

LISTA DE LUCRĂRI

a. Lista de lucrări relevante.

1. **O.G. Moldovan**, R.V Ghincu et al. (2022). *Fault detection in three phase induction motor based on data aquisition and ANN based data processing*, International Journal of Computers Communications & Control, 17(3), 4788, 2022. <https://doi.org/10.15837/ijccc.2022.3.478>"
2. **Ovidiu Gheorghe Moldovan** , Simona Dzitac , Ioan Moga , Tiberiu Vesselenyi and Ioan Dzitac - Tool-Wear Analysis Using Image Processing of the Tool Flank, Symmetry 2017, 9(12), 296; doi:10.3390/sym9120296 Published: 30 November 2017"
3. Kuantama E, **Moldovan OG**, Țarcă I, Vesselényi T, Țarcă R. *Analysis of quadcopter propeller vibration based on laser vibrometer*. Journal of Low Frequency Noise, Vibration and Active Control. October 2019;146134841986629. doi:10/ggcgtt
4. Dan Noje, Radu Tarca, Nicolae Pop, Alin Moldovan and **Ovidiu Moldovan**, *Automatic system based on Riesz MV-algebras, for predictive maintenance of bearings of industrial equipment using temperature sensors*, 2022 9th International Conference on Computers Communications and Control (ICCCC) indexed in Advances in Intelligent Systems and Computing Series
5. Tiberiu Vesselenyi , Alexandru Rus, Tudor Mitran, Bogdan Tataru, **Ovidiu Moldovan**, *Vehicle Driver Drowsiness Monitoring and Warning System*, CONAT 2016 International Congress of Automotive and Transport Engineering, Pages 873-880, Print ISBN 978-3-319-45446-7
6. O. A. Moldovan, Țarcă Radu Cătălin, **O. G. MOLDOVAN**, and R. GHINCUI, "REWIEV OF OPTICAL FIBER TECHNOLOGY MEASUERMENT SYSTEMS AND APPLICATION," Nonconventional Technologies Review, vol. 25, no. 1, pp. 44–52, Jan. 2021.
7. **Ovidiu Gheorghe Moldovan**, Alin Octavian Moldovan, Radu Catalin Tarca, Dan Craciun, Determination of the calibration equation for FBG temperature sensors, Recent Innovations in Mechatronics, Vol. 8 No. 1 (2021)
8. Radu Tarca, **Ovidiu Moldovan**, Csokmai Lehel Szabolcs, *Simulating the Control of a Scara Robot by Means of a 3D Hand Position Sensing System*, Solid State Phenomena (Volumes 166 - 167), pag. 433-438, DOI: 10.4028/www.scientific.net /SSP. 166-167.433
9. Lehel Csokmai, **Ovidiu Moldovan**, Ioan Tarca, Radu Tarca, *Software Framework for Advanced Error Troubleshooting in Flexible Manufacturing System*, Applied Mechanics and Materials (Volumes 397 - 400), pag.21-24, DOI: 10.4028/www.scientific.net/AMM.397-400.21
10. Lehel Csokmai, **Ovidiu Moldovan**, Ioan Tarca, Radu Tarca, *A Comprehensive Approach of Advanced Error Troubleshooting in Intelligent Manufacturing Systems*, Applied Mechanics and Materials (Volume 404), pag. 631-634, DOI: 10.4028/www.scientific.net/AMM.404.631

b. Teza de doctorat

Titlul tezei: *CONTRIBUȚII PRIVIND SISTEMUL DE GESTIUNE A SCULELOR LA CELULE FLEXIBILE DE FABRICAȚIE A PIESELOR PRISMATICE*

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Conferirea titlului de doctor prin Ordinul al ministrului delegat pentru învățământ superior, cercetare științifică și dezvoltare tehnologică nr. **5581 MD** din **03.12.2013**

c. Brevete de invenție și alte titluri de proprietate industrială.

d. Cărți și capitole în cărți;

C1. Moldovan, Ovidiu Gheorghe, Funcția de reactualizare automată a sculelor în celule flexibile de fabricație, Editura Universității din Oradea, 2022, ISBN 978-606-10-2185-7

C2. Moldovan Ovidiu Gheorghe, Vesselenyi Tiberiu, Barabaș Tiberiu, Programarea mașinilor unelte cu comanda numerică. Noțiuni introductive și aplicații, Editura Universității din Oradea, 2018, ISBN 978-606-10-1898-2

C3. Moldovan Ovidiu Gheorghe - Automate Programabile, Editura Universității din Oradea, 2016, ISBN 978-606-10-1766-8

C4. Vesselenyi Tiberiu, Moga Ioan, Tarca Radu Catalin, **Ovidiu Moldovan** – *Robotizarea operațiilor de analiza metalografică*, Editura Universității din Oradea, ISBN 978-973-759-954-4

e. Articole/studii in extenso, publicate in reviste din fluxul științific International principal.

