

# LISTA DE LUCRARI

## TEZA DE DOCTORAT

1. *Sisteme complexe adaptive si optimale de stabilizare, navigatie si conducere a aparatelor de zbor*. Universitatea „Politehnica” Bucuresti, Catedra de Stiinte Aerospaciale „Elie Carafoli”, 28.11.2007.

## CARTI IN EDITURI RECUNOSCUTE DE CNCISIS/CAPITOLE IN CARTI

1. **Lungu, M.** *Sisteme de conducere a zborului*. Editura Sitech, Craiova, 2008, 329 pag., ISBN: 978-973-746-975-5 (carte premiata cu premiul AUREL VLAICU decernat de Academia Romana in anul 2010) (4 citari).
2. **Lungu, M.** *Algoritmi si structuri pentru identificarea, estimarea si conducerea zborului aeronavelor si rachetelor*. Editura Sitech, Craiova, 2013, 340 pag., ISBN: 978-606-11-3113-6.
3. **Lungu, M., Lungu R.** *Estimarea stării aparatelor de zbor*. Editura Sitech, Craiova, 2014, 290 pag., ISBN: 978-606-11-3699-5 (Premiul AGIR decernat de Asociația Generală a Inginerilor din România în anul 2015) (1 citare).
4. Lungu, R., **Lungu, M.** *Controlul automat al aeronavelor la aterizare*. Editura Sitech, Craiova, 2015, 398 pag., ISBN: 978-606-11-4341-2 (Premiul AGIR decernat de Asociația Generală a Inginerilor din România în anul 2016) (1 citare).
5. **Lungu, M.** *Controlul optimal al aparatelor de zbor*. Editura Sitech, Craiova, 2015, 178 pag., ISBN: 978-606-11-4840-0.
6. Lungu, R., Sepcu, L., **Lungu, M.** *Dinamica și controlul zborului micro-vehiculelor aeriene*. Editura Sitech, Craiova, 2016, 238 pag., ISBN: 978-606-11-5103-5.
7. Lungu, R., **Lungu, M.** *Aircraft Landing Control Using the H-inf Control and the Dynamic Inversion Technique*. Capitol in cartea „Automation and Control Trends”, ISBN 978-953-51-2671-3 (editori: Pedro Ponce, Arturo Molina Gutierrez, Luis M. Ibarra). Editura Intech, 2016, pag. 101-120 (2 citari).
8. Lungu, R., Ioan, M., **Lungu, M.** *Controlul giroscopic al atitudinii sateliților*. Editura Sitech, Craiova, 2017, 260 pag., ISBN: 978-606-11-6108-9.
9. Ben Warrad, S., Boubaker, O., **Lungu, M.**, Zhu, Q. *On unknown inputs observer design for linear systems with delays in states and inputs*. Capitol in cartea „New Trends in Observer-based Control - Design and Applications – volume 1”, ISBN: 978-0128170380 (editori: O. Boubaker, Q. Zhu, M.S. Mahmoud, J. Ragot, H.R. Karimi, J. Davila). Editura Elsevier, 2019, pag. 119-139 (4 citari).
10. **Lungu, M.** *Backstepping control method in aerospace engineering*. Editura Academica Greifswald - Germania, 2022, 312 pag., ISBN: 978-3-940237-54-5 (3 citari).
11. Lungu, R., Efrim, C., **Lungu, M.** *Actuatoare giroscopice*. Editura Sitech, Craiova, 2024, 374 pag., ISBN: 978-606-11-8568-9 (Premiul AGIR decernat de Asociația Generală a Inginerilor din România în anul 2025).
12. Vilică (Dinu), D.A., **Lungu, M.** *Arhitecturi de control automat neliniar al aterizării pe portavoane*. Editura Sitech, Craiova, 2025, 290 pag., ISBN: 978-606-11-8887-1.

## INDRUMARE DE LABORATOR

1. **Lungu, M., Lungu, R.** *Sisteme de conducere a zborului – Lucrari practice de laborator*, Editura Sitech, Craiova, 2010, 130 pag., ISBN: 978-606-530-688-2.
2. **Lungu, M., Lungu, R.** *Estimarea stării aparatelor de zbor – Lucrari practice de laborator*, Editura Sitech, Craiova, 2014, 160 pag., ISBN: 978-606-11-4151-7.

**BREVETE DE INVENȚIE**

1. Preotu, O., Dumitrache, A., **Lungu, M.** *Carenă aero-hidrodinamică cu rezistență mică la înaintare și efect Coanda amplificat*. Brevet nr.: **126028**, data: 29.11.2013.
2. Preotu, O., Dumitrache, A., Frunzulică, F., **Lungu, M.**, Sîrbu, I., Duță, M. *Instalație pentru demonstrarea amplificării directe a efectului Coanda*. Brevet nr.: **132864**, data: 28.06.2024.

**ARTICOLE PUBLICATE IN REVISTE ISI (ISI JOURNAL)**

1. Lungu, R., **Lungu, M.**, Rotaru, C. *Non-linear adaptive system for the control of the helicopters pitch's angle*. Proceedings of the Romanian Academy, Series A: Mathematics, Physics, Technical Sciences, Information Science, vol. 12, nr. 2/2011, pag. 133 – 142, ISSN: 1454-9069, Indexat in baze de date: ISI Web of Science (**ISI Journal**) (**5 citari**). Factor de impact relativ revista: 0.149, Scor relativ de influenta revista: 0. Indexat in baze de date: **ISI Web of Science, Scopus.**
2. **Lungu, M.**, Lungu, R., Rotaru, C. *New Systems for Identification, Estimation and Adaptive Control of the Aircrafts Movement*. Studies in Informatics and Control, vol. 20, nr. 3/2011, pag. 273-284, ISSN: 1220-1766 (**ISI Journal**) (**9 citari**). Factor de impact relativ revista: 0.671, Scor relativ de influenta revista: 0. Indexat in baze de date: **ISI Web of Science, Scopus.**
3. Grigorie, L., Botez, R.M., **Lungu, M.**, Edu, I.R., Obreja, R. *Micro-electromechanical systems gyro performance improvement through bias correction over temperature using an adaptive neural network-trained fuzzy inference system*. Proceedings of the Institution of Mechanical Engineers Part G - Journal of Aerospace engineering, vol. 226, nr. 9, 2012, pag. 1121 – 1138, DOI: 10.1177/0954410011417793, ISSN: 0954-4100 (**ISI Journal**) (**7 citari**). Factor de impact relativ revista: 1.18923, Scor relativ de influenta revista: 0.683. Indexat in baze de date: **ISI Web of Science, Scopus.**
4. Lungu, R., **Lungu, M.**, Grigorie, L. *ALSS with conventional and fuzzy controllers considering wind shears and gyro errors*. Journal of Aerospace Engineering, vol. 26, no. 4, pag. 794-813, 2013, DOI: 10.1061/(ASCE)AS.1943-5525.0000207, ISSN: 0893-1321, e-ISSN: 1943-5525 (**ISI Journal**) (**12 citari**). Factor de impact relativ revista: 1.09846, Scor relativ de influenta revista: 1.409. Indexat in baze de date: **ISI Web of Science, Scopus.**
5. **Lungu, M.**, Lungu, R., *Full-Order Observer Design for Linear Systems with Unknown Inputs*. International Journal of Control, vol. 85, nr. 10, 2012, pag. 1602 – 1615, DOI: 10.1080/00207179.2012.695397, ISSN: 0020-7179, e-ISSN: 1366-5820 (**ISI Journal**) (**35 citari**). Factor de impact relativ revista: 0.977, Scor relativ de influenta revista: 1.00. Indexat in baze de date: **ISI Web of Science, Scopus.**
6. **Lungu, M.**, Lungu, R. *Adaptive Backstepping Flight Control for a Mini-UAV*. International Journal of Adaptive Control and Signal Processing, vol. 27, pag. 635-650, 2013, DOI: 10.1002/ACS.2330, ISSN: 0890-6327, e-ISSN: 1099-1115 (**ISI Journal**) (**44 citari**). Factor de impact relativ revista: 0.913, Scor relativ de influenta revista: 1.081. Indexat in baze de date: **ISI Web of Science, Scopus.**
7. Lungu, R., **Lungu, M.**, *Adaptive Control of the Helicopters' Pitch Angle and Velocity*. Journal of Aerospace Engineering, vol. 27, nr. 5, 2014, DOI: 10.1061/(ASCE)AS.1943-5525.0000286, ISSN: 0893-1321, e-ISSN: 1943-5525 (**ISI Journal**) (**7 citari**). Factor de impact relativ revista: 1.09846, Scor relativ de influenta revista: 1.409. Indexat in baze de date: **ISI Web of Science, Scopus.**
8. Lungu, R., **Lungu, M.**, Grigorie, T.L., *Automatic Control of Aircraft in Longitudinal Plane During Landing*. IEEE Transactions on Aerospace & Electronic Systems, vol. 49, nr. 2, 2013, pag. 1338–1350, DOI: 10.1109/TAES.2013.6494418, ISSN: 0018-9251 (**ISI Journal**) (**60 citari**). Factor de impact relativ revista: 1.095, Scor relativ de influenta revista: 2.212. Indexat in baze de date: **ISI Web of Science, IEEE Xplore, Scopus.**
9. **Lungu, M.**, Lungu, R. *Reduced Order Observer for Linear Time-Invariant Multivariable*

- Systems with Unknown Inputs*. Circuits, Systems, and Signal Processing, Springer, vol. 32, nr. 6, pag. 2883-2898, 2013, DOI: 10.1007/s00034-013-9618-z, ISSN: 0278-081X, e-ISSN: 1531-5878 (**ISI Journal**) (**25 citari**). *Factor de impact relativ revista: 0.817, Scor relativ de influenta revista: 0.64439. Indexat in baze de date: ISI Web of Science, Scopus.*
10. Lungu, M., Lungu, R., *Reconfigurable Controller for Active Fault-Tolerant Control Systems with Applicability to Flight Control*. Proceedings of the Romanian Academy, Series A: Mathematics, Physics, Technical Sciences, Information Science, vol. 15, nr. 2, pag. 191-199, 2014, ISSN: 1454-9069 (**ISI Journal**) (**7 citari**). *Factor de impact relativ revista: 0.537, Scor relativ de influenta revista: 0.104. Indexat in baze de date: ISI Web of Science.*
  11. Lungu, R., Lungu, M., *Automatic Landing Control using H-inf Control and Dynamic Inversion*. Proceedings of the Institution of Mechanical Engineers Part G - Journal of Aerospace Engineering, vol. 228, nr. 14, pag. 2612-2626, 2014, DOI: 10.1177/0954410014523946, ISSN: 0954-4100 (**ISI Journal**) (**20 citari**). *Factor de impact relativ revista: 1.18923, Scor relativ de influenta revista: 0.683. Indexat in baze de date: ISI Web of Science.*
  12. Lungu, M., Lungu, R., *Design of Full-order Observers for Systems with Unknown Inputs by using the Eigenstructure Assignment*. Asian Journal of Control, vol. 16, nr. 5, pag. 1470-1481, 2014, DOI: 10.1002/asjc.889, ISSN: 1561-8625 (**ISI Journal**) (**14 citari**). *Factor de impact relativ revista: 1.411, Scor relativ de influenta revista: 0.433. Indexat in baze de date: ISI Web of Science, Scopus.*
  13. Lungu, R., Sepcu, L., Lungu, M. *Four-bar mechanism's PD and neural adaptive control for the thorax of the micromechanical flying insects*. Journal of Dynamic Systems, Measurement and Control (Transactions of ASME), vol. 137, nr. 5, 2015, DOI: 10.1115/1.4028793, ISSN: 0022-0434, e-ISSN: 1528-9028 (**ISI Journal**) (**5 citari**). *Factor de impact relativ revista: 0.978, Scor relativ de influenta revista: 0.966. Indexat in baze de date: ISI Web of Science.*
  14. Lungu, M., Lungu, R., *Application of  $H_2/H_\infty$  Technique to Aircraft Landing Control*. Asian Journal of Control, vol. 17, nr. 6, pag. 2153-2164, 2015, DOI: 10.1002/asjc.1132, ISSN: 1561-8625 (**ISI Journal**) (**19 citari**). *Factor de impact relativ revista: 1.411, Scor relativ de influenta revista: 0.459. Indexat in baze de date: ISI Web of Science.*
  15. Lungu, R., Lungu, M. *Automatic Control of Aircraft in Lateral-Directional Plane During Landing*. Asian Journal of Control, vol. 18, nr. 3, pag. 433-446, 2016, DOI: 10.1002/asjc.1133, ISSN: 1561-8625 (**ISI Journal**) (**24 citari**). *Factor de impact relativ revista: 1.411, Scor relativ de influenta revista: 0.433. Indexat in baze de date: ISI Web of Science.*
  16. Lungu, R., Lungu, M., *Control of the Aircraft Lateral-Directional Motion during Landing using the H-inf Control and the Dynamic Inversion*. Proceedings of the Romanian Academy, Series A: Mathematics, Physics, Technical Sciences, Information Science, vol. 16, nr. 4, pag. 547-555, 2015, ISSN: 1454-9069 (**ISI Journal**) (**6 citari**). *Factor de impact relativ revista: 1.658, Scor relativ de influenta revista: 0.369. Indexat in baze de date: ISI Web of Science.*
  17. Lungu, M., Lungu, R. *Automatic Control of Aircraft Lateral-directional Motion during Landing using Neural Networks and Radio-technical Subsystems*. Neurocomputing Journal, vol. 171, pag. 471-481, 2016, ISSN: 0925-2312 (**ISI Journal**) (**50 citari**). *Factor de impact relativ revista: 2.083, Scor relativ de influenta revista: 0.866. Indexat in baze de date: ISI Web of Science.*
  18. Lungu, R., Lungu, M. *Application of  $H_2/H_\infty$  and Dynamic Inversion Techniques to Aircraft Landing Control*. Aerospace Science and Technology, vol. 46, pag. 146-158, 2015, ISSN: 1270-9638 (**ISI Journal**) (**37 citari**). *Factor de impact relativ revista: 0.94, Scor relativ de influenta revista: 2.093. Indexat in baze de date: ISI Web of Science.*
  19. Lungu, R., Lungu, M., *Design of Automatic Landing Systems using the H-inf Control and the Dynamic Inversion*. Journal of Dynamic Systems, Measurement and Control (Transactions of ASME), vol. 138, nr. 2, 2016, ISSN: 0022-0434, e-ISSN: 1528-9028 (**ISI Journal**) (**17 citari**). *Factor de impact relativ revista: 0.978, Scor relativ de influenta revista: 0.7. Indexat in baze de date: ISI Web of Science.*
  20. Lungu, R., Lungu, M. *Adaptive Flight Control Law Based on Neural Networks and Dynamic Inversion for Micro Aerial Vehicles*. Neurocomputing Journal, vol. 199, pag. 40-49, 2016, ISSN: 0925-2312 (**ISI Journal**) (**6 citari**). *Factor de impact relativ revista: 2.083, Scor relativ de*

