

Associate Professor Florin Stoican, Ph.D.

List of scientific publications 2000-2017

● Monographs, book chapters (international publications)

1. **Stoican, F.**, C. Oară and M. Hovd, RPI approximations of the mRPI set characterizing linear dynamics with zonotopic disturbances”, în Developments in Model-Based Optimization and Control: Distributed Control and Industrial Applications, Springer series Lecture Notes in Control and Information Sciences, pp. 361–377, 2015, ISBN: 9783319266855, DOI: [10.1007/978-3-319-26687-9_17](https://doi.org/10.1007/978-3-319-26687-9_17), WOS: 000369162800019, EID: [2-s2.0-84954169584](https://www.eid.ub.edu/2-s2.0-84954169584), Springer Verlag Berlin
2. Prodan, I., **F. Stoican**, S. Oлару, C. Stoica and S.-I. Niculescu, Mixed-Integer Programming Techniques in Distributed MPC Problems, în seria Springer Intelligent Systems, Control and Automation: Science and Engineering, pp. 275–291, 2014. ISBN: 9789400770058, DOI: [10.1007/978-94-007-7006-5_17](https://doi.org/10.1007/978-94-007-7006-5_17), EID: [2-s2.0-84896528456](https://www.eid.ub.edu/2-s2.0-84896528456), Kluwer Academic Publishers, Dordrecht, The Netherlands
3. **Stoican, F.** and S. Oлару, Set-theoretic Fault-tolerant Control in Multisensor Systems, pp. 1–152, 2013. ISBN: 9781848215658; 9781118649428, WOS: 000327043800009, EID: [2-s2.0-85014342801](https://www.eid.ub.edu/2-s2.0-85014342801), Wiley, Sussex, UK
4. Prodan, I., **F. Stoican**, S. Oлару and S. Niculescu, Mixed-Integer Representations in Control Design: Mathematical Foundations and Applications, pp. 1–107, 2016, ISBN: 9783319269931, DOI: [10.1007/978-3-319-26995-5](https://doi.org/10.1007/978-3-319-26995-5), WOS: 000415981400008, Springer Cham, Switzerland

● Articles in journals and conference proceedings (ISI indexed)

