

PERSONAL INFORMATION **Florin Dumitru M. MOLDOVEANU**

✉ moldof@unitbv.ro
Office: 0040-268-418836

POSITION PhD supervisor ;
IOSUD UTBV Doctoral studies field: Control Engineering;
Since: 2007.

EXPERTISE FIELD AND RESEARCH INTEREST AREAS

- Control Systems for Electrical Drives with Induction Machines;
- Variable Structure Control Systems (Sliding Mode Regime);
- Discrete Event Dynamic Systems;
- Robotic Control Systems.

WORK EXPERIENCE

Dates **Teaching staff member**
Faculty of Electrical Engineering and Computer Science, Transilvania University of Brasov,
29 Eroilor Blvd., 500036 Brasov, Romania (<http://www.unitbv.ro/>)

- Since 2006: full professor;
- 1999 – 2006: assoc. professor;
- 1983 – 1999: lecturer;
- 1978 – 1983: assistant.

Main activities and responsibilities:

- Teaching;
- Coordinating.

Education at university level.

EDUCATION AND TRAINING

- 1991 - 1998 **Doctoral studies** Nivel 8 CEC
Transilvania University of Brasov, Romania
▪ Domain: Electrical Drives
- 1970 - 1975 **Bachelor of engineering** Nivel 6 CEC
Transilvania University of Brasov, Romania
▪ Electro-mechanical engineering
- 1966 - 1970 **High school graduate with baccalaureate** Nivel 4 CEC
"Radu Negru" National College, Fagaras, Romania
▪ General education

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)	UNDERSTANDING	SPEAKING	WRITING

	Listening	Reading	Spoken interaction	Spoken production	
French	B2	B2	B2	B1	B2
English	A2	A2	A2	A2	A2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills

- Good communication skills gained through my experience as teacher.

Organisational / managerial skills

- 2011-2017: Head of "Intelligent Process Control" research department of the CDI Institute: PRO-DD High Tech Products for Sustainable Development;
- 2012 – present: President of the Scientific Committee of Transilvania University's Senate;
- 2007-2016: Member of the Scientific Council of the Technological and Business Incubator of Transilvania University of Brasov – ITA UniTBv;
- 2005 – 2016: President of the Brasov branch of the Romanian Society of Control Engineering and Technical Informatics;
- 2004 – 2008: Vice-dean of the Faculty of Electrical Engineering and Computer Science;
- 1996 – 2000: Scientific secretary of the Faculty of Electrical Engineering;
- 1986 – 1990: Scientific secretary of the Department of Electrical Drives.

Job-related skills

- PhD supervisor in Control Engineering;
- Teaching and coordinating in the following subjects: Systems Theory, Analysis and Design of Digital Circuits, Variable Structure Control Systems, Programmable Logic Circuits.

Computer skills

- Competent with most Microsoft Office™. programmes.

Other skills

- Social skills: team spirit, helping initiative, cooperation, listening and acting;
- Organizing students' activities.

ADDITIONAL INFORMATION

Publications

- 11 books and book chapters;
- 58 papers published in journals and conference proceedings, indexed in ISI Web of Knowledge, IEEE Xplore, Scopus, Science Direct, Elsevier, Springerlink databases.

Projects

- 16 grants / projects

Memberships

- Institute of Electrical and Electronics Engineers – IEEE, Industrial Electronics Society, member no. 41377873;
- SRAIT – Romanian Society of Control Engineering and Technical Informatics, member no.1307;
- SNIMTB – National Society for Medical Engineering and Biological Technology, Member.

Citations

- 123 citations in BDI indexed articles (ISI web of Knowledge, Scopus, IEEE Xplore, Science Direct, Elsevier, Springerlink databases).

H Indexes

3 (ISI); 9 (Scopus); 10 (Google Scholar)

ANNEXES

Annex 1

List of relevant publications (selection)