- influenta: 0.866. Indexat in baze de date: ISI Web of Science.*
21. Lungu, R., Lungu, M. *Automatic Landing System using Neural Networks and Radio-technical Subsystems*. Chinese Journal of Aeronautics, vol. 30, nr. 1, pag. 399-411, 2017, ISSN: 1000-9361 (ISI Journal) (34 citări). Factor de impact relativ revista: 1.070. Indexat in baze de date: ISI Web of Science.
  22. Lungu, M., Lungu, R. *Landing Auto-pilots for Aircraft Motion in Longitudinal Plane using Adaptive Control Laws Based on Neural Networks and Dynamic Inversion*. Asian Journal of Control, vol. 19, nr. 1, pag. 302-315, 2017, DOI: 10.1002/asjc.1380, ISSN: 1561-8625 (20 citari) (ISI Journal). Factor de impact relativ revista: 1.407, Scor relativ de influenta revista: 0.433. Indexat in baze de date: ISI Web of Science.
  23. Lungu, R., Lungu, M. *Automatic control of the micro aerial vehicles' attitude and position*. International Journal of Micro Aerial Vehicles. vol. 9, nr. 1, pag. 61-73, 2017, ISSN: 1756-8293 (ISI Journal) (1 citare). Factor de impact relativ revista: 0.343. Indexat in baze de date: ISI Web of Science.
  24. Lungu, M., Lungu, R. *Autonomous Adaptive Control System for Airplane Landing*. Asian Journal of Control, vol. 21, nr. 3, pag. 1-14, 2019, pag. 1328-1341, ISSN: 1561-8625 (ISI Journal) (9 citari). Factor de impact relativ revista: 2.005. Indexat in baze de date: ISI Web of Science.
  25. Lungu, M. *Design of Reduced-Order Multiple Observers for Uncertain Systems with Unknown Inputs*. Complexity, 2018, pag. 1-14, DOI: 10.1155/2018/5231989, ISSN: 1076-2787 (ISI Journal) (7 citari). Factor de impact relativ revista: 1.829. Indexat in baze de date: ISI Web of Science, Scopus.
  26. Lungu, M., Lungu, R. *Neural Network based Adaptive Control of Airplane's Lateral-directional Motion during Final Approach Phase of Landing*. Engineering Applications of Artificial Intelligence, vol. 74, 2018, pag. 322-335, ISSN: 0952-1976 (ISI Journal) (15 citari). Factor de impact relativ revista: 2.819. Indexat in baze de date: ISI Web of Science, Scopus.
  27. Ben Warrad, S., Boubaker, O., Lungu, M., Mobayen, S. *Full and reduced order unknown input observer design for linear time-delay systems with multiple delays*. Mathematical Problems in Engineering, vol. 2018, ID: 1745734, 13 pag., 2018, <https://doi.org/10.1155/2018/1745734>, ISSN: 1024-123X, e-ISSN: 1563-5147 (ISI Journal) (12 citari). Factor de impact relativ revista: 1.145. Indexat in baze de date: ISI Web of Science, Scopus.
  28. Lungu, M. *Reduced-Order Multiple Observer for Takagi-Sugeno Systems with Unknown Inputs*. ISA Transactions, vol. 85, 2019, pag. 1-12, ISSN: 0019-0578 (ISI Journal) (14 citari). Factor de impact relativ revista: 4.343. Indexat in baze de date: ISI Web of Science, Scopus.
  29. Lungu, M. *Design of Reduced-order Multiple Observers for Takagi-Sugeno Systems with Unknown Inputs*. Measurement, vol. 134, 2019, ISSN: 0263-2241 (ISI Journal) (4 citari), DOI: <https://doi.org/10.1016/j.measurement.2018.11.010>. Factor de impact relativ revista: 2.791. Indexat in baze de date: ISI Web of Science, Scopus.
  30. Lungu, M., Lungu, R. *Adaptive Neural Network-based Satellite Attitude Control by using the Dynamic Inversion Technique and a VSCMG Pyramidal Cluster*. Complexity, 2019, pag. 1-16, DOI: <https://doi.org/10.1155/2019/1645042>, ISSN: 1076-2787 (ISI Journal) (10 citari). Factor de impact relativ revista: 2.591. Indexat in baze de date: ISI Web of Science, Scopus.
  31. Lungu, M. *Auto-landing of fixed wing unmanned aerial vehicles using the backstepping control*. ISA Transactions, vol. 95, 2019, pag. 194-210, ISSN: 0019-0578 (ISI Journal) (84 citări), DOI: <https://doi.org/10.1016/j.isatra.2019.05.019>. Factor de impact relativ revista: 4.305. Indexat in baze de date: ISI Web of Science, Scopus.
  32. Lungu, M. *Backstepping and Dynamic Inversion Combined Controller for Auto-landing of Fixed Wing UAVs*. Aerospace Science and Technology, vol. 96, 105526, 2020, ISSN: 1270-9638 (ISI Journal) (90 citari). Factor de impact relativ revista: 4.499. Indexat in baze de date: ISI Web of Science, Scopus, Google Scholar.
  33. Lungu, M. *Auto-landing of UAVs with variable centre of mass using the backstepping and dynamic inversion control*. Aerospace Science and Technology (ISI Journal) (60 citari), ISSN: 1270-9638, vol. 103, 105912, 2020. Factor de impact relativ revista: 4.499. Indexat in baze de

**date: ISI Web of Science, Scopus, Google Scholar.**

34. Lungu, M. *Control of Double Gimbal Control Moment Gyro Systems using the Backstepping Control Method and a Nonlinear Disturbance Observer*. Acta Astronautica (**ISI Journal**) (**28 citari**), ISSN: 0094-5765, vol. 180, 2021, pag. 639-649. *Factor de impact relativ revista: 2.413. Indexat in baze de date: ISI Web of Science, Scopus, Google Scholar.*
35. Guan, Z., Liu, H., Zheng, Z., Lungu, M., Ma, Y. *Fixed-time control for automatic carrier landing with disturbance*. Aerospace Science and Technology (**ISI Journal**) (**61 citari**), ISSN: 1270-9638, vol. 108, 2021, 106403. *Factor de impact relativ revista: 5.107. Indexat in baze de date: ISI Web of Science, Scopus.*
36. Lungu, M. *Neuro-Observer based Control of Double Gimbal Control Moment Gyro Systems*. Aerospace Science and Technology (**ISI Journal**) (**18 citari**), ISSN: 1270-9638, vol. 110, 2021, 106467; WOS: 000646082500019. *Factor de impact relativ revista: 5.107. Indexat in baze de date: ISI Web of Science, Scopus.*
37. Lungu, R., Lungu, M., Efrim, C. *Adaptive control of DGMSCMG using dynamic inversion and neural networks*. Advances in Space Research (**ISI Journal**) (**8 citari**), ISSN: 0273-1177, vol. 68, nr. 8, 2021, pag. 3478-3494; WOS: 000688408000006. *Factor de impact relativ revista: 2.152. Indexat in baze de date: ISI Web of Science, Scopus.*
38. Lungu, M. *Backstepping and Dynamic Inversion Control Techniques for Automatic Landing of Fixed Wing Unmanned Aerial Vehicles*. Aerospace Science and Technology (**ISI Journal**) (**45 citari**), ISSN: 1270-9638, vol. 120, 2022, 107261; WOS:000730993600005. *Factor de impact relativ revista: 5.107. Indexat in baze de date: ISI Web of Science, Scopus.*
39. Lungu, R., Lungu, M., Efrim, C. *Attitude adaptive control of satellites using double-gimbal magnetically suspended control moment gyros*. Aerospace Science and Technology (**ISI Journal**) (**7 citari**), ISSN: 1270-9638, vol. 126, 107652, 2022; DOI: <https://doi.org/10.1016/j.ast.2022.107652>. *Factor de impact relativ revista: 5.107. Indexat in baze de date: ISI Web of Science.*
40. Guo, H., Chen, M., Jiang, Y., Lungu, M. *Distributed Adaptive Human-in-The-Loop Event Triggered Formation Control for QUAUVs With Quantized Communication*. IEEE Transactions on Industrial Informatics (**ISI Journal**) (**59 citari**), ISSN: 1551-3203, vol. 19, nr. 6, 2023. *Factor de impact relativ revista: 11.648. Indexat in baze de date: ISI Web of Science, IEEE Xplore, Scopus.*
41. Lungu, M., Chen, M., Vîlcică (Dinu), D.A. *Backstepping-and Sliding Mode-Based Automatic Carrier Landing System with Deck Motion Estimation and Compensation*. Aerospace (**ISI Journal**) (**26 citari**), ISSN: 2226-4310, vol. 9, nr. 11, 2022. *Factor de impact relativ revista: 2.66. Indexat in baze de date: ISI Web of Science, Scopus.*
42. Ma, B., Chen, M., Shen, Y., Lungu, M. *Inverse Optimal Zero Effort Miss Guidance Based on Disturbance Observer*. Aerospace (**ISI Journal**) (**2 citari**), ISSN: 2226-4310, vol. 9, nr. 12, 2022. *Factor de impact relativ revista: 2.66. Indexat in baze de date: ISI Web of Science, Scopus.*
43. Wan, M., Chen, M., Lungu, M. *Integral backstepping sliding mode control for unmanned autonomous helicopters based on neural networks*. Drones (**ISI Journal**) (**20 citari**), ISSN: 2504-446X, vol. 7, nr. 154, 2023. *Factor de impact relativ revista: 5.532. Indexat in baze de date: ISI Web of Science, Scopus.*
44. Zhu, H., Chen, M., Han, Z., Lungu, M. *Inverse Reinforcement Learning-Based Fire-Control Command Calculation of an Unmanned Autonomous Helicopter Using Swarm Intelligence Demonstration*. Aerospace (**ISI Journal**) (**9 citari**), ISSN: 2226-4310, vol. 10, nr. 3, 2023. *Factor de impact relativ revista: 2.66. Indexat in baze de date: ISI Web of Science, Scopus.*
45. Lungu, M., Vîlcică (Dinu), D.A., Chen, M., Flores, G. *Inverse optimal control for autonomous carrier landing with disturbances*. Aerospace Science and Technology (**ISI Journal**) (**30 citari**), ISSN: 1270-9638, vol. 139, 2023, 108382. *Factor de impact relativ revista: 5.457. Indexat in baze de date: ISI Web of Science, Scopus.*
46. Wang, R., Lungu, M., Zhou, Z., Zhu, X., Ding, Y., Zhao, Q. *Least global position information based control of fixed-wing UAVs formation flight: Flight tests and experimental validation*. Aerospace Science and Technology (**ISI Journal**) (**25 citari**), ISSN: 1270-9638, vol. 140, 2023,

