

Curriculum Vitae - Florin Stoican

April 27, 2020

a) Information about the degrees and diplomas

2018 [Habilitation thesis](#) “Set-theoretic methods in control. Applications to fault tolerant control and motion planning”, confirmed through Order 5500/14.11.2018;

2008-11 [PhD thesis](#) “Fault tolerant control based on set-theoretic methods” in Control Engineering, Dept. of Automatic Control, École Supérieure d’Electricité (Supélec), Gif-sur-Yvette, France. Reviewers: R. Bitmead, J. Maciejowski. Supervisor: Sorin Oлару;

2003-08 Electrical Engineering Degree (in Control Systems and Applied Informatics), Faculty of Automatic Control and Computers, Univ. “Politehnica” of Bucharest (UPB), Romania. Bachelor diploma “Multisensor control systems” at Supélec, Gif-sur-Yvette, France (through an Erasmus mobility).

b) Information about the professional experience and jobs

i) jobs:

2013- Full (previously Associate, 2016-2019 and Assistant, 2013-16) Professor, Automatic Control and Systems Engineering Department (ACSE), UPB, Romania;

2014-15 Postdoctoral research fellow at UPB, Innoresearch POSDRU/159/1.5/S/132395;

2011-12 Postdoctoral research fellow at the Norwegian University of Science and Technology (NTNU), Norway, through an ERCIM Fellowship (supervisor: Morten Hovd).

ii) professional experience:

2017 Responsible from UPB’s side for the “Innovation Cheque” project “Implementation and development of algorithms for the dynamic motion planning of robotic systems (DEVROS)”, [devros.pub.ro](#), PN-III-P2-2.1-CI-2017-0403;

2015-17 Principal investigator of a “Young Team” project “Set-theoretic approaches for fault tolerant control of complex systems (SETS2FTC)”, [sets2ftc.pub.ro](#), PN-II-RU-TE-2014-4-2713;

2016, 2019 Responsible for two “Young Researcher from Diaspora” mobility projects (PN-III-MCT-2016-0037 and PN-III-MCT-2019-0112; invited researcher: I. Prodan - Grenoble INP, France);

2018 Grantee of a mobility project covering expenses (travel and registration) for the Safeprocess’18 conference, PN-III-P1-1.1-MC-2018-1913;

2014-2019 Grantee of multiple “Awarding the research results”-type grants: PRECISI-2014-6144, -2015-10076, -2016-15179, -2016-15822, -2017-14869, -2018-42721, -2019-47925;

2013-20 Member in ESA, ROSA, PN-II/III projects:

- “Advanced Control Techniques for Future Launchers (ACTFL)”, 2017-20;
- “Multisensory robotic system for aerial monitoring of critical infrastructure systems (MUROS)”, 2013-16;
- “Integrated Multi-Agent Aerial Robotic System for Exploring Terrestrial Regions of Interest (MAARS)”, 2016-19;
- “Multi-drones system for evaluation of flood effects (SIMUL)”, 2016-18;

2013-14 Co-promotor of a SEE mobility grant between the Engineering Cybernetics Department of NTNU and ACSE Department of UPB;

2013- Supervisor of 5 master dissertations (1 year project), 25 Bachelor diploma (5 months project).

c) Publications and visibility

i) publications (author and co-author):

- Co-author (with C. Oară) of the USPTO Patent “Method for controlling vehicle in heterogeneous platoon, involves translating received control signal into corresponding translated control signal for vehicle, and setting throttle and brake of vehicle to level based on control signal”, with no. [WO2018215910-A1](#), Derwent Primary Accession no. 2018-95178F, published on 29 Nov. 2018;
- book “Set-theoretic Fault-tolerant Control in Multisensor Systems” in FOCUS series, ed. by Hermes Penton-ISTE Ltd with Wiley (2013);
- book “Mixed-integer representations in control design: Mathematical foundations and applications”, in SpringerBriefs in Electrical and Computer Eng. series, ed. by Springer (2016);
- 2 book chapters (ed. by Springer in 2013, 2015);
- 20 articles in ISI indexed journals (7 in Q1, 8 in Q2, with a cumulative impact factor of 45.34);
- 55 papers (32 ISI) in top (IEEE and IFAC affiliated) Automation and Control conferences;
- citation numbers (excluding auto-citations): Scopus (349, h=9), Web of Science (225, h=7).

