

Universitatea Tehnică din Cluj-Napoca
 Facultatea de Automatică și Calculatoare
 Departamentul Automatică
 Drd. ing. Isabela Roxana Bîrs

LISTA

lucrărilor științifice în domeniul disciplinelor din postul didactic

A – Teza de doctorat

„Strategii avansate pentru controlul poziției”
 conducător științific : Prof.dr.ing. Silviu Folea
 Universitatea Tehnică din Cluj-Napoca
 Susținere publică: -

B – Cărți și capitole în cărți publicate în ultimii 10 ani

1. Ioan Nașcu, Gabriel Harja, **Isabela Roxana Bîrs**, Sisteme de Conducere a Proceselor Continue – Îndrumător de Proiect, U.T. Press, Cluj-Napoca, 2015, ISBN: 978-606-737-100-0.

C – Lucrări indexate ISI/BDI publicate în ultimii 10 ani

c1) Articole / studii publicate în reviste de specialitate de circulație internațională recunoscute (cotate ISI)

1. Folea, S., De Keyser, R., **Birs, I.R.**, Muresan, C.I., Ionescu, C.I. (2017), Discrete-Time Implementation and Experimental Validation of a Fractional Order PD Controller for Vibration Suppression in Airplane Wings, *Acta Polytechnica Hungarica*, vol. 14, no. 1, pp. 191-206 (**revista ISI** impact factor 0.745)
2. Muresan, C.I., Folea, S.C., **Birs, I.R.**, Ionescu, C.M. (2017), A Novel Fractional Order Model and Controller for Vibration Suppression in Flexible Smart Beam, *Nonlinear Dynamics*, acceptată (**revista ISI** impact factor 3.464)
3. Markowski, K., **Birs, I.R.**, Muresan, C.I., Prodan, O. (2017), Variable fractional order models for an experimental smart beam, *Bulletin Of The Polish Academy Of Sciences-Technical Sciences*, acceptată (**revista ISI** impact factor 1.156)
4. **Birs, I.R.**, Muresan, C.I., Folea, S., Prodan, O. (2016), A Comparison between Integer and Fractional Order PD μ Controllers for Vibration Suppression, *Applied Mathematics and Nonlinear Sciences*, Vol. 1, No. 1, pp. 273-282, DOI:10.21042/AMNS.2016.1.00022 (**revista BDI**)
5. Prodan, O., **Birs, I.R.**, Folea, S., Muresan, C. I. (2016), Seismic Mitigation in Civil Structures Using a Fractional Order PD Controller, *International Journal of Structural and Civil Engineering Research*, Vol. 5, No. 2, pp. 93-96, May 2016. DOI: 10.18178/ijscer.5.2.93-96 (**BDI**)
6. Birs, I.R., **Muresan, C.I.**, Folea, S., Prodan, O. (2016), A Comparison between Integer and Fractional Order PD μ Controllers for Vibration Suppression, *Applied*

Mathematics and Nonlinear Sciences, Vol. 1, No. 1, pp. 273-282,
DOI:10.21042/AMNS.2016.1.00022 (BDI)

c2) Studii publicate la conferințe indexate în baze de date internaționale de referință în domeniul (DBLP, ACM, IEEE, SCOPUS, etc)¹