- E1.** E. Kuantama, O. G. Moldovan, I. Țarcă, T. Vesselényi, and R. Țarcă, 'Analysis of quadcopter propeller vibration based on laser vibrometer', Journal of Low Frequency Noise, Vibration and Active Control, p. 146134841986629, Oct. 2019, doi: 10/ggcgtt.
- E2.** D. Noje, R. C. Tarca, N. Pop, O. A. MOLDOVAN, and O. G. MOLDOVAN, 'Automatic system based on Riesz MV-algebras, for predictive maintenance of bearings of industrial equipment using temperature sensors', presented at the ICCCC 2022, Oradea.

- E3. O. G. MOLDOVAN, R. GHINCU, O. A. MOLDOVAN, D. Noje, and R. C. TARCA, 'Fault Detection in Three-phase Induction Motor based on Data Acquisition and ANN based Data Processing', *International Journal of Computers Communications & Control* (June), vol. 17, no. 3, 2022, doi: <https://doi.org/10.15837/ijccc.2022.3.4788>.
- E4. L. Csokmai, O. Moldovan, I. C. Tarca, and R. Tarca, 'Software Framework for Advanced Error Troubleshooting in Flexible Manufacturing System', *Applied Mechanics and Materials*, vol. 397–400, pp. 21–24, Sep. 2013, doi: 10/gdqczi.
- E5. O. Moldovan, S. Dzitac, I. Moga, T. Vesselenyi, and I. Dzitac, 'Tool-Wear Analysis Using Image Processing of the Tool Flank', *Symmetry*, vol. 9, no. 12, p. 296, Nov. 2017, doi: 10.3390/sym9120296.
- E6. T. Vesselenyi, A. Rus, T. Mitran, B. Tataru, and O. Moldovan, 'Vehicle Driver Drowsiness Monitoring and Warning System', in *CONAT 2016 International Congress of Automotive and Transport Engineering*, A. Chiru and N. Ispas, Eds. Cham: Springer International Publishing, 2017, pp. 873–880. doi: 10.1007/978-3-319-45447-4_96.

f. Publicații în extenso, apărute în lucrări ale principalelor conferințe internaționale de specialitate.

- F1. Pushan Kumar Dutta, Mircea Bogdan Tătaru, Ovidiu Moldovan, and Tiberiu Vesselenyi, 'A Case Study of Natural Frequency of the Tram Rail Due to Vibration Using Wavelets', *Indonesian Journal of Electrical Engineering and Informatics (IJEI)*, vol. 6, no. 1, pp. 1–11, Jun. 2018.
- F2. L. Csokmai, O. Moldovan, I. C. Tarca, and R. Tarca, 'A Comprehensive Approach of Advanced Error Troubleshooting in Intelligent Manufacturing Systems', *Applied Mechanics and Materials*, vol. 404, pp. 631–634, Sep. 2013, doi: 10/gdqczi.
- F3. R. Tarca, O. Moldovan, and C. L. Szabolcs, 'Simulating the Control of a Scara Robot by Means of a 3D Hand Position Sensing System', *Solid State Phenomena*, vol. 166–167, pp. 433–438, Sep. 2010, doi: 10/ckfh83.
- F4. L. S. Csokmai, O. Moldovan, and P. D. Tocut, '3D HAND POSITION SENSING SYSTEM', *Constanta Maritime University Annals*, vol. 12, pp. 371–373, 2009.
- F5. O. G. MOLDOVAN, L. S. Csokmai, A. Căraban, and P. D. Tocut, 'A MULTI-PARAMETRIC SYSTEM FOR MONITORING THE FERMENTATION PROCESS', *The Nonconventional Technologies Review*, vol. 4/2018, Dec. 2018.
- F6. R. Tarca and O. Moldovan, 'ACHIEVEMENTS AND TRENDS IN THE MECHATRONICS FIELD AT THE UNIVERSITY OF ORADEA', 16th "Building Service, Mechanical and Building Industry Days" International Conference, 2010.
- F7. Moga, T. Vesselenyi, O. Moldovan, and I. Kiss, 'APPROXIMATION FUNCTION FOR NUTRIENT INJECTION TIME PREDICTION', *ANNALS OF THE ORADEA UNIVERSITY. Fascicle of Management and*