108473. *Factor de impact relativ revista: 5.457. Indexat in baze de date: ISI Web of Science, Scopus.*
47. Huang, Z., Chen, M., Lungu, M. *Interconnected Disturbance Observer-Based Tracking Control for Permanent Magnet Synchronous Motors*. IEEE Transactions on Control Systems Technology (**ISI Journal**) (**10 citari**), ISSN: 1063-6536, vol. 31, nr. 6, 2023. *Factor de impact relativ revista: 4.8. Indexat in baze de date: ISI Web of Science.*
48. Wan, M., Chen, M., Lungu, M. *Adaptive sensor fault tolerant control with prescribed performance for unmanned autonomous helicopter based on neural networks*. Aircraft Engineering and Aerospace Technology (**ISI Journal**) (**5 citari**), ISSN: 0002-2667, vol. 96, nr. 3, 2024. *Factor de impact relativ revista: 1.5. Indexat in baze de date: ISI Web of Science, Emerald.*
49. Guo, H., Chen, M., Shen, Y., Lungu, M. *Distributed Event-Triggered Collision Avoidance Formation Control for QUAVs With Disturbances Based on Virtual Tubes*. IEEE Transactions on Industrial Electronics (**ISI Journal**) (**16 citari**), ISSN: 1551-3203, vol. 72, nr. 2, 2025, pag. 1892-1903. *Factor de impact relativ revista: 7.5. Indexat in baze de date: ISI Web of Science, IEEE Xplore, Scopus.*
50. Yuan, R., An, Z., Shao, S., Chen, M., Lungu, M. *Dynamic event-triggered fault-tolerant cooperative resilient tracking control with prescribed performance for UAVs*. Science China Information Sciences (**ISI Journal**) (**17 citari**), vol. 67, nr. 8, pag. 1-18. *Factor de impact relativ revista: 7.3. Indexat in baze de date: ISI Web of Science, Scopus.*
51. Shen, Y., Chen, M., Lungu, M., Guo, H. *Decoupled Finite-Time Approximation Auxiliary System-Based Three-Dimensional Integrated Guidance and Control*. IEEE Transactions on Automation Science and Engineering (**ISI Journal**) (**4 citari**), ISSN: 1545-5955, vol. 22, 2025, pag. 6100-6112, DOI: 10.1109/TASE.2024.3438552. *Factor de impact relativ revista: 5.9. Indexat in baze de date: ISI Web of Science, IEEE Xplore, Scopus.*
52. Ebrahimpour, M., Lungu, M., Kakavand, M. *Antisaturation Fixed-time Backstepping Fuzzy Integral Sliding Mode Control for Automatic Landing of Fixed-wing Unmanned Aerial Vehicles*. Journal of the Franklin Institute (**ISI Journal**) (**11 citari**), ISSN: 0016-0032, vol. 361, nr. 17, 2024. *Factor de impact relativ revista: 3.7. Indexat in baze de date: ISI Web of Science.*
53. Lungu, R., Tudosie, A., Lungu, M., Crăciunoiu, C. *Actuators with two double gimbal magnetically suspended control moment gyros for the attitude control of the satellites*. Micromachines (**ISI Journal**) (**2 citari**), ISSN: 2072-666X, vol. 15, nr. 9, 2024. *Factor de impact relativ revista: 3.0. Indexat in baze de date: ISI Web of Science, Scopus.*
54. Guo, H., Chen, M., Shi, S., Han, Z., Lungu, M. *Distributed Coordinated Control for QUAVs With Switching Formation Strategy*. IEEE Transactions on Intelligent Vehicles (**ISI Journal**) (**5 citari**), ISSN: 2379-8858, vol. 10, nr. 6, 2025, pag. 3841-3851. *Factor de impact relativ revista: 14. In curs de indexare in baze de date: ISI Web of Science.*
55. Dinu (Vîlcică), D.A., Lungu, M., Chen, M., Tudosie, A. *Four-stage Cascaded Adaptive Sliding Mode Control for Automatic Carrier Landing with Airwake Disturbances and Uncertainties*. Applied Mathematical Modelling (**ISI Journal**) (**7 citari**), ISSN: 0307-904X, vol. 138, 115729, 2025, DOI: <https://doi.org/10.1016/j.apm.2024.115729>. *Factor de impact relativ revista: 4.4. Indexat in baze de date: ISI Web of Science, Scopus.*
56. Guo, H., Chen, M., Lungu, M., Li, B. *Distributed event-triggered collision avoidance coordinated control for QUAVs based on flexible virtual tubes*. Chinese Journal of Aeronautics (**ISI Journal**) (**3 citari**), ISSN: 1000-9361, vol. 38, nr. 2, 2025. *Factor de impact relativ revista: 5.3. Indexat in baze de date: ISI Web of Science, Scopus.*
57. Tudosie, A.N., Lungu, M. *Evaluation of turbojet engine with water injection for aircraft use as controlled object*. Aerospace (**ISI Journal**) (**1 citare**), ISSN: 2226-4310, vol. 12, nr. 1, 2025. *Factor de impact relativ revista: 2.1. Indexat in baze de date: ISI Web of Science.*
58. Ebrahimpour, M., Lungu, M. *Finite-time path-following control of underactuated auvs with actuator limits using disturbance observer-based backstepping control*. Drones (**ISI Journal**) (**7 citari**), ISSN: 2504-446X, vol. 9, nr. 70, 2025. *Factor de impact relativ revista: 4.4. Indexat in baze de date: ISI Web of Science, Scopus.*

59. Wang, R., Zhou, Z., **Lungu, M.**, Li, L. *PSD INDI and Wake Gradient Based Control of High Aspect Ratio UAVs' Close Formation Flight*. Aerospace Science and Technology (**ISI Journal**) (**1 citare**), ISSN: 1270-9638, vol. 162, 2025, 110198. *Factor de impact relativ revista: 5. Indexat in baze de date: ISI Web of Science, Scopus.*
60. **Lungu, M.**, Chen, M., Ebrahimpour, M., Guo, H. *Dynamic Inversion- and Neural Network- based Five-stage Cascaded Control for Automatic Carrier Landing Subject to Multiple Disturbances and Uncertainties*. Journal of the Franklin Institute (**ISI Journal**) (**1 citare**), ISSN: 0016-0032, vol. 362, nr. 9, 107719, 2025. *Factor de impact relativ revista: 3.7. Indexat in baze de date: ISI Web of Science, Scopus.*
61. Ebrahimpour, M., **Lungu, M.** *Fault-Tolerant Robust Fast Finite-Time Path-Following Control for Underactuated AUVs With Actuator Dynamics and Saturation*. Journal of Field Robotics (**ISI Journal**) (**3 citari**), ISSN: 1556-4959, vol. 42, nr. 8, 2025, pag. 4133-4156. *Factor de impact relativ revista: 5.2. Indexat in baze de date: ISI Web of Science, Scopus.*
62. Zhao, J., Chen, M., Yong, K., **Lungu, M.** *Dynamic Event-Triggered Lyapunov-Based Model Predictive Control for AHV Under Disturbance and Multiple Constraints*. IEEE Transactions on Circuits and Systems I: Regular Papers (**ISI Journal**), ISSN: 1549-8328, vol. 73, nr. 1, 2026, pag. 594-605. *Factor de impact relativ revista: 5.2. Indexat in baze de date: ISI Web of Science, IEEE Xplore, Scopus.*
63. Wang, R., Zhou, Z., **Lungu, M.**, Wang, Z. *Improving the Landing Control Capability of Blended Wing Body Configuration Solar-Powered UAVs by Using Swallow Tails and Distributed Propellers*. Journal of Field Robotics (**ISI Journal**), ISSN: 1556-4959, vol. 43, nr. 2, 2026, pag. 1048-1067. *Factor de impact relativ revista: 5.2. Indexat in baze de date: ISI Web of Science, Scopus.*
64. Yuan, M., Chen, M., **Lungu, M.**, Zhou, T. *Curve Virtual Tube Planning and Distributed Control for Swarm UAVs With Complex Constraints and Disturbances*. IEEE Transactions on Industrial Electronics (**ISI Journal**), ISSN: 0278-0046, vol. 73, nr. 2, 2026, pag. 3037-3048. *Factor de impact relativ revista: 7.2 In curs de indexare in baze de date: ISI Web of Science, IEEE Xplore, Scopus.*
65. Ebrahimpour, M., **Lungu, M.**, Mobayen, S., Wang, R. *Adaptive finite-time second-order sliding mode attitude control for fixed-wing UAVs*. Applied Mathematical Modelling (**ISI Journal**) (**1 citare**), ISSN: 0307-904X, vol. 155, 2026, 116745. *Factor de impact relativ revista: 5.1. In curs de indexare in baze de date: ISI Web of Science, Scopus.*
66. **Lungu, M.**, Grigorie, T.L., Buțu, F.A., Chen, M., Flores, G. *Integrated software and hardware platform for the guidance of the rockets with backstepping controller and strap-down inertial navigation system*. Aerospace Science and Technology (**ISI Journal**), vo. 172, 2026, 111669. *Factor de impact relativ revista: 5.8. In curs de indexare in baze de date: ISI Web of Science.*

### ARTICOLE INDEXATE ISI (ISI PROCEEDINGS)

1. **Lungu, M.** *Neuro-Observer with Application to Longitudinal Motion of an Aircraft with Big Attack Angle*. Proceedings of the 11<sup>th</sup> International Conference on Applied and Theoretical Electricity (ICATE 2012), Craiova, 25-27 October, 2012. „Analele Universitatii din Craiova”, Seria Inginerie Electrica (**revista CNCSIS – categoria B**), no. 36, pag. 404-409. ISSN: 1842-4805, DOI: 10.1109/ICATE.2012.6403454 (**ISI Proceedings**). **Indexat in baze de date: ISI Web of Science, IEEE Xplore, Copernicus.**
2. **Lungu, M.** *The Estimation of an Aircraft Motions by using the Bass-Gura Full-Order Observer*. Proceedings of the 11<sup>th</sup> International Conference on Applied and Theoretical Electricity (ICATE 2012), Craiova, 25-27 October, 2012. Publicat in „Analele Universitatii din Craiova”, Seria Inginerie Electrica (**revista CNCSIS – categoria B**), no. 36, pag. 410-414. ISSN: 1842-4805, DOI: 10.1109/ICATE.2012.6403455 (**ISI Proceedings**) (**5 citari**). **Indexat in baze de date: ISI Web of Science, IEEE Xplore, Copernicus.**
3. Lungu, R., Ispas, S., Iancu, M., **Lungu, M.** *Optimal Control of Helicopter Motion*. Proceedings

- of the 11<sup>th</sup> International Conference on Applied and Theoretical Electricity (ICATE 2012), Craiova, 25-27 October, 2012. Publicat in „Analele Universitatii din Craiova”, Seria Inginerie Electrica (revista CNCSIS – categoria B), no. 36, pag. 449-453. ISSN: 1842-4805, DOI: 10.1109/ICATE.2012.6403456 (ISI Proceedings) (4 citari). Indexat in baze de date: ISI Web of Science, IEEE Xplore, Copernicus.
4. Lungu, R., Iancu, M., Ispas, S., **Lungu, M.** *Adaptive Control of the Aircraft Pitch Angular Motion by using the Dynamic Inversion Principle*. Proceedings of the 11<sup>th</sup> International Conference on Applied and Theoretical Electricity (ICATE 2012), Craiova, 25-27 October, 2012. „Analele Universitatii din Craiova”, Seria Inginerie Electrica (revista CNCSIS – categoria B), no. 36, pag. 454-458. ISSN: 1842-4805, DOI: 10.1109/ICATE.2012.6403457 (ISI Proceedings) (3 citari). Indexat in baze de date: ISI Web of Science, IEEE Xplore, Copernicus.
  5. Calbureanu, M., **Lungu, M.**, Tutunea, D., Malciu, R., Dima, A., *Modeling with finite element the convective heat transfer in civil building EPS insulated walls*. Proceedings of the 10<sup>th</sup> International Conference on Applied Computer Science (ACS '10), Iwate, Japan, October 4 – 6, 2010, ISSN: 1792-4863, ISBN: 978-960-474-231-8 (ISI Proceedings) (2 citari). Indexat in baze de date: ISI Web of Science, Scopus, ACM.
  6. **Lungu, M.**, Lungu, R., Bacanu, Gh. *Angular stabilization systems of the rockets in vertical plane using differentiator gyroscope*. Recent Advances in Circuits, Systems and Signals, pag. 51-56, ISSN: 1792-4324. International Conference on Circuits, Systems and Signals (IEEE.AM - CSS), Malta, September 15-17, 2010. ISBN: 978-960-474-226-4. (ISI Proceedings). Indexat in baze de date: ISI Web of Science, Scopus, ACM.
  7. **Lungu, M.**, Lungu, R., Sepcu, L. *Non-linear adaptive system for the control of the aircrafts' roll angle*. Recent Advances in Circuits, Systems and Signals, pag. 39-44, ISSN: 1792-4324. International Conference on Circuits, Systems and Signals (IEEE.AM - CSS), Malta, September 15-17, 2010. ISBN: 978-960-474-226-4. (ISI Proceedings). Indexat in baze de date: ISI Web of Science, Scopus.
  8. Lungu, R., Kwatra, S., **Lungu, M.**, Grigorie, L. *The use of the hierarchical dynamic inversion to the aircrafts longitudinal movement*. Recent Advances in Circuits, Systems and Signals, pag. 34-39, ISSN: 1792-4324. International Conference on Circuits, Systems and Signals (IEEE.AM - CSS), Malta, September 15-17, 2010. ISBN: 978-960-474-226-4. (ISI Proceedings). Indexat in baze de date: ISI Web of Science, Scopus, ACM.
  9. Lungu, R., Borgazi, **Lungu, M.**, Popa, D., Tutunea, D., Calbureanu, M. *New methods for the simulation with finite element of the human elbow*. Recent Advances in Circuits, Systems and Signals, pag. 45-50, ISSN: 1792-4324. International Conference on Circuits, Systems and Signals (IEEE.AM - CSS), Malta, September 15-17, 2010. ISBN: 978-960-474-226-4. (ISI Proceedings) (3 citari). Indexat in baze de date: ISI Web of Science, Scopus.
  10. Grigorie T.L., Corcau J., **Lungu M.**, Sandu G.D. *Bi-Dimensional Position Detection Using TDOA Estimation through Cross Correlation of the Acoustic Signals. Part 1: Theoretical Background*. 2009 IEEE International Conference on ICT and Knowledge Engineering. December 1-2, 2009, Siam University, Bangkok, Thailand. ISBN: 978-1-4244-4513-4 (ISI Proceedings) (5 citari). Indexat in baze de date: ISI Web of Science, IEEE Xplore database, Scopus, Compendex, Scopus, Scitopia database.
  11. **Lungu, M.**, Lungu, R. *Non-linear Adaptive Controllers with Linear Dynamic Compensator and Neural Network*. Proceedings of the 11th WSEAS International Conference on Automatic Control, Modelling And Simulation (ACMOS '09), Istanbul, Turkey, May 30 - June 1, 2009, pag. 334 – 339. ISBN: 978-960-474-082-6. ISSN: 1790-5117 (ISI Proceedings) (2 citari). Indexat in baze de date: ISI Web of Science.
  12. Malciu, R., Calbureanu, M., **Lungu, M.**, Dumitru, S. *Comparison between vibrations transversal displacements analytic determined for a linear elastic connecting rod and a linear viscoelastic one (after the validation by experiment of the vibrations effective)*. Proceedings of the 11th WSEAS International Conference on Automatic Control, Modelling And Simulation (ACMOS '09), Istanbul, Turkey, May 30 - June 1, 2009, pag. 355-60. ISBN: 978-960-474-082-6. ISSN: 1790-5117 (ISI Proceedings) (1 citare). Indexat in baze de date: ISI Web of Science.

