springer.com/book/10.1007/978-981-19-0836-1>

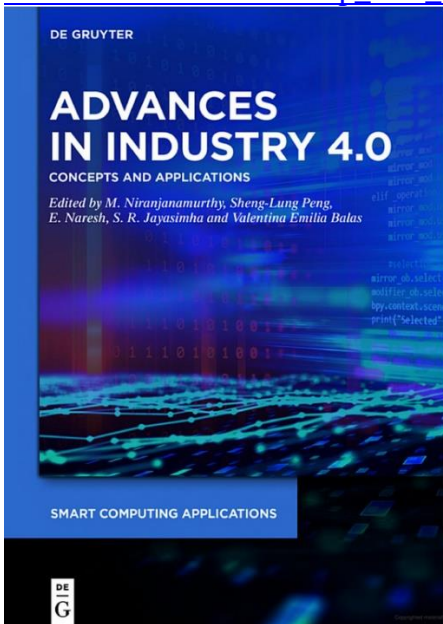


## 12. Advances in Industry 4.0. Concepts and Applications

Edited by: M. Niranjana Murthy – INDIA, Sheng-Lung Peng – TAIWAN, E. Naresh - INDIA

S. R. Jayasimha – INDIA, [Valentina Emilia Balas](#) – ROMANIA

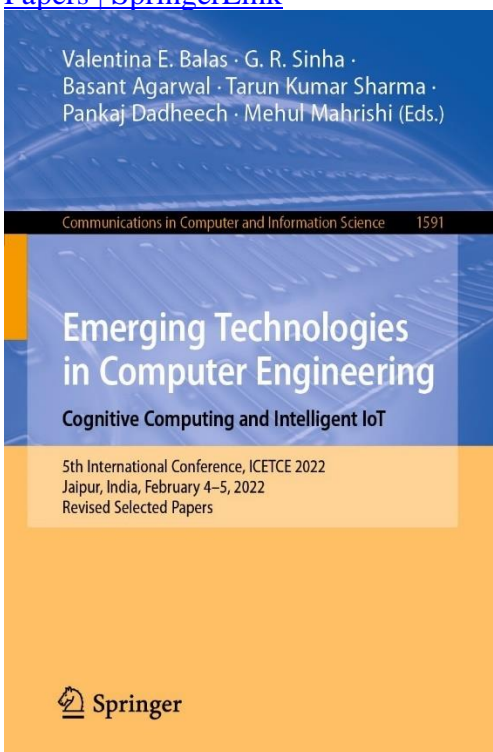
[https://books.google.ro/books/about/Advances\\_in\\_Industry\\_4\\_0.html?id=NKp0EAAAQBAJ&printsec=frontcover&source=kp\\_read\\_button&hl=en&redir\\_esc=y#v=onepage&q&f=false](https://books.google.ro/books/about/Advances_in_Industry_4_0.html?id=NKp0EAAAQBAJ&printsec=frontcover&source=kp_read_button&hl=en&redir_esc=y#v=onepage&q&f=false)



## 13. Emerging Technologies in Computer Engineering: Cognitive Computing and Intelligent IoT, 5th International Conference, ICETCE 2022, Jaipur, India, February 4–5, 2022

Editors: Valentina E. Balas - Aurel Vlaicu University of Arad, Arad, ROMANIA, G. R. Sinha - Inst. of Information Technology, Mandalay, MYANMAR, Basant Agarwal - IIIT Kota, Jaipur, INDIA, Tarun Kumar Sharma - Shobhit University, Gangoh, INDIA, Pankaj Dadheech, Mehul Mahrishi - SKIT, Jaipur, INDIA, <https://link.springer.com/book/10.1007/978-3-031-07012-9>

[Emerging Technologies in Computer Engineering: Cognitive Computing and Intelligent IoT: 5th International Conference, ICETCE 2022, Jaipur, India, February 4–5, 2022, Revised Selected Papers | SpringerLink](https://link.springer.com/book/10.1007/978-3-031-07012-9)



**14. Security and Privacy Trends in Cloud Computing and Big Data**

Editors: Muhammad Imran Tariq – PAKISTAN, Valentina Emilia Balas - ROMANIA

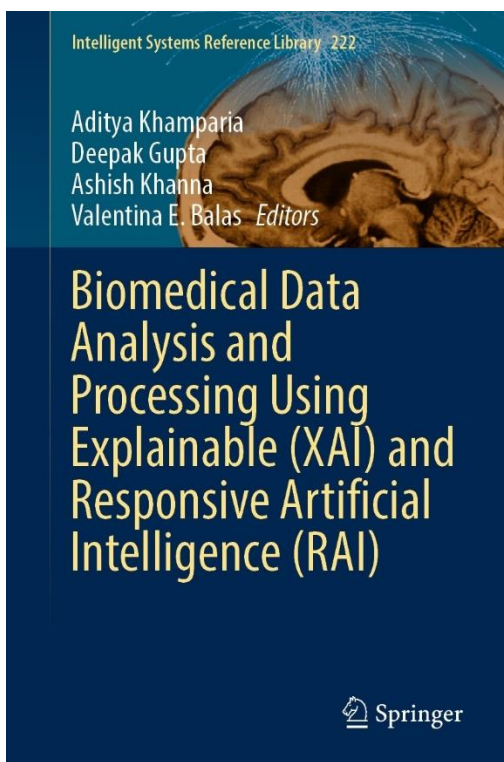
Shahzadi Tayyaba – PAKISTAN, <https://www.routledge.com/.../Tariq.../p/book/9780367619626>



**15. Biomedical Data Analysis and Processing Using Explainable (XAI) and Responsive Artificial Intelligence (RAI)”**

Guest editors: Aditya Khamparia – INDIA, Deepak Gupta – INDIA, Ashish Khanna - INDIA

Valentina E. Balas – ROMANIA, <https://link.springer.com/book/10.1007/978-981-19-1476-8>

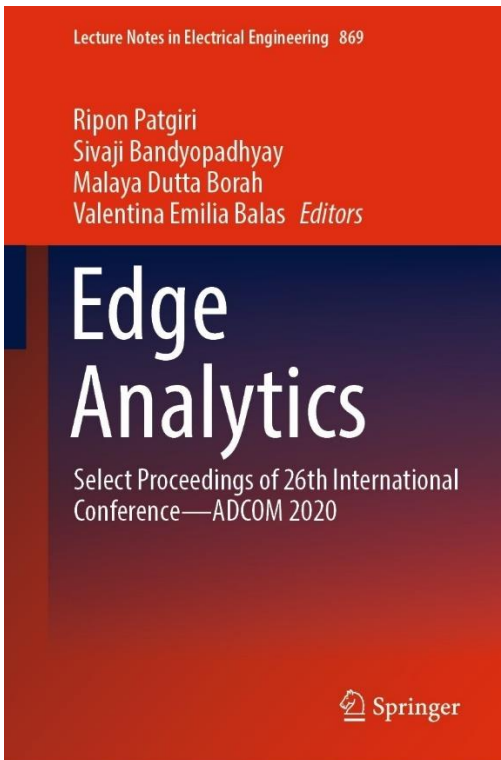


16. "Edge Analytics"

Guest Editors: Ripon Patgiri – INDIA, Sivaji Bandyopadhyay - INDIA

Malaya Dutta Borah – INDIA, [Valentina Emilia Balas](#) - ROMANIA

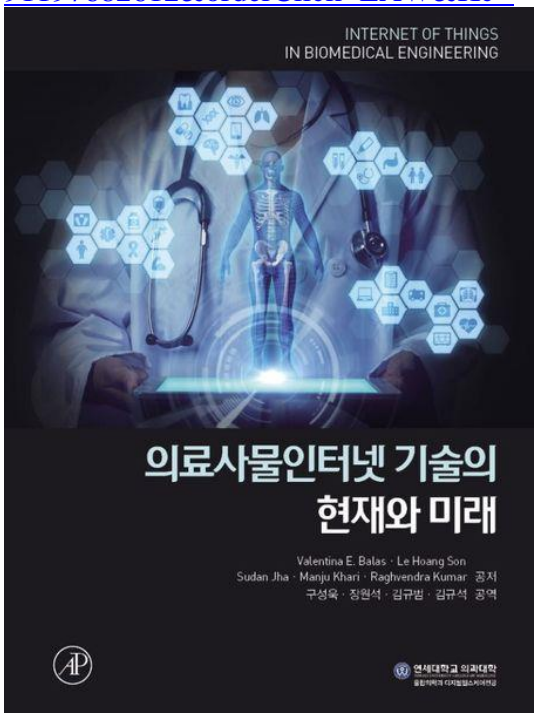
<https://rd.springer.com/book/10.1007/978-981-19-0019-8>



17. The Korean edition of our book "Internet of Things in Biomedical Engineering" published by arrangement with ELSEVIER.

Editors: Valentina Emilia Balas – ROMANIA, Le Hoang Son – VIETNAM, Sudan Jha - INDIA  
Manju Khari – INDIA, Raghvendra Kumar - INDIA

<http://www.kyobobook.co.kr/product/detailViewKor.laf?ejkGb=KOR&mallGb=KOR&barcode=9791197682612&orderClick=LAW&Kc=>





**18. "Applications of Computational Intelligence in Multi-Disciplinary Research"**

Editors: Ahmed A. Elngar – EGYPT, +Rajdeep Chowdhury – INDIA, Mohamed Elhoseny - UNITED ARAB EMIRATES, [Valentina Emilia Balas](#) - ROMANIA

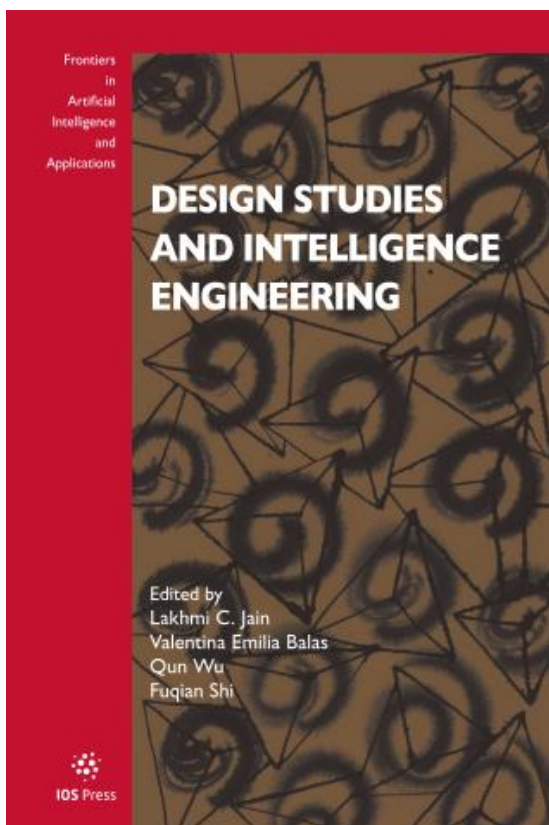
<https://www.elsevier.com/.../app.../elngar/978-0-12-823978-0>



**19. Studies and Intelligence Engineering**

Editors: Lakhmi C. Jain – UK, Valentina Emilia Balas - ROMANIA

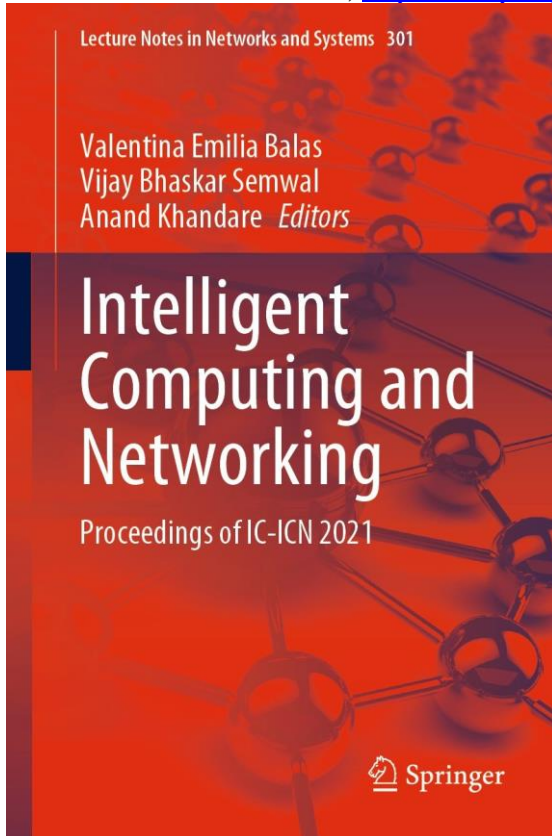
Qun Wu – CHINA, Fuqian Shi – USA, <https://ebooks.iospress.nl/ISBN/978-1-64368-257-0>



