

SCIENTIFIC PAPERS

A. Prof. dr. Marius Tomescu

ISI papers

1. Precup, R. E.; **Tomescu, M. L.**, Stable fuzzy logic control of a general class of chaotic systems, (2015) **Neural Computing & Applications**, Volume: 26 Issue: 3 Pages: 541-550.
2. Precup, R. E.; **Tomescu, M. L.**; Petriu, E. M., (2015) A Unified Anti-Windup Technique for Fuzzy and Sliding Mode Controllers, **International Journal of Computers Communications & Control**, Volume: 10 Issue: 6 Pages: 843-855.
3. Precup, R. E.; **Tomescu, M. L.**; Dragos, C. A. (2014): Stabilization of Rossler chaotic dynamical system using fuzzy logic control algorithm. **International Journal of General Systems**, Volume: 43 Issue: 5 Pages: 413-433.
4. R.-E. Precup, M.-B. Rădac, **M. L. Tomescu**, E. M. Petriu and St. Preitl, (2013): Stable and convergent iterative feedback tuning of fuzzy controllers for discrete-time SISO systems, **Expert Systems with Applications** (Elsevier Science), vol. 40, no. 1, pp. 188-199, (www.sciencedirect.com, dl.acm.org).
5. R.-E. Precup, **M. L. Tomescu**, St. Preitl, E. M. Petriu, J. Fodor and Cl. Pozna, (2013): Stability analysis and design of a class of MIMO fuzzy control systems, **Journal of Intelligent & Fuzzy Systems** (IOS Press), vol. 25, no. 1, pp. 145-155, (iospress.metapress.com).
6. C.-A. Dragoș, R.-E. Precup, **M. L. Tomescu**, St. Preitl, E. M. Petriu and M.-B. Rădac, (2013): An Approach to Fuzzy Modeling of Electromagnetic Actuated Clutch Systems, **International Journal of Computers, Communications & Control** (Agora University Editing House - CCC Publications), vol. 8, no. 3, pp. 395-406, (univagora.ro/jour/).
7. R.-E. Precup, **M. L. Tomescu**, M.-B. Rădac, E. M. Petriu, St. Preitl and C.-A. Dragoș, (2012): Iterative performance improvement of fuzzy control systems for three tank systems, **Expert Systems with Applications** (Elsevier Science), vol. 39, no. 9, pp. 8288-8299, (www.sciencedirect.com, dl.acm.org).
8. Precup, R.-E., **Tomescu, M.-L.**, Petriu, E. M., Preitl, St. and Dragoș, C.-A. (2012): Stable design of a class of nonlinear discrete-time MIMO fuzzy control systems. **Acta Polytechnica Hungarica** (Óbuda University), vol. 9, no. 2, pp. 57-76, (uni-obuda.hu/journal/).
9. Precup, R.-E., Preitl, St., Petriu, E. M., Tar, J. K., **Tomescu, M. L.** and Pozna, Cl. (2009): Generic two-degree-of-freedom linear and fuzzy controllers for integral processes. **Journal of The Franklin Institute** (Elsevier Science), vol. 346, no. 10, pp. 980-1003, (www.sciencedirect.com). (ISSN: 0016-0032)
10. Precup, R.-E., **Tomescu, M. L.** and Preitl, St. (2009): Fuzzy Logic Control System Stability Analysis Based on Lyapunov's Direct Method. **International Journal of Computers, Communications & Control** (Agora University Editing House - CCC Publications), vol. IV, no. 4, pp. 415-426,

