

List of Works

A. Books :

1. **Molder, C.**, *Computer graphics*, Ed. Albastră Publishing House, Cluj-Napoca, 2009. (ISBN 978-973-650-251-4);
2. **Molder, C.**, *Computer graphics with OpenGL*, MTA Publishing House, 2009. (ISBN 978-973-640-148-0);
3. **Molder, C.**, *Pattern recognition I. Description algorithms*, MTA Publishing House, 2004. (ISBN 973-640-058-1);
4. **Molder, C.**, *Pattern recognition II. Classification algorithms*, MTA Publishing House, 2004. (ISBN 973-640-055-7);
5. **Molder, C.**, *Electronic circuits design, vol. 1*, MTA Publishing House, 2015. (ISBN 978-973-640-237-1);
6. **Molder, C.**, *Electronic circuits design, vol. 2*, MTA Publishing House, 2015. (ISBN 978-973-640-238-8).
7. **Molder, C.**, *Computer graphics with OpenGL*, 2nd Edition, MTA Publishing House, 2017.

B. Journals :

1. Oancea, R., **Molder, C.**, *Decision fusion for face detection in color images*, MTA Review, 2011 (4), ISSN 1453-259X, (to be published).
2. Oancea, R., **Molder, C.**, Kifor, Șt., *New Decision Fusion Methods for Skin Detection in Color Images*, AFT Review, 2011 (3), pp.321-328, ISSN 2247-840X, ISSN-L 1582-6384.
3. Kovacs, A., **Molder, C.**, *MAX-01: Multipurpose Autonomous X-plorer*, MTA Review, 2010 (1), pp. 51-58, ISSN 1453-259X.
4. **Molder, C.**, Boșcoianu, M., Vizitiu, C., Stanciu, M., *Decision Fusion for Improved Automatic License Plate Recognition*, WSEAS Transactions on Information Science and Applications, Feb. 2009, vol.6, nr.2, pp.291-300, ISSN 1790-0832.
5. **Molder, C.**, Boșcoianu, M., Vizitiu, C., Stanciu, M., *Decision Fusion for Improved Automatic License Plate Recognition*, WSEAS Transactions on Information Science and Applications, Feb. 2009, vol.6, nr.2, pp.291-300, ISSN 1790-0832.
6. **Molder, C.**, Boșcoianu, M., Vizitiu, C., Stanciu, M., *Automatic Sea Floor Characterization based on Underwater Acoustic Image Processing*, WSEAS Transactions on Signal Processing, vol.4, no.11, Nov. 2008, pp.647-656, ISSN 1790-5022.
7. Vizitiu, C., Munteanu, D., **Molder, C.**, *A new version of Flusser moment set for pattern feature extraction*, WSEAS Transactions on Informatics Science & Applications, Iss. 4, Vol. 5, pp. 396-406, April 2008, ISSN: 1790-0832.
8. Quinquis, A., Rădoi, E., Saulais, P., **Molder, C.**, *Fuzzy logic assisted reasoning for improving the sea traffic control and surveillance*, WSEAS Advances in Fuzzy Systems and Evolutionary Computation, 2001, pp.34-37, ISBN 960-8052-27-0.
9. **Molder, C.**, *Feature extraction for classification - A Survey. I. Linear Methods*, MTA Review, 2004 (1), pp. 71-76, ISSN 1453-259X.
10. Gavrilăoia, Gh., **Molder, C.**, *Computation of the electrostatic field using the Monte Carlo method*, MTA Review, 1999 (2), pp. 88-94, ISSN 1453-259X.

