



Marius M. Bălaș

Lista lucrărilor (05.05.2023) **List of works**

a) **Teza de doctorat – Doctoral thesis**

Regulatoare fuzzy interpolative adaptive și aplicații în construcția vagoanelor de călători. (Adaptive interpolative fuzzy controllers and applications in passenger railway coach construction). Conducător științific Prof.dr.ing. Mircea A. Ciugudean. Susținută în 7 decembrie 2001 la Universitatea Politehnica din Timișoara, România.

b) **Cursuri și îndrumătoare de lucrări - University courses**

b1)M.M. Bălaș, V.E. Bălaș. *Dispozitive si circuite electronice – îndrumător de lucrări de laborator.* Editura Universității “Aurel Vlaicu” Arad, 2000, ISBN 973-9361-38-2.

b2)M.M. Bălaș, V.E. Bălaș. *Dispozitive si circuite electronice – îndrumător de lucrări de laborator.* Editura Universității “Aurel Vlaicu” Arad, 2000, ISBN 973-9361-38-2.

b3)M.M. Bălaș, V.E. Bălaș. *Curs de dispozitive electronice.* Editura Universității “Aurel Vlaicu” Arad, 2003, ISBN 973-9361-83-8.

c) **Cărți - Books**

c1) M.M. Bălaș. *Regulatoare fuzzy-interpolative.* Editura Politehnica Timișoara, 2002. ISBN 973-625-036-9. **Author.**

c2) M.M. Bălaș, *Introducere în electronica. Circuite electronice liniare.* Editura Universității “Aurel Vlaicu” din Arad, 200 pagini. 2013. ISBN 978-973-752-673-1. **Author.**

c3) *Soft Computing Applications: Proceedings of the 7th International Workshop Soft Computing Applications (SOFA 2016),* Vol. 1&2. Editors: Valentina Emilia Balas, Lakhmi C. Jain, Marius Mircea Balas. Part of the book series: *Advances in Intelligent Systems and Computing (AISC, volume 633)* edited by Janusz Kacprzyk. ISSN: 2194-5357, eISSN: 2194-5365. **Editor.**

c4)*Internet of Everything and Big Data: Major Challenges in Smart Cities.* Editors: S Krit, M Elhoseny, VE Balas, R Benlamri, MM Balas – CRC Press, 25 July 2021, 158 pages. Taylor & Francis Group. Published: 16 November 2022, eBook ISBN: 9781003038412, DOI: 10.1201/9781003038412. **Editor.**

c5) *Smart and Sustainable Technology for Resilient Cities and Communities. Advances in Sustainability Science and Technology.* Editors: Howlett R.J., Jain L.C., Littlewood J.R., Balas M.M. 321 pages. Springer, Singapore. Published: 2022. ISBN: 978-981-16-9100-3, eISBN: 978-981-16-9101-0, DOI: 10.1007/978-981-16-9101-0. **Editor.**

d) **Capitole de carte – Book chapters**

d1) V.E. Balas, M.M. Balas. *Traffic Management by Constant Time to Collision.* Chapter in *Knowledge-Based Intelligent Information and Engineering Systems*, Edited by I. Lovrek, R. Howlett and L. Jain, *Lecture Notes in Computer Science*, Springer-Verlag Berlin/Heidelberg, 2008, Vol. 5179, pp. 658-663. ISBN 978-3-540-85566-8. **DPLB** (Computer Science Bibliography), **ACM**, **Scopus** (ARC Cat. B).

d2) M.M. Balas, V.E. Balas. *World Knowledge for Controllers by Fuzzy-Interpolative Systems.* Eds. L.A. Zadeh, D. Tufis, F.G. Filip, I. Dzitac, in *Natural Language to Soft Computing: New Paradigms in Artificial Intelligence*, Editing House of Romanian Academy, 2008, pp. 11-21. ISBN 978-973-27-1678-6.