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11. Precup, R.-E., Preitl, St., Tar, J. K., **Tomescu, M. L.**, Takács, M., Korondi, P. and Baranyi, P. (2008): Fuzzy Control System Performance Enhancement by Iterative Learning Control. **IEEE Transactions on Industrial Electronics**, vol. 55, no. 9, pp. 3461-3475, (ieeexplore.ieee.org). (ISSN 1557-9948)
12. Precup, R.-E., Preitl, St., Rudas, I. J., **Tomescu, M. L.** and Tar, J. K. (2008): Design and Experiments for a Class of Fuzzy Controlled Servo Systems. **IEEE/ASME Transactions on Mechatronics**, vol. 13, no. 1, pp. 22-35, (ieeexplore.ieee.org). (ISSN 1083-4435)
13. **Tomescu, M.-L.**, Preitl, St., Precup, R.-E. and Tar, J. K. (2007): Stability Analysis Method for Fuzzy Control Systems Dedicated Controlling Nonlinear Processes. **Acta Polytechnica Hungarica** (Óbuda University), vol. 4, no. 3, pp. 127-141 (uni-obuda.hu/journal/). (ISSN 1785-8860).
14. Radu-Emil Precup, **Marius L. Tomescu**, Ștefan Preitl - Lorenz System Stabilization Using Fuzzy Controllers, International Journal of Computers, Communications & Control, Volume: II (2007), No: 3. pag. 279-287. ISSN 1841-9836.

Phd. thesis

Titlul tezei de doctorat: CONTRIBUȚII LA ANALIZA ȘI DEZVOLTAREA SISTEMELOR CU REGULATOARE FUZZY APLICATE ÎN CONDUCEREA PROCESELOR NELINIARE

Instituția: Universitatea "Politehnica" din Timișoara.

Editura: Editura Politehnica, Seria 1: Automatică, Nr. 10, 2008. ISBN: 978-973-625-672-1. 157 pagini.

Conducător științific: prof.univ.dr.ing. Ștefan Preitl.

Anul susținerii tezei: 2008.

Books

1. **Marius Tomescu** - Primii pași în lumea calculatoarelor – Editura albastră 2001. Cluj-Napoca. 80 pagini. ISBN 973-650-019-5.

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4. **Marius Tomescu** - Arhitectura calculatoarelor – Editura Mirton, Timișoara 2004. 194 pagini. ISBN 973-661-452-2.

5. **Marius Tomescu** - Contribuții la analiza și dezvoltarea sistemelor cu regulatoare fuzzy aplicate în conducerea proceselor neliniare. Timișoara. Editura Politehnica Publishers, Seria 1: Automatică, Nr. 10, 2008. Monography. ISBN: 978-973-625-672-1. 157 pagini.

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7. **Marius Tomescu**, Carmen Fifor, Programarea algoritmilor in C#, Editura Universității “Aurel Vlaicu” Arad, ISBN: 978-973-752-448-5, 2010, pag. 115.
8. **Marius Tomescu**, Arhitectura sistemelor de calcul , Editura Universității “Aurel Vlaicu” Arad, ISBN 978-973-752-512-3, 2010, pag. 109
9. **Marius Tomescu**, Sisteme expert, Editura Universității “Aurel Vlaicu” Arad, 2010, ISBN 978-973-752-517-8, pag.79
10. **Marius Tomescu**, Carmen Fifor, Programarea calculatoarelor - Introducere in C#, Ed. a 2-a, Editura Universității “Aurel Vlaicu” Arad, ISBN 978-973-752-511-6, 2010. pag. 166.

Books chap.

Ștefan Preitl, Radu-Emil Precup, Marius-Lucian **Tomescu**, Mircea-Bogdan Radac, Emil M. Petriu, and Claudia-Adina Dragoș (2009): Model - Based Design Issues in Fuzzy Logic Control. in **Towards Intelligent Engineering and Information Technology Series: Studies in Computational Intelligence** , Vol. 243 Rudas, Imre J.; Fodor, János; Kacprzyk, Janusz (Eds.) **Publisher: Springer-Verlag Berlin Heidelberg 2009. Springer**; 1 edition (August 18, 2009) 2009, XIV, 736 p. 345 illus., Hardcover ISBN: 978-3-642-03736-8, <http://www.springer.com/engineering/book/978-3-642-03736-8>.