ii) research interests:

- motion planning algorithms using flat-based descriptions and B-spline representations;
- fault tolerant control (via set-theoretic methods, with applications in multisensor schemes);
- positive and controlled invariance (applications for RPI/mRPI computations, switched systems with dwell time or time-delay systems, zonotopic sets);
- mixed integer programming (efficient descriptions for non-convex and non-compact regions via hyperplane arrangements, description of complementarity conditions);
- geometrical interpretations for constrained optimization issues.

iii) visibility:

- reviewer and jury member for the PhD theses of Wang Ye (Univ. Politècnica of Catalunya, Spain, 2018) and N.Q.H.Tran (Grenoble INP, LCIS, France, 2019);
- invited professor at LCIS Laboratory – INP Grenoble (2015, 2016), CentraleSupélec (2015, 2016, 2019), TU Chemnitz (2016,2019) for short-term visits (1 – 4 weeks);
- invited speaker to the SADCO OMPC workshop (young researcher grant, 2013);
- organizer of a [focus session](#) at the 4th European Conf. on Comp. Optimization (EUCCO’16);
- teaching activities at NTNU, Norway (as part of a SEE mobility grant, 2014) and at TU Ilmenau, Germany; UPC, Spain (as part of Erasmus+ mobility grants, 2015, 2016);
- assoc. editor for the Mediterranean Control (2016, 2017, 2020) and for the Systol Conferences (2019);
- IPC for the “[13th International Science Conference Diagnostics of Processes and Systems \(DPS’20\)](#)”;
- “Local Arrangements” and IPC for the “[4th Workshop on Advanced Control and Diagnosis](#)”;
- “[2017 Outstanding Reviewer](#)” for the “L-CSS” journal;
- in (from 2020) the [Editorial Board](#) of the journal “Applied mathematics and computer science”;
- in (from 2018) the [Editorial Board](#) of the journal “Mathematical Problems in Engineering”.

iv) scientific presentations:

- [invited speaker](#) at the iCODE workshop (CentraleSupélec, Gif-sur-Yvette, France, 2019);
- organizer of a [focus session](#) at the 4th European Conf. on Comp. Optimization (EUCCO’16);
- [invited speaker](#) at the 36th Summer School of Automatic Control (GIPSA lab, Grenoble INP, 2015);
- [invited speaker](#) to the SADCO OMPC workshop (Univ. of Bayreuth, Germany, 2013).

My ORCID, ResearcherID numbers and Publons account are [0000-0002-4550-9113](#), [C-3564-2012](#) and <http://publons.com/a/1212638/>, respectively.

Books and chapter books

- [B1] Prodan, I., **F. Stoican**, S. Oлару, and S.-I. Niculescu. *Mixed-integer representations in control design: Mathematical foundations and applications*. SpringerBriefs. Springer. 2016, pp. 1–115. ISBN: 9783319269955; 9783319269931. DOI: [10.1007/978-3-319-26995-5](https://doi.org/10.1007/978-3-319-26995-5).
- [B2] **Stoican, F.**, C. Oara, and M. Hovd. “RPI approximations of the mRPI set characterizing linear dynamics with zonotopic disturbances”. In: *Develop. in model-based optimization and control*. Springer. 2015, pp. 361–377. ISBN: 9783319266855. DOI: [10.1007/978-3-319-26687-9_17](https://doi.org/10.1007/978-3-319-26687-9_17).
- [B3] Prodan, I., **F. Stoican**, S. Oлару, C. Stoica, and S.-I. Niculescu. “Mixed-Integer Programming Techniques in Distributed MPC Problems”. In: *Intelligent Systems, Control and Automation: Science and Engineering*. Kluwer Academic. 2014, pp. 275–291. ISBN: 9789400770058. DOI: [10.1007/978-94-007-7006-5_17](https://doi.org/10.1007/978-94-007-7006-5_17).
- [B4] **Stoican, F.** and S. Oлару. *Set-theoretic Fault-tolerant Control in Multisensor Systems*. Wiley. 2013, pp. 1–152. ISBN: 9781848215658; 9781118649428.