1. **Isabela Birs**, Ioana Nascu, Cosmin Darab, Ioan Nascu; Modelling and calibration of a conventional activated sludge wastewater treatment plant, 2016 IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR), May 19-21, Cluj-Napoca, Romania (**ISI Proceedings**)
2. **Birs, I.R.**, Muresan, C.I., Folea, S., Prodan, O., Kovacs, L., Vibration suppression with fractional-order PI λ D μ controller, *IEEE International Conference on Automation, Quality and Testing, Robotics AQTR*, DOI: 10.1109/AQTR.2016.7501365, Cluj-Napoca, Romania, 19-21 May 2016 (**ISI Proceedings**)
3. **Birs, I.**, Muresan, C.I., Folea, S., Prodan, O., Fractional Order Controller Design for Vibration Attenuation in an Airplane Wing, *The 18th International Conference on Control, Automation, Robotics and Systems*, pp. 1063-1067, 10-11 October 2016, New York, USA (**conferință Internațională**)
4. Muresan, C.I., **Birs, I.R.**, Folea, S., Dulf, E.H., Prodan, O., Experimental Results of a Fractional Order PD λ Controller for Vibration Suppression, *The 14th International Conference on Control, Automation, Robotics and Vision, ICARCV 2016*, DOI: 10.1109/ICARCV.2016.7838715, Phuket, Thailand, 13 – 15 November 2016 (indexare **ISI Proceedings**)
5. **Birs, I.R.**, Folea, S., Copot, D., Prodan, O., Muresan, C.I. (2017), Comparative analysis and experimental results of advanced control strategies for vibration suppression in aircraft wings, *13th European Workshop on Advanced Control and Diagnosis, IOP Conf. Series: Journal of Physics: Conf. Series 783 (2017) 012054*, DOI: 10.1088/1742-6596/783/1/012054, 17-18 November 2016, Lille France
6. C.I. Muresan, R. De Keyser, **I. R. Birs**, S. Folea, O. Prodan (2017) An Autotuning Method for a Fractional Order PD Controller for Vibration Suppression, *Proceedings of the International Workshop Mathematical Methods in Engineering (MME 2017)*, ISBN 978-975-6734-19-3, pp. 52, 27 – 29 April 2017, Ankara, Turkey (**conferință Internațională**)
7. **I.R. Birs**, S. Folea, C. I. Muresan (2017), Design and Experimental Validation of An Optimal Fractional Order Controller for Vibration Attenuation, *25th Mediterranean Conference on Control and Automation*, pp. 828-832, DOI: 10.1109/MED.2017.7984221, 3-6 July 2017, Valletta, Malta (**conferință ISI**)
8. Clara Ionescu, Cristina Muresan, **Isabela Birs**, Silviu Folea, Preliminary results for velocity control of a nanorobot in non-Newtonian fluids using fractional calculus, *International Conference on Mathematical Modelling in Applied Sciences, ICMMAS 2017*, 24-28 July, St. Petersburg, Russia
9. Muresan, C.I., Folea, S., **Birs, I.R.**, Ionescu, C.M. (2017), Fractional Order Modeling and Control of a Smart Beam, *Proceedings of the 2017 IEEE Conference on Control*

¹ indexate în:

[IEEE] - IEEE Xplore (<http://ieeexplore.ieee.org/Xplore/guesthome.jsp>)

[ACM] - ACM portal (<http://portal.acm.org>)

[DBLP] - (<http://www.informatik.uni-trier.de>)

[SCOPUS] - (<http://www.scopus.com>)

Technology and Applications, 27-30 August 2017, Hawaii, USA (conferinta în curs de indexare **ISI Proceedings**)

10. **I. Birs**, S. Folea, F. Ionescu, O. Prodan, C.I. Muresan (2017), Preliminary results and simulation of an active pendulum system for a three floor building, *X International Conference on Structural Dynamics, EURODYN 2017*, 10-13 September 2017, Rome, Italy, Procedia Engineering (conferinta în curs de indexare **ISI Proceedings**)
11. Markowski, K., **Birs, I.R.**, Muresan, C.I., Prodan, O. (2017), Comparative experimental results of vibration suppression with switching model of the aircraft wings, *Proceedings of the 14th International Conference Dynamical Systems Theory and Applications*, acceptata, Springer Proceedings in Mathematics and Statistics, 11-14 Decembrie 2017, Lodz, Poland (conferinta în curs de indexare **ISI Proceedings**)
12. De Keyser, R., Muresan, C.I., **Birs, I.R.**, Ionescu, C.I. (2017) Existence conditions for fractional order PI/PD controllers, *Proceedings of the 14th International Conference Dynamical Systems Theory and Applications*, acceptata, *Springer Proceedings in Mathematics and Statistics*, 11-14 Decembrie 2017, Lodz, Poland (conferinta în curs de indexare **ISI Proceedings**)
13. **Isabela Birs**, Cristina Muresan, Silviu Folea, Ovidiu Prodan; An Experimental Nanomedical Platform for Controller Validation on Targeted Drug Delivery, *Australian and New Zealand Control Conference (ANZCC)*, 17-20 December 2017, Gold Coast, Australia (conferinta în curs de indexare **ISI Proceedings**)
14. **Isabela Birs**, Cristina Muresan, Silviu Folea, Clara Ionescu; Analytical modeling and fractional order velocity control of a small scale submersible in changing environmental conditions, *SICE International Symposium on Control Systems (SICE ISCS 2018)*, 9-11 Martie 2018, Tokyo, Japonia (acceptată - conferinta în curs de indexare **ISI Proceedings**)

D – Lucrări publicate în ultimii 10 ani în reviste și volume de conferințe cu referenți (neindexate)

1. Nandor Verba, Zoltan Nagy, **Isabela Birs**; Microcontroller and RF 434Mhz Communication based Monitoring and Control System; Published in the *2014 IEEE International Conference on Automation, Quality and Testing, Robotics AQTR 2014*, Cluj Napoca, Romania
2. **Isabela Birs**, Cristina Muresan; Smart vibration suppression with integer and fractional order controllers: *Automation and Computer Science Students Conference ACSC 2015*, Cluj-Napoca, June 2015 (prezentare orală)

Data
09.01.2018

Semnătura