1. Itu, L. M., Sharma, P., Suci, C., **Moldoveanu, F.**, Comaniciu, D. *Personalized Blood Flow*

- Computations: A Hierarchical Parameter Estimation Framework for Tuning Boundary Conditions.* International Journal for Numerical Methods in Biomedical Engineering, Vol. 33, Issue 3, March 2017, pp. e02803, ISSN: 2040-7947, DOI: 10.1002/cnm.2803 (FI = 2.338).
2. Ciuşdel, C.F., Vizitiu, A., **Moldoveanu, F.**, Suciuc, C., Itu, L.M. *Towards Real Time Machine Learning Based Estimation Fracture Risk in Osteoporosis Patients.* 2017 Joint International Conference on Optimization of Electrical and Electronic Equipment & 2017 Aegean Conference on Electrical Machines and Power Electronics – OPTIM – ACEMP, Braşov, Romania, May 25÷27, 2017, pp. 1145÷1049, ISBN: 978-1-4673-1650-7, DOI: 10.1109/OPTIM.2017.7975126.
 3. Stanciu, A., Cîrstea, M., **Moldoveanu, F.** *Analysis and Evaluation of PUF based SoC Designs for Security Applications.* IEEE Transactions on Industrial Electronics, Vol. 63, Issue 9, Sept. 2016, pp. 5699÷5708, ISSN: 0278-0046, DOI: 10.1109/TIE.2016.2570720 (FI = 7.168).
 4. Stanciu, A., Crăciun, A.V., **Moldoveanu, F.** *Pseudo-Random Generator Using PUF Circuits and Salsa Stream Cipher.* IEEE 21st International Symposium for Design and Technology in Electronic Packaging – SIITME 2015, Braşov, Romania, Oct. 22÷25, 2015, pp. 345÷348, ISBN: 978-1-5090-0332-7, DOI: 10.1109/SIITME.2015.7342350.
 5. Nechifor, S.C., Puiu, D., Tâmaucă, B.S., **Moldoveanu, F.** *Prescriptive Analytics Based Autonomic Networking for Urban Streams Services Provisioning.* IEEE 81st Vehicular Technology Conference – VTC Spring 2015, Glasgow, Scotland, May 11÷14, 2015, pp. 1÷5, ISBN: 978-1-4799-8088-8, ISSN: 1550-2252, DOI: 10.1109/VTC Spring.2015.7146030.
 6. Măceşanu, G., Comnac, V., **Moldoveanu, F.**, Grigorescu, S.M. *A Time-Delay Control Approach for a Stereo Vision Based Human-Machine Interaction System.* Journal of Intelligent and Robotic Systems: Theory and Applications, Springer, Netherlands, Vol. 76, Issue 2, Nov. 2014, pp. 297÷313, ISSN: 0921-0296, DOI: 10.1007/s10846-013-9994-4 (FI = 1.178).
 7. Nechifor, S.C., Puiu, D., Tâmaucă, B.S., **Moldoveanu, F.** *Autonomic Aspects of IoT Based Systems: A Logistics Domain Scheduling Example.* Workshop on Interoperability and Open-Source Solutions for the Internet of Things, Split, Croatia, Sept. 18, 2014. Book Series: Lecture Notes in Computer Science, Vol. 9001, 2015, Springer-Verlag, Berlin-Heidelberg, Germany, pp. 153÷168, ISBN: 978-3-319-16546-2, ISSN: 0302-9743, DOI: 10.1007/978-3-319-16546-2_12.
 8. Nechifor, S.C., Tâmaucă, B.S., Sasu, L., Puiu, D., Petrescu, A., Teutsch, J., Waterfeld, W., **Moldoveanu, F.** *Autonomic Monitoring Approach Based on CEP and ML for Logistic of Sensitive Goods.* IEEE 18th International Conference on Intelligent Engineering Systems – INES 2014, Tihany, Hungary, July 3÷5, 2014, pp. 67÷72, ISBN: 978-1-4799-4615-0, ISSN: 1562-5850, DOI: 10.1109/INES.2014.6909343.
 9. Cociaş, T.T., Grigorescu, S.M., **Moldoveanu, F.** Book Series, Chapter: *Indoor Pose Estimation Using 3D Scene Landmarks for Service Robotics.* Issues and Challenges of Intelligent Systems and Computational Intelligence, Koczy, T.L., Pozna, C.R., Kacprzyk, J. (Eds.), Studies in Computational Intelligence, Vol. 530, 2014, Springer, Heidelberg, Germany, pp. 199÷211, ISSN: 1860-949X, ISBN: 978-3-319-03205-4, DOI: 10.1007/978-3-319-03206-1_15.
 10. Cociaş, T.T., **Moldoveanu, F.**, Grigorescu, S.M. *Generic Fitted Shapes (GFS): Volumetric Object Segmentation in Service Robotics.* Robotics and Autonomous Systems, Elsevier, Netherlands, Vol. 61, No. 9, Sept. 2013, pp. 960÷972, ISSN: 0921-8890, DOI: 10.1016/j.robot.2013.04.020 (FI = 1.105).
 11. Itu, L.M., Puneet, S., Kamen, A., Suciuc, C., Postelnicu, A., **Moldoveanu, F.** *GPU Accelerated Simulation of the Human Arterial Circulation.* 13th International Conference on Optimization of Electrical and Electronic Equipment – OPTIM 2012, Braşov, Romania, May 24÷26, 2012, pp. 1478÷1485, ISBN: 978-1-4673-1650-7, ISSN: 1842-0133, DOI: 10.1109/OPTIM.2012.6231764.
 12. Cociaş, T.T., Grigorescu, S.M., **Moldoveanu, F.** *3D Structure Estimation from a Single View Using Generic Fitted Primitives (GFP).* 7th International Joint Conference on Computer Vision, Imaging and Computer Graphics. Theory and Applications –VISIGRAPP 2012, Rome, Italy, Feb. 24-26, 2012. Book Series: Communications in Computer and Information Science, Vol. 359, 2013, Springer, Berlin-Heidelberg, Germany, pp. 369-382, ISSN: 1865-0929, ISBN: 978-3-642-38240-6, DOI: 10.1007/978-3-642-38241-3_25.
 13. Grigorescu, S.M., Măceşanu, G., Cociaş, T.T., Puiu, D., **Moldoveanu, F.** *Robust Camera Pose and Scene Structure Analysis for Service Robotics.* Robotics and Autonomous Systems, Elsevier, Netherlands, Vol. 59, No. 11, Nov. 2011, pp. 899÷909, ISSN: 0921-8890, DOI: 10.1016/j.robot.2011.07.005 (FI = 1.105).
 14. Itu, L.M., Suciuc, C., Postelnicu, A., **Moldoveanu, F.** *Analysis of Outflow Boundary Condition Implementations for 1D Blood Flow Models.* 3rd IEEE International Conference on e-Health and Bioengineering – EHB 2011, Iaşi, Romania, Nov. 24÷26, 2011, pp. 467÷470, ISBN: 978-1-4577-0292-1.
 15. Itu, L.M., Suciuc, C., **Moldoveanu, F.**, Postelnicu, A. *GPU Accelerated Simulation of Elliptic Partial Differential Equations.* 6th IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications – IDAACS'11, Prague, Czech Republic, Sept. 15÷17, 2011, pp. 238÷242, ISBN: 978-1-4577-1426-9, DOI: 10.1109/DAACS.2011.6072748.
 16. Itu, L.M., Suciuc, C., **Moldoveanu, F.**, Postelnicu, A. *Optimized GPU Based Simulation of the*