Journal papers

- [J1] Irofti, P., **F. Stoican**, and V. Puig. “Fault handling in large water networks with online dictionary learning”. In: *Arxiv preprint arxiv:2003.08483* (2020). Submitted to the Journal of Process Control.
- [J2] Popescu, D., **F. Stoican**, G. Stamatescu, L. Ichim, and C. Dragana. “Advanced uav-wsn system for intelligent monitoring in precision agriculture”. In: *Sensors* 20.3 (2020), pp. 817. DOI: [10.3390/s20030817](https://doi.org/10.3390/s20030817).
- [J3] Ioan, D., S. Oлару, I. Prodan, **F. Stoican**, and S.-I. Niculescu. “From Obstacle-Based Space Partitioning to Corridors and Path Planning. A Convex Lifting Approach”. In: *Ieee control systems letters* 4.1 (2019), pp. 79–84. DOI: [10.1109/LCSYS.2019.2922414](https://doi.org/10.1109/LCSYS.2019.2922414).
- [J4] Popescu, D., **F. Stoican**, G. Stamatescu, O. Chenaru, and L. Ichim. “A survey of collaborative UAV-WSN systems for efficient monitoring”. English. In: *Sensors* 19.21 (Nov. 2019). DOI: [10.3390/s19214690](https://doi.org/10.3390/s19214690).
- [J5] **Stoican, F.** and P. Irofti. “Aiding Dictionary Learning Through Multi-Parametric Sparse Representation”. In: *Algorithms* 12.7 (2019), pp. 131–148 (18 pages). DOI: [10.3390/a12070131](https://doi.org/10.3390/a12070131).
- [J6] Popescu, D., C. Dragana, **F. Stoican**, L. Ichim, and G. Stamatescu. “A collaborative UAV-WSN network for monitoring large areas”. In: *Sensors (Switzerland)* (12 2018), pp. 1–25 (25 pages). DOI: [10.3390/s18124202](https://doi.org/10.3390/s18124202).
- [J7] **Stoican, F.**, I. Prodan, and E. I. Grotli. “Exact and overapproximated guarantees for corner cutting avoidance in a multiobstacle environment”. In: *Int. J. of Robust and Nonlinear Control* (2018), pp. 4528–4548. DOI: [10.1002/rnc.4248](https://doi.org/10.1002/rnc.4248).
- [J8] Popescu, D., L. Ichim, and **F. Stoican**. “Unmanned aerial vehicle systems for remote estimation of flooded areas based on complex image processing”. In: *Sensors (Switzerland)* (3 2017), pp. 1–24 (24 pages). DOI: [10.3390/s17030446](https://doi.org/10.3390/s17030446).
- [J9] Popescu, D., **F. Stoican**, and L. Ichim. “Control and optimization of UAV trajectory for aerial coverage in photogrammetry applications”. In: *Advances in Electrical and Computer Engineering* (3 2016), pp. 99–106 (8 pages). DOI: [10.4316/AECE.2016.03014](https://doi.org/10.4316/AECE.2016.03014).