**20. Intelligent Computing and Networking. Proceedings of IC-ICN 2021**

Editors: [Valentina Emilia Balas](#) – ROMANIA, Vijay Bhaskar Semwal - INDIA

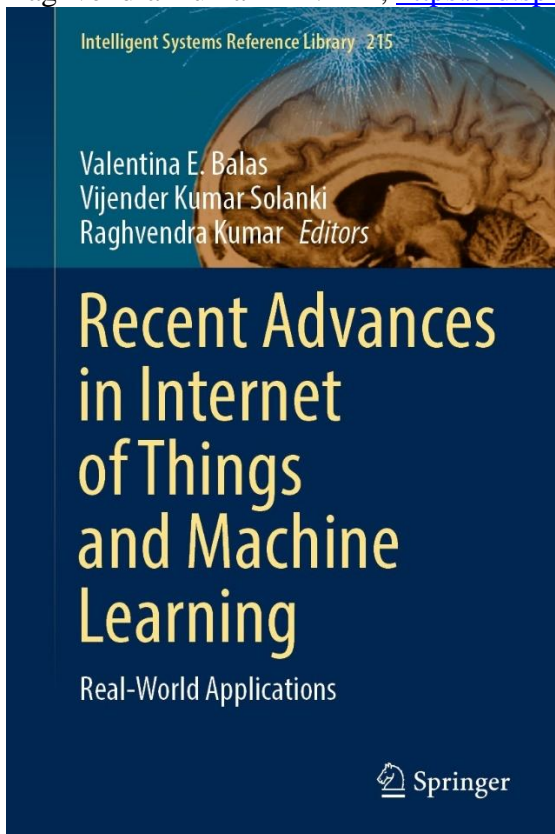
Anand Khandare – INDIA, <https://rd.springer.com/book/10.1007/978-981-16-4863-2>



**21. Recent Advances in Internet of Things and Machine Learning, Real-World Applications**

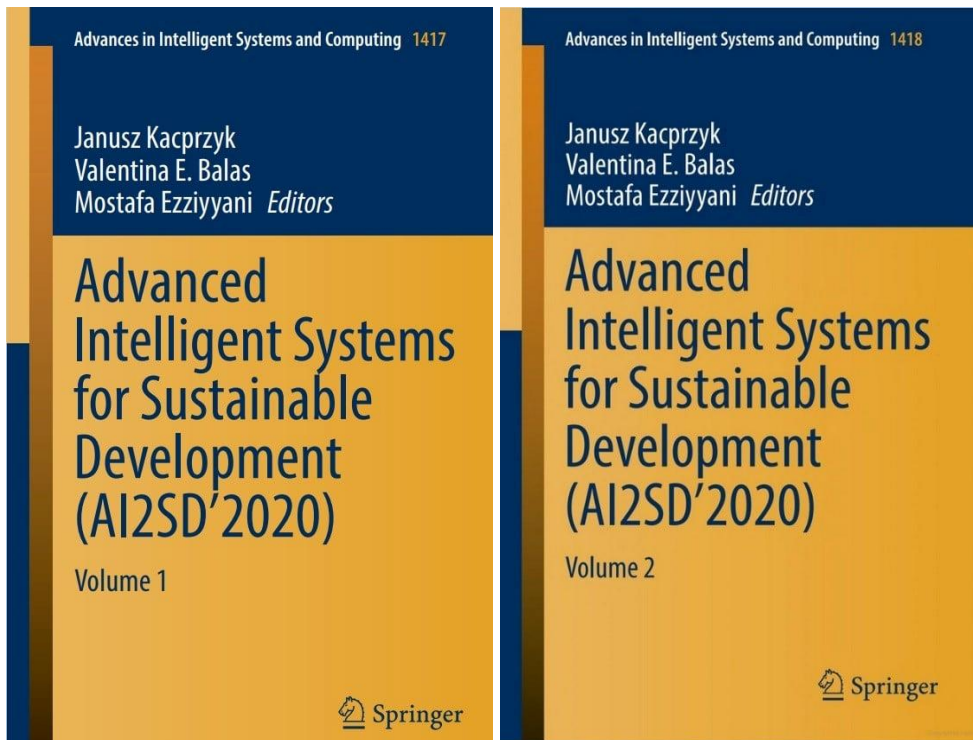
Editors: [Valentina Emilia Balas](#) – ROMANIA, Vijender Kumar Solanki - INDIA

Raghvendra Kumar – INDIA, <https://rd.springer.com/book/10.1007/978-3-030-90119-6>



22. si 23 New Proceedings in Springer: Advanced Intelligent Systems for Sustainable Development (AI2SD'2020) vol.1+2.

Editors: [Janusz Kacprzyk](#) – POLAND, [Valentina Emilia Balas](#) – ROMANIA, Mostafa Ezziyyani – MOROCCO, <https://rd.springer.com/book/10.1007/978-3-030-90633-7>  
<https://rd.springer.com/book/10.1007/978-3-030-90639-9>

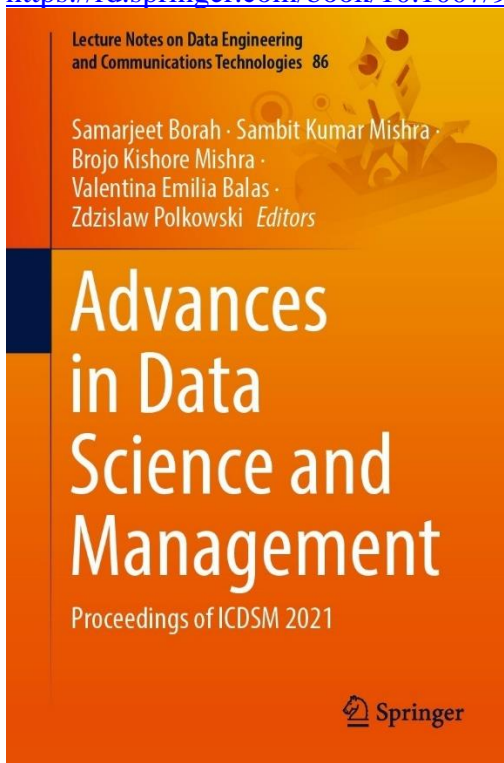


24. Advances in Data Science and Management

Proceedings of ICDSM 2021

Editors: Samarjeet Borah – INDIA, Sambit Kumar Mishra – INDIA, Brojo Kishore Mishra - INDIA  
Valentina Emilia Balas – ROMANIA, Zdzislaw Polkowski - POLAND

<https://rd.springer.com/book/10.1007/978-981-16-5685-9>



**25. Applications of AI and IOT in Renewable Energy**

Editors: Rabindra Nath Shaw – INDIA, Ankush Ghosh – INDIA, Saad Mekhilef - MALAYSIA

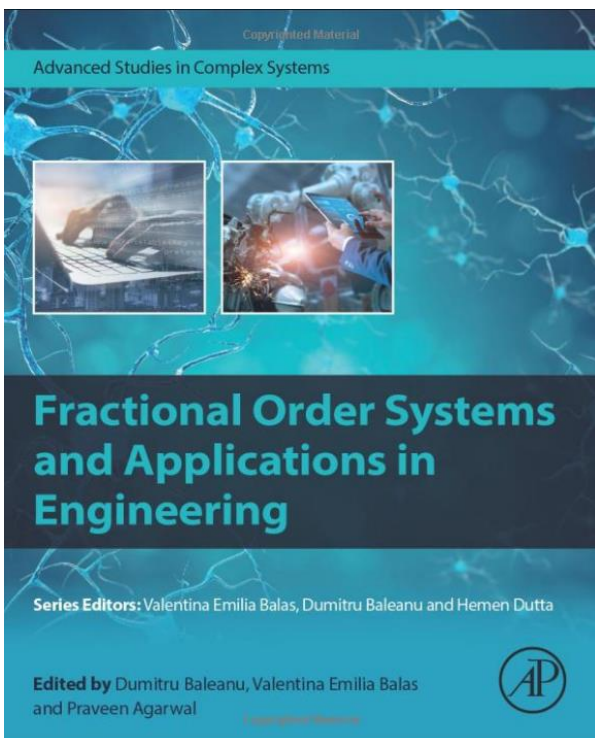
Valentina Emilia Balas - ROMANIA

<https://www.elsevier.com/.../apli.../shaw/978-0-323-91699-8>

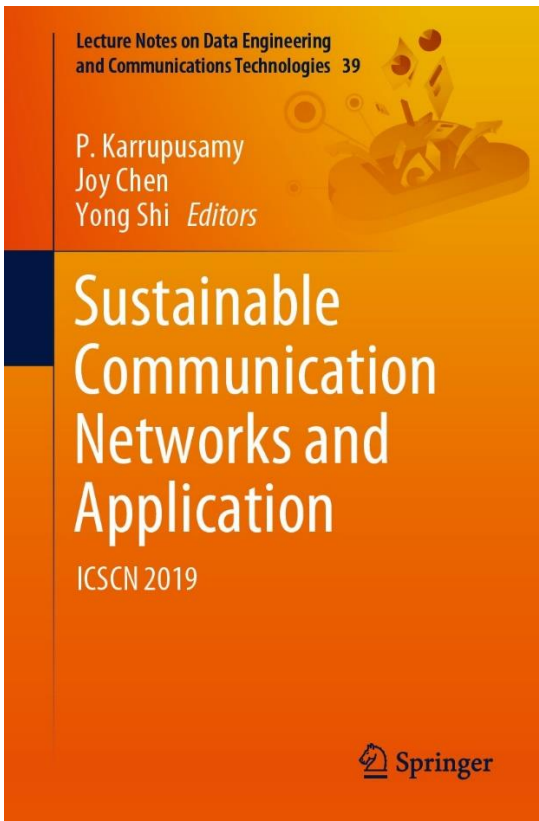


**26. Fractional Order Systems and Applications in Engineering**

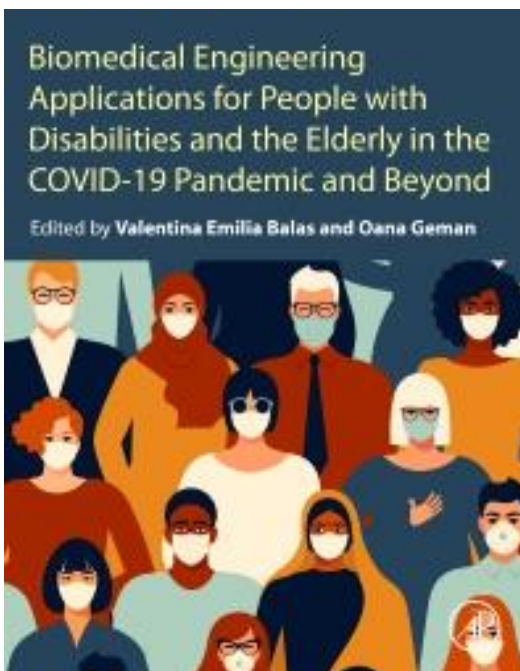
Editors: Dumitru Baleanu – TURKEY, Valentina Emilia Balas – ROMANIA, Praveen Agarwal – INDIA, <https://www.amazon.com/Fractional-Order.../dp/0323909531>



27. Sustainable Communication Networks and Application. Proceedings of ICSCN 2021  
Editors: P. Karrupusamy – INDIA, Valentina Emilia Balas – ROMANIA, Yong Shi - USA  
<https://link.springer.com/book/10.1007/978-3-030-34515-0>



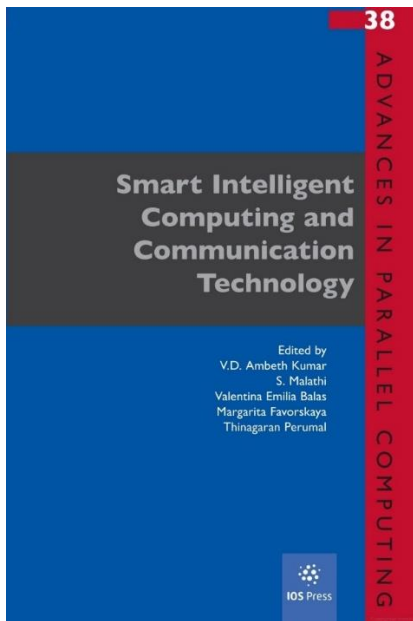
28. Biomedical Engineering Applications for People with Disabilities and the Elderly  
Editors: Valentina Emilia Balas – ROMANIA, Oana Geman - ROMANIA  
<https://www.elsevier.com/.../biom.../balas/978-0-323-85174-9>



29. Ebook: Smart Intelligent Computing and Communication Technology, IOS Press, 2021. Proceedings of IConIC 2021, the 4th International Conference on Intelligent Computing, Chennai, India.