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Other papers

1. Precup, R.-E., **Tomescu, M.-L.**, Petriu, E. M. and Dragomir, L.-E. (2011): Stable fuzzy logic control of generalized van der Pol oscillator. **International Journal of Artificial Intelligence** (CESER Publications), vol. 7, no. A11, pp. 36-46 (www.ceser.in). (ISSN 0974-0635)
2. Precup, R.-E., **Tomescu, M.-L.**, Preitl, St., Petriu, E. M., Fodor, J., and Paul, A. S. (2011): Stable design of Takagi-Sugeno fuzzy controllers for a laboratory three-tank system. **International Journal of Nuclear Knowledge Management** (Inderscience Publishers), vol. 5, no. 2, pp. 126-147 (www.inderscience.com). (ISSN (Print): 1479-540X)
3. Precup, R.-E., **Tomescu, M. L.**, Preitl, St. and Petriu, E. M. (2010): Fuzzy logic-based stabilization of a magnetic ball suspension system. **International Journal of Artificial Intelligence** (CESER Publications), vol. 5, no. A10, pp. 56-66 (www.ceser.in). (ISSN 0974-0635)
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5. Precup, R.-E., **Tomescu, M. L.**, Preitl, St. and Škrjanc, I. (2008): Stable Fuzzy Logic Control Solution for Lorenz Chaotic System Stabilization. **International Journal of Artificial Intelligence** (CESER Publications), vol. 2, no. A08, pp. 1-10 (www.ceser.in). (ISSN 0974-0635)

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6. Radu-Emil Precup, **Marius L. Tomescu**, Ștefan Preitl - Rule base modification of Takagi-Sugeno fuzzy logic controllers to guarantee system stability, *Bulletins for applied & Computer mathematics (PAMM)* Arad-Oradea 25-28 October 2008, pag. 113-120, (ISSN 0133-3526)

7. Radu-Emil Precup, **Marius L. Tomescu**, Ștefan Preitl, Jozsef K. Tar, Adrian Sebastian Paul - Stability Analysis Approach for Fuzzy Logic Control Systems with Mamdani Type Fuzzy Logic Controllers, *Journal of Control Engineering and Applied Informatics*, Vol 9, No 1 (2007), pag. 3-10. (ISSN 1454-8658)

ISI conferences

1. **Marius-Lucian Tomescu**, Ghe. Petrov - A Stability Analysis Method for Nonlinear Systems with Fuzzy Logic Controller. Proc. 8th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, (SYNASC 2006), Sept 26-29 2006, Timișoara Romania, pag. 141-150, IEEE Press. ISBN 0-7695-2740-X.

(<http://synasc06.info.uvt.ro/>), (<http://ieeexplore.ieee.org/xpl/login.jsp?tp=&arnumber=4090310&url=http%3A%2F%2Fieeexplore.ieee.org%2Fiel5%2F4090273%2F4090274%2F04090310.pdf%3Farnumber%3D4090310>)

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3. R.-E. Precup, Șt. Preitl, **M. -L. Tomescu**, E. M. Petriu, J. K. Tar, C. Bărbulescu, Stable Iterative Feedback Tuning-based Design of Takagi-Sugeno PI-Fuzzy Controllers, Proceedings of Conference on Human System Interaction, Krakow, Poland, May 25-27, 2008 -VOLS 1 AND 2 Pages: 542-547. ISBN: 1-4244-1543-8.

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4. Radu-Emil Precup, **Marius L. Tomescu**, Ștefan Preitl, Emil M. Petriu, Ștefan Kilyeni, Constantin Barbulescu, STABILITY ANALYSIS APPROACH TO A CLASS OF FUZZY CONTROLLED NONLINEAR TIME-VARYING SYSTEMS, Proceeding of the IEEE International Conference Eurocon 2009, Saint-Petersburg, Rusia, 18-23.05.2009, pp. 970-975, ISBN: 978-1-4244-3861-7, IEEE Catalog Number CFP09EUR-CDR.

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5. R.-E. Precup, M.-B. Radac, Șt. Preitl, **M.-L. Tomescu**, E. M. Petriu, A. S. Paul, IFT-Based PI-Fuzzy Controllers: Signal Processing and Implementation, Proceedings of 6th International Conference on Informatics in Control, Automation and Robotics (ICINCO 2009), Milan, Italy, July 2-5, 2009, ISBN 978-989-8111-99-9, vol. 1 Intelligent Control Systems and Optimization, pp. 207-212.