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- F8.** [5]T.-O. Costea, O. Moldovan, and I. Moga, 'ASPECTS REGARDING THE APPLICATIONS OF THE NANOINDENTER IN THE CHARACTERIZATION OF ADVANCED MATERIALS', The Nonconventional Technologies Review, vol. 20, no. 1, pp. 41–45, 2016.
- F9.** O. Moldovan, 'ASPECTS REGARDING THE INFLUENCE OF THE ATR FUNCTION ON THE MANAGEMENT OF WARE AT THE FLEXIBLE MANUFACTURING SYSTEMS', The Nonconventional Technologies Review, vol. 19, no. 4, pp. 55–59, 2015.
- F10.** O. G. MOLDOVAN and M. Ganea, 'AUTOMATIC TOOL READJUSTMENT FUNCTION AT THE TMA AL550 FLEXIBLE CELL USING THE TOOL RACK', 16th"Building Service, Mechanical and Building Industry Days" Inernational Conference, 2010.
- F11.** R. Pancu, O. Moldovan, and M. Ganea, 'AWPC FUNCTION ASSISTED BY ROBOT AT THE FLEXIBLE CELLS FOR PRISMATICAL PARTS', Interdisciplinarity in Engineering, Inter-Eng 2009-proceedings, 2009, [Online]. Available: <http://inter-eng.upm.ro/>
- F12.** O. Moldovan, 'COMPARATIVE ANALISYS ON THE USE OF UNCONVENTIONAL MANUFACTURING TECHNOLOGIES IN THE CASE OF ATR FUNCTION FOR THE TMA 550 AL FLEXIBLE MANUFACTURING SYSTEM', The Nonconventional Technologies Review, vol. Volume XVI, no. 2, pp. 32–36, 2012.
- F13.** M. Pasc and O. Moldovan, 'COMPARATIVE ANALYSYS OF ASSESSMENT TOOLS FOR MODERN E-LEARNING EDUCATIONAL SYSTEMS', ANNALS OF THE ORADEA UNIVERSITY. Fascicle of Management and Technological Engineering., vol. XIII, (XXIII), 2014.
- F14.** R. V. Ghincu, A. R. Ghincu, and O. Moldovan, 'CONSIDERATIONS REGARDING THE OPTIMIZATION OF A RENEWABLE ELECTRICAL ENERGY GENERATION SYSTEM'S FUNCTIONING', The Nonconventional Technologies Review, vol. XXI, no. 2, pp. 41–45, Jun. 2017.
- F15.** O. Moldovan, L. S. Csokmai, and R. Pancu, 'Design and Construction of a RTT Pneumatic Manipulator for Didactic Use', Constanta Maritime University Annals, vol. 13, pp. 117–119, 2010.
- F16.** O. Moldovan, 'Design of a specific tool rack for the TMA AL 550 flexible manufacturing system.', ANNALS OF THE ORADEA UNIVERSITY. Fascicle of Management and Technological Engineering., vol. XI (XXI), no. 3, p. 3.17-3.20, 2012.
- F17.** P. Sorin, A.-G. Pop, and O. G. Moldovan, 'Digital Fotoplethysmograph', AUO FMTE, vol. Volume XXVII (XVII), 2018/2, no. 2, 2018, doi: 10.15660/AUOFMTE.2018-2.3380.
- F18.** D. I. Țarcă, L. Csokmai, O. Moldovan, R. Ghincu, and D. Potroviță, 'Experimental data collection system for reading pressure levels in a vacuum environment', IOP Conf. Ser.: Mater. Sci. Eng., vol. 568, p. 012078, Sep. 2019, doi: 10.1088/1757-899X/568/1/012078.