- [J10] Stankovic, N., **F. Stoican**, S. Oлару, and S.-I. Niculescu. “Fault tolerant control design for a class of multi-sensor networked control systems”. In: *International Journal of Adaptive Control and Signal Processing* (2 2016), pp. 412–426 (15 pages). DOI: [10.1002/acs.2568](https://doi.org/10.1002/acs.2568).
- [J11] Prodan, I., E. Zio, and **F. Stoican**. “Fault tolerant predictive control design for reliable microgrid energy management under uncertainties”. In: *Energy* (2015), pp. 20–34. DOI: [10.1016/j.energy.2015.08.009](https://doi.org/10.1016/j.energy.2015.08.009).
- [J12] Xu, F., V. Puig, C. Ocampo-Martinez, S. Oлару, and **F. Stoican**. “Set-theoretic methods in robust detection and isolation of sensor faults”. In: *International Journal of Systems Science* (13 2015), pp. 2317–2334 (18 pages). DOI: [10.1080/00207721.2014.989293](https://doi.org/10.1080/00207721.2014.989293).
- [J13] Hovd, M. and **F. Stoican**. “On the design of exact penalty functions for MPC using mixed integer programming”. In: *Computers and Chemical Engineering* (2014), pp. 104–113 (10 pages). DOI: [10.1016/j.compchemeng.2013.07.001](https://doi.org/10.1016/j.compchemeng.2013.07.001).
- [J14] **Stoican, F.**, S. Oлару, J. A. De Dona, and M. M. Seron. “A discussion on sensor recovery techniques for fault tolerant multisensor schemes”. In: *International Journal of Systems Science* (8 2014), pp. 1708–1722 (15 pages). DOI: [10.1080/00207721.2012.748947](https://doi.org/10.1080/00207721.2012.748947).
- [J15] **Stoican, F.**, S. Oлару, M. M. Seron, and J. A. De Dona. “A fault tolerant control scheme based on sensor-actuation channel switching and dwell time”. In: *Int. J. of Robust and Nonlinear Control* (2014), pp. 775–792. DOI: [10.1002/rnc.2907](https://doi.org/10.1002/rnc.2907).
- [J16] Xu, F., V. Puig, C. Ocampo-Martinez, **F. Stoican**, and S. Oлару. “Actuator-fault detection and isolation based on set-theoretic approaches”. In: *Journal of Process Control* (6 2014), pp. 947–956 (10 pages). DOI: [10.1016/j.jprocont.2014.04.016](https://doi.org/10.1016/j.jprocont.2014.04.016).
- [J17] **Stoican, F.**, S. Oлару, and G. Bitsoris. “Controlled invariance-based fault detection for multisensory control systems”. In: *IET CTA* (4 2013), pp. 606–611. DOI: [10.1049/iet-cta.2011.0678](https://doi.org/10.1049/iet-cta.2011.0678).
- [J18] Prodan, I., **F. Stoican**, S. Oлару, and S.-I. Niculescu. “Enhancements on the Hyperplanes Arrangements in Mixed-Integer Programming Techniques”. In: *Journal of Optimization Theory and Applications* (2 2012), pp. 549–572 (24 pages). DOI: [10.1007/s10957-012-0022-9](https://doi.org/10.1007/s10957-012-0022-9).
- [J19] **Stoican, F.**, S. Oлару, M. M. Seron, and J. A. De Dona. “Reference governor design for tracking problems with fault detection guarantees”. In: *J. of Process Control* (2012), pp. 829–836. DOI: [10.1016/j.jprocont.2012.02.004](https://doi.org/10.1016/j.jprocont.2012.02.004).
- [J20] Oлару, S., J. A. De Dona, M. M. Seron, and **F. Stoican**. “Positive invariant sets for fault tolerant multisensor control schemes”. In: *Int. J. of Control* (2010), pp. 2622–2640. DOI: [10.1080/00207179.2010.535215](https://doi.org/10.1080/00207179.2010.535215).

Conference papers

- [C1] Ioan, D., S. Oлару, I. Prodan, **F. Stoican**, and S.-I. Niculescu. “Navigation in a Multi-Obstacle Environment. From Partition of the Space to a Zonotopic-Based MPC”. In: *European Control Conference (ECC’19), June 25-28, 2019, Naples, Italy*. pp. 1772–1777 (6 pages). DOI: [10.23919/ECC.2019.8796080](https://doi.org/10.23919/ECC.2019.8796080).
- [C2] Popescu, D., L. Ichim, **F. Stoican**, and C.-M. Dragana. “Hierarchical Processing of Signals for Smart Crop Monitoring”. In: *8th International Conference on Systems and Control, October 23-25, 2019, Marrakech, Morocco*. pp. 265–270. DOI: [10.1109/ICSC47195.2019.8950528](https://doi.org/10.1109/ICSC47195.2019.8950528).