C. Conferences :

1. D. Gorgoteanu, **C. Molder**, *Constrained path planning for mobile robots in indoor environments*, MTA Review 2016, ISSN: 1843-3391
2. A. Mîlășan, **C. Molder**, *Least Squares Estimation of Round Convex Mirror Image Distortion for Indoor Localization in Robot Swarms*, MTA Review 2016, ISSN: 1843-3391
3. A. Mîlășan, B. Băbuș, A. Frîncu, A. Gheorghe, **C. Molder**, *NEXUS: A Research Platform for Robot Swarms*, MTA Review 2014, ISSN: 1843-3391C.
4. Narcis Costiuc, **Cristian Molder**, *Automatic Remote Controlled Hand for Object Manipulation*, MTA Review 2013, ISSN: 1843-3391.
5. **Molder, R.** Oancea, *Appearance-based facial detection for recognition*, 9th International Conference on Communications, COMM 2012, ISBN: 978-146-732-573-8, DOI: 10.1109/ICComm.2012.6262545, INSPEC: 12932563
6. A. Kovacs, **C. Molder**, *MAX-01: Multipurpose Autonomous X-plorer*, MTA Review 2012, ISSN: 1843-3391
7. Oancea, R., **Molder, C.**, *Locating Facial Features in Images with Uncontrolled Context*, Proc. of the 3rd Intl. Symposium on IT in Medicine and Education (ITME 2011), Guangzhou, China, 2011, (to be published), ISBN 978-1-61284-704-7, **IEEE Catalog No. CFP1153E-ART**.
8. Oancea, R., **Molder, C.**, *Eye Detection Performances using Radial Symmetry Map*. Proc. of the 40th Intl. Scientific Conference of ACTTM, Bucharest, Romania, Oct. 20, 2011
9. Oancea, R., Popa, M., Stefan Demeter, Blaj, M., Molie, F., **Molder, C.**, *Considerations on Face Candidate Detection using Eye and Mouth Features*. Proc. of the 16th Intl. Conference KBO, Nov. 2011, Sibiu, Romania, pp. 458-463, ISSN 1843-6722, (under evaluation for ISI CPCI index).
10. Vizitiu, I., Nicolaescu, I., Stoica, A., Ciotirnae, P., Adrian, R., **Molder, C.**, *An optimal full-genetic technique used to train RBF neural networks*, Proc. of the 9th Intl. Symposium on Electronics and Telecommunications (ISETC 2010), Bucharest, Romania, pp.319-322, Nov. 11-12, 2011, **INSPEC 11745511**.
11. **Molder, C.**, Bîzgan, A., Mielică, A., Iacobiță, A., *Automated non-intrusive cargo inspection system using gamma-ray imaging (ROBOSCAN 1M)*, Proceedings of the 8th WSEAS Intl. Conference on Signal Processing, Robotics and Automation (ISPRA '09), Cambridge, UK, February 2009, pp. 91-96, ISBN 978-960-474-054-3, ISSN 1790-5117.
12. **Molder, C.**, Șerban, Fl. Vizitiu, C., Stanciu, M., *Symbol occurrence probability vectors for syntax correction in automatic number plate recognition systems*, Proceedings of the 7th WSEAS Intl. Conference on Computational Intelligence, Man-Machine Systems and Cybernetics (CIMMACS '08), pp. 119-124, Cairo, Egypt, ISBN 978-960-474-049-9, ISSN 1790-5117.
13. **Molder, C.**, Șerban, Fl. Vizitiu, C., Stanciu, M., *Image processing for sediment classification*, Proceedings of the 7th WSEAS Intl. Conference on Computational Intelligence, Man-Machine Systems and Cybernetics (CIMMACS '08), pp. 113-118, Cairo, Egypt, ISBN 978-960-474-049-9, ISSN 1790-5117.
14. Vizitiu, C., Nicolaescu, I., Ciotirnae, P., Munteanu, D., **Molder, C.**, *Target recognition improvement using the decision fusion between HRR*

and video imaginary, Intl. NAUN Conference on Circuits, Systems and Signals 2008, Attica, Greece, June 1-3, 2008, published in Advances in Applied Mathematics, Systems, Communications and Computers, pp.120-125, ISBN 978-960-6766-69-5, ISSN 1790-2769, ISI B35276.