- d3) V.E. Balas, M.M. Balas. *A Survey on the Constant Time to Collision Techniques*. Eds. L.A. Zadeh, D. Tufis, F.G. Filip, I. Dzitac, *From Natural Language to Soft Computing: New Paradigms in Artificial Intelligence*, Editing House of Romanian Academy, 2008, pp. 23-31. ISBN 978-973-27-1678-6.
- d4) M.M. Balas, V.E. Balas. *Postmodernism and Control Engineering*. Chapter 18 in *Views on Fuzzy Sets and Systems from Different Perspective. Philosophy, Logic, Criticism and Applications*. Edited by R. Seising, Springer Berlin/Heidelberg, 2009, Vol. 243, pp. 377-391. ISBN 978-3-540-93801-9. **DPLB** (Computer Science Bibliography).
- d5) M.M. Balas. *The Fuzzy Interpolative Methodology*. Chapter in *Studies in Computational Intelligence. Soft Computing Based Modeling in Intelligent Systems*, edited by V.E. Balas, A. Varkonyi-Koczy and J. Fodor, Springer-Verlag, 2009, Vol. 196, pp. 145-167. ISBN 978-3-642-00447-6, eISBN 978-3-642-00448-3.
- d6) M.M. Balas and V.E. Balas. *The Fuzzy Interpolative Control for Passive Greenhouses*. 5th European Conference on Intelligent Systems and Technologies. Chapter 12 in *Intelligent Systems and Technologies: Methods and Applications* edited by H.N. Teodorescu, J. Watada, and L.C. Jain, Springer-Verlag, 2009, Vol. 217, pp. 219-231. ISBN: 978-3-642-01884-8, eISBN: 978-3-642-01885-5, WOS:000268638100012. **DPLB** (Computer Science Bibliography).
- d7) M.M. Balas and V.E. Balas. *Adaptive Rule-Based Reasoning by Qualitative Analysis*, Chapter in *Proc. of 13th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems. Theory and Methods*, edited by E. Hullermeier, R. Kruse and F. Hoffman, Springer-Verlag, 2010, pp. 553-560. ISBN 978-3-642-14054-9, eISBN 978-3-642-14055-6.
- d8) M.M. Balas, C. Musca and S. Musca. *The Passive Greenhouses*, Chapter 5 in *Paths to Sustainable Energy*, edited by J. Nathwani and A. Ng, *InTech Open*, 2010, pp. 75-92. <http://www.intech-open.com/books/paths-to-sustain-able-energy/the-passive-greenhouses>. ISBN 978-953-307-401-6.
- d9) V.E. Balas and M.M. Balas. *Fuzzy Systems towards Field Applications*, Chapter 3 *On Fuzziness. A Homage to Lotfi A. Zadeh*, edited by R. Seising, E. Trillas, C. Moraga and S. Termini, Springer Verlag, 2012, Vol. 216, Chapter 25, pp. 189-195. ISBN: 978-3-642-35640-7, eISBN 978-3-642-35641-4.
- d10) M.A. Ciugudean and M.M. Balas. *CMOS-Integrated Temperature Relay Based on Widlar Mirror*. Chapter in *Proceedings of the 5th International Workshop on Soft Computing Applications SOFA '12*, Szeged, Hungary, August 22-24. Series: *Advances in Intelligent and Soft Computing*. Eds. V.E. Balas, J. Fodor, A. Varkonyi-Koczy, J. Dombi, L.C. Jain, Springer, 2013, pp. 319-330. ISBN 978-3-642-33941-7.
- d11) M.M. Balas, M. Socaci, O. Olaru. *A FPGA Floating Point Interpolator*. Chapter in *Proceedings of the 5th International Workshop on Soft Computing Applications SOFA '12*, Szeged, Hungary, August 22-24. Series: *Advances in Intelligent and Soft Computing*, edited by V.E. Balas, J. Fodor, A. Varkonyi-Koczy, J. Dombi and L.C. Jain, Springer, 2013, pp. 331-336. ISBN 978-3-642-33941-7.
- d12) M.M. Balas, N.A. Chira, S.A. Matisan and F.M. Suciu. *Using License Plates Recognition for Automate Cruise Control*. Chapter in *Proc. of the 5th International Workshop on Soft Computing Applications SOFA '12*, Szeged, Hungary, August 22-24. Series: *Advances in Intelligent and Soft Computing*, edited by V.E. Balas, J. Fodor, A. Varkonyi-Koczy, J. Dombi and L.C. Jain, Springer, 2013, pp. 605-609. ISBN 978-3-642-33941-7.
- d13) M.M. Balas. *A New Generation of Biomedical Equipment Based on FPGA. Arguments and Facts*. Chapter in *Advanced Intelligent Computational Technologies and Decision Support Systems. Studies in Computational Intelligence*, edited by B. Iantovics and R. Kountchev, Springer, 2014, Vol. 486, pp. 123-134. ISBN 978-3-319-00466-2, eISBN 978-3-319-00467-9.
- d14) M.M. Balas, V.E. Balas, R. Lile, S.V. Balas. *Fuzzy-Interpolative Control for Intelligent Roof-Top Greenhouse Buildings*. *Studies in Fuzziness and Soft Computing*. Springer, Vol. 393, pp. 567-576. Published: 2021. ISSN: 14349922, DOI: 10.1007/978-3-030-47124-8_46. Book Chapter.