13. Calbureanu, M., Malciu, R., **Lungu, M.**, Dumitru, S. *Analytic determination of the accelerations of vibrations for a linear viscoelastic cinematic element of a crank and connecting rod assembly validated by experiment*. 11<sup>th</sup> International Conference on Automatic Control, Modelling And Simulation (ACMOS '09), Istanbul, Turkey, May 30 - June 1, 2009, pag. 349-354. ISBN: 978-960-474-082-6, ISSN: 1790-5117 (**ISI Proceedings**) (**1 citare**). **Indexat in baze de date: ISI Web of Science.**
14. Lungu, R., **Lungu, M.**, Stoenescu, E., Calbureanu, M. *Reduced order observer for the longitudinal and lateral movements of an aircraft*. 11<sup>th</sup> WSEAS International Conference on Automatic Control, Modelling & Simulation (ACMOS '09), Istanbul, Turkey, May 30 - June 1, 2009, pag. 328-333. ISBN: 978-960-474-082-6. ISSN: 1790-5117 (**ISI Proceedings**) (**4 citari**). **Indexat in baze de date: ISI Web of Science.**
15. **Lungu, M.**, Lungu, R., Stoenescu, E., Grigorie, L. *Prediction state observer for the longitudinal and lateral movements of an aircraft*. Proceedings of the 11th WSEAS International Conference on Automatic Control, Modelling And Simulation (ACMOS '09), Istanbul, Turkey, May 30 - June 1, 2009, pag. 322-327. ISBN: 978-960-474-082-6. ISSN: 1790-5117 (**ISI Proceedings**) (**2 citari**). **Indexat in baze de date: ISI Web of Science.**
16. Dinca, L., Corcau, J., **Lungu, M.**, Tudosie, A., *Electro-hydrostatic Servo-actuators for Aircraft*. Proceedings of the 7th WSEAS International Conference on System Science and Simulation in Engineering (ICOSSE '08), Venice, Italy, November 21-23, 2008, pag. 217-222. ISBN: 978-960-474-027-7. ISSN: 1790-2769 (**ISI Proceedings**) (**4 citari**). **Indexat in baze de date: ISI Web of Science, ACM.**
17. Lungu, R., **Lungu, M.**, Dinca, L., Stoenescu, E. *On-line Parametric Identification and Discrete Optimal Command for the Aircrafts Longitudinal Movement*. Proceedings of the 7th WSEAS International Conference on System Science and Simulation in Engineering (ICOSSE '08), Venice, Italy, November 21-23, 2008, pag. 211-216. ISBN: 978-960-474-027-7. ISSN: 1790-2769 (**ISI Proceedings**) (**3 citare**). **Indexat in baze de date: ISI Web of Science, ACM.**
18. Calbureanu, M.X., Malciu, R., **Lungu, M.**, Lungu, R., *Advanced machining technologies for aircraft component parts with thin walls*. Annals of DAAM & 19<sup>th</sup> International DAAAM Symposium "Intelligent Manufacturing and Automation: Focus on Next Generation of Intelligent Systems and Solutions", 22-25 October 2008, Trnava, Slovakia, pag. 189-190. ISSN: 1726-9679. ISBN: 978-3-901509-68-1 (**ISI Proceedings**) (**1 citare**). **Indexat in baze de date: ISI Web of Science.**
19. Calbureanu, M., Malciu, R., **Lungu, M.**, Calbureanu, D. *Aspects about the influence of the lubricant from a rectilinear pair above the work accuracy of the elastic elements from the high precision mechanisms*. 12<sup>th</sup> WSEAS Int. Conf. on Engineering Mechanics, Structures, Engineering Geology (EMESEG '08), Heraklion, Crete Island, Greece, July 22-24, 2008, pag. 209-214. ISBN: 978-960-6766-88-6, ISSN: 1790-2769 (**ISI Proceedings**) (**1 citare**). **Indexat in baze de date: ISI Web of Science, Scopus, Compendex.**
20. **Lungu, M.**, Lungu, R., Jula, N., Calbureanu M., Cepisca, C., *Optimal Command of Aircrafts' Move Using a Reduced Order Observer*. 9th WSEAS Int. Conf. on Automation & Information (ICAI'08), Bucharest, Romania, June 24-26, 2008, pag. 332-337. ISBN: 978-960-6766-77-0, ISSN: 1790-5117 (**ISI Proceedings**). **Indexat in baze de date: ISI Web of Science, ACM.**
21. **Lungu, M.**, Lungu, R., Jula, N., Cepisca, C., Calbureanu M. *Synthesis algorithm of the optimal control law for flying objects' longitudinal move*. 9<sup>th</sup> WSEAS Int. Conf. on Automation and Information (ICAI'08), Bucharest, Romania, June 24-26, 2008, pag. 326-332, ISBN: 978-960-6766-77-0, ISSN: 1790-5117 (**ISI Proceedings**) (**1 citare**). **Indexat in baze de date: ISI Web of Science, ACM.**
22. Corcau, J., Stoenescu, E., **Lungu, M.** *Comparative analysis of classical and fuzzy PI algorithms*. 7th WSEAS Int. Conf. on Artificial Intelligence, Knowledge Engineering and Data Bases (AIKED'08), University of Cambridge, UK, Feb 20-22, 2008, pag. 189 – 192. ISBN: 978-960-6766-41-1, ISSN: 1790-5109 (**ISI Proceedings**) (**2 citari**). **Indexat in baze de date: ISI Web of Science, ACM.**
23. Lungu, R., **Lungu, M.**, Jula, N., Cepisca, C. *Stabilization models and structures for move of*

- very maneuverable flying objects*. 6<sup>th</sup> WSEAS International Conference on System Science and Simulation in Engineering (ICOSSSE '07), Venice, Italy, November 21-23, 2007, pag. 135-138. ISBN: 978-960-6766-18-3. ISSN: 1790-5117 (**ISI Proceedings**). **Indexat in baze de date: ISI Web of Science, Inspec.**
24. Lungu, R., **Lungu, M.**, Jula, N., Cepisca, C. *Command Laws for Rockets' Motion Stabilisation*. The 6<sup>th</sup> WSEAS International Conference on System Science and Simulation in Engineering (ICOSSSE '07), Venice, Italy, November 21-23, 2007, pag. 159-162. ISBN: 978-960-6766-18-3. ISSN: 1790-5117 (**ISI Proceedings**). **Indexat in baze de date: ISI Web of Science, Inspec.**
25. Lungu, R., **Lungu, M.**, Jula, N., Cepisca, C. *Neuro-adaptive optimal control system for aircrafts*. The 3-rd WSEAS International Conference on Dynamical Systems and Control' 07. Arcachon, France, 13-15 oct. 2007, pag. 298-301. ISBN: 978-960-6766-10-7. ISSN: 1790-5117 (**ISI Proceedings**). **Indexat in baze de date: ISI Web of Science, Inspec.**
26. Lungu, R., **Lungu, M.**, Jula, N., Cepisca, C. *Models identification and adaptive control of the flying objects using neural networks*. The 3<sup>rd</sup> WSEAS International Conference on Dynamical Systems and Control' 07. Arcachon, France, 13-15 oct. 2007, pag. 302-306. ISBN: 978-960-6766-10-7. ISSN: 1790-5117 (**ISI Proceedings**) (**3 citari**). **Indexat in baze de date: ISI Web of Science.**
27. Lungu, R., **Lungu, M.**, Jula, N., Cepisca, C. *Identification of Dynamic Non-Linear Models of Aircrafts with Big Incidence Angles*. 7th WSEAS International Conference on Systems Theory and Scientific Computation (ISTASC'07), Vouliagmeni Beach, Athens, Greece, August 24-26, 2007, pag. 239-243. ISBN: 978-960-6766-01-5. ISSN: 1790-5117 (**ISI Proceedings**). **Indexat in baze de date: ISI Web of Science, Inspec, ACM.**
28. Lungu, R., **Lungu, M.**, Tudosie, Al. *Discrete Command Law of the Longitudinal Movement of the Aircrafts*. Conference on Military Technologies 2007, ICMT'07, Brno, Czech Republic, 2-4 May 2007, In Proceedings, pag. 324-329, ISBN: 978-80-7231-238-2 (**ISI Proceedings**). **Indexat in baze de date: ISI Web of Science.**
29. Lungu, R., **Lungu, M.**, Corcau, J. *Aircrafts Movement Models Identification Using Neuronal Networks*. Conference on Military Technologies 2007, ICMT'07, Brno, Czech Republic, 2-4 May 2007, In Proceedings, pag. 330-335, ISBN: 978-80-7231-238-2 (**ISI Proceedings**). **Indexat in baze de date: ISI Web of Science.**
30. Sepcu, L., Lungu, R., **Lungu, M.**, *Optimal control of MAVs' gliding motion – Part 1: Theoretical Background*, Proceedings of the International Conference on Electronics, Computers and Artificial Intelligence (ECAI - 2013), Pitesti, Romania, 27-29 iunie 2013, pag. 1-6, ISBN: 978-1-4673-4935-2 (**ISI Proceedings**). **Indexat in baze de date: ISI Web of Science, IEEE Xplore.**
31. Sepcu, L., Lungu, R., **Lungu, M.**, *Optimal Control of MAVs' Gliding Motion – Part 2: Controller Design and Validation*, Proceedings of the International Conference on Electronics, Computers and Artificial Intelligence (ECAI - 2013), Pitesti, Romania, 27-29 iunie 2013, pag. 7-12, ISBN: 978-1-4673-4935-2 (**ISI Proceedings**). **Indexat in baze de date: ISI Web of Science, IEEE Xplore.**
32. Buciu, G., Tarnita, D.N., Popa, D.L., **Lungu, M.**, Miritoiu, C., Ungureanu, A. *Virtual and experimental studies about human walking. virtual lower leg environment. Innovative design of tibia nail*. Applied Mechanics and Materials, vol. 657, 2014, pag. 770-774, DOI: 10.4028/www.scientific.net/AMM.657.770, ISSN: 1660-9336, eISSN: 1662-7482 (**ISI Proceedings**) (**3 citari**). **Indexat in baze de date: ISI Web of Science.**
33. Lungu, R., **Lungu, M.**, Ioan, M., *Determination and Control of the Satellites' Attitude by using a Pyramidal Configuration of Four Control Moment Gyros*. 12<sup>th</sup> International Conference on Informatics in Control, Automation and Robotics (ICINCO 2015), Colmar, Franta, 21-23 Iulie 2015, pag. 448-456. **Indexat in baze de date: ISI Web of Science, IEEE Xplore.**
34. **Lungu, M.**, Lungu, R. *Reduced-Order Multiple Observer for Aircraft State Estimation during Landing*. 11<sup>th</sup> edition of the International Conference on Trends in Aerospace, Robotics, Manufacturing Systems, Mechanical Engineering, Bioengineering, Power and Energy Engineering, Materials Engineering, Jupiter, 29 iunie-2 iulie 2016; Applied Mechanics and Materials, vol. 841, pag. 253-259, 2016, DOI:10.4028/www.scientific.net/AMM.841.253, ISSN: 1660-9336 (**8 citari**).