15. M. Boşcoianu, **C. Molder**, J. Arhip, M. Stanciu, C. Vizitiu, *Decision fusion for improved automatic license plate recognition*, Proceedings of the 10th WSEAS Intl. Conference on Mathematical Methods, Computational Techniques, Non-Linear Systems, Intelligent Systems (MAMECTIS '08), Corfu, Greece, pp. 240-245, ISBN 978-960-474-012-3, ISSN 1790-2769.
16. M. Boşcoianu, **C. Molder**, J. Arhip, M. Stanciu, C. Vizitiu, *Feature sets based on fuzzy reasoning for automatic sea floor characterization*, Proceedings of the 10th WSEAS Intl. Conference on Mathematical Methods, Computational Techniques, Non-Linear Systems, Intelligent Systems (MAMECTIS '08), Corfu, Greece, pp. 234-239, ISBN 978-960-474-012-3, ISSN 1790-2769.
17. Munteanu, D., **Molder, C.**, Vizitiu, C., *Speech Enhancement by Noise Spectral Subtraction*, The 5th Intl. Conference „New Challenges in the Field of Military Sciences 2007”, November, Budapest, Hungary, 2007, vol.IV (Informatics, communication and applied mathematics), pp.51-56, ISBN 978-963-87706-2-2.
18. **Molder, C.**, Munteanu, D., *Decisional Fusion for License Plate Recognition Systems in Surveillance Points*, in Proc. of Intl. Conference of Military Technologies, pp. 639-647, 2-4 May, Brno, Czech Republic, 2007, ISBN 978-80-7231-238-2.
19. Munteanu, D., **Molder C.**, *Biometric Speaker Recognition Military Environments*, in Proc. of Intl. Conference of Military Technologies, pp. 441-447, 2-4 May, Brno, Czech Republic, 2007, ISBN 978-80-7231-238-2.
20. Vizitiu, C., **Molder, C.**, Munteanu, D., *An Evolutive Version of the Standard Fuzzy Integral with Application in Pattern Recognition Performances Increase*, The 5th Intl. Conference „New Challenges in the Field of Military Sciences 2007”, November, Budapest, Hungary, 2007, vol. IV Informatics, communication and applied mathematics, pp.111-117, ISBN 978-963-87706-2-2.
21. Munteanu, D., Vizitiu C., **Molder C.**, *Using Speech Technologies in Military Applications*, in Proc. of THE 7th Intl. Scientific and Technical Conference on Anti-Aircraft and Air Defence Systems” (CRAAS 2007), pp. 375-382, 18-21 September, Olszanica, Poland, 2007, ISBN 978-83-915898-3-0.
22. **Molder, C.**, Munteanu, D., *Decisional tree for license plate recognition in access point surveillance systems*, Proc. of the 4th Intl. Conference New Challenges in the Field of Military Sciences, 2006, Budapest, Hungary, ISBN 978-963-87706-2-2.
23. Munteanu, D., **Molder, C.**, *Voice detection for automatic speech recognition*, Proc. of the 4th Intl. Conference New Challenges in the Field of Military Sciences, 2006, Budapest, Hungary, ISBN 978-963-87706-2-2.
24. Vizitiu, C., **Molder, C.**, Munteanu, D., *An Evolutive Version of the Standard Fuzzy Integral with Application in Pattern Recognition Performances Increase*, Proc. of the 4th Intl. Conference New Challenges in the Field of Military Sciences, 2007, Budapest, Hungary, pp. 111-118, ISBN 978-963-87706-2-2.
25. **Molder, C.**, Thomas, H., Quinquis, A., *Classification des signaux marins par analyse des textures*, Proc. of the 13th Reconnaissance de Formes et Intelligence Artificielle Conference (RFIA '02), 2002, vol.4, pp. 237-244, Angers, France.
26. Quinquis, A., Rădoi, E., **Molder, C.**, *Fuzzy logic assisted reasoning for improving the sea traffic control and surveillance*, Proc. of the Intl. Conference on Fuzzy Sets and Fuzzy Systems, Canary Islands, 2001, pp. 5111-5113.
