List of papers

Prof. dr. ing. Mihai Olimpiu Tătar

Relevant papers

1. **Tătar, M.O.**, Mândru, D., Ardelean, I., - Development of Mobile Minirobots for In-Pipe Inspection Tasks, *Mechanika*, Nr. 6(68), 2007, pp. 60-64, ISSN 1392-1207. **[ISI**]

2. Aluţei, A., **Tătar, M.O.,** Cirebea, C., - Model and test of a modular inspection robotic system, *Mechanika*, Nr.4(84), 2010, pp. 58-61, ISSN 1392-1207. **[ISI**]

3. **Tătar, M.O.,** Aluţei A., Mândru, D., - In-pipe Modular Robotic Systems for Inspection and Exploration**,** *Solid State Phenomena*, Vol. 164, 2010, pp. 425-430, ISSN 1662-9779, doi:10.4028/www.scientific.net/SSP.164.425. [**Web of Knowledge / SCOPUS]**

4. **Tătar, M.O.**, Aluţei A., Cirebea C., - In Pipe Modular Robotic System for Moving Inside of Pipelines Part 1, *Solid State Phenomena*, Vol. 166 - 167, 2010, pp. 403-408, Vol. Robotics and Automation Systems, Trans Tech Publications, Switzerland, ISBN -13 978-3-908451-88-4, doi:10.4028/www.scientific.net/SSP.166-167.403. [**Web of Knowledge / SCOPUS]**

5. Aluţei, A., **Tătar, M.O.,** Cirebea C., - In Pipe Modular Robotic System for Moving Inside of Pipelines Part 2, *Solid State Phenomena*, Vol. 166 - 167, 2010, pp. 409-414, vol. Robotics and Automation Systems, Trans Tech Publications, Switzerland, ISBN - 13 978-3-908451-88-4, doi:10.4028/www.scientific.net/SSP.166-167.409. [**Web of Knowledge / SCOPUS**]

6. **Tătar, M.O.**, Cirebea C, Mândru, D., - The Development of an In-Pipe Minirobot for Various Pipe Sizes, *2012 IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR 2012)*, May 24-27, 2012, Cluj-Napoca, pp. 443-448, ISBN 978-1-4673-0703-1. **[ISI Proceedings / IEEEXplore / SCOPUS]**

7. **Tătar, M.O.**, Cirebea C, Mândru, D., Chetran, B., - Synchronous Drive Omnidirectional Minirobot, *Applied Mechanics and Materials*, Vol. 162 (2012), pp. 294-301, Trans Tech Publications, Switzerland, ISBN 13 978-3-03785-395-5, doi:10.4028/www.scientific.net/AMM.162.294. [**Web of Knowledge / SCOPUS**]

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9. **Tătar, M.O.,** Mândru, D., Jişa, S., - Development of the Microrobot for Indoor Pipeline, *Applied Mechanics and Materials*, Vol. 658, pp 724-729, 2014 Trans Tech Publications, Switzerland, doi:10.4028/www.scientific.net/AMM.658.724. [**SCOPUS**]

10. **Tătar, M.O.,** Popovici, C., Mândru, D., Ardelean, I., Pleşa, A., - Design and Development of an Autonomous Omni-Directional Mobile Robot with Mecanum Wheels, *The 2014 IEEE International Conference on Automation, Quality and Testing, Robotics, AQTR 2014*

- THETA 19, May 22-24, 2014, Cluj-Napoca, Romania; pp. 1-6, ISBN: 978-1-4799-3732-5, doi: 10.1109/AQTR.2014.6857869. [**ISI Proceedings/ IEEEXplore/SCOPUS]**

1. PhD thesis

„Studies and research regarding the actuation systems of the microrobots" PhD supervisor: Prof. dr. ing. Viorel Handra-Luca, Prof. dr. ing. Vistrian Măţieş, Technical University of Cluj-Napoca, Public presentation: 11 may 2004, distinction *MAGNA CUM LAUDE*

2. Patents

1. **Tătar, M.O.,** Aluţei, A., Cirebea, C., - *Self-propelled modular robot*, nr. 127090/ 30 01 2013.
2. Mândru, D., Chetran, B., Noveanu, S., **Tătar, M.O.** - *Modular upper limb exoskeleton, with applications in rehabilitation*, Patent application, nr. A / 00856, 13 11 2014.