e) Articole de jurnal indexate ISI – ISI indexed journal papers

- e1) M. Balas, J. Duplaix, M. Bouchouicha, S.V. Balas. *Structural modeling of the wind's influence over the heat flow of the greenhouses*. Presented at the *1st IEEE International Workshop on Soft Computing Applications, Aug. 27-30, Arad (SOFA'05)* Published in *Journal of Intelligent and Fuzzy Systems*, John Wiley & Sons, Special Issue: *Soft Computing and Applications*, Volume 19, Number 1, 2008, pp. 29-40. ISSN 1064-1246. [WOS:000253944000005](#). [IF₂₀₂₁: 1.737, Q4](#).
- e2) M.M. Balas. *Seven Passive Greenhouse Synergies*. *Acta Politehnica Hungarica*, Budapest, Vol. 11, No. 4, 2014, pp. 199-210. ISSN: 1785-8860, [WOS:000336555700013](#). [IF₂₀₂₁ = 1.711, Q1](#).
- e3) S. Chakraborty, N. Dey, S. Samanta, A., S. Ashour, C. Barna, M.M. Balas. *Optimization of non-rigid Demons registration using cuckoo search algorithm*. *Cognitive Computation*, Vol. 9, Issue 6, pp. 817-826, Springer US, Published: Dec. 2017. ISSN: 1866-9956, eISSN: 1866-9964, [WOS:000417682600007](#), DOI: 10.1007/s12559-017-9508-y. [IF₂₀₂₁: 3.444, Q1](#).
- e4) Venkataraman Yegnanarayanan, Gayathri Yegnanarayanan, Marius M Balas. *On Coloring Catalan Number Distance Graphs and Interference Graphs. Symmetry-Basel*. Vol. 10, Issue 10, Article Number: 468, 13 pag., Published: Oct. 2018. ISSN: 2073-8994, [WOS:000448561000048](#), DOI: 10.3390/sym10100468, [IF₂₀₂₁: 2.94, Q1](#).
- e5) U. Farooq, J. Gu, M. El-Hawary, V.E. Balas, M.M. Balas, G. Abbas, M.U. Asad, J. Luo, *State Convergence-based Control of a Multi-Master-Single-Slave Non-linear Teleoperation System*. *Acta Polytechnica Hungarica* Vol. 15, No. 4, pp. 7–26, Published: 2018, ISSN: 1785-8860, [WOS:000442389300001](#), DOI: 10.12700/APH.15.4.2018.4.1, [IF₂₀₂₁ = 1.711, Q1](#).
- e6) Mahmood Hosseini Imani, Mojtaba Jabbari Ghadi, Shahaboddin Shamshirband, Marius M Balas. *Impact Evaluation of Electric Vehicle Parking on Solving Security-Constrained Unit Commitment Problem*. *Mathematical and Computational Applications*. Vol. 23, Issue 1, Article Number: 13, 16 pag., Published: Mar. 2018. ISSN: 1300-686X, eISSN: 2297-8747, [WOS:000483104800012](#), DOI: 10.3390/mca23010013, [IF₂₀₂₁ = 0.7, Q2](#).
- e7) Ghulam Abbas, Jason Gu, Umar Farooq, Muhammad Abid, Ali Raza, Muhammad Asad, Valentina Balas, Marius Balas. *Optimized Digital Controllers for Switching-Mode DC-DC Step-Down Converter*. *Electronics*, Vol. 7, Issue 12, Article Number: 412, 25 pag., Published: Dec. 2018. eISSN: 2079-9292, [WOS:000455067800071](#), DOI:10.3390/electronics7120412, [IF₂₀₂₁ = 2.69, Q2](#).
- e8) Farooq Umar, Gu Jason, Balas Valentina E., Abbas Ghulam, Asad Muhammad Usman, Balas Marius M. *A Hybrid Time Series Forecasting Model for Disturbance Storm Time Index using a Competitive Brain Emotional Neural Network and Neo-Fuzzy Neurons*. *Acta Polytechnica Hungarica*, Volume 16, Issue 4, pp. 213-229, Published: 1 April, 2019, ISSN: 1785-8860, [WOS:000476902300011](#), DOI: 10.12700/APH.16.4.2019.4.11. [IF₂₀₂₀ = 1.286, Q3](#).
- e9) Ashraf Naveed, Izhar Tahir, Abbas Ghulam, Balas Valentina E., Balas, Marius M., Lin Tsung-Chih, Asad Muhammad Usman, Farooq Umar, Gu Jason. *A Single-Phase Buck and Boost AC-to-AC Converter with Bipolar Voltage Gain: Analysis, Design, and Implementation*. *Energies*. Volume 12, Issue 7, Article Number: 1376, pp. 1-17, Published: 1 April 2019, eISSN: 1996-1073, [WOS:000465561400193](#), DOI: 10.3390/en12071376. [IF₂₀₂₁ = 3.252, Q3](#).
- e10) Abbas Ghulam Nazeer, Muhammad Qumar, Balas Valentina E., Lin Tsung-Chih, Balas Marius M., Asad Muhammad Usman, Raza Ali, Shehzad Muhammad Naeem, Farooq Umar, Gu Jason. *Derivative-Free Direct Search Optimization Method for Enhancing Performance of Analytical Design Approach-Based Digital Controller for Switching Regulator*. *Energies*. Volume 12, Issue 11, Article Number: 2183, 17 pag., Published: 1 June 2019, ISSN: 1996-1073, [WOS:000472635900150](#), DOI: 10.3390/en12112183, [IF₂₀₂₀ = 2.707, Q3](#).
- e11) Umair Tahir, Ghulam Abbas, Dan Ovidiu Glavan, Valentina E. Balas, Umar Farooq, Marius M. Balas, Ali Raza, Muhammad Usman Asad, Jason Gu. *Design of Three Phase Solid State Transformer Deployed within Multi-Stage Power Switching Converters*. *Applied Sciences-Basel*, Vol. 9, Issue 17, pp. 3544-3568. Published: 29 Aug. 2019. eISSN: 2076-3417, [WOS: 000488603600107](#), DOI: 10.3390/app9173545, [IF₂₀₂₁: 2.838, Q2](#).
- e12) Muhammad Usman Asad, Umar Farooq, Jason Gu, Valentina E Balas, Ghulam Abbas, Marius Balas, Vlad Muresan. *An enhanced state convergence architecture incorporating disturbance observer for*