Editors: V.D. Ambeth Kumar – INDIA, S. Malathi – INDIA, Valentina Emilia Balas - ROMANIA  
Margarita Favorskaya – RUSSIA, Thinagaran Perumal - MALAYSIA

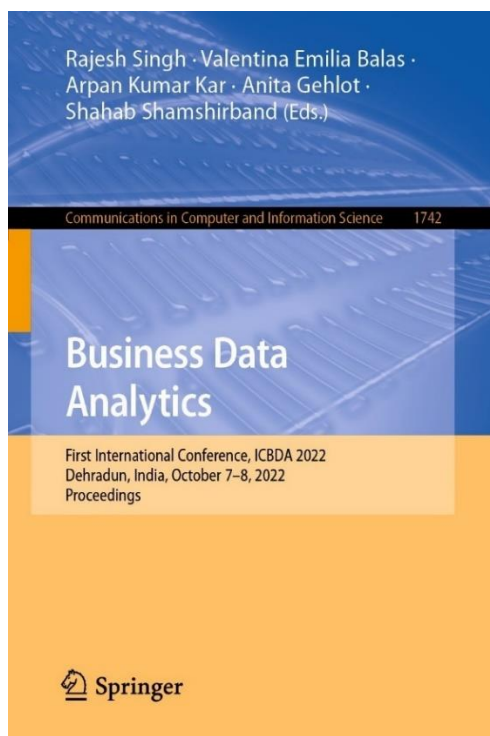
<https://ebooks.iospress.nl/ISBN/978-1-64368-202-0>



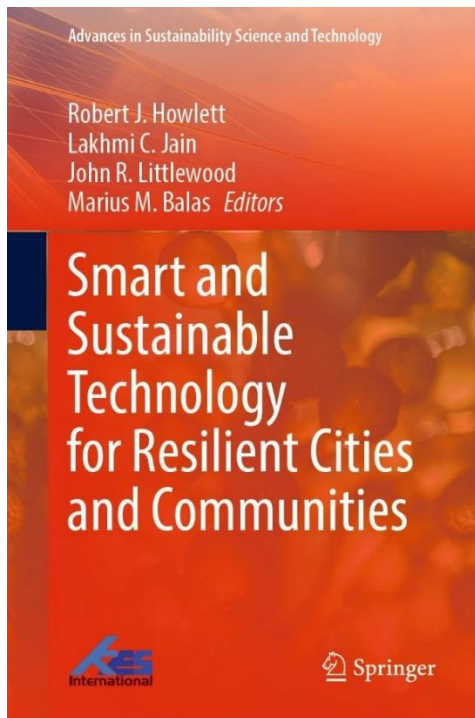
30. Business Data Analytics, First International Conference, ICBDA 2022, Dehradun, India, October 7–308, 2022, Proceedings, Editors:

Editors: [Rajesh Singh](#), [Valentina Emilia Balas](#), [Arpan Kumar Kar](#), [Anita Gehlot](#), [Shahab Shamshirband](#), Part of the book series: [Communications in Computer and Information Science](#) (CCIS, volume 1742)

Conference series link(s): [ICBDA: International Conference on Business Data Analytics](#)



*Smart and Sustainable Technology for Resilient Cities and Communities. Advances in Sustainability Science and Technology*, Howlett R.J., Jain L.C., Littlewood J.R., Balas M.M.,  
[https://doi.org/10.1007/978-981-16-9101-0\\_1](https://doi.org/10.1007/978-981-16-9101-0_1) , PrintISBN978-981-16-9100-3  
 OnlineISBN978-981-16-9101-0, Springer, <https://link.springer.com/book/10.1007/978-981-16-9101-0>



e) <b>Contracte de cercetare / grant / proiecte derulate prin UAV</b>
<p>1. Membru in Contractul de cercetare cu numar de inregistrare 26/16.07.2022 intre Universitatea Aurel Vlaicu si Data Support SRL Arad: <b>Suținerea progresului tehnologic în servicii: modele matematice și soluții concrete, director de proiect Cornel Barna</b>, valoare. <b>50.000 lei</b>,                  Membri: <b>Valentina Balas</b> – Director stiintific, <b>Marius Balas</b>, Ramona Lile, <b>Flavius Petcut</b>, <b>Mihaela Popa</b>, <b>Daniel Alexuta</b>, <b>Tania Gavrilă</b>.</p> <p>2. Coordonator Proiect cu Ministerul Educatiei pentru finantarea Sesiunii Stiintifice Studentesti 2022, editia a XXIV-a de la Facultatea de Inginerie                  Suma: <b>12.400 lei</b></p>
Proiect de pus in evaluare

**MARIE SKŁODOWSKA-CURIE ACTIONS Doctoral Networks (DN) Call: HORIZON-MSCA-2022-DN-01 PART B Digital Twins for Active Implantable Medical Devices (AIMD) that Last a Century: Resilient Design and Life Cycle Prognosis “TWINFORCE”**  
**Coordonator: Theodor Doll – Hannover Medical School, Germany**  
 Responsabil partener UAV – *Valentina E. Balas*  
 Membri: *Valeriu Beiu si Marius M. Balas*

**LIST OF PARTICIPATING ORGANISATIONS**

Consortium Member	Legal Entity Short Name	Academic	Non-academic	Awards Doc. Degrees	Country	Department /Division /Laboratory	Scientist-in-Charge	Role of associate Partner <sup>1</sup> link to benef.
<b>Beneficiaries</b>								
Hannover Medical School	MHH	x		x	DE	Biomaterial Engineering	Prof. Dr. Theodor Doll (MHHa) & PD Dr. Verena Scheper (MHHb)	
J. Kepler University Linz	JKUa	x		x	AT	Institute of Polymer Science	Prof. Dr. Sabine Hild	
	JKUb	x		x	AT	Chemical Technology of Inorganic Materials	Prof. Dr. Achim Walter Hassel	
Albert- Ludwig- Univ. of Freiburg	ALU	x		x	DE	Biomedical Micro-technology	Prof. Dr. Thomas Stieglitz	
Fraunhofer Gesellschaft	FHG (ITEM)		x		DE	Chemical Safety & Toxicology	Dr. Annette Bitsch	
University of Bologna	UNIBO	x		x	IT	Fundamentals of Chemical Engineering	Prof. Dr. Ferruccio Doghieri	
Aurel Vlaicu University of Arad	AVU	x		x	RO	Faculty of Engineering	Prof. Dr. Valentina Balas	
Lurtis Rules	LURTIS		x		ES	R&D	Prof. Dr. José M. Peña	
Katholieke University Leuven	KUL	x		x	BE	Soft Matter and Biophysics	Prof. Dr. Patrick Wagner	
<b>Partner with External Funding</b>								
Ecole Polytechnique Federale Lausanne	EPFL	x		x	CH	Neuroprosthetic Technology	Prof. Dr. Stéphanie Lacour	Separate Funding ESR 11
<b>Associated Partners</b>								
Universidad Politécnica de Madrid	UPM	x		x	ES	Center for Computer Simulation	Prof. Dr. Antonio LaTorre	a. Partner ESR 7 (sec./res.)
University of Newcastle	UNEW	x		x	UK	Biosensors and Bioelectronics	Prof. Dr. Marloes Peeters	a. Partner ESR 11 (sec./res.)
Cochlear	COCH		x		BE	R&D	Dr. Carl v. Himbeek	ESR 9 (sec./res.)



Neurinnov	NIV		x		FR	R&D	Dr. David Guiraud	Secondm. ESR 8
MIP Discovery	MIP		x		UK	R&D	Dr. Francesco Canfarotta	Secondm. ESR 11
Neurosoft Bioelectronics	NOFT		x		CH	R&D	Dr. Nicolas Vachicouras	Sec./Res. ESR 10
KLS MARTin	KLSM		x		DE	Quality, R&D	Dipl.Ing Frank Reinauer	Secondm. ESR 3
ATEQ	ATEQ		x		IT	R&D	Dr.Gianmario Mangiarotti	Secondm, ESR 6
7P9DE	7P9		x		DE	R&D	Dr. Thomas Exner	Secondm. ESR 5
Recendt	RDT		x		AT	Analytics	Dr. Peter Burgholzer	Sec./Res. ESR 3
CorTec	COR		x		DE	R&D	Dr. Martin Schüttler	Secondm. ESR 2
HörSys	HOER		x		DE	R&D	Dipl.-Ing. Samuel John	Sec./Res ESR 4
Blackrock Neurotech	BRN		x		USA /DE	Quality, R&D	Prof. Dr. Florian Solzbacher	Sec./Res ESR 1 and ESR 8
COMSOL	COMS		x		DE	Training	Dr. Thorsten Koch	All ESR

#### Data for non-academic beneficiaries:

Name	Location of research	Type of R&D activities	Full-time employees	Employees in R&D	Web site	Annual turnover <sup>2</sup>	Enterprise status	SME status <sup>3</sup>
Lurtis Rules	Madrid, Spain	Artificial Intelligence	27	15	<a href="https://www.lurtis.com">https://www.lurtis.com</a>	1.25m	Yes	Yes

#### Declarations:

Name (institution / individual)	Nature of inter-relationship
Prof. Thomas Stieglitz (individual)	holds shares in Cortec (1,051%)
Prof. Stéphanie P. Lacour (individual)	holds shares in Neurosoft Bioelectronics (5%).

## Alte activitati:

### Membru in comisie de doctorat- **Valentina E. Balas**

#### **In Maroc - 1**

- **Ilham DHAIOUIR** - Identification des profils dans la traçabilité pour les systèmes MOOCs

#### **In Pakistan - 3**

- **Nadia Sultan** - Optimal Feedback Linearization Control Design for Postural Stability and Biomechanical Sit to Stand Movement, Bahria University, Islamabad
- **Shahid Yousaf** - A Context-aware Planning Framework for Intelligent Assistants, University of Lahore
- **Taimoor Zafar** - Prognostic Algorithm for Condition Monitoring and Estimation of remaining useful Life of Critical Electrical Infrastructure, Bahria University, Karchi

#### **In Romania - 2**

- **Bogdan Vaduva** - Sistem online de gestiune și predicție a avariilor în domeniul rețelelor de apă și canalizare, Universitatea Tehnica Cluj-Napoca
- **Madalin Dorin Pop** - Model rafinat de urmărire al vehiculului încorporând comportamentul vehiculelor de pe benzile adiacente, Universitatea Politehnica Timisoara

#### **In India - 23**

- **Amandeep Kaur** - A framework design for analyzing students' mental health and academic performance, Guru Nanak Dev University, Amritsar (Punjab)
- **Arabinda Ghosh** - Intelligent load frequency controllers for power systems, NIT Sikkim
- **Vijaya Kumar B** - A novel approach metaheuristic algorithms using deep learning techniques for intrusion detection system in big data environment, Annamalai University, Tamil Nadu
- **Poornima D** - Energy efficient precision agriculture using machine learning techniques, Annamalai University, Tamil Nadu
- **Devulapalli Sudheer** - An efficient image retrieval using multi-sensor image fusion and texture feature descriptors with curvelet transform, Vellore Institute of Technology-
- **Gayathry S Warrior** - A feature based refined approach for scoliotic detection, Noorul Islam Centre for Higher Education, Tamil Nadu
- **Jalaney J** - AI based approach towards dynamic bus arrival time prediction for smart public transport system, Noorul Islam Centre for Higher Education, Tamil Nadu
- **Vijay Arun Kotkar** - Anomaly detection in video surveillance, Koneru Lakshmaiah Education Foundation, Andhra Pradesh
- **Kumary Gubbala** - An integrated framework for emotion classification from text, image, and voice in social media posts, Andhra University College of Engineering
- **Maganti Syamala** - Sentiment analysis of text and speech for product review using machine learning techniques, Annamalai University, Tamil Nadu
- **Navneet Kaur** - An empirical analysis of threshold techniques for identifying faulty classes of software system, Guru Nanak Dev University, Amritsar (Punjab)
- **Nivedita Neogi** - Textural analysis of human liver ultra sonogram images and its relation to steatosis, West Bengal State University
- **Prabhu M** - Satellite image enhancement using transforms and deep learning algorithm to delineate waterbody and vegetation region for precise area measurement, Anna University