- F19.** O. Moldovan and L. S. Csokmai, 'FINITE ELEMENT ANALYSIS ON THE POSSIBILITY OF USING UNCONVENTIONAL MATERIALS FOR THE COMPONENTS OF THE TMA 55 AL FLEXIBLE MANUFACTURING CELL. CASE STUDY ON THE COMPONENTS FOR THE AUTOMATIC TOOL READJUSTMENT FUNCTION', *The Nonconventional Technologies Review*, vol. XVII, no. 1, pp. 45–50, 2013.
- F20.** D. TARCA, O. A. MOLDOVAN, R. GHINCU, O. G. MOLDOVAN, T.-O. COSTEA, and N. C. POLOJINTEF, 'INSTALLING A HIGH CAPACITY SPUTTERING SYSTEM AT UNIVERSITY OF ORADEA', *Recent Innovations in Mechatronics (RIiM)*, May 2019.
- F21.** L. S. Csokmai and O. Moldovan, 'KALMAN FILTER', *The Nonconventional Technologies Review*, 2009.
- F22.** T.-O. Costea and O. G. Moldovan, 'MECHANICAL CHARACTERIZATION OF ADVANCED CERAMIC MATERIALS USING NANOINDENTATION', *ANNALS OF THE ORADEA UNIVERSITY. Fascicle of Management and Technological Engineering.*, vol. Volume XXV (XV), 2016/2, no. 2, 2016, doi: 10.15660/AUOFMTE.2016-2.3257.
- F23.** O. Moldovan and M. Ganea, 'METHODS OF REALIZING THE ATR (AUTOMATIC TOOL READJUSTMENT) FUNCTION IN THE HORIZONTAL SPINDLE FMC', *ANNALS OF THE ORADEA UNIVERSITY. Fascicle of Management and Technological Engineering.*, vol. Volume IX (XIX), no. 3, p. 3.97-3.102, 2010.
- F24.** B. GALIȘ and O. G. MOLDOVAN, 'Numerical Analysis of an Inductive Furnace Using the Finite Element Method in Comsol', *Journal of Electrical and Electronics Engineering*, vol. 12, no. 2, pp. 43–46, Oct. 2019.
- F25.** R. Pancu, O. Moldovan, and M. Ganea, 'ON THE FLEXIBILITY INCREASE OF FLEXIBLE CELLS USING MODULAR FIXTURE SYSTEM', *Interdisciplinarity in Engineering, Inter-Eng 2009-proceedings*, 2009, [Online]. Available: <http://inter-eng.upm.ro/>
- F26.** O. Moldovan and R. Tarca, 'Positioning system for a mechanically jointed rodless cylinder with a electro-pneumatic positioner ..', *ANNALS OF THE ORADEA UNIVERSITY. Fascicle of Management and Technological Engineering.*, vol. Volume XI (XXI), no. 3, p. 3.21-3.25, 2012.
- F27.** R. C. Țarcă and O. Moldovan, 'PREOCCUPATION IN THE AREA OF ROBOTICS AT THE UNIVERSITY OF ORADEA', *REVISTA ROBOTICA & MANAGEMENT*, vol. 14, no. 2, pp. 28–32, 2009.
- F28.** O. G. Moldovan, 'PROJECT MANAGEMENT USING GANTT CHARTS', *ANNALS OF THE ORADEA UNIVERSITY. Fascicle of Management and Technological Engineering.*, vol. Volume VIII (XVIII), pp. 1935–1942, 2009.
- F29.** O. Moldovan, 'RAPID PROTOTYPING FOR ROBOTICS APPLICATIONS', *The Nonconventional Technologies Review*, pp. 37–42, 2011.
- F30.** O. A. Moldovan, Țarcă Radu Cătălin, O. G. MOLDOVAN, and R. GHINCU, 'REVIEW OF OPTICAL FIBER TECHNOLOGY MEASUREMENT SYSTEMS AND APPLICATION', *Nonconventional Technologies Review*, vol. 25, no. 1, pp. 44–52, Mar. 2021.