bilateral teleoperation systems. International Journal of Advanced Robotic Systems, Vol. 16, Issue 5, Article Nr: 1729881419880052, 9 pag., Published: 9 Sept. 2019, ISSN: 1729-8814, WOS: 000491057400001, DOI: 10.1177/1729881419880052, IF: 1.223, Q4.

e13) Lin Yu-Chen, Balas Valentina Emilia, Balas Marius Mircea, Peng Jian-Zhang. *Adaptive backstepping nonsingular fast terminal sliding mode control for hydro-turbine governor design*. Energies. Vol. 13, Issue 1, Article Number: 126, 22 pag., Published: Jan. 2020, eISSN: 1996-1073, WOS: 000520425800126, DOI: 10.3390/en13010126, IF₂₀₂₁ = 3.252, Q3.

e14) Lin Tsung-Chih, Li Cheng-You, Chen Pin-Fan, Chen Wei-Kai, Dey Rajeeb, Balas Marius M., Olariu Teodora, Wong Wai-Shing. *Identifier based intelligent blood glucose concentration regulation for type 1 diabetic patients: an adaptive fuzzy approach*. Journal of Intelligent & Fuzzy Systems. Vol. 38, no. 5, pp. 6175-6184, Published: 29 May 2020, ISSN: 1064-1246, eISSN: 1875-8967, WOS:000541708200076, DOI: 10.3233/JIFS-179699, IF₂₀₂₁ = 1.737, Q4.

e15) Farooq Umar, Gu Jason, Asad Muhammad Usman, Abbas Ghulam, Hanif Athar, Balas Marius. *On line identification of nonlinear systems using neo-fuzzy supported brain emotional learning network*. Journal of Intelligent & Fuzzy Systems, Vol. 38, no. 5, pp. 6045-6051, Published: 29 May 2020, WOS: 000541708200066, DOI: 10.3233/JIFS-179689, IF₂₀₂₁ = 1.737 Q4.