- **R.P. Suryasankar** - Development of a remote aqua monitoring system for sustainable aquaculture, Kalasalingam University
- **Rajdeep Kaur** - Analyzing the factors influencing developers' sentiments and abandonment in open-source software projects, Guru Nanak Dev University, Amritsar (Punjab)
- **Rajdeep Singh Sohal** - Implementation of UAV Classifiers using Deep Learning and Modified Random Direction Mobility Model for Performance Enhancement in UAV Assisted Wireless Networks, Guru Nanak Dev University, Amritsar (Punjab)
- **Rochak Swami** - DDoS Defense Mechanisms for Software-defined Networks, National Institute of Technology Kurukshetra, Haryana)
- **Uma S** - Metaheuristic optimization based forensic analysis of digital images, Annamalai University
- **Shivaji Ramdas** - A Novel Cross Layer Cross Domain Hybrid Routing Model and its Optimization Techniques for Cluster Based Dense WSN, Sardar Vallabhbhai National Institute of Technology, Surat
- **Dhiman Karmakari** - Some studies on multimodal biometrics, University of Calcutta
- **Sunitha Tappari** - Optimal utilization of resources using modified present block cipher in lightweight cryptography, GITAM University
- **Zahid Afzal Thoker** - Voltage and frequency control of wind-diesel power system using robust sliding mode control of energy storage devices, NIT Srinagar
- **Zina Ravindran** - Computer aided diagnosis of gastric cancer using gastro enterology images, Noorul Islam Centre for Higher Education, Tamil Nadu

## **Prezenta activa in viata stiintifica nationala si internationala**

- **invitat cu conferință în plen**

### **Valentina E. Balas**

1. Guest lecturer to International Workshop on Fractional Calculus and Computational Intelligence, organized by Department of Mathematics, Govt. MGM PG College, 6 January 2022, Itarsi, India,  
[http://www.mphighereducation.nic.in/InstitutePortal/Public/WorkShop\\_and\\_Seminars.aspx?InstId=MzQ3&fbclid=IwAR2G2Y-6D70bN8asxQW-zTGFX-22B7P-EMUT\\_fiz-2rOgbGSR8BWxGDJMUw](http://www.mphighereducation.nic.in/InstitutePortal/Public/WorkShop_and_Seminars.aspx?InstId=MzQ3&fbclid=IwAR2G2Y-6D70bN8asxQW-zTGFX-22B7P-EMUT_fiz-2rOgbGSR8BWxGDJMUw)
2. Guest of Honour and Publication Chair to The 3rd International Conference on Electrical and Electronics Engineering, January 8-9, 2022, organized by: School of Engineering, University of Malaya, Malaysia & Faculty of Engineering, Bharath Institute of Higher Education & Research (Deemed to be University), Chennai, INDIA.  
[www.iceee.in](http://www.iceee.in)
3. Invited Speaker to 6th International Conference on Data Management, Analytics & Innovation, Pune, India, January 14-16, 2022, ICDMAI 2022-16 Jan 2022, *Multidisciplinary Soft Computing Techniques and Applications*  
[https://icdmai.org/icdmai\\_2022](https://icdmai.org/icdmai_2022)
4. 21 January, Key note address to ICEST-2022-GICCL, Government Islamia College Civil Lines, Lahore Pakistan

5. Speaker to the first edition of International AI Summit #1 with the theme ‘AI for Everyone’, organized by the IEEE Student Branch & Department of Artificial Intelligence, G H Raison Institute of Engineering and Technology, 28-29 January, 2022, Nagpur, INDIA.  
*Engineering Applications of Artificial Intelligence and New AI Regulations.*  
<https://edu.ieee.org/in-ghrietrn/international-ai-summit-1/>
6. Keynote Speakers in The 8th World Conference on Soft Computing dedicated to the 100th Birthday Anniversary and research heritage of professor LOTFI A. ZADEH, February 03-05, 2022, Baku, Azerbaijan  
*Soft Computing Applications*  
<https://www.wconsc2021.com/>
7. **Invited** Speaker to 1st International Conference on Computational Intelligence for Engineering and Management Applications (CIEMA) – 2022, (March 26th – 27th, 2022) Organized By: Regional Association for Security and Crisis Management, Serbia; Mathematical Institute of the Serbian Academy of Sciences and Arts; MCKV Institute of Engineering, West Bengal, India; CT Institute of Engineering, Management & Technology, Punjab, India.  
*Advances in Computational Intelligence. Methodologies and Applications.*  
[https://www.ciema22.rabek.org/?page\\_id=305](https://www.ciema22.rabek.org/?page_id=305)  
<https://www.ciema22.rabek.org/.../PROGRAMME-AND...>
8. Keynote Speaker to the 3rd International Conference on ICT for Digital, Smart, and Sustainable Development, organized by Department of Computer Science and Engineering, School of Engineering Sciences & Technology, Jamia Hamdard, March 24 - 25, 2022, New Delhi, India. Many thanks for the invitation.  
*Intelligent Roof-top Greenhouses for Sustainable Development*  
<http://www.jamiahamdard.ac.in/icidssd/>  
<http://www.jamiahamdard.ac.in/icidssd/Data/ICIDSSD-22.pdf>
9. Chief Guest in AICTE Sponsored Short Term Training Program (STTP) Phase-2 on “Machine Learning and Computer Vision” 21-03-2022, organized Computer Science & Engineering Department, Tripura Institute of Technology, Narsingarh, Agartala, INDIA.  
*Tackling Deepfakes*
10. Keynote Speaker in 2nd International Conference on Control Science and Electric Power Systems (CSEPS 2022), March 18-20, 2022 in Wuhan, CHINA.  
<http://iccseps.org/speaker>  
*Intelligent Control Techniques and Applications*
3. Invited Speaker la Webinarul pe IT, AI, Robotică și Inginerie la Summit-ul Carierelor, pentru a-i ajuta pe tineri să se orienteze în carieră, organizat de catre Academia de Leadership EduBiz din ORADEA, 17 martie 2022.  
<https://www.facebook.com/edubiz.ro/>
4. Chair of the Publicity Committee and Chief Guest of the Seventh International Conference on ADVANCES IN CONTROL & OPTIMIZATION OF DYNAMICAL SYSTEMS, ACDOS 2022, Jointly organized by: National Institute of Technology Silchar & Indian Institute of Technology Guwahati, NIT Silchar, Assam, India, FEBRUARY 22-25, 2022.  
<http://acods2022.nits.ac.in/conf.html>
5. Keynote Speaker to International Webinar on Intelligent Optimization Techniques and Their Real Life Applications  
Feb 25, 2022 - Feb 27, 2022, organized by Department of Mathematics Punjabi University (Patiala), INDIA, In Collaboration With UNIVERSITY OF WOLVERHAMPTON + UK, Mizan-Tepi University ETHIOPIA, MathTech Thinking Foundation INDIA.  
*Intelligent Optimization Control Methods Using Soft Computing Techniques*  
<http://punjabiuniversity.ac.in/Pages/SF/TQR/P17B42AB1.pdf>
6. Keynote Speaker to The 3rd Hybrid International Conference on Recent Development in Engineering & Technology, ICRDET-2022, February 25-26, 2022, jointly organized by

Rajasthan Technical University, Kota and Anand International College of Engineering, Jaipur, INDIA.

*Phase Trajectory Qualitative Analysis and Application*

<http://anandice.ac.in/icrdet22/index.html>

7. Guest of Honour and Symposium Chair to 3rd DOCTORAL SYMPOSIUM ON COMPUTATIONAL INTELLIGENCE (DOSCI 2022), organised by Institute of Engineering & Technology, a constituent college of Dr APJ Abdul Kalam Technical University Lucknow, INDIA, in association with University of Calabria, Italy, 5th March, 2022.  
<http://dosci-conf.com/>
8. Invited talk at Chandigarh University: "International conclave on Use of Technology in Health Care and Medical Sciences", organized by Chandigarh University in association with Indian Science Congress Association Kanpur Chapter, 15-16 April, 2022.  
*Artificial Intelligence Trends in Healthcare*
9. Invited Speaker and Panelist to The 4th Edition of International Conference on Advanced Intelligent Systems for Sustainable Development, AI2SD'2022, May 25, 2022, Mohammed V University ENSAM, Rabat, MOROCCO.  
Track - AGRICULTURE 4.0 AND FOOD SECURITY  
*Smart Agriculture and Global Challenges on Food Security*  
<http://conferences.academyskills.net/ai2sd/index.html>
10. Keynote Speaker to CISES2022: International Conference on Computational Intelligence and Sustainable Engineering Solutions, G.L Bajaj Institute of Technology and Mangement Greater Noida, May 20-22, 2022, Greater Noida, Gautam Budh Nagar, INDIA.  
*Recent Trends in Computational Intelligence Enabled Research*  
<https://www.glbitm.org/cises2022/>
11. Invited Speaker to The 9th International Conference on Computers Communications and Control (ICCCC), May 16-20, 2022, Băile Felix, Oradea, România.  
*Advances in Soft Computing and Applications*  
<http://univagora.ro/en/icccc2022/keynote/>
12. Keynote Speaker, Chief Guest and Editorial Chair to International Conference on Artificial Intelligence Techniques For Electrical Engineering Systems, AITEES-2022, May 6-7, 2022, organized by the Department of Electrical and Electronics Engineering Seshadri Rao Gudlavalleru Engineering College(Autonomous), Gudlavalleru, Andhra Pradesh, INDIA.  
*Advanced Artificial Intelligence Techniques and Applications*  
<https://aitees2022.com/>
13. Invited Speaker to INTERNATIONAL CONFERENCE ON MATHEMATICAL ANALYSIS AND APPLICATIONS, 2022 (ICOMAA-2022), June 28-29, 2022, ORGANIZED BY DEPARTMENT OF MATHEMATICS, UNIVERSITY OF KALYANI, KALYANI, INDIA.  
*Recent Advances in Computational Intelligence. Techniques and Its Applications*  
<https://klyuniv.ac.in/.../2022/06/ICOMAA-2022-Brochure.pdf>
14. Panelist to IEEE World Congress on Computational Intelligence, WCCI 2022 18-23 July, 2022, Centro Congressi Padova, ITALY  
*Green Computing*  
<https://wcci2022.org/programs/>
15. Invited Speaker in the International Conference on "Latest Trends in Engineering and Technology 2022 (ICLTET 2022)" at CEC Jhanjeri, 15th July 2022, Mohali, Punjab, INDIA.  
Organized by CEC Jhanjeri, Mohali in collaboration with ASHRAE Chandigarh Chapter & IETE - Institution of Electronics and Telecommunication Engineers.  
*Advancing Sustainability Through Smart Greenhouses*

16. Keynote Speaker to The Fifth International Conference on Computational Intelligence and Communication Technologies (CCICT'2022) 8-9 July, 2022, Sonapat (NCR), INDIA.  
*Recent Trends in Artificial Intelligence*  
Conference URL: <http://cict22.bmiet.net>  
<https://bmiet.in/2022/03/ccict-2022-conference-cfp/>
17. Keynote Speaker to International Conference on IoT Based Control Networks and Intelligent Systems, ICICNIS 2022, 1-2, July 2022 | Bengaluru, INDIA.  
*Smart Greenhouses and IoT*  
<http://icicnis.com/2022/keynote.html>
18. Special Invitee and Editorial Member to The International Conference on Advances in Computer Engineering and Communication Systems (ICACECS-2022), 11th – 12th August 2022, organized by the Department of Computer Science & Engineering from VALLURUPALLI NAGESWARA RAO VIGNANA, JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY, Hyderabad, INDIA.  
<https://www.icacecs.org/index.php>
19. Thank you for inviting me to the 4th International Conference on Mathematical Modelling, Applied Analysis And Computation (ICMMAAC-21), 05-07 August 2021, organized by Department of Mathematics (Faculty of Science), JECRC University, Jaipur, INDIA, and for giving me the opportunity to act as a SPECIAL GUEST and as a KEYNOTE SPEAKER.  
<http://sws.jecrcuniversity.edu.in:81/ICMMAAC-21/INDEX/>
20. Special Invitee and Editorial Member to The International Conference on Advances in Computer Engineering and Communication Systems (ICACECS-2022), 11th – 12th August 2022, organized by the Department of Computer Science & Engineering from VALLURUPALLI NAGESWARA RAO VIGNANA, JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY, Hyderabad, INDIA.  
<https://www.icacecs.org/index.php>
21. Keynote Speaker to The 6th International Conference on “Microelectronics and Telecommunication Engineering” organized by the Department of Electronic & Communication Engineering, SRM Institute of Science and Technology, Delhi NCR Campus, Ghaziabad, INDIA on 23-24 September, 2022.  
*Microelectronics and nanotechnology Pathways*
22. Chief Guest at the inaugural ceremony of the 10th International Conference on Innovations in Computer Science and Engineering, organized by the Department of Computer Science and Engineering and the Department of Information Technology, Guru Nanak University, 16-17 September, 2022, Hyderabad, India.  
<http://www.icicse-gni.org/>
23. Keynote Speaker to 2022 International Symposium on Design Studies and Intelligence Engineering (DSIE2022), October 29-30, 2022, Hangzhou, CHINA.  
*New Development Trends of Intelligent Greenhouses*  
<http://www.dsieconf.org/index.htm>
24. KEYNOTE SPEAKER to IEEE ICA-ACCA 2022, IEEE INTERNATIONAL CONFERENCE ON AUTOMATION (ICA) XXV CONGRESO DE LA ASOCIACIÓN CHILENA DE CONTROL AUTOMÁTICO (ACCA), October 24-28, 2022, Universidad de Talca, Curicó, CHILE.  
*Recent Advances in Soft Computing and Applications*  
[https://controlautomatico.org/ica\\_acca2022/](https://controlautomatico.org/ica_acca2022/)
25. Keynote Speaker in the 18th EURECA 2022 - International Engineering Research Conference, 30th of November 2022 organized by the School of Engineering, Taylor's University, MALAYSIA.  
*Sustainable Energy Systems and its Control*  
[https://eureca18.taylors.edu.my/keynote\\_speakers.html](https://eureca18.taylors.edu.my/keynote_speakers.html)