3. Books and book chapters

3.1 Books

1. Măţieş, V., Mândru, D., **Tătar, M.O.,** Măţieş, M., Csibi, V., - *Actuators in mechatronics (in romanian)*, published by Mediamira, Cluj-Napoca, 2000, ISBN 973-9358-16-0, 309 pages.
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4. Mândru, D., Crişan, R., **Tătar, M.O.,** Noveanu, S., - *Actuators in Precision Mechanics and Mechatronics (in romanian)*, published by Alma Mater, Cluj-Napoca, 2004, ISBN 973-8397-69-3, 472 pages
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3.2 Book chapters

1. **Tătar, M.O.,** Aluţei, A., Mândru, D., Lungu, I., - *Minirobots with adaptable structure*, Chapter 21 in DAAAM International Scientific Book 2009, Vol. 8, pp. 187-196, B. Katalinic (Ed.), Published by DAAAM International, Vienna, Austria, ISBN 978-3-901509-69-8, ISSN 1726-9687, DOI: 10.2507/daaam.scibook.2009.21. [**Web of Knowledge]**
2. **Tătar, M.O.,** Stan, S, Teutan E., Brisan, C., - Education and Research in Robotics, in volume: Mechatronic platforms for education and research, Editor: Maties Vistrian, Todesco Publishing, Cluj-Napoca, 2009, ISSN 978-97-7695-79-6, pp. 173-182.
3. **Tătar, M.O.,** Aluţei, A., Mândru, D., - *Mobile minirobots structures*, The 10th IFToMM International Symposium on Science of Mechanisms and Machines, SYROM'09, October 12 - 15, 2009, Braşov, Romania, pp. 185-192. in Springer GmbH, I., Vişa (Ed.) ISBN 978-90-481-3521-9, DOI: 10.1007/978-90-481-3522-6_14. [**Web of Knowledge / SpringerLink**]

4. **Tătar, M.O.,** Cirebea, C., Aluţei A., - *The modular robotic system for in-pipe inspection*, The 3rd European Conference on Mechanism Science EUCOMES 2010, 14-18 September 2010, Technical University of Cluj-Napoca, Romania, published in New Trends in Mechanisms Science: Analysis and Design, Mechanisms and Machine Science, Vol. 5, Part 10, D. Pislă et al. eds., pp. 583-591, Springer GmbH, 2010, DOI 10.1007/978-90-481-9689-067, ISBN 978-90-481-9688-3. [**SpringerLink/SCOPUS**]

5. **Tătar, M.O.,** Cirebea C., Aluţei A., Mândru, D., - *Minirobots with adaptable structure for in pipe inspection*, MECHATRONIC SYSTEMS AND MATERIAL 2010, SELECTED PAPERS, Eds. E. Macha, R. Pawliczek, Opole University of Technology, Opole, Poland, 2011, ISBN 978-83-62736-16-4, pp. 229-241.

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3.3 Guiding laboratory work (Laboratory notebook)

1. **Tătar, M.O.,** - *Mechanical engineering elements. Laboratory guide – part. 1*, UT PRESS, Cluj-Napoca, 2013, ISBN 978-973-662-846-7.

4. Papers published in indexed journals

4.1. Papers published in Thomson ISI (SCI) indexed journals

1. **Tătar, M.O.**, Mândru, D., Ardelean, I., - Development of Mobile Minirobots for In-Pipe Inspection Tasks, *Mechanika*, nr. 6(68), 2007, pp. 60-64, ISSN 1392-1207.
2. Aluţei, A., **Tătar, M.O.,** Cirebea, C., - Model and test of a modular inspection robotic system, *Mechanika*, Nr.4(84), 2010, pp. 58-61, ISSN 1392 – 1207.

4.2. Papers published in journals covered by International Databases

1. Mândru, D., Mătieş, V., **Tătar, M.O.,** - Research concerning engineering education in biomechatronic field, Mecatronica, nr. 4/2004, pp. 45-50, ISSN 1583-7653. **[Google Scholar]**
2. **Tătar, M.O.,** Mătieş, V., Mândru, D., - Design of miniaturized inchworm mobile systems, Mecatronica, nr. 4/2004, pp. 81-86, ISSN 1583-7653. **[Google Scholar]**
3. **Tătar, M.O.,** Mândru, D., Crişan, R., - Modeling mobile wheeled mini and microrobots, *Annals of the Oradea University, Fascicle of Management and Technological Engineering*, vol. IV (XIV), CD-ROM Edition, pp. 442-447, 2005, ISSN 1583-0691. **[Google Scholar]**
4. Mândru, D., Rusu, C., **Tătar, M.O., -** Device for upper limb kinethoterapy, *Annals of the Oradea University, Fascicle of Management and Technological Engineering*, vol. IV (XIV), CD-ROM Edition, pp. 392-395, 2005, ISSN 1583-0691. **[Google Scholar]**
5. **Tătar, M.O.,** Mândru, D., Lungu, I., - Three-Wheeled Minirobots, *Robotica & Management*, Vol. 11, No. 2, pp.17-20, December 2006, ISSN 1453-2069. [**IndexCopernicus]**
6. Mândru, D., **Tătar, M.O.,** Noveanu, S., - Interactive System for Learning the Braille Alphabet and the Fingerspelling Signs, *Annals of the University of Oradea, Fascicle of*