e16) Tayyaba Shahzadi, Ashraf Muhammad Waseem, Tariq Muhamamd Imran, Nazir, Mohsin, Afzulpurkar Nitin, Balas Marius M., Mihalache Sanda Florentina. *Skin insertion analysis of microneedle using ANSYS and fuzzy logic*. Journal of Intelligent & Fuzzy Systems. Vol. 38, no. 5, pp. 5885-5895, Published: 29 May 2020, ISSN: 1064-1246, eISSN: 1875-8967, WOS:000541708200053, DOI: 10.3233/JIFS-179676, IF₂₀₂₁ = 1.737, Q4.

e17) Shahzadi Tayyaba, Muhammad Waseem Ashraf, Muhammad Imran Tariq, Maham Akhlaq, Valentina E. Balas, Ning Wang, Marius M. Balas. *Simulation, Analysis, and Characterization of Calcium-Doped ZnO Nanostructures for Dye-Sensitized Solar Cells*. Energies, Volume 13, Issue 18, Article Number: 4863, 14 pag., Published: 17 Sept. 2020, eISSN: 1996-1073, WOS:000580683100001, DOI: 10.3390/en13184863, IF₂₀₂₀ = 3.252, Q3.

e18) Muhammad Imran Tariq, Shakeel Ahmed, Nisar Ahmed Memon, Shahzadi Tayyaba, Muhammad Waseem Ashraf, Mohsin Nazir, Akhtar Hussain, Valentina E. Balas, Marius M. Balas. *Prioritization of information Security Controls through fuzzy AHP for cloud computing networks and wireless sensor*. Sensors, Volume 20, Issue 5, Article Number: 1310, 36 pag., Published: 28 Feb. 2020, eISSN: 1424-8220, WOS:000525271500072, DOI: 10.3390/s20051310, IF₂₀₂₀ = 3.847, Q1.

e19) Venkatraman Yegnanarayanan; Narayanaa Y. Krithicaa; Balas E. Valentina; Balas M. Marius. *Alzheimer's Disease under the Purview of Graph Theory Centric Genetic Networks*. Brain-Broad Research in Artificial Intelligence and Neuroscience. Volume 12, Issue 2, pp. 178-201, DOI: 10.18662/brain/12.2/199, Published JUN 2021, Indexed 2021-09-02, WOS:000688360400011, ISSN: 2067-3957. IF₂₀₂₁ = 0.16, Q1.

e20) Sabih Muhammad, Umer, Muhammad, Farooq Umar, Gu Jason, Balas Marius M., Asad Muhammad Usman, Qureshi Khurram Karim, Khan Irfan A., Abbas, Ghulam. *Image processing based fault classification in power systems with classical and intelligent techniques*. Journal of Fuzzy and Intelligent Systems, Volume 43, Issue 2, Special Issue SI, pp. 1921-1932, Published: 09 June 2022, ISSN: 1064-1246, WOS:000811435100025, DOI: 10.3233/JIFS-219293, IF₂₀₂₁ = 1.737 Q4.

e21) Venkatraman Yegnanarayanan, Narayanaa Y. Krithicaa, Balas E. Valentina, Balas M. Marius. *Alzheimer's Disease under the Purview of Graph Theory Centric Genetic Networks*. Brain-Broad Research in Artificial Intelligence and Neuroscience. Volume 12, Issue 2, pp. 178-201, Published: 19 July 2022, ISSN 2067-3957, WOS:000688360400011, DOI: 10.18662/brain/12.2/199, IF₂₀₂₁ = 0.160, Q4.

e22) Muhammad Usman Asad, Jason Gu, Umar Farooq, Valentina E. Balas, Marius M. Balas, Ghulam Abbas. *An Improved Composite State Convergence Scheme with Disturbance Compensation for Multilateral Teleoperation Systems*. Studies in Informatics and Control, Volume 31, no. 3, pp. 43-52, Published: Sept. 2022, ISSN: 1220-1766, eISSN: 1841-429X, WOS:000863974500004, DOI: 10.24846/v31i3y202204, IF₂₀₂₁ = 1.826 Q3.