26. Invited Speaker to Faculty Development Program (FDP), on November 12, 2022, in the Department of Computer Science and Engineering of G L Bajaj Institute of Technology and Management, Greater Noida, UP, INDIA.  
*Place and Role of Intelligent Systems in Computer Science*
27. Keynote Speaker to the International Interdisciplinary Conference on Mathematics, Engineering & Science (MESIICON 2022), November 11-12, organized by Dr. B. C. Roy Engineering College, Durgapur, INDIA.  
*Next Generation Computing Technologies Brain-Inspired*  
<https://mesiicon.in/index.html>
28. Special Guest to the 41 years of Rough Set Day, organized on 10.11.2022, by Fuzzy Rough Set Association, Agartala, Tripura, INDIA.
29. Keynote Speaker to 2022 IEEE Silchar Subsection Conference  
IEEE SILCON-2022, 4-6 November 2022, National Institute of Technology Silchar, INDIA.  
*Current and Future Trends in Artificial Intelligence and Applications*  
<https://www.ieeesilcon.in/>
30. Special Guest and General Chair to the 3rd International Conference on Modeling Simulation and Optimization, CoMSO 2022, December 21-23, 2022, National Institute of Technology Silchar, INDIA.  
<http://comso.nits.ac.in/index.html>
31. Speaker to the 2nd Online International Conference on Artificial Intelligence and Sustainable Computing for Smart Cities (AIS2C2), 21-22, December, 2022, organized by the Department of Computer Science and Engineering, University School of Information and Communication Technology, Gautam Buddha University, Greater Noida, INDIA.  
*Sustainable Smart Cities*  
<https://www.aiscindia.co.in/>
32. Keynote Speaker to The 13th International Conference on Information and Knowledge Technology (IKT), December 20-22, 2022, Kharazmi University, Tehran, IRAN.  
*Intelligent Control of the Traffic Flow*  
<https://iktconference.ir/2022>
33. Keynote Speaker to the International Conference on Electrical Engineering & Sustainable Technologies (ICEEST 2022), December 14-15, 2022, organized by the University of Engineering and Technology, Lahore, PAKISTAN.  
*Advanced Methodologies for Modeling and Simulation of Roof-Top Greenhouses*  
<https://conferences.uet.edu.pk/iceest/2022/>
34. Chief Guest and Conference Inauguration Speaker to the International Conference on Advanced Communications and Machine Intelligence (MICA 2022), organized by M.Kumarasamy College of Engineering, Karur, Tamil Nadu, INDIA on 09-11 December 2022.  
*Switching Techniques*  
<https://mica.org.in/2022/>
35. Keynote Speaker to the International Conference on Emerging Trends in Electrical, Control and Telecommunication Engineering (ETECTE'22)" on December 2-4, 2022, organized by the Department of Electrical Engineering, University of Lahore, PAKISTAN.  
*Advanced Soft Computing Techniques for Modeling and Simulation of Roof-Top Greenhouses*  
<https://etecte.uol.edu.pk/index.html>

**Marius M. Balas – Conferinte invitate**

Nr.	Numele Conferinței	Locul desfășurării	Perioada desfășurării	Autori	Lucrearea (Keynote Speech)
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1.	8th World Conference on Soft Computing	Baku, Azerbaijan	3-6 feb.	Bălaș Marius	<i>Control surface based designing of control systems</i>
2.	AI2SD 2022 Advanced Intelligent Systems for Sustainable Development	Mohammed V University, ENSAM Rabat, Morocco	22-27 mai	Bălaș Marius, Bălaș Valentina	<i>Greenhouses as Intelligent Energetic Structures. Synergies</i>
3.	AI2SD 2022 Advanced Intelligent Systems for Sustainable Development	Mohammed V University, ENSAM Rabat, Morocco	22-27 mai	Bălaș Marius	<i>Input-output surfaces based reasoning in adaptive</i>
4.	4th International Conference on Data & Information Sciences	Raja Balwant Singh Engineering Technical Campus, Bichpuri, Agra, Uttar Pradesh, India	1-4 iunie	Bălaș Marius	<i>On the Visual Representation of Knowledge</i>
5.	IEEE ICA-ACCA 2022 For the Development of Sustainable Agricultural Systems	Universidad de Talca, Curico, Chile	24-28 oct.	Bălaș Marius	<i>The Top-down Approach in Systems Engineering and Education (with Emphasis on Digital Electronics and Greenhouses Technology)</i>
6.	SOFA 2022 10th International Workshop on Soft Computing Applications	Arad, Romania	21-23 nov.	Bălaș Marius	<i>The Top-down Approach in Systems Engineering and Education</i>

### Membru in colegiul de redactie (editorial board) la reviste ISI:

Nr.	Anul	Numele cadrului didactic	Revista	ISSN	Pagina web www.	Pozitia ocupata
1	2022	Valentina E. Balas	<b>IEEE Access, Q1, IF=3,758 ISI</b>	2169-3536	<a href="https://ieeaccess.ieee.org/">https://ieeaccess.ieee.org/</a> <a href="https://ieeaccess.ieee.org/editorial-leadership-and-staff/associate-editors/">https://ieeaccess.ieee.org/editorial-leadership-and-staff/associate-editors/</a>	Associate Editor
2	2022	Valentina E. Balas	<b>ISA Transactions, Q1, IF=5,911 ISI</b>	0019-0578	<a href="https://www.journals.elsevier.com/isa-transactions/editorial-board/ve-balas-phd">https://www.journals.elsevier.com/isa-transactions/editorial-board/ve-balas-phd</a>	Associate Editor (2021-2022)



3	2022	Valentina E. Balas	<b>Electronics</b> <b>Q2, IF=2,690</b> <b>ISI</b>	2079-9292	<a href="https://www.mdpi.com/journal/electronics/editors">https://www.mdpi.com/journal/electronics/editors</a>	Editorial Board Member
4	2022	Valentina E. Balas	<b>PeerJ Computer Science</b> <b>ISI Q2 IF=2,411</b>	2376-5992	<a href="https://peerj.com/ValentinaBalas/">https://peerj.com/ValentinaBalas/</a>	Editor
5	2022	Valentina E. Balas	<b>Acta Polytechnica Hungarica Q3, ISI</b> <b>IF=1,711</b>	20642687	<a href="https://www.uni-obuda.hu/journal/">https://www.uni-obuda.hu/journal/</a>	Associate Editor
6	2022	Valentina E. Balas	<b>Intelligent Decision Technologies, ESCI</b>	1872-4981	<a href="http://www.iospress.nl/journal/intelligent-decision-technologies/">http://www.iospress.nl/journal/intelligent-decision-technologies/</a>	Associate Editor
7	2022	Valentina E. Balas	<b>International Journal of System Dynamics Applications</b> <b>ESCI</b>	2160-9772	<a href="https://www.igi-global.com/journal/international-journal-system-dynamics-applications/51803">https://www.igi-global.com/journal/international-journal-system-dynamics-applications/51803</a>	Associate Editor Editorial Board
8	2022	Valentina E. Balas	<b>Open Engineering</b> formerly Central European Journal of Engineering <b>ISI IF=0,44, Q2</b>	2391-5439	<a href="https://www.degruyter.com/view/j/eng?lang=en">https://www.degruyter.com/view/j/eng?lang=en</a>	Editor Artificial Intelligence
9	2022	Valentina E. Balas	<b>International Journal of Energy Optimization and Engineering</b> <b>ISI IF=0,14, Q4</b>	2160-9500	<a href="https://www.igi-global.com/journal/international-journal-energy-optimization-engineering/47187">https://www.igi-global.com/journal/international-journal-energy-optimization-engineering/47187</a>	Editorial Reviewer Board
10	2022	Valentina E. Balas	<b>Journal of Intelligent Systems</b> <b>ISI IF=0,34, Q3</b>	2191-026X	<a href="https://www.degruyter.com/view/j/jisys?lang=en">https://www.degruyter.com/view/j/jisys?lang=en</a>	Editorial Board

**Membru in colectivele de redactie sau editoriale internationale 2022**

Nr.	Anul	Numele cadrului didactic	Revista	ISSN	Pagina web www.	Pozitia ocupata
1	2022	Valentina E. Balas	<b>Journal of Information Technology &amp; Software Engineering</b>	2165- 7866	<a href="https://www.longdom.org/editor/valentina-e-balas-12689">https://www.longdom.org/editor/valentina-e-balas-12689</a>	Editorial Board

2	2022	Valentina E. Balas	Journal of Computer Science and Control Systems (JCSCS)	1844-6043	<a href="https://electroinf.uoradea.ro/index.php/jcscs.html">https://electroinf.uoradea.ro/index.php/jcscs.html</a>	Asociat Editor
3	2022	Valentina E. Balas	Journal of Engineering & Technology	2395-0196	<a href="https://www.gyanvihar.org/researchjournals/editorial-board.php">https://www.gyanvihar.org/researchjournals/editorial-board.php</a>	Advisory Board
4	2022	Valentina E. Balas	International Journal of Next-Generation Computing	2229-4678	<a href="http://www.ijngc.perpetualinnovation.net/index.php">http://www.ijngc.perpetualinnovation.net/index.php</a>	Editorial Board
5	2022	Valentina E. Balas	American Journal of Intelligent Systems	2165-8978	<a href="http://www.sapub.org/journal/editorialdetails.aspx?JournalID=1060&amp;PersonID=16075">http://www.sapub.org/journal/editorialdetails.aspx?JournalID=1060&amp;PersonID=16075</a>	Editorial Board
6	2022	Valentina E. Balas	International Journal of Innovations in Scientific and Engineering Research (IJISER)	2347-9728	<a href="http://www.ijiser.com/index.php">http://www.ijiser.com/index.php</a>	Associate Editor
7	2022	Valentina E. Balas	Journal of Computer Science & Systems Biology	0974-7230	<a href="https://www.omicsonline.org/editorialboard-computer-science-systems-biology-open-access.php">https://www.omicsonline.org/editorialboard-computer-science-systems-biology-open-access.php</a>	Editorial Board
8	2022	Valentina E. Balas	International Journal of Modern Computation, Information and Communication Technology	2581-5954	<a href="http://ijmcict.gjpublication.com/editorial-board.html">http://ijmcict.gjpublication.com/editorial-board.html</a>	Editor
9	2022	Valentina E. Balas	Journal of Medical Informatics and Decision Making	2641-5526	<a href="https://openaccesspub.org/journal/jmid/editorial-board">https://openaccesspub.org/journal/jmid/editorial-board</a>	Editorial Board
10	2022	Valentina E. Balas	Journal of Automation and Control Engineering	2301-3702	<a href="http://www.joace.org/">http://www.joace.org/</a>	Editorial Board
11	2022	Valentina E. Balas	Agricultural Engineering Research Journal	2218-3906	<a href="http://www.idosi.org/aerj/board.htm">http://www.idosi.org/aerj/board.htm</a>	Editorial Board
12	2022	Valentina E. Balas	International Journal of Advanced Computer Science and Information Technology	2296-1739	<a href="http://elvedit.com/journals/IJACSIT/editorial-board/">http://elvedit.com/journals/IJACSIT/editorial-board/</a>	Editorial Board