Management and Technological Engineering, CD-ROM Edition, vol. V(XV), pp. 631-638, 2006, ISSN 1583-0691. **[Google Scholar]**

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8. **Tătar, M.O.**, Mândru, D., Mateiu, A. - Design of Omnidirectional Minirobots, Mecatronica, Nr. 2, 2006, ISSN 1583-7653. **[Google Scholar]**

9. Mândru, D., Lungu, I., Crișan, S., **Tătar, M.O.**, - Shape Memory Alloy Multi-Actuator, Mecatronica, Nr. 2, 2006, ISSN 1583-7653. **[Google Scholar]**

10. Mândru, D., Noveanu, S., **Tătar, M.O.,** - Educational Tool for Children with Sensorial Disabilities, *Acta Electrotehnica*, Vol. 48, no. 4, 2007, pp. 7-12, ISSN 1841-3323. **[Google Scholar]**

11. **Tătar, M.O.**, Mândru, D., Breaz, V., - Miniature Robot with Applications in Biomedical Engineering, *Annals of the University of Oradea, Fascicle of Management and Technological Engineering*, CD-ROM Edition, Vol. VI (XVI), 2007, pp. 1057-1062, ISSN 1583-0691. **[Google Scholar]**

12. Mândru, D., Lungu, I., Mociran, A., **Tătar, M.O.,** - Development of a Mechatronic Blind Stick, *Annals of the University of Oradea, Fascicle of Management and Technological Engineering*, CD-ROM Edition, Vol. VI (XVI), 2007, pp. 797-802, ISSN 1583-0691. **[Google Scholar]**

13. Mândru, D., Lungu, I., **Tătar, M.O.,** - Connection Mechanisms for Modular Self-Reconfigurable Robots, *acta Technica Napocensis, Series: Applied Mathematics and Mechanics*, 50, Vol. III, 2007, pp. 139 – 144, ISSN 1221-5872. **[Google Scholar]**

14. **Tătar, M.O.**, Mândru, D., - Research Concerning Mobile Mini and Microrobots, în Vol. *Machine Design* (Ed. Sinisa Kuzmanovic), pp. 163-166, University of Novi Sad, ISBN 978-86-7892-105-6, 2008. **[Google Scholar]**

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18. **Tătar, M.O.,** Stan, S., Mândru, D., - The modular robotic systems, *PAMM Online Journal*, Vol. 8, issue 1, pp. 10311-10312, 2009, doi: 10.1002/pamm200810311. [**WILLEY**]

19. **Tătar, M.O.,** Aluţei, A., Mândru, D., - Driving module for modular robotic system, in Vol. *Machine Design 2009*, pp. 147-150, Ed. S. Kuzmanovic, University of Novi Sad, 2009, ISSN 1821-1259. [**IndexCopernicus / Google Scholar]**

20. Mândru, D., Lungu, I., Noveanu, S., **Tătar, M.O.**, - Analysis of Time Response of Shape Memory Alloy Actuators Modular System, *Solid State Phenomena*, Vol.147-149, 2009, pp. 726-731, ISSN 1012-0394, doi:10.4028/3-908454-04-2.726. [**SCOPUS]**

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23. Cirebea, C., **Tătar, M.O.,** Mătieş V., - The Model and Simulation of a Mini Robot with Active Structure Adaptable to the Pipe Diameter, *Archive of Mechanical Engineering*, Vol. LVII, Nr. 4 / 2010 pp. 383-391, doi 10.2478/v10180-010-0021-z, ISSN 0004-0738. [**VERSITA/ Google Scholar**]

24. Aluţei, A., **Tătar, M.O.,** Mătieş, V., - The development of a modular inspection system, *Archive of Mechanical Engineering*. Vol. 58, Issue 1, Pages 91–102, ISSN (Print) 0004-0738, DOI: 10.2478/v10180-011-0006-6, April 2011. [**VERSITA/ Google Scholar**].