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6. Radu-Emil Precup, **Marius L. Tomescu**, Emil M. Petriu, Ștefan Preitl, János Fodor and Daniela Bărbulescu, Stability Analysis of a Class of MIMO Fuzzy Control Systems, In Proceedings of the WCCI

2010 IEEE World Congress on Computational Intelligence, July, 18-23, 2010 – CCIB, *Barcelona (Spain)*, 18-23 July 2010, pp. 2885-2890. ISBN 978-1-4244-8126-2.

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7. C.-A. Dragos, R.-E. Precup, E. M. Petriu, **M. L. Tomescu**, S. Preitl, R.-C. David, M.-B. Radac, 2-DOF PI-Fuzzy Controllers for a Magnetic Levitation System, Proceedings of 8th International Conference on Informatics in Control, Automation and Robotics (ICINCO 2011), Noordwijkerhout, The Netherlands, 2011, ISBN: 978-989-8425-74-4, vol. 1, pp. 111-116.

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8. R.-E. Precup, **M.-L. Tomescu**, S. Preitl, E. M. Petriu, C.-A. Dragos, Stability Analysis of Fuzzy Logic Control Systems for a Class of Nonlinear SISO Discrete-Time Systems, Preprints of the 18th IFAC World Congress, 2011, Milano, Italy, Editors: S. Bittanti, A. Cenedese, S. Zampieri, pp. 13612-13617.

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1. Sorin Nădăban, Adrian Palcu, **Marius Tomescu**, Fuzzy Metrizability of Topological Vector Spaces. In Proceedings of the International Symposium - Research and Education in Innovation Era, 4th Edition – Aurel Vlaicu University of Arad, 2012, pp. 1-6, ISSN 2065-2569.

2. Adrian Palcu, Sorin Nădăban, Andrea Șandru, **Marius Tomescu**, Is the Global Symmetry $Le - L_{\mu} - L_t$ Suitable for the Neutrino Sector in Gauge Models ?. In Proceedings of the International Symposium - Research and Education in Innovation Era, 4th Edition – Aurel Vlaicu University of Arad, 2012, pp. 101-108, ISSN 2065-2569.

3. Marius **Tomescu**, Carmen Fifor, Alina Gânguță, A. Șandru, Fuzzy Computing in C#, In Proceedings of the International Symposium - Research and Education in Innovation Era, 3rd Edition – Aurel Vlaicu University of Arad, 2010, pp. 66-74, ISSN 2065-2569.

4. Carmen Fifor, **Marius Tomescu**, Intelligent Cloud, In Proceedings of the International Symposium - Research and Education in Innovation Era, 3rd Edition – Aurel Vlaicu University of Arad, 2010, pp. 75-78, ISSN 2065-2569.

5. Marius **Tomescu**, Nădăban Sorin, Adrian Palcu, Intelligent Control Systems, In Proceedings of the International Symposium - Research and Education in Innovation Era, 3rd Edition – Aurel Vlaicu University of Arad, 2010, pp. 89-98, ISSN 2065-2569.

6. Sorin Nădăban, Marius **Tomescu**, Adrian Palcu, On Fuzzy Banach Spaces, In Proceedings of the International Symposium - Research and Education in Innovation Era, 3rd Edition – Aurel Vlaicu University of Arad, 2010, pp. 133-138, ISSN 2065-2569.

7. Marius L. **Tomescu**, Radu-Emil Precup, Ștefan Preitl, Saso Blazic, Elements of Intelligence in Control of a Class of Nonlinear Time-varying Systems, Proceedings of International Symposium Research and Education in Innovation Era, Section Mathematics and Computer Science, 2-nd Edition, Ed. Universității „Aurel Vlaicu” from Arad, Arad (2008), pags. 225-137, ISSN 2065-2569.