**Indexat in baze de date: Google Scholar.**

35. **Lungu, M.,** Lungu, R., Preotu, O. *Estimation of Aircraft State during Landing by means of Multiple Observers*. 23<sup>th</sup> International Conference on Systems, Signals and Image Processing (IWSSIP 2016), 23-25 May 2016, Bratislava, Slovakia (**2 citari**). **Indexat in baze de date: ISI Web of Science, IEEE Xplore.**
36. **Lungu, M.,** Lungu, R., Grigorie, L., Preotu, O. *The Influence of Atmospheric Turbulences on Aircraft Landing Process*. International Conference on Applied and Theoretical Electricity – ICATE 2016; „Analele Universitatii din Craiova”, Seria Inginerie Electrica, ISSN: 1842-4805 (**ISI Proceedings**) (**3 citari**). **Indexat in baze de date: ISI Web of Science, IEEE Xplore.**
37. **Lungu, M.,** Lungu, R., Tutunea, D. *Control of aircraft landing using the dynamic inversion and the H-inf control*. 17<sup>th</sup> International Carpathian Control Conference (ICCC 2016), Tatranská Lomnica, Slovak Republic, May 29 - June 1, 2016, pag. 461-466 (**ISI Proceedings**) (**12 citari**). **Indexat in baze de date: ISI Web of Science, IEEE Xplore, Scopus.**
38. **Lungu, M.,** Lungu, R., Ioan, M. *Automatic Control of the satellites' attitude and stored energy using inertial wheels*. 17<sup>th</sup> International Carpathian Control Conference (ICCC 2016), Tatranská Lomnica, Slovak Republic, May 29 - June 1, 2016, pag. 455-460 (**ISI Proceedings**). **Indexat in baze de date: ISI Web of Science, IEEE Xplore, Scopus.**
39. **Lungu, M.,** Lungu, R. *The Control of Airplane Landing in Longitudinal and Lateral-directional Planes by using the H-inf Control*. 18<sup>th</sup> International Carpathian Control Conference (ICCC 2017), Sinaia, România, 28-31 Mai 2017 (**ISI Proceedings**) (**4 citari**). **Indexat in baze de date: ISI Web of Science, IEEE Xplore, Scopus.**
40. **Lungu, M.,** Lungu, R. *Complete landing autopilot having control laws based on neural networks and dynamic inversion*. 18<sup>th</sup> International Carpathian Control Conference (ICCC 2017), Sinaia, România, 28-31 Mai 2017 (**ISI Proceedings**) (**2 citari**). **Indexat in baze de date: ISI Web of Science, IEEE Xplore, Scopus.**
41. **Lungu, M.,** Berbente, S. *Full-order multiple observer with applications to airplane landing*. Int. Conference on Control, Artificial Intelligence, Robotics and Optimization (ICCAIRO), Praga, 19-21 Mai 2018 (**ISI Proceedings**) (**1 citare**). **Indexat in baze de date: Web of Science, IEEE Xplore.**
42. Lungu, R., Buțu, F.A., **Lungu, M.** *Sliding Mode Control of Launch Vehicles' Flight Path Slope Angle*. 26<sup>th</sup> Mediterranean Conference on Control and Automation, June 19-22, 2018 (**ISI Proceedings**), Zadar, Croatia, pag. 553-558. **Indexat in baze de date: ISI Web of Science, IEEE Xplore, Google Scholar.**
43. **Lungu, M.,** Boubaker, O., Lungu, R. *Reduced-Order Multiple Observer Design for Takagi-Sugeno Models with Unknown Inputs*. 26<sup>th</sup> Mediterranean Conference on Control and Automation, June 19-22, 2018 (**ISI Proceedings**) (**2 citari**), Zadar, Croatia, pag. 559-564. **Indexat in baze de date: ISI Web of Science, IEEE Xplore, Google Scholar.**
44. **Lungu, M.,** Boubaker, O., Lungu, R. *Multiple Observer with Applications to Landing in Lateral-Directional Plane*. 20<sup>th</sup> International Carpathian Control Conference (ICCC 2019), Kraków-Wieliczka, Poland, 26-29 Mai 2019. **Indexat in baze de date: ISI Web of Science, IEEE Xplore.**
45. **Lungu, M.,** Lungu, R., Buțu, A.F. *Reduced-order Multiple Observer with Application to the State Estimation of a Controlled Generic Reentry*. IEEE International Symposium on Systems Engineering, October 1-3, 2018, Roma, Italia (**ISI Proceedings**). **Indexat in baze de date: ISI Web of Science, IEEE Xplore, Google Scholar.**
46. Lungu, R., Buțu, A.F., **Lungu, M.** *Automatic Control of Space Vehicles' Orbit around Earth*. IEEE International Symposium on Systems Engineering, October 1-3, 2018, Roma, Italia (**ISI Proceedings**). **Indexat in baze de date: ISI Web of Science, IEEE Xplore, Google Scholar.**
47. Lungu, R., Buțu, A.F., **Lungu, M.** *Flight control of a launch vehicle using the hierarchical structured dynamic inversion with three time-scales*. IEEE International Symposium on Systems Engineering, October 1-3, 2018, Roma, Italia (**ISI Proceedings**); WOS: 000469921000015. **Indexat in baze de date: ISI Web of Science, IEEE Xplore, Google Scholar.**
48. **Lungu, M.,** Lungu, R., Zheng, Z., Guan, Z. *Backstepping and Dynamic Inversion based Auto-*

- landing System for Variable Centre of Mass UAV*. 24<sup>th</sup> International Conference on System Theory, Control and Computing Joint Conference, 2020, Sinaia, Romania (**ISI Proceedings**), pag. 31-36; WOS: 000646582900006. **Indexat in baze de date: ISI Web of Science, IEEE Xplore.**
49. Lungu, M., Lungu, R., Efrim, C., Boubaker, O. *Backstepping Control of Magnetically Suspended Double-Gimbal Control Moment Gyroscope* (**1 citare**). 24<sup>th</sup> International Conference on System Theory, Control and Computing Joint Conference, 2020, Sinaia, Romania (**ISI Proceedings**), pag. 154-159; WOS: 000646582900027. **Indexat in baze de date: ISI Web of Science, IEEE Xplore.**
50. Lungu, R., Efrim, C., Zheng, Z., Lungu, M. *Dynamic Inversion based Control of DGMSCMGs. Part 1: Obtaining the Nonlinear Dynamic Model*. IEEE International Conference on Applied and Theoretical Electricity (ICATE), May 27-29, 2021, Craiova, Romania (**ISI Proceedings**); WOS: 000709089900067. **Indexat in baze de date: ISI Web of Science, IEEE Xplore.**
51. Lungu, R., Efrim, C., Zheng, Z., Lungu, M. *Dynamic Inversion based Control of DGMSCMGs. Part 2: Control Architecture Design and Validation*. IEEE International Conference on Applied and Theoretical Electricity (ICATE), May 27-29, 2021, Craiova, Romania (**ISI Proceedings**) (**1 citare**); WOS: 000709089900065. **Indexat in baze de date: ISI Web of Science, IEEE Xplore.**
52. Lungu, M., Flores, G., Dinu, D.A., Ciucă, G.M. *Autonomous Landing of tailless, blended wing, and variable centre of mass UAV using adaptive control*. 8<sup>th</sup> IEEE International Conference on Control, Decision and Information Technologies (CODIT), 17-20 Mai 2022, Istanbul, Turcia (**ISI Proceedings**) (**3 citari**). **Indexat in baze de date: ISI Web of Science, IEEE Xplore.**

**ARTICOLE PUBLICATE LA CONFERINTE INDEXATE ERA**  
**(The Excellence in Research for Australia) SI INDEXATE BDI**

1. Lungu, M., Lungu, R., Grigorie L., *Automat Control of the Aircrafts' Lateral Movement using the Dynamic Inversion*. International Conference on Mechanical, Industrial and Aerospace Engineering (ICMIAE 2011), July 27-29, Paris, France, World Academy of Science, Engineering and Technology, Issue 79, 2011, pag. 381- 388, ISSN: 2010-376X (**Conferinta indexata ERA**). *Scor relativ de influenta: 0*. **Indexat in baze de date: ERA, Scopus, Compendex, EBSCO, Engineering Village/Engineering Index (EI), DOAJ.**
2. Lungu, M., *Stabilization and control of a UAV flight attitude angles using the backstepping method*, International Conference on Modeling and Simulation (ICMS 2012), January 15-17, 2012, Zurich, Elvetia, World Academy of Science, Engineering and Technology, Issue 61, January 2012, pag. 299-306, ISSN: 2010-376X (**Conferinta indexata ERA**) (**15 citari**). *Scor relativ de influenta: 0.5* (conferinta de tip A). **Indexat in baze de date: ERA, Scopus, Compendex, EBSCO, Engineering Village/Engineering Index (EI), DOAJ.**
3. Lungu, M., Lungu, R., Grigorie, L., *Aircrafts State Estimation by using an Adaptive Observer for MIMO Linear Time Varying Systems*. IEEE International Conference on High Performance Computing & Simulation (HPCS 2012), July 2-6, 2012, Madrid, Spain, pag. 648-653 (**Conferinta indexata ERA**) (**1 citare**). *Scor relativ de influenta: 0.25* (conferinta de tip B). **Indexat in baze de date: ERA, IEEE Xplore, Scopus.**

**ARTICOLE PUBLICATE IN PROCEEDINGS-URI/REVISTE**  
**INDEXATE ÎN BDI (BAZE DE DATE INTERNATIONALE)**

1. Lungu, M., Lungu, R. *Landing Autopilot for the Control of Airplane by using the H-inf Control*. 12<sup>th</sup> International Conference on Aerospace, Robotics, Mechatronics, Mechanical Engineering, Manufacturing systems, Neurorehabilitation and Bioengineering (OPTIROB) 29 Iunie-3 Iulie 2017, Jupiter. International Journal of Modeling and Optimization (IJMO), vol. 7, nr. 3, 2017, ISSN: 2010-3697 (**1 citare**). **Indexat in baze de date: Google Scholar, ResearchGate.**
2. Lungu, M. *Automatic control of aircraft landing by using the H<sub>2</sub>/H<sub>∞</sub> control technique*. The 36<sup>th</sup> IASTED International Conference on Modelling, Identification and Control (MIC 2017), February 20-21, 2017, Innsbruck, Austria, DOI: 10.2316/P.2017.848-004, pag. 222-229.

**Indexat in baze de date: Scopus, ResearchGate, Acta Press.**

3. Lungu, R., **Lungu, M.**, Ioan, M., *Nonlinear Automatic Control of the Satellites by using the Quaternion and the Angular Velocities' Vectors*. 3<sup>rd</sup> International Workshop on Numerical Modelling in Aerospace Sciences (NMAS 2015), București, 6-7 Mai 2015. INCAS Bulletin, vol. 7, nr. 2, pag. 93-103, ISSN: 2066-8201. **Indexat in baze de date: Copernicus.**
4. Sepcu, L., Negrea, P., **Lungu, M.**, Lungu, R., *Controllability and longitudinal movement stability of an insect-type micro air vehicle*. Scientific Bulletin – University Politehnica Bucharest, Series D: Mechanical Engineering, vol. 77, nr. 2, 2015, pag. 59-70, ISSN: 1454-2358. **Indexat in baze de date: Copernicus.**
5. Ioan, M., **Lungu, M.**, Lungu, R., *Control of the satellites' attitude using a pyramidal configuration of four variable speed control moment gyros*. Scientific Bulletin – University Politehnica Bucharest, Series D: Mechanical Engineering, vol. 79, nr. 2, 2017, pag. 59-70, ISSN: 1454-2358. **Indexat in baze de date: Scopus, Copernicus.**
6. **Lungu, M.**, Lungu, R., *State Estimation of the Controlled Generic Reentry Vehicles via Multiple Observer*. 16<sup>th</sup> International Conference on Mechatronics – Mechatronika 2014, December 3-5, 2014, Brno, Czech Republic. **Indexat in baze de date: Google Scholar.**
7. **Lungu, M.**, Lungu, R., Sepcu, L., *Multiple Observer with Application to Aircraft Longitudinal Motion*. 18<sup>th</sup> IEEE International Conference on System Theory, Control and Computing, Sinaia, Romania, 17-19 Octombrie, 2014, pag. 749-54, ISBN: 978-1-4799-4602-0. **Indexat in baze de date: Google Scholar.**
8. Calbureanu, M., Malciu, R., Albota, E., Ionescu, A., **Lungu, M.**, *Contributions above the Influence of the Strong Vrancea Earthquakes in Oltenia Region by Processing the Seismic Recording During Seismic Motions from 1986 and 1990*. International Journal of Geology, ISSN: 1998-4499. **Indexat in baze de date: Copernicus.**
9. Tutunea, D., Calbureanu, M., **Lungu, M.**, *The computational fluid dynamics (CFD) study of fluid dynamics performances of a resistance muffler*. International Journal of Mechanics, ISSN: 1998-4448 (**23 citari**). **Indexat in baze de date: Scopus.**
10. Calbureanu, M., Malciu, R., Tutunea, D., Ionescu, A., **Lungu, M.**, *The finite element analysis of the thermal stress distribution of a piston head*. International Journal of Mechanics, vol. 7, nr. 4, 2013, pag. 467-474, ISSN: 1998-4448 (**23 citari**). **Indexat in baze de date: Scopus.**
11. Tutunea, D., Calbureanu, M., **Lungu, M.**, *Computational fluid dynamics analysis of a resistance muffler*, Proceedings of the 11<sup>th</sup> International Conference on Heat Transfer, Thermal Engineering and Environment (HTE'13), Athens, Greece, 14-16 May 2013, ISBN: 978-1-61804-183-8. Recent Advances in Fluid Mechanics and Heat & Mass Transfer, ISSN: 2227-4596 (**8 citari**), pag. 31-34. **Indexat in baze de date: Scopus.**
12. **Lungu, M.**, Lungu, R., Grigorie L., *Automatic Command Systems for the Flight Direction Control during the Landing Process*. 3<sup>rd</sup> IEEE International Symposium on Logistics and Industrial Informatics (LINDI 2011), August 25 – 27, Budapest, Hungary, ISBN: 978-1-4577-1840-3, DOI: 10.1109/LINDI.2011.6031131, pp. 117-122. **Indexat in baze de date: IEEE Xplore database, Scopus.**
13. **Lungu, M.**, Mastorakis, N., Grigorie, L. *Automat Control of the Flight Altitude Using the Dynamic Inversion and the Influence of Wind Shears and Sensors' Errors on the Aircrafts' Landing Process*. 7<sup>th</sup> WSEAS International Conference on Dynamical Systems and Control (CONTROL '11), 1–3 July, 2011, Iasi, Romania; vol. Recent Researches in Computational Techniques, Non-linear Systems and Control, pp. 97-104, ISBN: 978-1-61804-011-4 (**1 citare**). **Indexat in baze de date: Scopus, ACM.**
14. Grigorie, T.L., **Lungu, M.**, Edu, I.R., Obreja, R. *Miniature Accelerometer Precision Improvement Using Intelligent Control*. 6<sup>th</sup> IEEE International Symposium on Applied Computational Intelligence and Informatics (SACI 2011), May 19-21, 2011, Timisoara, Romania. **Indexat in baze de date: IEEE Xplore database, Scopus.**
15. Grigorie, T.L., **Lungu, M.**, Edu, I.R., Obreja, R. *Concepts for error modelling of miniature gyros used in inertial navigation systems*. International Conference on Mechanical Engineering, Robotics and Aerospace (ICMERA 2010), December, 2 – 4 2010, Bucharest,