25. Aluţei, A., Mătieş, V., **Tătar, M.O.,** Cirebea, C., - Testing of a mechatronic inspection system's prototype *Romanian Review Precision Mechatronics, Optics & Mechatronics*, nr. 39 / 2011, pp. 153-156, ISSN 1584-5982. **[SCOPUS / Google Scholar]**

26. Chetran, B., Mândru, D., Noveanu, S., **Tătar, M.O.**, Răducanu, G., - *Electrorheological Fluid Brake for Active Physiotherapy Systems*, Acta Universitatis Sapientiae – Electrical and Mechanical Engineering, Vol. 4, 2012. **[Google Scholar]**

27. Popovici, V.C., **Tătar, M.O.,** Cirebea, C., - Development of an omnidirectional robot with mecanum wheels, *Robotica & Management, 2012*, ISSN 1453-2069, Vol. 17, No. 1, June 2012, pp. 37 – 40. [**IndexCopernicus]**

28. Szlenka, T. **Tătar, M.O.,** Cirebea, C., - Design and implementation of an amphibian robot with interchangeable locomotive system, *Robotica & Management, 2012*, ISSN 1453-2069, Vol. 17, No. 1, June 2012, pp. 41 – 46. [**IndexCopernicus]**

29. Chetran, B., Noveanu, S., **Tătar, M.O.,** Răducanu, G., Mândru, D., - Modelling of the Upper Limb Wearable Exercisers, *Annals of the University of Craiova, Series: Automation, Computers, Electronics and Mechatronics*, Vol. 10(37), No.1, pp. 8- 12, 2013, ISSN 1841-0626. **[Google Scholar]**

30. **Tătar, M.O.,** Mândru, D., Noveanu, S., Chetran, B., - The kinematic model of 3 DOF rehabilitation robotic exoskeletons, *Robotica & Management*, ISSN 1453 2069, Vol. 18, nr. 2, 2013, pp. 26-31. **[Index Copernicus]**

31. Cirebea, C. I., **Tătar, M.O.,** - Development of a modular robotic platform, *Robotica & Management*, ISSN 1453 2069, Vol. 19, nr. 2, 2014, pp. 17-22. **[Index Copernicus]**

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33. **Tătar, M.O.,** Haiduc, F, Mândru, D., - Design of the synchro-drive omnidirectional minirobot, *Solid State Phenomena*, *Vols. 220-221*, pp. 161-167, Trans Tech Publications, Switzerland, 2015, doi:10.4028/www.scientific.net/SSP.220-221.161. **[SCOPUS]**

34. **Tătar, M.O.,** Ardelean, I., Mândru, D., - Adaptable Robots Based on Linkage Type Mechanisms for Pipeline Inspection Task, *Applied Mechanics and Materials*, Vol. 762, pp. 163-168, 2015, Trans Tech Publications, Switzerland, doi:10.4028/www.scientific.net/AMM.762.163. [**SCOPUS**]