- [C3] Prodan, I., **F. Stoican**, and C. Louembet.“Necessary and sufficient LMI conditions for constraints satisfaction within a B-spline framework”.In: *58th IEEE Conference on Decision and Control, Nice, France. December 11-13, 2019*,pp. 8061–8066.
DOI: [10.1109/CDC40024.2019.9030240](https://doi.org/10.1109/CDC40024.2019.9030240).
- [C4] **Stoican, F.**, D. Popescu, and L. Ichim.“Some Comments on the Constrained Trajectory Generation for UAV Systems”.In: *27th Mediterranean Conference on Control and Automation July 1 - 4, 2019, Akko, Israel*.
DOI: [10.1109/MED.2019.8798522](https://doi.org/10.1109/MED.2019.8798522).
- [C5] **Stoican, F.**, I. Prodan, E. I. Grotli, and N. N. Think.“Inspection Trajectory Planning for 3D Structures under a Mixed-Integer Framework”.In: *15th IEEE International Conference on Control & Automation IEEE ICCA 2019, July 16-19, 2019. Edinburgh, Scotland*,pp. 1349–1354.
DOI: [10.1109/ICCA.2019.8899514](https://doi.org/10.1109/ICCA.2019.8899514).
- [C6] Ioan, D., S. Oлару, I. Prodan, **F. Stoican**, and S.-I. Niculescu.“Complexity Bounds for Obstacle Avoidance within a Zonotopic Framework”.In: *2019 American Control Conference July 10 - 12, Philadelphia, PA, USA*.2019,pp. 335–340.
DOI: [10.23919/ACC.2019.8814976](https://doi.org/10.23919/ACC.2019.8814976).
- [C7] Ioan, D., S. Oлару, I. Prodan, **F. Stoican**, and S.-I. Niculescu.“Parametrized Hyperplane Arrangements for Control Design with Collision Avoidance Constraints”.In: *15th IEEE International Conference on Control & Automation IEEE ICCA 2019, July 16-19, 2019. Edinburgh, Scotland*.2019,pp. 1591–1596.
DOI: [10.1109/ICCA.2019.8899977](https://doi.org/10.1109/ICCA.2019.8899977).
- [C8] Popescu, D., **F. Stoican**, L. Ichim, G. Stamatescu, and C. Dragana.“Collaborative UAV-WSN System for Data Acquisition and Processing in Agriculture”.In: *2019 10th IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications (IDAACS)*.Vol. 1.IEEE. 2019,pp. 519–524.
DOI: [10.1109/IDAACS.2019.8924424](https://doi.org/10.1109/IDAACS.2019.8924424).
- [C9] Seron, M. M., S. Oлару, **F. Stoican**, J. A. De Doná, and E. J. Kofman.“On Finitely Determined Minimal Robust Positively Invariant Sets”.In: *2019 Australian & New Zealand Control Conference (ANZCC)*.IEEE. 2019,pp. 157–162.
DOI: [10.1109/ANZCC47194.2019.8945678](https://doi.org/10.1109/ANZCC47194.2019.8945678).
- [C10] Stoica, A.-M., T.-V. Chelaru, **F. Stoican**, and B. D. Ciubotaru.“A Kalman Filtering Approach for Systems Subject to Parametric Modeling Uncertainties”.In: *21st IFAC Symposium on Automatic Control in Aerospace, 27-30 August, 2019. Cranfield, UK*.2019,pp. 400–404.
DOI: [10.1016/j.ifacol.2019.11.276](https://doi.org/10.1016/j.ifacol.2019.11.276).
- [C11] **Stoican, F.**, D. Popescu, and L. Ichim.“Trajectory Design for Effective and Secure Communication in UAV-WSN Systems”.In: *2019 IEEE Radio and Antenna Days of the Indian Ocean (RADIO)*.IEEE. 2019,pp. 519–524.
DOI: [10.23919/RADIO46463.2019.8968928](https://doi.org/10.23919/RADIO46463.2019.8968928).
- [C12] Popescu, D., L. Ichim, and **F. Stoican**.“Flooded Area Segmentation from UAV Images Based on Generative Adversarial Networks”.In: *15th International Conference on Control, Automation, Robotics and Vision, ICARCV 2018*.IEEE. 2018,pp. 1361–1366 (6 pages).ISBN: 9781538695821.
DOI: [10.1109/ICARCV.2018.8581341](https://doi.org/10.1109/ICARCV.2018.8581341).
- [C13] **Stoican, F.**, F. Petzke, I. Prodan, and S. Streif.“Hierarchical Control with Guaranteed Fault Diagnosability”.In: *10th International-Federation-of-Automatic-Control (IFAC) Symposium on Fault Detection, Supervision and Safety for Technical Processes (SAFEPROCESS)*.Elsevier. 2018,pp. 1105–1110 (6 pages).
DOI: [10.1016/j.ifacol.2018.09.729](https://doi.org/10.1016/j.ifacol.2018.09.729).
- [C14] **Stoican, F.**, D. Popescu, and L. Ichim.“A Geometrical Interpretation of Communication Restrictions in a Multi-Agent Environment”.In: *2018 IEEE Radio and Antenna Days of the Indian Ocean, RADIO 2018*.IEEE. 2018,pp. 1–2 (2 pages).ISBN: 9789994904709.
DOI: [10.23919/RADIO.2018.8572375](https://doi.org/10.23919/RADIO.2018.8572375).