f) Articole de jurnal indexate BDI – Databases indexed journal papers

f1) M.M. Balas. *Financial Crisis and Technical Progress 2008-2017. The Parallel Shift in Information Technology*. In International Journal of Computational Systems Engineering, Inderscience, 2017. Vol. 3, Issue 4, pp. 213-219, ISSN: 2046-3391, eISSN: 2046-3405, DOI: 10.1504/IJCSYSE.2017.089194. **Indexed in: Academic OneFile (Gale), cnpLINKer (CNPIEC), Google Scholar, Info Trac (Gale), J-Gate.**

f2) R.K. Sidharthan, R. Kannan, S. Srinivasan, M.M. Balas. *A Novel Keep Zero as Zero (KZZ) Polar Correlation Technique for Mobile Robot Localization using LIDAR*. Advances in Electrical and Computer Engineering, Issue 4, Vol. 16, 2016, pp. 15-22. Published: Dec. 2016, ISSN: 1582-7445, e-ISSN: 1844-7600, DOI:10.4316/AECE.2016.04003. **Scopus indexed.**

f3) M. Balas, J. Nikolic, R. Lile, M. Popa, R. Beiu. *Intelligent Rooftop Greenhouses and Green Skyline Cities*. SWS Journal of Earth and Planetary Sciences, Vol.1, Issue 2, 10 Ian. 2019, pp. 15-28. ISSN: 2664 – 0090. DOI 10.35603/eps2019/issue2.02. **Indexată ORCID, Google Scholar, Dimensions.**

g) Lucrări indexate ISI – ISI indexed proceedings

g1) R.E. Precup, S. Preitl, M.M. Balas, V.E. Balas. *Fuzzy controllers for tire slip control in anti-lock braking systems*. Proc. of Fuzz-IEEE'04 The IEEE International Conference on Fuzzy Systems, 25-29 July 2004, Budapest, Hungary, vol. 1-3, pp. 1317-1322. Published: 2004. IEEE Catalog Number 04CH37542, ISBN 0-7803-8353-2, ISSN 1098-7584, **WOS:000224959100228**. **Conference paper. ISI indexed.**

g2) M. Balas, C. Barna. *Using CCD Cameras for Car Following Algorithms*. Proc. of ISIE 2005 The IEEE International Symposium on Industrial Electronics, 20-23 June 2005, Dubrovnik, Croatia, ed. C. Peric, vol. 1-4, pp.57-62. Published: 2005. ISBN 0-7803-8738-4, **WOS:000235418900010**. **Conference paper. ISI indexed.**

g3) M.M. Balas, V. E. Balas, C. Barna. *The Constant Effort Imposed Distance Braking for Urban Railway Vehicles*. Proc. of EUROCON 2005 the International Conference on "Computer as a Tool", Belgrade, Serbia and Montenegro, 21-24 Nov. 2005, pp. 365-368. Published 2005. IEEE Catalog No: 05EX1255C, ISBN: 1-4244-0049-X, **WOS:000237248900093**. **Conference paper. ISI indexed.**

g4) M.M. Balas, V.E. Balas. *Some Observations on Stability of Switching Adaptive Rule Based of Fuzzy Self-Adapted Interpolative Controllers*. Proc. of ISCIII'07 3rd International Symposium on Computational Intelligence and Intelligent Informatics, 28-30 March 2007, Agadir, Morocco, pp. 63-66. Published: 2007. IEEE Catalog Number 07EX1756, Library of Congress 2007923135. ISBN: 978-1-4244-1157-3, **WOS:000247031600011**. **Conference paper. ISI indexed.**

g5) V.E. Balas, M.M. Balas. *Switching Adaptive Correctors for Fuzzy Fusion Self-Adapted Interpolative Controllers*. Proc. of ISCIII'07 3rd International Symposium on Computational Intelligence and Intelligent Informatics, 28-30 March 2007, Agadir, Morocco, pp. 67-72. Published: 2007. IEEE Catalog Number 07EX1756, Library of Congress 2007923135. ISBN978-1-4244-1157-3, **WOS:000247031600012**. **Conference paper. ISI indexed.**

g6) M.M. Balas, V.E. Balas. *World Knowledge for Control Applications*. Proc. of INES 2007 The 11th International Conference on Intelligent Engineering Systems, 29 June-1 July 2007, Budapest, Hungary, pp. 225-228. Published: 2007. IEEE Catalog Number 07EX1751, ISBN 1-4244-1147-5, Library of Congress 2007922965. ISBN: 978-1-4244-1147-4, **WOS:000250359600040**. **Conference paper. ISI indexed.**