5. Papers published in proceedings of the main international conferences

5.1 ISI indexed papers (http://www.webofknowledge.com/)

1. Mândru, D., Mătieş, V., **Tătar, M.O.,** - The Study of Robotic Actuators Based on Shape Memory Helical Springs, *Proceedings of the Eighth International Symposium on Measurement and Control in Robotics (ISMCR98)*, Praga, 1998, pp. 397-402. **[ISI Proceedings]**
2. Mândru, D., Mătieş, V., Roş, V., **Tătar, M.O.,** - New Trends in Biomechatronic Engineering Education, The 1st International Conference on Mechatronic Systems and Materials Location: Vilnius, Lithuania, October 20-23, 2006, published in *Solid State Phenomena* Vol.113, 2006, pp. 609-614, IDS Number: BES74, ISSN: 1012-0394, doi:10.4028/3-908451-21-3.609. [**ISI Proceedings / SCOPUS]**
3. **Tătar, M.O.,** Mândru, D., Roş, V., - Agricultural pipe networks maintenance using robotic systems, *Proceedings of the 35 International Symposium Actual Tasks on Agricultural Engineering*, 19-23. February 2007, Opatija, Croatia, pp. 187-197, ISSN 1333-2651. **[ISI Proceedings]**
4. **Tătar, M.O.**, Mândru, D., - Wheeled Minirobots, *Proceedings of the X International Conference on the Theory of Machines and Mechanisms*, Liberec, Cehia, pp. 623-628, 2-4 Sept., 2008, ISBN 978 80 7372 370 5. [**ISI Proceedings**]
5. **Tătar, M.O.**, Mândru, D., Design of the Mobile Minirobots Structures, *Proceedings of the IEEE International Conference on Automation, Quality and Testing, Robotics* (AQTR 2008), May 22-25, 2008, Cluj-Napoca, Vol. 2, pp. 337-340, ISBN 978-1-4244-2577-8. [**ISI Proceedings /IEEEXplore/SCOPUS**]
6. **Tătar, M.O.,** Mândru, D., Aluţei, A., Lungu, I., - Minirobots with adaptable structure, *The 19th International DAAAM Symposium "Intelligent Manufacturing & Automation: Focus on Next Generation of Intelligent Systems and Solutions* " 22-25th October 2008, Trnava, Slovakia, ISBN 978-3-901509-68-1, ISSN 1726-9679, pp. 1365-1366. [**ISI Proceedings/SCOPUS**]
7. Mândru, D., Lungu, I., Noveanu, S., **Tătar, M.O.,** - New actuation systems based on shape memory alloys, *Proceedings of the 4th International Conference Advanced Topics in Optoelectronics, Microelectronics and Nanotehnologies, ATOM-N* 2008, ISBN 978-973-755-387-4, SPIE Proceedings Vol. 7297, 72970P, doi:10.1117/12.823635. [**ISI Proceedings]**
8. Aluţei, A., Vaida, A., Mândru, D., **Tătar, M.O.,** - Development of an active upper-limb orthosis, *Proceedings Vol. 26, International Conference Advancements of Medicine and Health Care through Technology, MediTech 2009*, Cluj - Napoca, Romania, September 23 - 26, 2009, pp. 405-408, 2009, ISSN 1680-0737, ISBN 978-3-642-04291-1, DOI 10.1007/978-3-642-04292-8. [**ISI Proceedings/SCOPUS]**
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10. **Tătar, M.O.,** Aluţei, A., Mândru, D., - In-pipe Modular Robotic Systems for Inspection and Exploration, The 5th International Conference on Mechatronic Systems and Materials Location: Vilnius, Lithuania, October 22-25, 2009, published in *Solid State Phenomena*, Vol. 164, 2010, pp. 425-430, ISSN: 1662-9779, doi:10.4028/www.scientific.net/SSP.164.425. [**ISI Proceedings /SCOPUS]**

11. **Tătar, M.O.**, Aluţei, A., Cirebea, C., - In Pipe Modular Robotic System for Moving Inside of Pipelines Part 1, The 5th International Conference on Robotics, Cluj-Napoca, Romania, September 23-25, 2010, published in *Solid State Phenomena*, Vol. 166 - 167, 2010, pp. 403-408, Vol. Robotics and Automation Systems, Trans Tech Publications, Switzerland, ISBN -13 978-3-908451-88-4, doi:10.4028/www.scientific.net/SSP.166-167.403. [**ISI Proceedings /SCOPUS]**

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13. Chetran, B., Mândru, D., Noveanu, S., **Tătar, M.O.,** - Linear Active / Passive Upper Limb Exerciser, *International conference on Advancements of Medicine and Health Care, through Technology, MediTech 2011*, 29.08 – 02.09. 2011, Cluj-Napoca, (S. Vlad and R.V. Ciupa (Eds.): MEDITECH 2011, IFMBE Proceedings 36, pp. 152–155, 2011). [**ISI Proceedings / SpringerLink]**

14. **Tătar, M.O.**, Cirebea, C., Mândru, D., Chetran, B., - Synchronous Drive Omnidirectional Minirobot, MTM & Robotics 2012- The Joint International Conference of the XI International Conference on Mechanisms and Mechanical Transmissions (MTM) and the International Conference on Robotics (Robotics'12), Clermont-Ferrand, France, June 6-8, 2012, published in *Applied Mechanics and Materials*, Vol. 162 (2012), pp. 294-301, Trans Tech Publications, Switzerland, ISBN- 13: 978-3-03785-395-5, doi:10.4028/www.scientific.net/AMM.162.294. [**ISI Proceedings / SCOPUS**]

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16. Noveanu, S., Chetran, B., **Tătar, M.O.,** Răducanu, G., Mândru, D., - Structural Synthesis of the Upper Limb Modular Wearable Exerciser, Proceedings of the 17th International Conference on System Theory, Control and Computing (ICSTCC-2013), Sinaia, Romania, 2013, pp. 693-697, IEEE Catalog Number CFP1336P-CDR, ISBN 978-1-4799-2228-4. **[ISI Proceedings / IEEE Xplore]**

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5.2 Papers covered by International Databases (SCOPUS, IEEEXplore, etc)

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