27. **Molder, C.**, Boşcoianu, M., Stanciu, M., Vizitiu, C., *Automatic subbottom characterization based on visual features*, Proceedings of the 1st WSEAS Intl. Conference on Visualization, Imaging and Simulation (VIS '08), Bucharest, Romania, vol.1, pp.41-44, ISBN 978-960-474-022-2, ISSN 1790-2769.
28. **Molder, C.**, Boşcoianu, M., Stanciu, M., Vizitiu, C., *Improved automatic number plate recognition system*, Proceedings of the 1st WSEAS Intl. Conference on Visualization, Imaging and Simulation (VIS '08), Bucharest, Romania, vol.1, pp.49-54, ISBN 978-960-474-022-2, ISSN 1790-2769.
29. Vizitiu, C., Şerban, Fl., **Molder, C.**, Stanciu, M., *Decision fusion method to improve the performances of multispectral ATR systems*, Proceedings of the 1st WSEAS Intl. Conference on Sensors and Signals (SENSIG '08), Bucharest, Romania, 2008, vol.1, pp.40-45, ISBN 978-960-474-021-5, ISSN 1790-5117.
30. Radu, A., Nicolaescu, I., **Molder, C.**, Ciofîrnae, P., Ioachim, A., Banciu, G., Toacsen, M., *Microwave oscillator manufactured with ZST dielectric resonator*, Proceedings of the 7th IEEE Intl. Conference Communications), Bucharest, Romania, 2008, pp.207-210, ISBN 978-606-521-008-0.
31. Bîrsan, N., **Molder, C.**, Stoica, A., *Mixed implementation of precision time protocol for networked measurement and control systems*, Proceedings of the 7th IEEE Intl. Conference Communications), Bucharest, Romania, 2008, pp.393-396, ISBN 978-606-521-008-0.
32. Vizitiu, C., **Molder, C.**, Radu, A., Munteanu, D., *A new invariant set for video pattern recognition in ATR systems*, Proceedings of the 11th Intl. Conference on Optimization of Electrical and Electronic Equipment (OPTIM 2008), Braşov, Romania, May 22-24, 2008, pp.124-127, ISBN 1-4244-1545-4, **IEEE Catalog No 08EX1996C, INSPEC 10145954.**
33. Vizitiu, C., Radu, A., Oroian, T., **Molder, C.**, *Optimal hardware implementation of a feedforward neural network topology using a genetic algorithm for pruning*, Proceedings of the 30th Edition of Intl. Semiconductor Conference (CAS '07), Sinaia, Romania, vol.1, pp.459-462, ISBN 1-4244-0847-4, ISSN 1545-827X, **ISI B45224, INSPEC 9982582.**
34. **Molder, C.**, Munteanu, D., *Objective Compressed Image & Video Quality Measurements*, Intl. Conference „COMMUNICATIONS 2006”, pp. 205 - 208, Bucharest, June 2006, **ISBN 973-718-479-3.**
35. **Molder, C.**, Oroian, T., Anton, L., Nicolaescu, I., *GPR object detection using image processing*, Proc. of the 35th Intl. Scientific Symposium of the Defense Research Agency, 2005 (1), pp.386-391, ISBN 973-0-03923-2.
36. Anton, L., Nicolaescu, I., Oroian, T., **Molder, C.**, *Clutter subtraction in SAR imagery*, Proc. of the 35th Intl. Scientific Symposium of the Defense Research Agency, 2005, vol.1, ISBN 973-0-03923-2.
37. **Molder, C.**, Thomas, H., Quinquis, A., *Texture analysis and marine sediment characterization from acoustical data*, Proc. of the 32nd Intl. Scientific Symposium of the Defense Research Agency, 2001, vol.4, pp.237-244, ISBN 973-8323-11-7.
38. **Molder, C.**, *M Texture-based image characterization methods*, The 29th Intl. Scientific Conference of the MTA, 2001, ISBN 973-8290-27-9.
39. Nicula, A., **Molder, C.**, *Stochastic methods for evaluating the electromagnetic field in dielectric medium*, Proc. of the 27th Intl. Scientific Conference of the MTA, 1999, pp.121-126 (B-25899-826).