- [C15] **Stoican, F.**, I. Prodan, D. Popescu, L. Ichim, and E. Vlsceanu.“Mixed-Integer Representations for Mission Constraints in a Multi-Agent Team”.In: *15th International Conference on Control, Automation, Robotics and Vision, ICARCV 2018*.IEEE. 2018,pp. 562–567 (6 pages).ISBN: 9781538695821. DOI: [10.1109/ICARCV.2018.8580636](https://doi.org/10.1109/ICARCV.2018.8580636).
- [C16] 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*.IEEE. 2017,pp. 1089–1093 (5 pages).ISBN: 9781509045334. DOI: [10.1109/MED.2017.7984263](https://doi.org/10.1109/MED.2017.7984263).
- [C17] Ioan, D.-M., **F. Stoican**, and K. Worthmann.“Active fault detection and isolation in a zonotopic framework”.In: *21st International Conference on System Theory, Control and Computing, ICSTCC 2017*.IEEE. 2017,pp. 595–600 (6 pages).ISBN: 9781538638422. DOI: [10.1109/ICSTCC.2017.8107100](https://doi.org/10.1109/ICSTCC.2017.8107100).
- [C18] 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)*.Elsevier. 2017,pp. 1553–1558 (6 pages). DOI: [10.1016/j.ifacol.2017.08.308](https://doi.org/10.1016/j.ifacol.2017.08.308).
- [C19] Nguyen, N. T., I. Prodan, **F. Stoican**, and L. Lefevre.“Reliable nonlinear control for quadcopter trajectory tracking through differential flatness”.In: *20th World Congress of the International-Federation-of-Automatic-Control (IFAC)*.Elsevier. 2017,pp. 6971–6976 (6 pages). DOI: [10.1016/j.ifacol.2017.08.1338](https://doi.org/10.1016/j.ifacol.2017.08.1338).
- [C20] **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*.IEEE. 2017,pp. 613–618 (6 pages).ISBN: 9781509045334. DOI: [10.1109/MED.2017.7984185](https://doi.org/10.1109/MED.2017.7984185).
- [C21] Popescu, D., L. Ichim, D. Gornea, and **F. Stoican**.“Complex image processing using correlated color information”.In: *17th International Conference on Advanced Concepts for Intelligent Vision Systems, ACIVS 2016*.Springer. 2016,pp. 723–734 (12 pages).ISBN: 9783319486796. DOI: [10.1007/978-3-319-48680-2_63](https://doi.org/10.1007/978-3-319-48680-2_63).
- [C22] Prodan, I., **F. Stoican**, and E. I. Grotli.“Some remarks on potential field constructions in a multi-obstacle environment”.In: *10th IFAC Conference on Control Applications in Marine Systems (CAMS)*.Elsevier. 2016,pp. 28–33 (6 pages). DOI: [10.1016/j.ifacol.2016.10.317](https://doi.org/10.1016/j.ifacol.2016.10.317).
- [C23] **Stoican, F.**, V.-M. Ivanusca, I. Prodan, and D. Popescu.“Obstacle avoidance via B-spline parametrizations of flat trajectories”.In: *24th Mediterranean Conference on Control and Automation (MED)*.IEEE. 2016,pp. 1002–1007 (6 pages). DOI: [10.1109/MED.2016.7536053](https://doi.org/10.1109/MED.2016.7536053).
- [C24] **Stoican, F.** and D. Popescu.“Trajectory generation with way-point constraints for UAV systems”.In: *24th International Conference on Robotics in Alpe-Adria-Danube Region, RAAD 2015*.Springer. 2016,pp. 379–386 (8 pages).ISBN: 9783319212890. DOI: [10.1007/978-3-319-21290-6_38](https://doi.org/10.1007/978-3-319-21290-6_38).
- [C25] Prodan, I., **F. Stoican**, and E. Zio.“On a fault tolerant strategy for efficient energy management in microgrid systems”.In: *5th IFAC Conference on Nonlinear Model Predictive Control NMPC 2015*.Elsevier. 2015,pp. 458–463 (6 pages). DOI: [10.1016/j.ifacol.2015.11.321](https://doi.org/10.1016/j.ifacol.2015.11.321).
- [C26] **Stoican, F.**, E. Ingar Grötli, I. Prodan, and C. Oară.“On corner cutting in multi-obstacle avoidance problems”.In: *5th IFAC Conference on Nonlinear Model Predictive Control NMPC 2015*.Elsevier. 2015,pp. 185–190 (6 pages). DOI: [10.1016/j.ifacol.2015.11.281](https://doi.org/10.1016/j.ifacol.2015.11.281).