13	2022	Valentina E. Balas	International Journal of Granular Computing, Rough Sets and Intelligent Systems	1757-2711	<a href="https://www.inderscience.com/jhome.php?jcode=ijgcrsis">https://www.inderscience.com/jhome.php?jcode=ijgcrsis</a>	Editorial Board
14	2022	Valentina E. Balas	International Journal of Reasoning-based Intelligent Systems	1755-0556	<a href="https://www.inderscience.com/jhome.php?jcode=ijris#edboard-content">https://www.inderscience.com/jhome.php?jcode=ijris#edboard-content</a>	Editorial Board
15	2022	Valentina E. Balas	Cyber Journals: Multidisciplinary Journals in Science and Technology	1925-2676	<a href="http://www.cyberjournals.com/associates.html">http://www.cyberjournals.com/associates.html</a>	Associate Editor
16	2022	Valentina E. Balas	International Journal of Nanotechnology and Molecular Computation	1941-6318	<a href="https://www.igi-global.com/journal/international-journal-nanotechnology-molecular-computation/1117">https://www.igi-global.com/journal/international-journal-nanotechnology-molecular-computation/1117</a>	Associate Editor
17	2022	Valentina E. Balas	Turkish Journal of Analysis and Number Theory	2333-1100	<a href="http://www.sciepub.com/journal/TJANT/editors">http://www.sciepub.com/journal/TJANT/editors</a>	Editor
18	2022	Valentina E. Balas	Journal of Research in Science Technology Engineering and Management	2456-0197	<a href="https://www.rootindexing.com/journal/journal-of-research-in-science-technology-engineering-and-management-jorstem-2/">https://www.rootindexing.com/journal/journal-of-research-in-science-technology-engineering-and-management-jorstem-2/</a>	Editorial Board
19	2022	Valentina E. Balas	International Journal of Bio-Medical Informatics and e-Health	2321 - 9017	<a href="http://www.warse.org/IJBMIeH/editorialBoard">http://www.warse.org/IJBMIeH/editorialBoard</a>	Advisory Committee Member
20	2022	Valentina E. Balas	International Journal of Innovations in Scientific and Engineering Research	2347-9728	<a href="http://www.ijiser.com/EDITORINCHIEF.php">http://www.ijiser.com/EDITORINCHIEF.php</a>	Asociat Editor
21	2022	Valentina E. Balas	Engineering Science & Technology	2717-5235	<a href="http://ojs.wiserpub.com/index.php/EST/about/editorialTeam">http://ojs.wiserpub.com/index.php/EST/about/editorialTeam</a>	Editorial Board
22	2022	Valentina E. Balas	Vision & Quest	0975-8410	<a href="https://www.abes.ac.in/editorial-board/">https://www.abes.ac.in/editorial-board/</a>	International Editorial Board

23	2022	Valentina E. Balas	International Journal of Computers and Communications	2074-1294	<a href="http://www.naun.org/cms.action?id=3050">http://www.naun.org/cms.action?id=3050</a>	Associate Editor
24	2022	Valentina E. Balas	International Journal of Digital Contents and Applications for Smart Devices	2205-8532	<a href="http://gvpress.com/journals/IJDCASD/eb.php">http://gvpress.com/journals/IJDCASD/eb.php</a>	Editorial Board
25	2022	Valentina E. Balas	International Journal of Advanced Robotics and Automation	2473-3032	<a href="https://symbiosisonlinepublishing.com/robotics-automation/editorialboard.php">https://symbiosisonlinepublishing.com/robotics-automation/editorialboard.php</a>	Editorial Board
26	2022	Valentina E. Balas	Suresh Gyan Vihar University Journal of Engineering & Technology	2277-6915	<a href="https://www.gyanvihar.org/researchjournals/editorialboard.php">https://www.gyanvihar.org/researchjournals/editorialboard.php</a>	Advisory Board
27	2022	Valentina E. Balas	Journal of Vibration Testing and System Dynamics	2475-4811	<a href="https://www.lhscientificpublishing.com/Journals/JVTS-EditorialBoard.aspx">https://www.lhscientificpublishing.com/Journals/JVTS-EditorialBoard.aspx</a>	Associate Editor
28	2022	Valentina E. Balas	Journal of Fuzzy Extension & Applications (JFEA)	2783-1442	<a href="http://www.journal-fea.com/journal/editorialboard">http://www.journal-fea.com/journal/editorialboard</a>	Editorial Board
29	2022	Valentina E. Balas	Recent Advances in Computer Science & Technology	Coming Soon	<a href="https://racsat.org/">https://racsat.org/</a>	Editorial Board
30	2022	Valentina E. Balas	BOHR International Journal of Smart Computing and Information Technology (BIJSCIT)	2583-2026	<a href="http://www.bohrpublishing.com/">BOHR Publishing</a>	Editorial Board
31	2022	Valentina E. Balas	Journal of Mahani Mathematical Research (JMMR)	2251-7952	<a href="https://jmmrc.uk.ac.ir/journal/editorial.board">https://jmmrc.uk.ac.ir/journal/editorial.board</a>	Editorial Board

### Editor/Redactor sef

2 revista BDI –

1. o revista de alt tip –

1	2022	Valentina E. Balas	<i>International Journal of Advanced Intelligence Paradigms</i> <b>SCOPUS</b>	1755-0394	<a href="https://www.inderscience.com/jhome.php?jcode=iijaip">https://www.inderscience.com/jhome.php?jcode=iijaip</a>	Editor in Chief
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2	2022	Valentina E. Balas	<i>International Journal of Computational Systems Engineering</i> <b>DBLP</b>	2046-3405	<a href="https://www.inderscience.com/jhome.php?jcode=ijcsyse">https://www.inderscience.com/jhome.php?jcode=ijcsyse</a>	Editor in Chief
3	2022	Valentina E. Balas	<b>Scientific and Technical Bulletin. Series: Electrotechnics, Electronics, Automatic Control and Computer Science</b> <b>Google Scholar</b>	2165-7866	<a href="https://www.uav.ro/jour/index.php/stb-eeaccs">https://www.uav.ro/jour/index.php/stb-eeaccs</a>	Editorial Board

### Membru în comitetul științific al unor manifestări științifice

2022

(SELECTIE)

1. General Co-Chair la International Workshop Soft Computing Applications, SOFA 2022, 21-23 November 2022, Arad, Romania, <https://2022.sofa-org.eu/> ISI
2. Member in Technical Program Committee la IEEE 26<sup>th</sup> International Conference on Intelligent Engineering Systems 2022 (INES 2022), August 12-15, 2022 in Crete, Greece, <http://www.ines-conf.org/ines-conf/2022committees.html> ISI
3. Membra in Technical Program Committee la Second International Conference on Innovations in Electronics and Communication Systems, (ICIECS 2022), 24-26 November 2022, R.S.M. NAGAR, PUDUVOYAL, Tamil Nadu, India, [ICIECS - Technical Committee \(rmkcet.ac.in\)](http://www.rmkcet.ac.in)
4. Membra in Program Committee la IEEE International Symposium on Technology and Society 2022 (ISTAS22), 10-12 November 2022, Virtual Conference, <https://www.istas22.org/organizing-committee/>
5. Publication Chair la 2022 IEEE GLOBAL CONFERENCE ON COMPUTING, POWER AND COMMUNICATION TECHNOLOGIES (GlobConPT), September 23-25, 2022 at India Habitat Centre, Lodhi Road, New Delhi, India, <https://globconpt.org/committee.html>
6. Honorary Advisory Chair la 1st International Conference on Innovations in Data Analytics (ICIDA 2022) organized by International Knowledge Research Foundation in collaboration with Eminent College of Management and Technology (ECMT), West Bengal, India on 29th and 30th November, 2022, <http://icida.ikrf.in/committee.php>
7. Member in Scientific Committee la International Conference on Machine Learning and Data Engineering, ICMLDE 2022, 07 - 08 September 2022, UPES, Dehradun, India, <https://www.icmlde2022.com/>
8. Membra in International Advisory Committee la IEEE 10<sup>th</sup> INTERNATIONAL CONFERENCE ON RELIABILITY, INFOCOM TECHNOLOGIES AND OPTIMIZATION (ICRITO'2022), 13-14 November, 2022, Amity University, Noida, India <https://www.amity.edu/aiit/icrito2022/Default.aspx>

9. Membra in International Advisory Committee la 4th International Conference on “Emerging Research in Electronics, Computer Science and Technology”, 26<sup>th</sup> - 27<sup>th</sup> DECEMBER, 2022, New Delhi, India, <http://www.pesceconference.in/#about>
  10. Membra in International Advisory Committee la 3rd INTERNATIONAL CONFERENCE ON POWER, ENERGY, CONTROL AND TRANSMISSIONS, ICPECTS 2022, Chennai, India, <https://icpects2022.com/committee>
  11. Membra in International Advisory Board la IEEE Third international conference on power,energy,control and transmission systems, 8-9 December 2022, Chennai, India <https://events.vtools.ieee.org/m/315551>
  12. General Chair la The sixth edition of National PhD Students Days, 15-16 November, Agadir, Morocco, <https://npsd2022.sciencesconf.org/resource/page/id/5> ISI
  13. Member in the Steering Committee la The 3<sup>rd</sup> International Network of Biomaterials and Engineering Science (INBES’2022), November 25-26 2022, Agadir, Morocco, <https://inbes.akrit.org/committee/>
  14. Member in Program Committee la 9<sup>th</sup> International Conference on Computers Communications and Control (ICCCC). Baile Felix, Oradea, 16-20 May, 2022, <https://www.univagora.ro/en/conferinte/icccc/icccc2022/committees/> ISI
  15. Membra in Technical Program Committee la 5th International Conference on Inventive Material Science and Applications, ICIMA 2022, 6th & 7th, May 2022 - Coimbatore, India, <http://icoimsa.com/2022/>
  16. Membra in Organizing Committee la 8thWorld Conference of Soft Computing (8thWConSC’22), Baku, Azerbaijan, February 03-05, 2022, <http://wconsc.com/baku/committees.html> ISI
  17. Membra in International Advisory Board la IEEE 16<sup>th</sup> International Symposium on Applied Computational Intelligence and Informatics (SACI 2022), May 25-28, 2022 in Timisoara, Romania, <http://conf.uni-obuda.hu/saci2022/committees.html> ISI
  18. General Chair la International Conference on Advanced Communications and Machine Intelligence M. Kumarasamy College of Engineering, Tamil Nadu, India, 09-11 December, 2022, <https://mica.org.in/2022/committee/>
  1. Member in Organizing Committee la International Conference on Robotics and Artificial Intelligence (ICRAI – 2022), September 14-16, 2022, Singapore, <https://www.wisdommeetings.com/robotics-ai/organizing-committee.php>
  2. Technical Chair la 2022 International conference on Advanced Communication and Intelligent Systems (ICACIS), August 26-27, 2022, Warsaw, Poland, <https://easychair.org/cfp/icacis2022>
- membru juriu - **Sesiunea BacStud 2020, Oradea 5 puncte**  
<https://www.univagora.ro/conferinte/bacstud/bacstud2022/>

**Premii, distincții si diplome**



The certificate is framed in a grey border. At the top left is the logo of Rajasthan Technical University (RTU) and at the top right is the logo of Anand International College of Engineering (ANAND). The text is centered and reads: (Hybrid) 3rd International Conference On Recent Developments in Engineering and Technology 25th -26th February, 2022. Below this, it says 'Jointly Organized by' followed by 'Rajasthan Technical University, Kota & Anand International College of Engineering, Jaipur'. The word 'Certificate' is written in a large, decorative font. The main text certifies that Dr. Valentina E. Balas of Aurel Vlaicu University of Arad, ROMANIA delivered a Keynote Talk on the topic 'Phase Trajectory Qualitative Analysis and Application' in the Two Day's International Conference on 'Recent Developments in Engineering and Technology' held from 25-02-2022 to 26-02-2022 at Anand International College of Engineering, Jaipur. At the bottom, there are three signatures and names: Prof. Deepak Bhatia (General Chair ICRDET-2022, RTU, Kota), Prof. Vijay Kr. Sharma (General Chair ICRDET-2022, Anand-ICE), and Prof. Praveen Agarwal (General Chair ICRDET-2022, Anand-ICE).

(Hybrid)  
**3rd International Conference**  
On  
**Recent Developments in Engineering and Technology**  
25<sup>th</sup> -26<sup>th</sup> February, 2022  
*Jointly Organized by*  
Rajasthan Technical University, Kota & Anand International College of Engineering, Jaipur

**Certificate**

This is to certify that Dr. Valentina E. Balas of Aurel Vlaicu University of Arad, ROMANIA has delivered a **Keynote Talk** on the topic "Phase Trajectory Qualitative Analysis and Application" in the Two Day's International Conference on "Recent Developments in Engineering and Technology" held from 25-02-2022 to 26-02-2022 at Anand International College of Engineering, Jaipur.

*Deepak Bhatia*  
**Prof. Deepak Bhatia**  
General Chair ICRDET-2022  
RTU, Kota

*Vijay Kr. Sharma*  
**Prof. Vijay Kr. Sharma**  
General Chair ICRDET-2022  
Anand-ICE

*Praveen Agarwal*  
**Prof. Praveen Agarwal**  
General Chair ICRDET-2022  
Anand-ICE



The plaque is made of dark wood with a white central panel. It features the logos of RTU and ANAND at the top. The text on the plaque reads: 3rd Hybrid International Conference on Recent Developments in Engineering and Technology (ICRDET-2022) February 25 - 26, 2022. Below this is a portrait of Valentina E. Balas. Underneath the portrait, it says 'Valentina E. Balas, Aurel Vlaicu University of Arad, ROMANIA, Keynote Speaker'. At the bottom, it says 'Jointly Organized by Rajasthan Technical University, Kota & Anand International College of Engineering, Jaipur'.