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11. Marius-Lucian **Tomescu** - Fuzzy logic control of vehicle suspensions with dry friction nonlinearity. *Proceedings of International Symposium. Research and Education in Innovation Era*, „Aurel Vlaicu” University, Arad, 2006, pag. 237-244. ISBN 978-973-52-0108-1.
12. Marius-Lucian **Tomescu** - Some properties of fuzzy conjunction useful to fuzzy rules. *Proceedings of SACI 2005 – 2rd Romanian-Hungarian Joint Symposium on Applied Computational Intelligence*, Timișoara, Romania, May 5-7, 2005, pag. 169-176. ISBN 963-7154-39-6.
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14. **Marius-Lucian Tomescu** - Some properties on fuzzy disjunction. *Buletinul Institutului Politehnic din Iași. Secția I. Matematică, Mecanică Teoretică, Fizică*. Universitatea Tehnică "Gh. Asachi", Iași. 50(54), No. 3-4, 5-11 (2004). (ISSN 0304-5188)
15. **Marius-Lucian Tomescu** - Câteva proprietăți ale modulului de fuzzificare. *Analele Universității „Aurel Vlaicu”* Arad, 2004, pag. 88-92. ISSN 1582-344X.
16. **Marius-Lucian Tomescu** - Proprietăți importante ale conjuncției fuzzy. *Analele Universității „Aurel Vlaicu”* Arad, 2004, pag.170-175. ISSN 1582-344X.
17. Marius **Tomescu** - Properties of Fuzzy Disjunction of n-arity. *SYNASCO3*, Timisoara, Romania 5th International Workshop, 1-4 October 2003. pag. 289-296. ISBN 973-661-104-3.
18. Coroban Laurențiu, **Marius-Lucian Tomescu** - Rezolvarea ecuației de tip Lyapunov cu ajutorul rețelelor neuronale. *Analele Universității “Aurel Vlaicu”* Arad, 2000, pag 25-32. ISSN 1582-344X.
19. Coroban Laurentiu, **Marius-Lucian Tomescu** - Teorema de structură pentru implicațiile fuzzy. *Analele Universității “Aurel Vlaicu”* Arad, 2000, pag. 33-38. ISSN 1582-344X.
20. **Marius-Lucian Tomescu** - T-implicațiile și ST-implicațiile fuzzy. *Analele Universității “Aurel Vlaicu”* Arad, 2000, pag. 175-178. ISSN 1582-344X.
21. **Marius-Lucian Tomescu** - S-implicația logică fuzzy. *Analele Universității “Aurel Vlaicu”* Arad, 2000, pag. 179-182. ISSN 1582-344X.
22. A. Cicortas, M-L. **Tomescu**, C. Gyiman, C. Burzo, L. Demsea - Distributed models of DES with time and priority. *Bulletins for applied & Computer mathematics, PAMM*, 1999, pag. 69-72. ISSN 0133-3526.
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25. Marius-Lucian Tomescu, Carmen Gyiman - Funcții fuzzy. **Studia Universitatis**, Universitatea de Vest „Vasile Goldiș” Arad, seria A, Nr. 8, 1998, pag. 577-579. ISSN 1453-103X.
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29. Marius-Lucian Tomescu - Rețele neuronale tridimensionale pentru rezolvarea ecuațiilor matriciale. **Studia Universitatis**, Universitatea de Vest „Vasile Goldiș” Arad, seria A, Nr. 6, 1996, pag.266-274. ISBN 973-578-207-3.
30. Carmen Gyiman, Marius-Lucian Tomescu - Modele de reprezentare a cunoștințelor fuzzy pentru roboți inteligenți - **Sesiunea de comunicări științifice a Universității “Aurel Vlaicu” Arad, Ediția a IV-a 1997, Analele Universității “Aurel Vlaicu” Arad**, pag. 44-48. ISBN 973-98366-2-6.
31. Marius-Lucian Tomescu, Carmen Gyiman - Fuzzy integrals defined by T-norm - **Sesiunea de comunicări științifice a Universității “Aurel Vlaicu” Arad, Ediția a IV-a 1997, Analele Universității “Aurel Vlaicu” Arad**, pag. 167-171. ISBN 973-98366-1-8.

Data

25.09.2018

A. Prof. Marius L. Tomescu