1. Popescu, D., L. Ichim and **F. Stoican**, Unmanned aerial vehicle systems for remote estimation of flooded areas based on complex image processing, Sensors (Switzerland), pp. 1–24, 2017, ISSN: 1424-8220, DOI: [10.3390/s17030446](https://doi.org/10.3390/s17030446), WOS: 000398818700019, EID: [2-s2.0-85014008000](https://www.eid.ub.edu/2-s2.0-85014008000), publicat de MDPI AG, Basel, Switzerland
2. Stankovic, N., **F. Stoican**, S. Oлару and S.-I. Niculescu, Fault tolerant control design for a class of multi-sensor networked control systems, International Journal of Adaptive Control and Signal Processing, pp. 412–426, 2016, ISSN: 0890-6327, DOI: [10.1002/acs.2568](https://doi.org/10.1002/acs.2568), WOS: 000369342100016, EID: [2-s2.0-84961367930](https://www.eid.ub.edu/2-s2.0-84961367930), Wiley, New Jersey, USA
3. Popescu, D., **F. Stoican** and L. Ichim, Control and optimization of UAV trajectory for aerial coverage in photogrammetry applications, Advances in Electrical and Computer Engineering, pp. 99–106, 2016, ISSN: 1582-7445, DOI: [10.4316/AECE.2016.03014](https://doi.org/10.4316/AECE.2016.03014), WOS: 000384750000014, EID: [2-s2.0-84991093546](https://www.eid.ub.edu/2-s2.0-84991093546), University of Suceava, Romania
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6. **Stoican, F.**, S. Oлару, J. A. De Dona and M. M. Seron, A discussion on sensor recovery techniques for fault tolerant multisensor schemes, International Journal of Systems Science, pp. 1708–1722, 2014, ISSN: 0020-7721, DOI: [10.1080/00207721.2012.748947](https://doi.org/10.1080/00207721.2012.748947), WOS: 000337363600009, EID: [2-s2.0-84902884804](https://www.eid.ub.edu/2-s2.0-84902884804), Taylor and Francis, UK
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 10. **Stoican, F.**, S. Oлару and G. Bitsoris, Controlled invariance-based fault detection for multisensory control systems, *IET Control Theory and Applications*, pp. 606–611, 2013, ISSN: 1751-8644, DOI: [10.1049/iet-cta.2011.0678](https://doi.org/10.1049/iet-cta.2011.0678). WOS: 000321714000012. EID: [2-s2.0-84879490832](https://www.wos.org/wos/record/2-s2.0-84879490832). Published by the INST Engineering Technology – IET, UK
 11. Prodan, I., **F. Stoican**, S. Oлару and S.-I. Niculescu, Enhancements on the Hyperplanes Arrangements in Mixed-Integer Programming Techniques, *Journal of Optimization Theory and Applications*, pp. 549–572, 2012, ISSN: 0022-3239. DOI: [10.1007/s10957-012-0022-9](https://doi.org/10.1007/s10957-012-0022-9). WOS: 000306288300012. EID: [2-s2.0-84864287100](https://www.wos.org/wos/record/2-s2.0-84864287100). Springer Plenum Publishers, New York
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 14. Ioan, D.-M., **F. Stoican** and K. Worthmann, Active Fault Detection and Isolation in a Zono- topic Framework”, in *21st International Conference on System Theory, Control and Computing (ICSTCC)*, pp. 595–600, 2017, WOS: 000427419900098. IEEE Xplore Digital Library
 15. **Stoican, F.**, I. Prodan, D. Popescu and L. Ichim, Constrained trajectory generation for UAV systems using a B-spline parametrization, in *25th Mediterranean Conference on Control and Automation, MED 2017*, pp. 613–618, 2017. ISBN: 9781509045334. DOI: [10.1109/MED.2017.7984185](https://doi.org/10.1109/MED.2017.7984185). WOS: 000426926300100. EID: [2-s2.0-85027839276](https://www.wos.org/wos/record/2-s2.0-85027839276). IEEE Xplore Digital Library
 16. Chenaru, O., D. Popescu, D. Enache, L. Ichim and **F. Stoican**, Improving operational security for web-based distributed control systems in wastewater management, in *25th Mediterranean Conference on Control and Automation, MED 2017*, pp. 1089–1093, 2017. ISBN:9781509045334. DOI: [10.1109/MED.2017.7984263](https://doi.org/10.1109/MED.2017.7984263). WOS: 000426926300178. EID: [2-s2.0-85028503305](https://www.wos.org/wos/record/2-s2.0-85028503305). IEEE Xplore Digital Library
 17. Irofti, P. and **F. Stoican**, Dictionary learning strategies for sensor placement and leakage isolation in water networks, in *20th World Congress of the International Federation of Automatic Control (IFAC)*, pp. 1553–1558, 2017. DOI: [10.1016/j.ifacol.2017.08.308](https://doi.org/10.1016/j.ifacol.2017.08.308). WOS: 000423845200252. EID: [2-s2.0-85031780069](https://www.wos.org/wos/record/2-s2.0-85031780069). Elsevier Science, Amsterdam, The Netherlands
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● **Articles in journals and conference proceedings (indexed in other databases)**

1. **Stoican, F.**, E. Ingar Grøtli, I. Prodan and C. Oară, On corner cutting in multi-obstacle avoidance problems, in 5th IFAC Conference on Nonlinear Model Predictive Control (NMPC’15), pp. 185–190, 2015. DOI: [10.1016/j.ifacol.2015.11.281](https://doi.org/10.1016/j.ifacol.2015.11.281). EID: [2-s2.0-84964219468](https://ieeexplore.ieee.org/abstract/document/74219468). Elsevier Science, Amsterdam, The Netherlands

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List of scientific grants and research contracts (2000-2017)

● National grants and contracts

1. Implementation and development of algorithms for the dynamic motion planning of robotic systems (DEVROS); Responsible from UPB's side in the PN-III Innovation Check project: PN-III-P2-2.1-CI-2017-0403; July 2017 – December 2017; <http://devros.pub.ro/project>
2. Set-theoretic approaches for fault tolerant control of complex systems (SETS2FTC), Principal investigator for the PN-II Young Team project PN-II-RU-TE-2014-4-2713; October 2015-September 2017; <http://sets2ftc.pub.ro/project>
3. Young Researcher from Diaspora mobility project, Project coordinator, MCT-2016-0037
4. Grantee of multiple "Awarding the research results"-type grants: PRECISI-2014-6144, -2015-10076, -2016-15179, -2016-15822, and -2017-14869
5. Robust control in nonstandard cases PN-II 2016, PN-II-ID-PCE-2011-3-0235, member of project team
6. Multi-drones system for evaluation of flood effects, project PN-III-BG-2016-0318, 2016-2017, member of project team
7. ESA: Advanced Control Techniques for Future Launchers, 4000119953/17/F/JLV, 2017-2020, member of project team
8. Non Cooperative RV Experiment phases C/D/E1, RVX 2016, 2017-2020, member of project team
9. ROSA: Multisensory robotic system for aerial monitoring of critical infrastructure systems, 71/2013, member of project team, 2013-2016
10. ROSA: Sistem robotic aerian integrat multiagent pentru explorarea regiunilor de interes terestre, C3/2016, 2016-2019, member of project team