- Romania. ISBN: 978-1-4244-8867-4. **Indexat in baze de date: Scopus.**
16. Grigorie, T.L., **Lungu, M.**, Corcau, J., Edu, I.R., Obreja, R. *Miniaturised Strap-Down Gyro Performance Improvement through On-Line Bias Correction over Temperature*. International Conference on Mechanical Engineering, Robotics and AeroSpace (ICMERA 2010 December, 2-4 2010, Bucharest, Romania. ISBN: 978-1-4244-8867-4. **Indexat in baze de date: Scopus.**
  17. Grigorie, T.L., **Lungu, M.**, Edu, I.R., Obreja, R. *Concepts for error modeling of miniature gyros used in inertial navigation systems*. International Conference on Mechanical Engineering, Robotics and AeroSpace (ICMERA 2010), 2 – 4 dec. 2010, Bucuresti, Romania. ISBN: 978-1-4244-8867-4. **Indexat in baze de date: IEEE Xplore database.**
  18. Calbureanu, M., Malciu, R., Tutunea, D., Ionescu, A., **Lungu, M.**, *Element Modeling of a Spark Ignition Engine Piston Head*, Proceedings of the 11<sup>th</sup> International Conference on Heat Transfer, Thermal Engineering and Environment (HTE'13), Athens, Greece, 14-16 May 2013, ISBN: 978-1-61804-183-8. Recent Advances in Fluid Mechanics and Heat & Mass Transfer, ISSN: 2227-4596 (**5 citari**), pag. 61-64. **Indexat in baze de date: Compendex.**
  19. Calbureanu, M., Malciu, R., Alboteanu, E., Ionescu, A., **Lungu, M.**, *Processing of the Accelerographic Recording Obtained in Oltenia Region during Strong Vrancea Earthquakes*, Proceedings of the 11<sup>th</sup> International Conference on Heat Transfer, Thermal Engineering and Environment (HTE'13), Athens, Greece, 14-16 May 2013, ISBN: 978-1-61804-183-8. Recent Advances in Fluid Mechanics and Heat & Mass Transfer, ISSN: 2227-4596, pag. 65-70 (**1 citare**). **Indexat in baze de date: Scopus.**
  20. Grigorie, L., Corcau, J., **Lungu, M.**, Edu, I., Obreja, R., *Precision improvement for a tunneling accelerometer by using an intelligent controller to close its loop*. 12th IEEE International Symposium on Computational Intelligence and Informatics (CINTI 2011), 21–22 November, 2011, Budapest, Hungary, ISBN: 978-1-4577-0044-6, DOI: 10.1109/CINTI.2011.6108509, pag. 253 – 258 (**3 citari**). **Indexat in baze de date: IEEE Xplore, Copernicus.**
  21. **Lungu, M.**, *The influence of the Wind Shears and Sensor Errors upon Aircrafts Landing Process*. WSEAS Transactions on Advances in Engineering Education, Issue 12, Volume 7, December 2010, ISSN: 1790-1979 (**3 citari**). **Indexat in baze de date: Compendex/Scopus, ACM.**
  22. **Lungu, M.**, *New non-linear adaptive command system for the aircrafts' attitude control*. International Journal of Circuits, Systems and Signal Processing - N.A.U.N, Issues 1, Volume 5, 2011, pag. 19 - 28. ISSN: 1998 – 4464 (**1 citare**). **Indexat in baze de date: Scopus.**
  23. **Lungu, M.**, *The stabilization and identification of the rockets' movement in vertical plane*. International Journal of Circuits, Systems and Signal Processing - N.A.U.N, Issues 1, Volume 5, 2011, pag. 9 - 18. ISSN: 1998 – 4464. **Indexat in baze de date: Scopus.**
  24. **Lungu, M.**, Lungu, R., Mastorakis, N., Fariseu, R. *The Stabilization of the Rockets Using a Control System Including a Differentiator Gyroscope, an Accelerometer and a Correction Subsystem*. International Conference of the Institute for Environment, Engineering, Economics and Applied Mathematics (IEEEAM) - Mathematical Models for Engineering Science (MMES'10), 30 nov. – 2 dec. 2010, Puerto De La Cruz, Tenerife, pag. 37 – 43, ISBN: 978-960-474-252-3, ISSN: 1792-6734. **Indexat in baze de date: Compendex, Scopus, ACM.**
  25. Lungu, R., **Lungu, M.**, Mastorakis, N., Calbureanu, M. *Rockets' Stabilization Using a Control System Including an Integrator Gyroscope, an Accelerometer and a Correction Subsystem*. International Conference of the Institute for Environment, Engineering, Economics and Applied Mathematics (IEEEAM) - Mathematical Models for Engineering Science (MMES'10), 30 nov. – 2 dec. 2010, Puerto De La Cruz, Tenerife pag. 44 – 50, ISBN: 978-960-474-252-3, ISSN: 1792-6734. **Indexat in baze de date: Compendex/Scopus, ACM.**
  26. Calbureanu, M., Talu, M., Travieso-Gonzales, C., Talu, St., **Lungu, M.**, Malciu, R. *The Finite Element Analysis of Water Vapor Diffusion in a Brick with Vertical Holes*. Int. Conference of the Institute for Environment, Engineering, Economics and Applied Mathematics (IEEEAM) - Mathematical Models for Engineering Science (MMES'10), 30 nov. – 2 dec. 2010, Puerto De La Cruz, Tenerife pag. 57-62, ISBN: 978-960-474-252-3, ISSN: 1792-6734 (**3 citari**). **Indexat in baze de date: Compendex/Scopus, ACM.**

27. **Lungu, M.**, Lungu, R., Calbureanu, M., Sepcu, L. *Static system for the automatic control of the aircraft yaw's angle with proportional – derivative control law*. Annals of DAAM & The 21<sup>th</sup> International DAAAM Symposium "Intelligent Manufacturing & Automation: Focus on Interdisciplinary Solutions", 20-23 October 2010, Zadar, Croatia, ISSN: 1726-9679. ISBN: 978-3-901509-73-5. **Indexat in baze de date: Compendex/Scopus.**
28. **Lungu, M.**, Lungu, R., Sepcu, L., Calbureanu, M. *Automatic control system of the aircraft yaw's angle using a proportional – integrator – derivative control law*. Annals of DAAM & The 21<sup>th</sup> International DAAAM Symposium "Intelligent Manufacturing & Automation: Focus on Interdisciplinary Solutions", 20-23 October 2010, Zadar, Croatia, ISSN: 1726-9679. ISBN: 978-3-901509-73-5. **Indexat in baze de date: Compendex/Scopus.**
29. Grigorie, L., **Lungu, M.**, Negrea, P., Baziukaite, D. *The compensation of the thermo-couples cold junction temperature variation errors using a neuro-fuzzy controller*. International Conference on Applied Computer Science, Malta, September 15-17, 2010, pag. 72-77, ISSN: 1792-4863, ISBN: 978-960-474-225-7. **Indexat in baze de date: Compendex, Scopus.**
30. Lungu, R., Bekiarski, A., **Lungu, M.**, Calbureanu, M. *The Use of the Hierarchical Structured Dynamic Inversion to the Aircrafts Lateral Movement*. Latest Trends on Systems (Volume 1), pag. 71-77, ISSN: 1792-4235. The 14<sup>th</sup> WSEAS International Conference on Systems, Corfu, Greece, July 22-24, 2010. ISBN: 978-960-474-199-1. **Indexat in baze de date: Compendex/Scopus, ACM.**
31. **Lungu, M.**, *Aircrafts' control and command using hierarchical dynamic inversion*. WSEAS Transactions on Systems and Control, Issue 10, Volume 5, October 2010, pag. 792 – 801. ISSN: 1991-8763 (**3 citari**). **Indexat in baze de date: Scopus, Compendex, ACM.**
32. Lungu, R., **Lungu, M.**, Dinca, L., Stoenescu, E. *On-line Parametric Identification and Discrete Optimal Command of the Flying Objects' Move*. International Journal of Circuits, SYSTEMS and Signal Processing - N.A.U.N, Issues 4, Volume 2, 2008, pag. 274 - 283. ISSN: 1998 – 4464. **Indexat in baze de date: ACM, www.naun.org.**
33. Calbureanu, M., Malciu, R., **Lungu, M.**, Calbureanu, D., *The influence of the lubricant from a rectilinear pair above the work accuracy of the elastic elements from the high precision mechanisms*. WSEAS Transactions on Applied and Theoretical Mechanics, Issue 5, Volume 3, May 2008, pag. 176-185 (**1 citare**). **Indexat in baze de date: Scopus, Compendex.**
34. Dinca, L., Corcau, J., **Lungu, M.**, Tudosie, A. *Mathematical Models and Numerical Simulations for Electro-Hydrostatic Servo-Actuators*. International Journal of Circuits, Systems and Signal Processing - N.A.U.N, Issues 4, Volume 2, 2008, pag. 229-238. ISSN: 1998-4464 (**4 citari**). **Indexat in baze de date: Google Scholar, www.naun.org**
35. Jula, N., **Lungu, M.**, Ursu, T., Cepisca, C., Racuciu, C., Raducanu, D. *Theoretical and Practical Aspects for Study and Optimization of the Aircrafts' Electro Energetic Systems*. WSEAS Transactions on Circuits and Systems, Issue 12, Volume 7, Dec. 2008, pag. 999-1008. ISSN: 1109-2734 (**2 citari**). **Indexat in baze de date: Compendex, Scopus, ACM.**
36. **Lungu, M.**, Lungu, R., Jula, N., Calbureanu, M., Cepisca, C., *Optimal Control of Flying Objects' Move After Estimated State Vector Using a Reduced Order Observer*. WSEAS Transactions on Circuits and Systems, Issue 6, Volume 7, June 2008, pag. 502-511. ISSN: 1109-2734 (**1 citare**). **Indexat in baze de date: Compendex, Scopus, ACM.**
37. **Lungu, M.**, Lungu, R., Jula, N., Cepisca, C., Calbureanu, M. *Aspects Regarding a New Method for the Optimal Law's Synthesis of Aircrafts' Move*. WSEAS Transactions on Circuits and Systems, Issue 6, Volume 7, June 2008, pag. 492-501. ISSN: 1109-2734. **Indexat in baze de date: Compendex, Scopus, ACM.**
38. Lungu, R., **Lungu, M.**, Jula, N., Cepisca, C. *Systems for Move Stabilisation and for Aircrafts and Rockets Flight Optimization*. WSEAS Transactions on Circuits and Systems, Issue 7, Volume 7, July 2008, pag. 678-687. ISSN: 1109-2734. **Indexat in baze de date: Compendex, Scopus, ACM.**
39. **Lungu, M.**, Lungu, R., Jula, N., Cepisca, C. *Neuro-Adaptive Command Systems very maneuverable flying objects*. WSEAS Transactions on Circuits and Systems, Issue 7, Volume 7, July 2008, pag. 668-677. ISSN: 1109-2734. **Indexat in baze de date: Compendex, Scopus, ACM.**

40. Preotu, O., Dumitrache, Al., **Lungu, M.** *Common aspects and differences in the behavior of classical configuration versus canard configuration aircraft in the presence of vertical gusts, assuming the hypothesis of an elastic fuselage.* International Conference of Aerospace Sciences “AEROSPATIAL 2010”, Sectiunea 2, Bucharest 20-21 October, 2010, ISSN 2067-8622. INCAS BULLETIN, vol. 3, Issue 2/2011, pag. 65-75, ISSN: 2066-8201. **Indexat in baze de date: Copernicus.**
41. Lungu, R., Buțu, F.A., **Lungu, M.**, Chen, M. *Automatic Control of Launch Vehicles' Flight Path Slope Angle by means of the Backstepping Control Method.* 9<sup>th</sup> IEEE International Conference on Control, Decision and Information Technologies (CODIT), 3-6 Iulie 2023, Roma, Italia. **Indexat in baze de date: IEEE Xplore.**
42. Lungu, R., Buțu, F.A., **Lungu, M.**, Chen, M. *Adaptive Control of the Relative Position for Space Vehicles in the Rendezvous Missions.* 27<sup>th</sup> IEEE International Conference on System Theory, Control and Computing (ICSTCC), 11-13 octombrie 2023, Timișoara, Romania. **Indexat in baze de date: IEEE Xplore.**
43. Lungu, R., Buțu, F.A., **Lungu, M.**, Wang, R. *Robust Optimal Control of Spacecraft During the Rendezvous Missions Using  $H_\infty$  Control Method.* 27<sup>th</sup> IEEE International Conference on System Theory, Control and Computing (ICSTCC), 11-13 octombrie 2023, Timișoara, Romania. **Indexat in baze de date: IEEE Xplore.**
44. Buțu, F.A., Lungu, R., **Lungu, M.**, Bărbulescu, L. *Software and Hardware Platform Using Dynamic Inversion and Neural Networks for the Launch Vehicles.* 27<sup>th</sup> IEEE International Conference on System Theory, Control and Computing (ICSTCC), 11-13 octombrie 2023, Timișoara, Romania. **Indexat in baze de date: IEEE Xplore.**
45. Sánchez Medel, J.A., Aldana, N., **Lungu, M.**, Flores, G. *Nonlinear Model Predictive Control of a Satellite Attitude Dynamics in  $SO(3)$ .* 27<sup>th</sup> IEEE International Conference on System Theory, Control and Computing (ICSTCC), 11-13 octombrie 2023, Timișoara, Romania (**2 citari**). **Indexat in baze de date: IEEE Xplore.**
46. **Lungu, M.**, Grigorie, T.L., Buțu, F.A., Wang, R. *Automatic Attitude Control of the Launch Vehicles by means of the Backstepping Control Method.* IEEE International Conference on Control, Automation and Diagnosis (ICCAD), 2024, Paris, Franta, pag. 1-6. **Indexat in baze de date: IEEE Xplore.**
47. Micu, M., **Lungu, M.**, Chen, M., Ebrahimpour, M. *Four-Stage Cascaded Control Scheme Based on Robust Nonlinear Dynamic Inversion Technique for Quadrotors.* 28<sup>th</sup> International Conference on System Theory, Control and Computing (ICSTCC), Sinaia, România, 10-12 octombrie 2024. DOI: 10.1109/ICSTCC62912.2024.10744662 (**1 citare**). **Indexat in baze de date: IEEE Xplore.**
48. Crăciunoiu, C., **Lungu, M.**, Chen, M., Ebrahimpour, M. *High-Gain Disturbance Observer-Based Control of Double Gimbal Control Moment Gyro Systems with Fast Finite-time Backstepping Sliding Mode Control.* 29<sup>th</sup> International Conference on System Theory, Control and Computing (ICSTCC), Cluj, România, 9-11 octombrie 2025. DOI: 10.1109/ICSTCC66753.2025.11240549. **Indexat in baze de date: IEEE Xplore.**
49. Golea, M.D., **Lungu, M.**, Wang, R., Voinea, D.G. *High-order Disturbance Observer-based Backstepping Sliding Mode Control of the Under-actuated Uncertain Quadrotor Unmanned Aerial Vehicles.* 29<sup>th</sup> International Conference on System Theory, Control and Computing (ICSTCC), Cluj, România, 9-11 octombrie 2025. DOI: 10.1109/ICSTCC66753.2025.11240397 (**1 citare**). **Indexat in baze de date: IEEE Xplore.**

**ARTICOLE PUBLICATE IN PROCEEDINGS-URI/  
REVISTE CNCSIS - CATEGORIA B+**

1. Grigorie, T.L., **Lungu, M.**, Edu, I.R., Obreja, R., *Closed loop high-precision accelerometer with smart control.* Scientific Bulletin of The “POLITEHNICA” University of Timisoara, Romania, Transactions on Automatic Control and Computer Science (**revista CNCSIS – categoria B+**), vol. 57, no. 71, 2012, ISSN 1224-600X. **Indexat in baze de date: Copernicus**

database, VINITI - All-Russian Institute of Scientific and Technical Information.