D. Research projects :

1. *Health monitoring system for soldiers in operational condition*, National Defense Research Contract, 2017, **PROJECT MANAGER**.
2. *Spectrometer integration embedded device*, National Defense Research Contract, 2014-2017, **PROJECT MANAGER**.
3. *Data recovery in CBRN monitoring systems*, National Defense Research Contract, 2015-2016, **PROJECT MANAGER**.
4. *Jamming station against civilian commercial drones*, National Defense Research Contract, 2016-2017, **PROJECT MANAGER**.
5. *Gamma-ray nonintrusive inspection system (SIN-R)*, code 1324, AMCSIT Inovare, 2008-2010, MB Telecom, MNA, national research program, **PROJECT MANAGER** (800.000 EUR).
6. *Researches regarding the estimation of the biomass in controlled fisheries (MASPEST)*, code 4138, CNMP Program 4, 2008-2011, Univ. Ovidiu, MNA, national research program, **PARTNER MANAGER** (200.000 EUR).
7. *Automatic human tracking systems for securized access areas*, National defense research plan, 2007, **PROJECT MANAGER**.
8. *Video surveillance systems with automatic identification based on image processing and pattern recognition techniques*, National defense research plan, 2006, **PROJECT MANAGER**.
9. *Integrated microwave devices on ZST layer for miniaturization of communication and remote-detection portable equipment and systems*, Securitate 2005, code 24R, 2005-2006, (15000 EUR), **TEAM MEMBER**.
10. *Ensuring security for military objectives by reducing the scattering using radioabsorbant materials (SOSER)*, Securitate 2006, code S145, 2005-2007, **TEAM MEMBER**.
11. *Securized SCIP compatible communications for EUROCOM networks*, CEEX 2006, contract nr. CF 12/28.07.2006, 2006-2008, Military Technical Academy & The Romanian Space Agency, 2006, (1.011.974 RON), **TEAM MEMBER**.
12. *Geospatial data info center (CGINT)*, PNCDI CEEX 2006, code 0673, 2006-2008, (62500 EUR), **TEAM MEMBER**.
13. *Biometric equipments and systems for personnel identification and authentication for computer network and objectives of great importance*, PNCDI CEEX 2006, contract 13/2006, 2006-2008, (350000 EUR), **TEAM MEMBER**.
14. *Novel method of noninvasive investigation of morpho-functional alterations in joint pathology based on spectra and thermal vibrato acoustics*, PNCDI CEEX 2006, code 2930, 2006-2008, (375000 EUR), **TEAM MEMBER**.
15. *Electromagnetic field propagation in high dielectric materials with applications in antenna and microwave sensors for IT society technologies*, PNII, code 1093, 2008-2011, (500000 EUR), **TEAM MEMBER**.
16. *Applications based on data analysis from new SAR sensors*, PNII, code 81-007, 2007-2009, (25000 EUR), **TEAM MEMBER**.
17. *Multi-sensor intelligent system development for automatic tracking and recognition of aerial targets*, code 115, CNCSIS 2006, 2006-2007, (6250 EUR), **TEAM MEMBER**.
18. *Propriétés acoustiques du sous-sol marin mesurées à l'aide d'un sondeur de sédiments*, Contract DGA, Franța, Beneficiar: ENSIETA, EPSHOM, Perioada 2000-2002, valoare 200000 EUR, membru în echipă.

E. Research reports :

1. **Molder, C.,** *Results regarding the use of decision fusion methods for classification*, Research report, Military Technical Academy, Bucharest, Romania, 2006.
2. **Molder, C.,** *Contribution to sediment data interpretation using image processing techniques*, Research report, Military Technical Academy, Bucharest, Romania, 2005.
3. **Molder, C.,** *Results in pattern recognition and classification*, Research report, Military Technical Academy, Bucharest, Romania, 2004.
4. **Molder, C. -** *Propriétés acoustiques du sous-sol marin mesurées à l'aide d'un sondeur de sédiments*, Research report 04/RC/A/10.08, Ensieta, Brest, France, August 2002.
5. **Molder, C. -** *Propriétés acoustiques du sous-sol marin mesurées à l'aide d'un sondeur de sédiments*, Research report 03/RC/A/05.02, Ensieta, Brest, France, May 2002;
6. **Molder, C. -** *Propriétés acoustiques du sous-sol marin mesurées à l'aide d'un sondeur de sédiments*, Research report 02/RC/A/02.02, Ensieta, Brest, France, February 2002;
7. **Molder, C. -** *Propriétés acoustiques du sous-sol marin mesurées à l'aide d'un sondeur de sédiments*, Research report 01/RC/A/11.01, Ensieta, Brest, France, November 2001.