3rd Hybrid  
International Conference  
on  
**Recent Developments in Engineering and Technology (ICRDET-2022)**  
February 25 - 26, 2022



**Valentina E. Balas**  
Aurel Vlaicu University of Arad, ROMANIA  
Keynote Speaker

Jointly Organized by  
Rajasthan Technical University, Kota &  
Anand International College of Engineering, Jaipur




# INTERNATIONAL WEBINAR

ON  
Intelligent Optimization Techniques and Their Real Life Applications

## CERTIFICATE OF APPRECIATION

This certificate is proudly awarded to  
Resource Person



**Prof. Valentina E. Balas**  
for imparting his/her valuable thoughts in  
**INTERNATIONAL WEBINAR ON**  
Intelligent Optimization Techniques and Their Real Life Application

organized by  
Department of Mathematics  
**Punjabi University, Patiala, INDIA**  
Date: 25-27 February 2022  
in collaboration with



Mizan-Tepi University  
ETHIOPIA



UNIVERSITY OF  
WOLVERHAMPTON  
UNITED KINGDOM



MathTech Thinking Foundation  
INDIA



Prof. Mehar Chand  
Department of Mathematics  
Baba Farid College, Bathinda  
President, MathTech Thinking Foundation (INDIA)



Head  
Mathematics Dept.  
Punjabi University, Patiala  
Prof. S.B. Singh  
Convener cum HOD, Department of Mathematics  
Punjabi University, Patiala




## CCICT-2022

# FIFTH INTERNATIONAL CONFERENCE ON COMPUTATIONAL INTELLIGENCE AND COMMUNICATION TECHNOLOGIES

### Certificate

This is to certify that Prof. /Dr./ Mr./Ms. Valentina Emilia Balas, Aurel Vlaicu  
University of Arad, Romania  
has participated in the International Conference on Computational Intelligence Communication  
Technologies (CCICT-2022) as a **Keynote Speaker** organised by B.M. Institute of  
Engineering & Technology, Sonapat, India in collaboration with " WSG University, Bydgoszcz, POLAND  
and "ABES Engineering College, Ghaziabad, India on 8th & 9th July 2022.



**Dr. Zdzislaw Polkowski**  
WSG University, Poland



**Dr. Harish Mittal**  
Principal, BMIET, India









J.C. Bose University of Science and Technology,  
YMCA, Faridabad (Haryana)  
(Recognised u/s 2(f) and 12(B) of UGC Act, 1956)



NAAC "A" Grade Accredited University

AICTE SPONSORED INTERNATIONAL CONFERENCE  
ON  
RECENT DEVELOPMENTS IN ELECTRICAL AND ELECTRONICS ENGINEERING  
(ICRDEEE 2022)



Springer

### Certificate of Appreciation

It is our great honour to have Prof. Valentina Emilia Balas as a member of *Advisory Committee* in the International Conference on "Recent Developments in Electrical and Electronics Engineering **ICRDEEE-2022**" held during 15<sup>th</sup> - 16<sup>th</sup> April 2022, organised by Department of Electrical Engineering, J. C. Bose University of Science and Technology, YMCA, Faridabad in association with UiT-The Arctic University of Norway, Campus Narvik, Norway and Institution of Engineers (India).

CONVENER

CO-CONVENER

CHAIRPERSON



**Gautam Buddha University**  
CENTER FOR COGNITIVE COMPUTING RESEARCH  
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING  
UNIVERSITY SCHOOL OF INFORMATION AND COMMUNICATION TECHNOLOGY  
GREATER NOIDA, U.P. (201312), INDIA  
[WWW.GBU.AC.IN](http://WWW.GBU.AC.IN)

**2<sup>nd</sup> Online International Conference on Artificial Intelligence and Sustainable Computing for Smart Cities (AIS2C2: 2022)**  
[WWW.AISCINDIA.CO.IN](http://WWW.AISCINDIA.CO.IN)

### CERTIFICATE OF PRESENTATION

This is to certify that Prof. /Dr./ Mr./ Ms. *Valentina E. Balas* from *University of Arad, Romania* is a keynote speaker in the 2<sup>nd</sup> Online **International Conference on Artificial Intelligence and Sustainable Computing for Smart Cities (AIS2C2: 2022)**, organised by Gautam Buddha University, Greater Noida from December 21<sup>st</sup>- 22<sup>nd</sup>, 2022.

Dr. Arun Solanki  
Convener

School of ICT  
Gautam Buddha University  
Greater Noida - (U.P.)

Prof. Sanjay K. Sharma  
General Chair





G H RAISONI INSTITUTE OF ENGINEERING & TECHNOLOGY, Nagpur



DEPARTMENT OF ARTIFICIAL INTELLIGENCE

In association with



organizes



CERTIFICATE OF APPRECIATION

THIS CERTIFICATE IS PROUDLY AWARDED TO

*Dr. Vallentina Emilia Ballas*

for their phenomenal and worthy presentation as a Keynote Speaker on the topic "Recent Developments in AI" in the International AI Summit # 1 held during 28-29 January 2022.

Dr. Smita Nirkhi  
HoD, AI, GHRIET, Nagpur



Dr. Vivek Kapur  
Director, GHRIET, Nagpur



*Keynote Speaker Certificate*

Presented to:

*Prof. Dr. Valentina E. Balas*

In recognition of outstanding contribution as a **Keynote Speaker** of the presentation entitled:

**Advanced Soft Computing Techniques for Modeling and Simulation of Roof-Top Greenhouses**

Presented in:

**2022 INTERNATIONAL CONFERENCE ON EMERGING TRENDS IN ELECTRICAL, CONTROL, AND TELECOMMUNICATION ENGINEERING (ETEECTE)**

held on 2-4 December 2022 at  
Department of Electrical Engineering,  
The University of Lahore, Pakistan

GENERAL CHAIR ETEECTE  
Dr. Ghulam Abbas




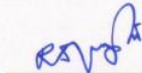


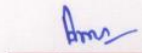
## Certificate of Appreciation

This is to certify that *Prof. Valentina Emilia Balas, University of Arad, Romania* has delivered a Keynote Talk on “Current and Future Trends in Artificial Intelligence and Applications” in the 2022 *IEEE Silchar Subsection Conference (IEEE SILCON-2022)* during 4th to 6th November 2022.

  
Dr. Taimoor Khan  
General Chair

  
Dr. Devendra Singh Gurjar  
Organising Chair

  
Dr. Rajdeep Dasgupta  
Organising Secretary

  
Dr. Amrithesh Kumar  
Organising Secretary

  
Dr. Malaya Dutta Borah  
Finance Chair



International Conference  
on  
Computational Intelligence and Sustainable Engineering Solutions  
(CISES-2022)  
20-22 May 2022

## CERTIFICATE

This Certified is proudly awarded to Prof./Ms./Mr./Dr. Dr. E Valentina Balas  
from Aurel Vlaicu University of Arad, Romania.

in Honor of your valuable contribution as Technical Program Committee Member/Reviewer in the Three Days International Conference on Computational Intelligence and Sustainable Engineering Solutions (CISES-2022) Technically Co-sponsored by IEEE-CIS on 20<sup>th</sup> May to 22<sup>nd</sup> May, 2022 organized by Department of Master of Computer Applications, G.L. Bajaj Institute of Technology & Management Greater Noida, (U.P) India.

  
Convener  
Dr. Sanjeev Kumar

  
Conference Chair  
Prof. (Dr.) Madhu Sharma Gaur

  
General Chair  
Prof. (Dr.) Rajeev Agrawal

International e-Conference on Fuzzy Sets & Fuzzy Logic - Generalizations and Applications

September 06- 08, 2022

Organized by

Fuzzy and Rough Sets Association, Agartala, Tripura, India

*This is to Certify that*

**Prof. Valentina Emilia Balas** of Aurel Vlaicu University of Arad, Romania has delivered an invited talk titled "Views on Fuzzy Sets and Systems" at the International e-Conference on Fuzzy Sets & Fuzzy Logic - Generalizations and Applications held on September 06-08, 2022.

Dated: 08.09.2022

Prof. S. Bhattacharya(Halder)

Secretary, FRSA

Prof. R. N. Bhaumik

Chairperson, Conference  
President, FRSA



1<sup>st</sup> International Conference on Computational Intelligence for Engineering and Management Applications (CIEMA) - 2022  
(March 26<sup>th</sup> - 27<sup>th</sup>, 2022)



**Organized By**

Regional Association for Security and Crisis Management, Serbia  
Mathematical Institute of the Serbian Academy of Sciences and Arts  
MCKV Institute of Engineering, West Bengal, India  
CT Institute of Engineering, Management & Technology, Punjab, India

**CERTIFICATE OF APPRECIATION**

*Is presented to*

**Prof. Valentina E. Balas**, Department of Automatics and Applied Software at the Faculty of Engineering, "Aurel Vlaicu" University of Arad, Romania, for her contribution as a Keynote Speaker in CIEMA-2022, held during March 26th - 27th, 2022.

Prof. Abhijit Lahiri  
Principal, MCKVIE

Prof. Dragan Marinkovic  
University of Niš, Serbia  
Chair - CIEMA Award Committee

Prof. Goran Cirovic  
University of Novi Sad, Serbia  
Co-Chair - CIEMA Award Committee

Prof. Dragan Pamucar  
Organizing Convener





**SESHADRI RAO GUDLAVALLERU ENGINEERING COLLEGE**

An Autonomous Institute with Permanent Affiliation to JNTUK, Kakinada  
Seshadri Rao Knowledge Village Gudlavalleru-521 356, Krishna Dist. A.P,India.



*Certificate Of Appreciation*

**International Conference On  
"Artificial Intelligence Techniques for Electrical Engineering Systems"(AITEES-2022)**

6<sup>th</sup>-7<sup>th</sup> May ,2022 Virtual Conference

AITEES-2022 expresses its gratitude to

**Prof. Valentina E. Balas, Aurel Vlaicu University of Arad,Romania**

for being acted as the **KEYNOTE SPEAKER** at the International Conference On **"Artificial Intelligence Techniques for Electrical Engineering Systems(AITEES-2022)"**, organized by Department of Electrical and Electronics Engineering, Seshadri Rao Gudlavalleru Engineering College, Gudlavalleru, Andhra Pradesh, India during **6<sup>th</sup>-7<sup>th</sup> May, 2022**.

Dr.Srinivasa Rao Gampa  
Organizing Chair

Dr. B. Dasu  
Conference Chair

Prof. (Dr.)G.V.S.N.R.V. Prasad  
Patron

**International Conference on Mathematical Sciences and Applications (ICOMAA - 2022)**



Organized by  
**Department of Mathematics**  
**University of Kalyani, INDIA**  
June 28-29, 2022



**CERTIFICATE OF APPRECIATION**

The Organizing Committee feels the honor to felicitate  
**Prof. Valentina E. Balas** of  
*Aurel Vlaicu University of Arad, Romania*  
for her eminence presence in ICOMAA-2022 as an Invited Speaker and for delivering her illuminating lecture on

*"Recent Advances in Computational Intelligence Techniques and Its Applications"*

Prof. Animesh Biswas  
(Convener)

Dr. Amiya Das  
(Convener)

Prof. Dibyendu De  
(Convener)



Kharazmi University



# 13<sup>th</sup> International Conference on Information & Knowledge Technology

20-22 December, 2022



IEEE



IEEE IRAN SECTION



01220-64879

# IKT2022



## CERTIFICATE OF APPRECIATION

This certificate is awarded to

### Prof./Dr. Valentina Balas


For her/his valuable contribution as the **Keynote Speaker and Technical Committee Member** in the **IEEE 13<sup>th</sup> International Conference on "Information & Knowledge Technology"**.

Given this 20-22 Dec., 2022.


**Dr. Ali Hasanbeigi**  
Executive Chair

**Dr. Mehdi Zamanian**  
Conference Chair









**J.C. Bose University of Science and Technology,**  
**YMCA, Faridabad (Haryana)**  
 (Recognised u/s 2(f) and 12(B) of UGC Act,1956)  
 NAAC "A" Grade Accredited University





**AICTE SPONSORED INTERNATIONAL CONFERENCE**  
**ON**  
**RECENT DEVELOPMENTS IN ELECTRICAL AND ELECTRONICS ENGINEERING**  
**(ICRDEEE 2022)**







### Certificate of Appreciation

It is our great honour to have **Dr. Valentina Emilia Balas** as a member of **Technical Programme Committee** in the International Conference on "Recent Developments in Electrical and Electronics Engineering **ICRDEEE-2022**" held during 15<sup>th</sup> - 16<sup>th</sup> April 2022, organised by Department of Electrical Engineering, J. C. Bose University of Science and Technology, YMCA, Faridabad in association with UiT-The Arctic University of Norway, Campus Narvik, Norway and Institution of Engineers (India).