2. Lungu, M. *Rockets' stabilization control systems using differentiator or integrator gyroscopes*. Proceedings of the 10<sup>th</sup> International Conference on applied and Theoretical Electricity ICATE 2010, Craiova, 8-9 October, 2010. Publicat in „Analele Universitatii din Craiova”, Seria Inginerie Electrica (**revista CNCSIS – categoria B+**), no. 34, pag. 255-260. ISSN: 1842-4805. **Indexat in baze de date: Copernicus database.**
3. Lungu R., Lungu, M. *The study of the automatic system for the sealed cabins airflow regulation using indirectly action airflow regulators*. Proceedings of the 10<sup>th</sup> International Conference on applied and Theoretical Electricity ICATE 2010, Craiova, 8-9 October, 2010. Publicat in „Analele Universitatii din Craiova”, Seria Inginerie Electrica (**revista CNCSIS – categoria B+**), no. 34, pag. 261-266. ISSN: 1842-4805. **Indexat in baze de date: Copernicus.**
4. Grigorie, L., Lungu, M., Edu, I., Obreja, R. *Concepts for error modeling of miniature accelerometers used in inertial navigation systems*. Proceedings of the 10<sup>th</sup> International Conference on applied and Theoretical Electricity (ICATE), Craiova, 8-9 October, 2010. Publicat in „Analele Universitatii din Craiova”, Seria Inginerie Electrica (**revista CNCSIS – categoria B+**), no. 34, pag. 212-219. ISSN: 1842-4805 (**11 citari**). **Indexat in baze de date: Copernicus.**

**ARTICOLE PUBLICATE IN PROCEEDINGS-URI/  
REVISTE CNCSIS - CATEGORIA B**

1. Grigorie, L., Lungu, M., Edu, R.I., Obreja, R. *A tool for the aircrafts attitude determination*. Conferinta internationala NAV-MAR-EDU 2011, Constanta, 11-13 November 2011. Lucrare publicata in “Buletinul Stiintific al Academiei Navale”, ISSN 1454-864 (**revista CNCSIS – categoria B**).
2. Lungu, M. *Aircrafts' move stabilization using optimal criteria and linear state observers*. 9<sup>th</sup> International Conference on Applied and Theoretical Electricity ICATE 2008, Craiova, 9-11 October, 2008. Publicat in „Analele Universitatii din Craiova”, Seria Electrica (**revista CNCSIS – categoria B**), no. 32, pag. 267-272. ISSN: 1842-4805 (**1 citare**). **Indexat in baze de date: Copernicus.**
3. Lungu, R., Lungu, M. *Neuro – adaptive command systems for rockets' move*. 9<sup>th</sup> International Conference on Applied and Theoretical Electricity ICATE 2008, Craiova, 9-11 October, 2008. Publicat in „Analele Universitatii din Craiova”, Seria Inginerie Electrica (**revista CNCSIS – categoria B**), no. 32, pag. 261-266, ISSN: 1842-4805. **Indexat in baze de date: Copernicus.**
4. Lungu, R., Lungu, M. *On – line Parametric Identification and Discrete Optimal Command of Flight Objects*. 6<sup>th</sup> International Conference on Electromechanical and Power Systems – SIELMEN 2007, Chisinau, Republica Moldova; publicat in Rev. „Analele Universitatii din Craiova”, Seria Inginerie Electrica (**revista CNCSIS – categoria B**), nr. 31, 2007, vol.1, pag. 117-119, ISSN: 1842-4805. **Indexat in baze de date: Google Scholar.**
5. Lungu, R., Lungu, M. *Optimal Control of The Rocket's Lateral Deviation in Rapport with Equal Signal Line*. 6<sup>th</sup> International Conference on Electromechanical and Power Systems – SIELMEN 2007, Chisinau, Republica Moldova; publicat in Rev. „Analele Universitatii din Craiova”, Seria Inginerie Electrica (**revista CNCSIS – categoria B**), nr. 31, 2007, vol.1, pag. 120-123, ISSN: 1842-4805.
6. Lungu M. *Parameters Estimation on the Aircraft's Longitudinal and Lateral Move*. 8<sup>th</sup> International Conference on Applied and Theoretical Electricity ICATE 2006, Baile Herculane, October 26-28, 2006. Publicat in „Analele Universitatii din Craiova”, Seria Inginerie Electrica (**revista CNCSIS – categoria B**), nr. 30, pag. 370-376, ISSN: 1842-4805 (**1 citare**).

**ARTICOLE PUBLICATE IN PROCEEDINGS-URI/  
REVISTE CNCSIS - CATEGORIA D**

1. Sepcu, L., **Lungu, M.**, Calbureanu, M., *Thermic calculus of aircraft's cabin*, Publicat in „Analele Universitatii din Craiova”, Seria Mecanica (revista CNCSIS – categoria D), nr. 1/2009. ISSN: 1223-5296.
2. Sepcu, L., **Lungu, M.**, Malciu, R., *Mathematical model of the cabin and the bottom of the coating cabin's heat calculus*, Publicat in „Analele Universitatii din Craiova”, Seria Mecanica (revista CNCSIS – categoria D), nr. 1/2009. ISSN: 1223-5296.

**ARTICOLE PUBLICATE IN PROCEEDINGS-URILE  
UNOR CONFERINTE INTERNATIONALE**

1. Ciunel, S., Dumitru, N., Tica, B., Popa, D.L., Popa-Mitroi, Gh., **Lungu, M.**, *Analysis and dynamic human cranio-cervical complex movements*, 3th International Congress Science and Management of Automotive and Transportation Engineering, 23-26 Octombrie 2014, Craiova, Romania.
2. **Lungu, M.**, Lungu, R., Sepcu, L. *Nonlinear Adaptive System for the Automatic Control of Rockets' Motion in Vertical Plane*, International Conference in Military Technology Proceeding, ICMT'13, Brno, 2013, pag. 717-726. ISBN: 978-80-7231-917-6.
3. **Lungu, M.**, Lungu, R., Sepcu, L. *Adaptive Observer Based on an Orthogonal Neural Network for the Estimation of the Aircraft's Longitudinal Motion*, International Conference in Military Technology Proceeding, ICMT'13, Brno, 2013, pag. 727-734. ISBN: 978-80-7231-917-6.
4. Grigorie, T.L., **Lungu, M.**, Edu, I.R., Obreja, R. *Influences of the Miniaturized Inertial Sensors Errors on the Navigation Solution in a Bidimensional SDINS in Vertical Plane*. 4<sup>th</sup> International Conference Computational Mechanics and Virtual Engineering (COMEC 2011), Transilvania University of Brasov, 20 – 22 October 2011, Brasov, Romania (**5 citari**).
5. Grigorie, T.L., **Lungu, M.**, Edu, I.R., Obreja, R. *Analysis of the Miniaturized Inertial Sensors Stochastic Errors with the Allan Variance Method: A Review*. International Conference of Aerospace Sciences “AEROSPATIAL 2010”, Sectiunea 5, Bucharest 20 – 21 October, 2010, ISSN 2067-8622.
6. Grigorie, T.L., Corcau, J., **Lungu, M.**, Sandu, G.D. *Bi-Dimensional Position Detection Using TDOA Estimation through Cross Correlation of the Acoustic Signals. Part 2: Experimental testing and validation*. 2009 IEEE International Conference on ICT and Knowledge Engineering. December 1-2, 2009, Siam University, Bangkok, Thailand. ISBN: 978-1-4244-4513-4.
7. **Lungu, M.** *Dynamic Process Analysis and Linear Non-dimensional Model's Parameters Estimation of the Longitudinal Move of an Aircraft*. 5<sup>th</sup> International Conference on Advanced Engineering Design 11-14 June 2006, Prague, Czech Republic, CD - 5 pag., ISBN: 80-86059-44-8 (**1 citare**).
8. Lungu, R., Dinca, L., **Lungu, M.** *Dynamical Errors Calculus of Some Rockets Guidance Systems Using the Direct Method in Three Points*. The 3<sup>th</sup> International Conference on Advanced Engineering Design, Praga, 1-4 iunie 2003, CD - 6pag.
9. Lungu, R., Tudosie, A., **Lungu, M.** *Flight Optimization System Based on the Fuel Consumption Minimization Criteria*. The International “Community Army Technology Environment 2003”, 28-30 aprilie 2003, Military Academy in Brno, CD – 8 pag.
10. Lungu, R., Tudosie, A., **Lungu, M.** *Analysis of Non - linear Dynamic Regimes Using Structural Transformation*. Forth International Conference on Modelling and Simulation, 11-13 November 2002, Melbourne - Australia, CD - 4 pag.
11. Lungu, R., Dinca, L., **Lungu, M.** *Calculus Elements for Dimensioning Hydraulic Servo-Amplifiers*. The International Congress on “Simulators and Simulations - Powerful Means for Training of Individuals and Crews of Combat Systems”, Brno, 9-11 May 2001. Published in Military Academy in Brno Revue, No. 2, 12 pag.
12. Lungu, R., **Lungu, M.** *Neural Networks' Use for Off-line Identification of Flying Objects' Models Identification*. The XV-th International Symposium on Electrical Apparatus and Technologies, 31 May - 1 June 2007, Plovdiv, Bulgaria, vol. 2, pag. 57-62, ISBN: 978-954-9726-01-5. **Indexat in baze de date: Scopus.**

13. Grigorie, L., **Lungu, M.**, Georgescu, A. *Aircraft's Attitude Determination using Board Computer and Strap-down Gyros*. The 7-th International Conference of Applied and Theoretical Electricity ICATE 2004, Baile Herculane, October 14-15, In Proceedings, pag 539-542, ISBN: 973-8043-554-4.
14. Lungu, R., Tudosie, A., **Lungu, M.** *A Possibility of an Airplane's Lateral Movement's Control*. The 7-th International Conference of Applied and Theoretical Electricity ICATE 2004, Baile Herculane, October 14-15, pag 552-557.
15. Lungu, R., Corcau, J., **Lungu, M.** *Gyroscopic Stabilization System with Kalman – Bucy State Estimator*. XIII – th International Symposium on Electrical Apparatus and Tehnologies, 29-30 May 2003, Plovdiv, Bulgaria, pag. 129-134.
16. Lungu, R., **Lungu, M.** *Extremal System for Rockets' Guidance*. The XV–th International Symposium on Electrical Apparatus and Technologies, 31 May – 1 June 2007, Plovdiv, Bulgaria, vol. 2, pag. 63-68, ISBN: 978-954-9726-01-5. **Indexat in baze de date: Scopus.**
17. Lungu, R., Tudosie, A., **Lungu, M.** *Jet engine's temperature control unit*. *International Conference on Applied and Theoretical Electricity*. Craiova/Baile Herculane, October 17-19, 2002, pag 446-448, ISBN: 973-8043-169-9.
18. Lungu, R., Grigorie, L., **Lungu, M.** *Electronic Control System of the Aircraft Control Linkage Ratio*. The XII-th International Symposium on Electrical Apparatus and Technologies – SIELA. In Proceedings, volume I, pag. 197-205, Plovdiv, Bulgaria, 31 May – 1 June, 2001.
19. Lungu, R., **Lungu M.** *Extremal Stabilisation Systems for Rockets' Roll Move*. Conferinta internationala "Tendinte in dezvoltarea aplicatiilor ciberneticii", Baile Felix, 26-27 noiembrie 2004, CD – 6 pag.
20. Malciu, T., Sepcu L., **Lungu M.**, Malciu R. *The use of the four-bar mechanism to the air vehicles' flapping wing*. International Conference of Mechanical Engineering, ICOME 2010, Craiova, 28 - 30 April, 2010.
21. Malciu, T., Malciu R., Calbureanu, M., **Lungu M.**, Sepcu L. *Flexible manufacturing approach of a part in an integrated manufacturing environment*. International Conference of Mechanical Engineering, ICOME 2010, Craiova, 28 - 30 April, 2010.
22. **Lungu, M.** *Calculul vitezelor de apropiere si deviatie de la linia tinteii*. The International Symposium on Naval and Marine Education. NAV·MAR·EDU 2001, Section Military Sciences, pag. 113-119 in Proceedings; "Mircea cel Batran", Constanta, May 24 - 26, 2001.