g7) M. Balas, V.E. Balas, J. Duplaix. *Optimizing the Distance-Gap between Cars by Constant Time to Collision Planning*. Proceedings of ISIE 2007 The 2007 IEEE International Symposium on Industrial Electronics, 4-7 June 2007, Vigo, Spain, pp. 304-309. Published 2007. IEEE Catalog Number 07TH8928C, Library of Congress 2006935487. ISBN: 978-1-4244-0754-5, **WOS:000252265100054**. **Conference paper. ISI indexed.**

g8) M.M. Balas, V.E. Balas. *A simple model of the air conditioning installation of a compartmented railway coach*. Proceedings of ICC07 5th IEEE International Conference on Computational Cybernetics. Gammath, Tunisia, 19-21 Oct. 2007, pp.271-274. Published: 2007. IEEE Catalog Number 07EX1750C, Library of Congress 2007922966, ISBN: 978-1-4244-1145-0, **WOS:000252427400043**. **Conference paper. ISI indexed.**

- g9) M.M. Balas, V.E. Balas, J. Duplax. *On the Switching Controllers' Issue*. Proc. of SOFA '07 2nd IEEE International Workshop on Soft Computing Applications, 21-23 August 2007, Gyula-Hungary, Oradea-Romania, pp. 103-108. Published: 2007. IEEE Catalog Number CFP0728D, Library of Congress 2007905895. ISBN: 978-1-4244-1607-3, [WOS:000249888900018](#). [Conference paper](#). [ISI indexed](#).
- g10) V.E. Balas, M.M. Balas. *Postmodernism and Control Engineering*. Proc. of 5th EUSFLAT Conference New Dimensions in Fuzzy Logic and Related Technologies, Ostrava, Czech Republic, 11-14 Sept. 2007. Edited by M. Štepička, V. Novák, U. Bodenhofer, Vol. 1, pp.425-428. Published: 2007. ISBN: 978-80-7368-386-3, [WOS:000265134700063](#). [Conference paper](#). [ISI indexed](#).
- g11) V.E. Balas, M.M. Balas. *On the Switching Control*. Advanced Bio-Inspired Computational Methods, pp. 107-113 Published: 2008, ISBN: 978-973-7794-77-2, [WOS:000264750600011](#). [Conference paper](#). [ISI indexed](#).
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j) Brevete de invenție internaționale - International invention patents

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- m3) Profesor invitat M.M. Balas: Universitatea de Sud Toulon-Var, Franța, 2006.
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- m14) V.E. Balas, M.M. Balas, *Fuzzy Control Applications*. WconSC, Azerbaijan, 7th World Conference on Soft Computing, Research Heritage of Lotfi Zadeh, 28-31 May 2018, Baku, Azerbaijan. <http://ci2s-enterprise.com.ar/2018/02/11/wconsc2018-baku/>. [Keynote Speech](#).

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- m25) M.M. Balas. *The Parallel Shift*. Advanced & Recent Technologies in the field of Computer Science & Engineering towards Aatmanirbhar Bharat. Indrashil University, India, 8 March 2021. [Keynote Speech](#).
- m26) M.M. Balas. *Systems Engineering: The Top-Down Approach*. 2nd Int. Conf. on Advancements in Interdisciplinary Research (ICAIR-2021). October 29 - 31, 2021, Agra, India. [Keynote Speech](#).
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- m29) M.M. Balas. *Input-output surfaces based reasoning in adaptive*. AI2SD 2022 Advanced Intelligent Systems for Sustainable Development. Mohammed V University, ENSAM Rabat, Morocco, 22-27 May 2022. [Keynote Speech](#).
- m30) M.M. Balas. *On the Visual Representation of Knowledge*. 4th International Conference on Data & Information Sciences. Raja Balwant Singh Engineering Technical Campus, Bichpuri, Agra, Uttar Pradesh, India, 1-4 June 2022. [Keynote Speech](#).
- m31) M.M. Balas. *The Top-down Approach in Systems Engineering and Education (with Emphasis on Digital Electronics and Greenhouses Technology)*. Universidad de Talca, Curico, Chile, 24-28 Oct. 2022. [Keynote Speech](#).
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Prof.dr.ing.habil. **Marius M. Bălaș**