- F31. O. Moldovan, L. S. Csokmai, and D. Predrag, 'ROBOTIZED ULTRASONIC WELDING OPERATION FOR PLASTIC MATERIALS', The Nonconventional Technologies Review, no. 1, pp. 2–30, 2010.
- F32. O. Moldovan, 'SIMULATION OF TOOL READJUSTMENT FUNCTION AT THE TMA AL550 FLEXIBLE CELL', 18th "Building Service, Mechanical and Building Industry Days" International Conference, 2012.
- F33. Moga, R. GHINCU, T.-O. COSTEA, D. TARCA, and O. G. MOLDOVAN, 'SOME EXPERIMENTS REGARDING MAGNETRON SPUTTERING DEPOSITION WITH SMALL CAPACITY DEVICES', Nonconventional Technologies Review, vol. 22, no. 4, Dec. 2018, [Online]. Available: <http://www.revtn.ro/index.php/revtn/article/view/54>
- F34. O. Moldovan and M. Ganea, 'SPECIFIC EQUIPMENT FOR TOOL FLOW WITHIN THE FLEXIBLE MANUFACTURING SYSTEMS', ANNALS OF THE ORADEA UNIVERSITY. Fascicle of Management and Technological Engineering., vol. Volume IX (XIX), no. 3, 2011.
- F35. O. Moldovan, M. Topologeanu, and R. Tarca, 'THE AUTOMATIC TOOL READJUSTMENT FUNCTION IN USED AT HORIZONTAL SPINDLE FMC AND SOLUTIONS FOR THE IMPLEMENTATION OF THE FUNCTION AT THE TMA OP 55 SYSTEMS.', The XVIII edition of the Salon International hydraulics and pneumatics, sealing systems, precision mechanics, tools, devices and specific consumer electronics, mechatronics - HERVEX 2010, pp. 302–208, 2010.
- F36. O. Moldovan, 'THE IMPORTANCE OF THERMAL VISION TECHNIQUES IN INDUSTRIAL APPLICATION. CASE STUDY', The Nonconventional Technologies Review, vol. XVIII, no. 1, pp. 34–38, 2014.
- F37. O. Moldovan, 'TOOL FLOW PROBLEMS WITHIN THE FLEXIBLE MANUFACTURING SYSTEMS', ANNALS OF THE ORADEA UNIVERSITY. Fascicle of Management and Technological Engineering., vol. Volume IX (XIX), no. 4, 2011.
- F38. O. Moldovan and I. Moga, 'TOOL MEASUREMENT SYSTEM BASED ON REFLEXIVE INFRARED OPTICAL SENSOR', The Nonconventional Technologies Review, 2016.
- F39. O. Moldovan, 'TOOL WARE MONITORING TECHNIQUES AND INTEGRATION POSSIBILITIES WITH THE AUTOMATIC TOOL READJUSTMENT FUNCTION', ANNALS OF THE ORADEA UNIVERSITY. Fascicle of Management and Technological Engineering., vol. XXII (XII), no. 1, 2013.
- F40. O. G. Moldovan, 'WIRELESS DATA ACQUISITION', ANNALS OF THE ORADEA UNIVERSITY. Fascicle of Management and Technological Engineering., vol. Volume VIII (XVIII), pp. 766–771, 2009.

g. Alte lucrări si contribuții științifice sau, după caz, din domeniul creației artistice.

G1. Moldovan Ovidiu Gheorghe - Concepția și exploatarea sistemelor de producție robotizate, Suport de curs pentru uzul studenților, format electronic

- G2.** Moldovan Ovidiu Gheorghe - Implementarea robotilor in sisteme de productie, Suport de curs pentru uzul studentilor, format electronic
- G3.** Dan Craciun, Ioan Moga, Ovidiu Gheorghe Moldovan, Stiinta si Ingineria Materialelor, Îndrumar pentru laborator, 2016
- G4.** Moldovan Ovidiu Gheorghe - Automate Programabile, Editura Universitaii din Oradea,Îndrumar pentru laborator
- G5.** Radu Cătălin ȚARCĂ and Ovidiu MOLDOVAN - Advanced Mechatronics- Laboratory handbook
- G6.** Vesselenyi Tiberiu, Moga Ioan, Moldovan Ovidiu - Senzori si sisteme senzoriale, Indrumar de laborator
- G7.** Moldovan Ovidiu Tarca Radu-Bazele roboticii- indrumator de laborator
- G8.** Moldovan Ovidiu, Tarca Radu, Sisteme flexibile de fabricatie indrumator de laborator
- G9.** Moldovan Ovidiu, Vesselenyi Tiberiu, Comanda robotilor indrumator de laborator

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