**ARTICOLE PUBLICATE IN PROCEEDINGS-URILE**  
**UNOR CONFERINTE NATIONALE**

1. **Lungu, M.** *Sisteme de control a atitudinii avionului in miscarea de tangaj*. Sesiunea de comunicari stiintifice "Eficienta si calitate in invatamantul superior", Sibiu, 11 iunie 2004, CD – 8 pag., ISBN: 973-8088-87-9.
2. **Lungu, M.** *Teoria problemei cuadratice liniare (LQP) si aplicarea ei in cazul miscarii avionului solicitat la incovoiere*. Sesiunea de comunicari stiintifice "Eficienta si calitate in invatamantul superior", Sibiu, 11 iunie 2004, CD – 8 pag., ISBN: 973-8088-87-9.
3. Lungu, R., Constantinache, P., **Lungu, M.** *Analiza stabilitatii si sinteza unui sistem de comanda automata a unghiului de ruluu al aeronavelor*. Sesiunea jubiliara de comunicari stiintifice "130 de ani de invatamant de marina" Academia Navala "Mircea cel Batran", Constanta, 14-16 noiembrie 2002, pag 145-149.

## LISTA CONTRACTELOR DE CERCETARE CÂȘTIGATE ÎN COMPETIȚII NAȚIONALE

1. **Studiul eficienței unui sistem de climatizare - presurizare.** Nr. 27C/11.04.2005. Beneficiar: S.C. AGEX GENERAL IMPEX, Bucuresti, 05.04.2005-05.12.2005. Valoare contract: 2700 RON. Sursa de finantare privata.  
*Functia in cadrul contractului: Membru in colectivul de cercetare.*
2. **Sisteme, echipamente, tehnologii si tehnici avansate destinate creșterii gradului de protecție a infrastructurilor si obiectivelor de interes public si privat – AVPROT.** Program *PN-II – Parteneriate in domenii prioritare* (2007 - 2010), Nr. 81 – 005/14.09.2007. Domeniu „Spatiu si securitate”. Coordonator SEECTRON. Director de proiect: Conf. dr. ing. Adrian Coman – Academia Tehnica Militara, Bucuresti. Valoare contract: 1.319.171 RON. Sursa de finatare: M.E.C.T.S.  
*Functia in cadrul contractului: Membru in colectivul de cercetare.*
3. **Servoactuator hidrostatic pentru aeronave – SAHA.** Program *PN-II – Parteneriate in domenii prioritare* (2007 - 2010), Nr. 81 – 036/14.09.2007. Domeniu „Spatiu si securitate”. Coordonator INCAS – Bucuresti. Director de proiect: Dr. Ursu Ioan. Valoare contract: 1.163.305 RON. Sursa de finatare: M.E.C.T.S.  
*Functia in cadrul contractului: Membru in colectivul de cercetare.*
4. **Sistem aerian multifunctional cu grad ridicat de autonomie pentru supravegherea calitatii mediului - SAMASCAM.** Program: *PN-II – Parteneriate in domenii prioritare* (2008 - 2011). Nr. 82-072/12.09.2008. Domeniu „Spatiu si securitate”. Coordonator UCV – Craiova. Director de proiect: Prof. dr. ing. Romulus Lungu. Valoare contract: 2.000.000 RON. Sursa de finatare: M.E.C.T.S.  
*Functia in cadrul contractului: Membru in colectivul de cercetare.*
5. **Platforma aeriana pentru analiza calitatilor de zbor ale aeronavelor utilizand modele de similitudine si reducere la scara - PLATFUS.** Program: *PN-II – Parteneriate in domenii prioritare* (2008-2011). Nr. 82-091/11.09.2008. Domeniu „Spatiu si securitate”, Coordonator INCAS – Bucuresti. Director de proiect: Dr. ing. Floriean Mihai. Valoare contract: 2.000.000 RON. Sursa de finatare: M.E.C.T.S.  
*Functia in cadrul contractului: Membru in colectivul de cercetare.*
6. **Cercetari privind creșterea eficienței energetice in domeniul constructiilor civile–CEEDCC.** Program *IMPACT*. Nr. 1367. Coordonator UCV – Craiova. Director de proiect: Conf. dr. ing. Calbureanu Popescu Madalina Xenia. Valoare contract: 533.691 RON. Sursa de finantare: M.E.C.T.S.  
*Functia in cadrul contractului: Membru in colectivul de cercetare.*
7. **Cercetari privind amplificarea efectului Coanda.** Program *PN II - IDEI* (2008 - 2011). Nr. 712/19.01.2009. Coordonator UCV – Craiova. Director de proiect: Conf. dr. ing. Preotu Octavian. Valoare contract: 299.952 RON. Sursa de finantare: M.E.C.T.S.  
*Functia in cadrul contractului: Membru in colectivul de cercetare.*
8. **Algoritmi si structuri pentru identificarea, estimarea si conducerea zborului aeronavelor si rachetelor -** Bursa de cercetare postdoctorala din fonduri europene (aprilie 2010 – aprilie 2013). Cod contract: POSDRU/89/1.5/S/61968. Domeniul major de interventie 1.5 „Programe doctorale si postdoctorale in sprijinul cercetarii”. Coordonator UCV – Craiova.  
Sursa de finantare: Contract cofinantat din Fondul Social European, prin Programul Operational Sectorial Dezvoltarea Resurselor Umane 2007 – 2013.  
*Functia in cadrul contractului: Bursier post-doctorand (se echivaleaza cu director de grant).*
9. **Navigatori inertiali strap-down de inalta precizie, bazati pe conectarea si integrarea adaptiva a nano si micro senzoriali in rețele low-cost, cu grad ridicat de**

**redundanta.** Program *PN II – Resurse Umane* (2010 - 2013) - Proiecte de cercetare pentru stimularea constituirii de tinere echipe de cercetare independente - tip TE. Coordonator UCV – Craiova. Director de proiect: Conf. dr. ing. Grigorie Lucian Teodor. Valoare contract: 727.725 RON. Sursa de finantare: M.E.C.T.S.

**Functia in cadrul contractului: Membru in colectivul de cercetare.**

10. **High-precision micro and nano smart sensors for space inertial navigation applications.** Programul de Cercetare - Dezvoltare - Inovare - Tehnologie Spatiale si Cercetare Avansata – *STAR* în colaborare cu ESA (European Space Agency) – 2012-2015. Coordonator: UCV – Craiova. Director de proiect: Conf. dr. ing. Lucian Grigorie. Sursa de finantare: Ministerul Educatiei și ESA.

**Functia in cadrul contractului: Membru cheie (Key member).**

11. **COMISIS - Computational methods in scientific investigation of space.** Programul de Cercetare-Dezvoltare-Inovare-Tehnologie Spatiale si Cercetare Avansata – *STAR* în colaborare cu ESA (European Space Agency) – 2013-2016. Coordonator: Universitatea de Vest, Timisoara. Director de proiect: Prof. dr. Vulcanov Dumitru. Valoare contract: 1.000.000 RON. Sursa de finantare: Ministerul Educatiei și ESA.

**Functia in cadrul contractului: Responsabil proiect (PI – Universitatea din Craiova).**

12. **STS - Sistem de testare suborbitală, dezvoltare infrastructura de lansare, teste in zbor.** Programul PN II – Parteneriate în domeniul prioritare – 2014-2016. Coordonator: Universitatea Politehnica Bucuresti. Director de proiect: Prof. dr. ing. Chelaru Teodor Viorel. Valoare contract: 1.743.473 RON. Sursa de finantare: UEFISCDI (Unitatea Executivă pentru Finanțarea Învățământului Superior, a Cercetării, Dezvoltării și Inovării).

**Functia in cadrul contractului: Responsabil proiect (P5 – Universitatea din Craiova).**

13. **Arhitecturi moderne pentru controlul aterizării aeronavelor.** Programul PN II – Tinere Echipe – 2015-2017. Coordonator: Universitatea din Craiova. Valoare contract: 521.695.000 RON. Sursa de finantare: UEFISCDI (Unitatea Executivă pentru Finanțarea Învățământului Superior, a Cercetării, Dezvoltării și Inovării).

**Functia in cadrul contractului: Director de proiect**

14. **Sisteme integrate de navigatie INS/GPS de inalta precizie si cost redus, bazate pe algoritmi inteligenti de fuziune a datelor.** Programul PN II – Tinere Echipe – 2015-2017. Coordonator: Universitatea din Craiova. Director de proiect: Conf. dr. ing. Grigorie Lucian. Valoare contract: 550.000.000 RON. Sursa de finantare: UEFISCDI (Unitatea Executivă pentru Finanțarea Învățământului Superior, a Cercetării, Dezvoltării și Inovării).

**Functia in cadrul contractului: Membru in colectivul de cercetare**

15. **Demonstrator for direct Coanda effect amplification.** Program PN III – 2017-2018. Proiect experimental demonstrativ. Director de proiect: Conf. dr. ing. Preotu Octavian. Valoare contract: 600.000 Ron. Sursa de finantare: UEFISCDI (Unitatea Executivă pentru Finanțarea Învățământului Superior, a Cercetării, Dezvoltării și Inovării).

**Functia in cadrul contractului: Membru in colectivul de cercetare**

16. **COMASS - Computational Methods in Astrophysics and Space Sciences.** Programul de Cercetare-Dezvoltare-Inovare-Tehnologie Spatiale si Cercetare Avansata – *STAR* în colaborare cu ESA (European Space Agency) – 2017-2018. Coordonator: Universitatea de Vest, Timisoara. Director de proiect: Prof. dr. Vulcanov Dumitru. Valoare contract: 693.898 RON. Sursa de finantare: Ministerul Cercetarii si Inovarii și ESA.

**Functia in cadrul contractului: Responsabil proiect (PI – Universitatea din Craiova).**

17. **MILADEE - Micro Launcher based on Detonation Engine.** Programul de Cercetare-Dezvoltare-Inovare-Tehnologie Spatiale si Cercetare Avansata – *STAR* în colaborare cu ESA (European Space Agency) – 2017-2018. Coordonator: Institutul National de Cercetare Dezvoltare Turbomotoare (COMOTI). Director de proiect: Ing. Porumbel Ionut. Sursa de finantare: Ministerul Cercetarii si Inovarii și ESA.

*Functia in cadrul contractului: Membru in colectivul de cercetare*

18. **HYPOPS - Hybrid power source for pseudo-satellites.** Programul de Cercetare-Dezvoltare-Inovare-Tehnologie Spatiale si Cercetare Avansata – *STAR* în colaborare cu ESA (European Space Agency) – 2017-2018. Coordonator: Universitatea din Craiova. Director de proiect: S.l. dr. Ing. Corcau Jenica. Sursa de finantare: Ministerul Cercetarii si Inovarii și ESA.  
*Functia in cadrul contractului: Membru in colectivul de cercetare*
19. **Neural network based hardware platform for sub-orbital and orbital space vehicles.** Program PN III – 2017-2018. Proiect experimental demonstrativ. Director de proiect: Prof. dr. ing. Lungu Romulus. Valoare contract: 475.000 lei. Sursa de finantare: UEFISCDI (Unitatea Executivă pentru Finanțarea Învățământului Superior, a Cercetării, Dezvoltării și Inovării).  
*Functia in cadrul contractului: Membru in colectivul de cercetare*
20. **Tehnologii emergente pentru contracararea efectelor induse de curgerile turbulente ale mediilor fluide (CONTUR).** Program PN III – 2018-2020. Proiecte complexe realizate în consorții CDI (PCCDI). Coordonator: Institutul de Stiinte Spatiale - Filiala INFLPR. Director de proiect: Fiz. dr. Aurelian Radu. Valoare contract: 4.061.008 lei. Sursa de finantare: UEFISCDI (Unitatea Executivă pentru Finanțarea Învățământului Superior, a Cercetării, Dezvoltării și Inovării).  
*Functia in cadrul contractului: Responsabil partener proiect component (Univ. din Craiova).*
21. **Camera de detonatie pulsatorie.** Proiect experimental demonstrativ, nr. 454/2020 (23/10/2020 - 22/10/2022). Coordonator: Institutul national de cercetare-dezvoltare turbomotoare (COMOTI). Sursa de finantare: UEFISCDI (Unitatea Executivă pentru Finanțarea Învățământului Superior, a Cercetării, Dezvoltării și Inovării). Director Proiect: Dr.ing. Ionut Porumbel.  
*Functia in cadrul contractului: Membru in colectivul de cercetare*
22. **Platforma software si hardware bazata pe controlul de tip backstepping si sistem de navigatie inertiala de tip strap-down pentru vehicule spatiale.** Proiect experimental demonstrativ, nr. 665PED/2022 (21/06/2022 - 20/06/2024). Coordonator: Universitatea din Craiova. Sursa de finantare: UEFISCDI (Unitatea Executivă pentru Finanțarea Învățământului Superior, a Cercetării, Dezvoltării și Inovării). Valoare contract: 598.795 lei.  
*Functia in cadrul contractului: Director de proiect*

## LISTA CONTRACTELOR DE CERCETARE CÂȘTIGATE ÎN ALTE COMPETIȚII

1. **Model biomecanic virtual inovativ pentru testarea comportamentului cinematic și dinamic al sistemului osos uman în situații normale accidentale sau patologice.** Competiția internă de granturi – proiecte interdisciplinare, 2013-2014. Valoare contract: 24000 RON. Director de proiect: Conf. dr. ing. Popa Dragoș – Facultatea de Mecanică, Universitatea din Craiova. Sursa de finantare: Fondul de cercetare al Universității din Craiova.  
*Functia in cadrul contractului: Membru in colectivul de cercetare.*
2. **Cercetări privind îmbunătățirea biofidelității manechinelor de testare a accidentelor rutiere, de optimizare a elementelor și dispozitivelor prin implementarea materialelor noi, inteligente.** Competiția internă de granturi – proiecte de cercetare avansată, 2013-2014. Valoare contract: 12000 RON. Director de proiect: Ș.l. dr. ing. Ciunel Ștefănița – Facultatea de Mecanică, Universitatea din Craiova. Sursa de finantare: Fondul de cercetare al Universității din Craiova.  
*Functia in cadrul contractului: Membru in colectivul de cercetare.*