  
 CONVENER

  
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 CHAIRPERSON



## Keynote Speaker Certificate

Presented to:

*Prof. Dr. Valentina E. Balas*

In recognition of outstanding contribution as a **Keynote Speaker** of the presentation entitled:

**Advanced Soft Computing Techniques for Modeling and Simulation of Roof-Top Greenhouses**

Presented in:

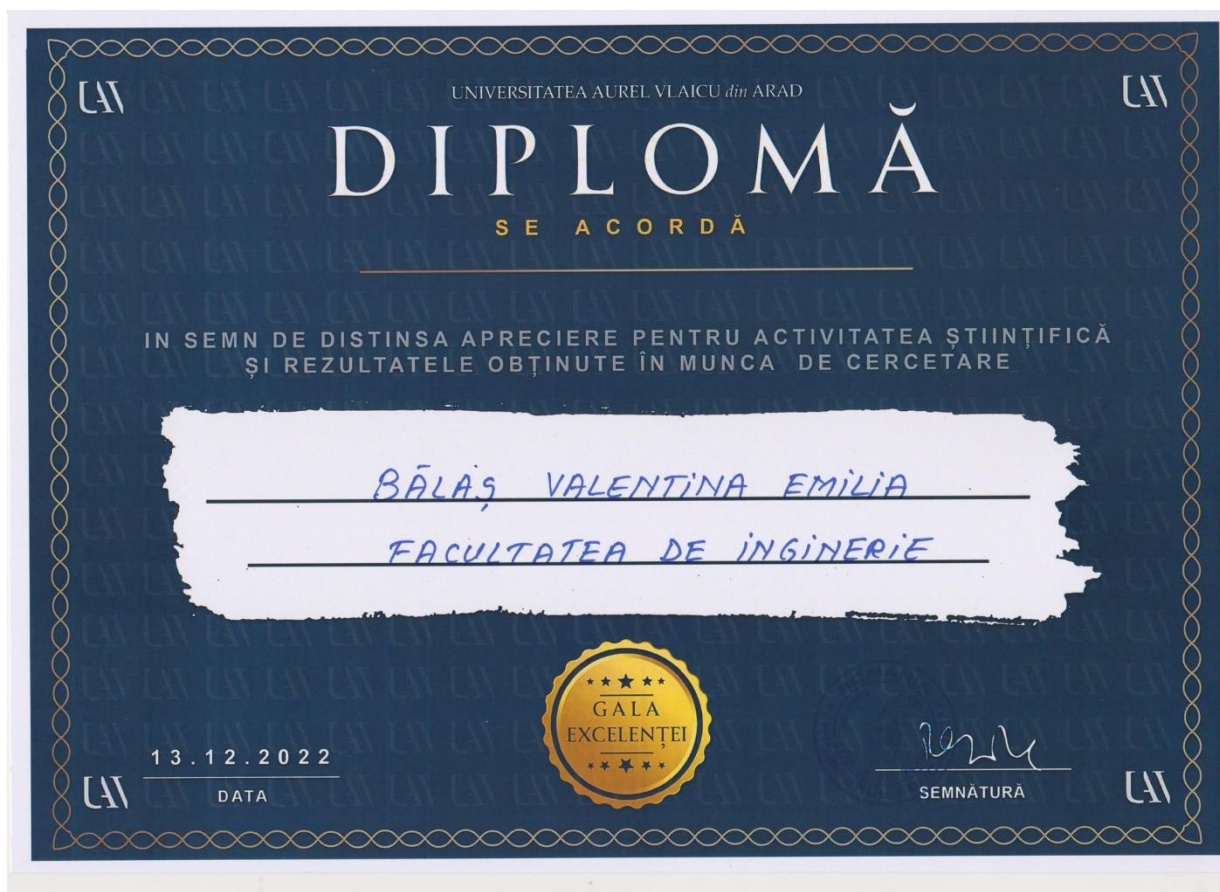
**2022 INTERNATIONAL CONFERENCE ON EMERGING TRENDS IN ELECTRICAL, CONTROL, AND TELECOMMUNICATION ENGINEERING (ETEECTE)**

held on 2-4 December 2022 at  
Department of Electrical Engineering,  
The University of Lahore, Pakistan

GENERAL CHAIR ETEECTE  
Dr. Ghulam Abbas



- Naționale  
*Diploma de excelență UAV 2022*



## **Membru în academii, asociații profesionale sau organizații profesionale de prestigiu**

*AGIR – presedinte filiala Arad – Valentina E. Balas*

*SRAIT- presedinte filiala Arad – Valentina E. Balas*

*AAIR - presedinte filiala Arad – Valentina E. Balas*

*Vicepresedinte al Chapterului IEEE CIS Romania*

### **Membri IEEE**

Marius Balas, Cornel Barna

### **Membri SRAIT:**

Marius Balas, Cornel Barna, Flavius Petcut, Mihaela Popa, Daniel Alexuta, Tania Gavrilă

### **Membri AGIR:**

Marius Balas, Cornel Barna, Flavius Petcut, Mihaela Popa, Daniel Alexuta, Tania Gavrilă

### **Membri AAIR:**

Marius Balas, Cornel Barna, Flavius Petcut, Mihaela Popa, Daniel Alexuta, Tania Gavrilă

### **Membra in Asociații și Societăți Profesionale – Valentina E. Balas**

Membră **IEEE Computational Intelligence Society** din 2004.

Membră **IEEE Computer Society** din 2007.

Membră **IEEE Women in Engineering** din 2008.

**Senior Member IEEE** din 2007.

Membră **WCI (Women in Computational Intelligence)** din 2006, <http://www.ieee-cis.org/members/wci/> ; <http://smile.ee.ncku.edu.tw/WCI/index.html> ,

Membră **IEEE Communications Society** din 2003.

Membră în **Emergent Technologies Technical Committee (ETTC)** of the Computational Intelligence Society (CIS) of the Institute of Electrical and Electronic Engineers, Inc. (IEEE), pentru Europa, din 2009, <http://www.ieee-cis.org/technical/ettc/>.

Membră în **IEEE Systems, Man, and Cybernetics Society (SMC)** din 2009

Membră în **Soft Computing Technical Committee (SCTC)** of the Systems, Man, and Cybernetics Society (SMCS) of the Institute of Electrical and Electronic Engineers, Inc. (IEEE), din 2009, [http://www.ieeesmc.org/technicalcommittees/tc\\_sc.html](http://www.ieeesmc.org/technicalcommittees/tc_sc.html)

Membră în **IEEE Industrial Electronics Society (IES)** din 2009.

Membră în **IEEE Signal Processing Society (SPS)** din 2012.

Membră în **Fuzzy Systems Technical Committee (FSTC)** of Computational Intelligence Society of IEEE din 2011, <http://ieee-cis.org/technical/fstc/>

Membră **EUSFLAT** (European Society for Fuzzy Logic and Technology) din 2007, <http://www.eusflat.org/> , responsabilă cu recrutarea din 2012.

Membră **NAFIPS** North American Fuzzy Information Processing Society din 2008, <http://nafips.ece.ualberta.ca/>

Membră **ACM** – Association for Computer Machinery, USA, din 2008, [http://portal.acm.org/author\\_page.cfm?id=81350605749&coll=GUIDE&dl=GUIDE&trk=0&CFID=24132792&CFTOKEN=17272748](http://portal.acm.org/author_page.cfm?id=81350605749&coll=GUIDE&dl=GUIDE&trk=0&CFID=24132792&CFTOKEN=17272748)

Membră a **Academiei de Științe din New York, NYAS** (The New York Academy of Sciences) din 2009, <http://www.nyas.org/>

Membră a **Academiei de Științe din Kurdistan (KAS)** din 2009, <http://www.kurdistanacademy.info/admin/member/index/>



Membră a **Asociației Generale a Inginerilor din România**, Vicepreședintă a Filialei Arad din **2004**, [http://www.agir.ro/comunitate.php?id\\_universitate=12&id\\_facultate=42](http://www.agir.ro/comunitate.php?id_universitate=12&id_facultate=42)

Membră a **Asociației Române de Instrumentație** – România - Șefă a Sucursalei Arad a AAIR din **2005**, <http://www.aair.org.ro/Structura.html>

Membră a Asociației de Robotica, Filiala Arad, din **2004**, <http://www.robotics-society.ro/filiale/arad.pdf>

Membră a **International Society on Multiple Criteria Decision Making MCDM** din **2009**, <http://www.mcdmsociety.org/>

Friend of **ACRUPO** (Association of Canadian Romanian University Professors, Ontario, Canada) din **2004**.

Membră a **IAENG** - International Association of Engineers, <http://www.iaeng.org/>, din **2009**, membership number :101636

Membră a comunității academice **International Congress for Global Science and Technology – ICGST, 2009**, Egipt, <http://www.icgst.com/>, <http://www.icgst-amc.com/institute/Community.aspx?InstId=3&aid=1293>

Membră a **Advisory Board for the G.H.R. Labs & Research Center**, Raison Group of Institutions (RGI), Nagpur, India, din 2010, [http://ghrlabs.res.in/advisory\\_board.html](http://ghrlabs.res.in/advisory_board.html)

Membru afiliat **IFAC** (International Federation of Automatic Control) din 2009. <http://www.ifac-control.org/participate/ifac-affiliates/>

Membră a **SIAM – Society for Industrial and Applied Mathematics**, din 2010, <http://www.siam.org/>

Expert Tehnic Judiciar - Technical Expert of the Romanian Ministry of Justice, from 2010

Membră la **Research Gate Scientific Network**, din 2010, [https://www.researchgate.net/profile/Valentina\\_Emia\\_Balas/?dbw=true](https://www.researchgate.net/profile/Valentina_Emia_Balas/?dbw=true)

Membră **SRAIT – Societatea Română de Automatică și Informatică Tehnică**, Președintele Filialei Arad a SRAIT din 2010, <http://srait.ecosys.pub.ro/>

Membră în Technical Committee la **IAMSIE** - International Association of Management Science & Industrial Engineering din 2010, Hong Kong, [http://www.iamsie.org/index.php?option=com\\_content&view=article&id=2&Itemid=16](http://www.iamsie.org/index.php?option=com_content&view=article&id=2&Itemid=16)

Membru fondator al **Asociației Române de Inteligență Artificială - ARIA** – martie 2011, <http://www.aria-romania.org/en/about-aria/members>

Membră în Editorial Board la **SCICON** – The International Association of Science & Engineering Congress din august 2011, Bangladesh, <http://www.scicon.org/index.html>

Membră în Computational Intelligence in Control **CT 3.2** al **IFAC (International Federation of Automatic Control)** din 2011, <http://tc.ifac-control.org/3/2/members> 2010-2014

Senior Member in **IACSIT – International Association of Computer of Computer Science and Information Technology**, Singapore, No. 80343689 din 2011.

Mentor la Interscience Research Network, **IRNet**, India, [www.interscience.ac.in](http://www.interscience.ac.in), din 2012.

Elected **Joint Secretary of the Governing Council** of Forum for Interdisciplinary Mathematics (FIM), - A Multidisciplinary Academic Body, India, din 2013, <http://forum4interdisciplinarymathematics.org/Governing-Council.asp>  
<http://share.pdfonline.com/56823f06637244819c01ebe38892f873/Elected%20Joint%20Secretary%20for%202013-14,%20KK%20Shukla.htm>

Elected **Vicepresident (Awards) of the International Fuzzy Systems Association Council – IFSA**, 2013- USA, <http://isdlab.ie.ntnu.edu.tw/ntust/ifsa/sources/council.html>

Member of **AIAA - American Institute of Aeronautics and Astronautics - ID number 490278, Region VII, from October 2013, member in Intelligent Systems Technical Committee.**

Member of the **International Advisory Committee (IAC) of Kalasalingam University**, Anand Nagar, Krishnan Koil-626 126, Srivilliputtur (via), Tamil Nadu, India, from October 2013

Membru in Technical Committee on **Brain Machine Interface** de la IEEE Systems Man and Cybernetics Society din Noiembrie 2014, <http://www.ieceemc.org/technical-activities/human-machine-systems/brain-machine-interface-systems>  
**Membru in Executive Council la Asian Society for Research in Engineering Sciences, 2016,**  
<http://www.asres.org.in/administrator.html>

Arad, 30.01.2023

Prof.Univ.Habil.Dr.Ing, Valentina Emilia Balas