- [C27] **Stoican, F.**, D. Popescu, E. Vlasceanu, and C. Mateescu.“Geometrical considerations for photogrammetry missions in an UAV context”.In: *19th International Conference on System Theory, Control and Computing, ICSTCC 2015 - Joint Conference SINTES 19, SACCS 15, SIMSIS 19*.IEEE. 2015,pp. 765–769 (5 pages).ISBN: 9781479984817.
DOI: [10.1109/ICSTCC.2015.7321386](https://doi.org/10.1109/ICSTCC.2015.7321386).
- [C28] **Stoican, F.**, I. Prodan, and D. Popescu.“Flat trajectory generation for way-points relaxations and obstacle avoidance”.In: *23rd Mediterranean Conference on Control and Automation, MED 2015*.IEEE. 2015,pp. 695–700 (6 pages).ISBN: 9781479999361.
DOI: [10.1109/MED.2015.7158827](https://doi.org/10.1109/MED.2015.7158827).
- [C29] Necoară, I., **F. Stoican**, D. Clipici, A. Pătrașcu, and M. Hovd.“A linear MPC algorithm for embedded systems with computational complexity guarantees”.In: *2014 18th International Conference on System Theory, Control and Computing, ICSTCC 2014*.IEEE. 2014,pp. 363–368 (6 pages).ISBN: 9781479946013.
DOI: [10.1109/ICSTCC.2014.6982443](https://doi.org/10.1109/ICSTCC.2014.6982443).
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