- Incompressible Navier-Stokes Equations on a MAC Grid.* 10th IEEE RoEduNet International Conference on Networking in Education and Research – RoEduNet'11, Iași, Romania, June 23-25, 2011, pp. 82-85, ISBN: 978-1-4577-1233-3, ISSN: 2068-1038, DOI: 10.1109/RoEduNet.2011.5993692.
17. Suliman, C., Cruceru, C., **Moldoveanu, F.** *Kalman Filter Based Tracking in an Video Surveillance System.* Advances in Electrical and Computer Engineering, Vol. 10, No. 2, 2010, pp. 30-34, ISSN: 1582-7445, e-ISSN: 1844-7600, DOI: 10.4316/AECE.2010.02005 (FI = 0.700).
 18. **Moldoveanu, F.**, Floroian, D., Puiu, D. *Supervisory Control of Semiautonomous Mobile Sensor Networks: A Petri Net Design Approach.* Journal for Fluid Power, Automation and Mechatronics – VENTIL, University of Ljubljana, Slovenia, Vol. 16, No.1, February 2010, pp. 46-54, ISSN: 1318-7279.
 19. **Moldoveanu, F.**, Floroian, D., Boldișor, C. *Nonlinear Control System for a Θ -r Manipulator: A Sliding Mode Strategy Approach.* 2008 IEEE-TTTC International Conference on Automation, Quality & Testing, Robotics – AQTR 2008, Cluj-Napoca, Romania, May 22-25, 2008, Tome III, pp. 503-508, ISBN: 978-1-4244-2576-1, DOI: 10.1109/AQTR.2008.4588973.
 20. **Moldoveanu, F.**, Vittek, J., Ryvkin, S., Floroian, D., Boldișor, C. *Control of a Dynamic Nonlinear/Uncertain System via a Variable Structure System Approach.* 11th International Conference on Optimization of Electrical and Electronic Equipments – OPTIM '08, Brașov, Romania, May 22-23, 2008, Vol. III, pp. 45-54, ISBN: 978-973-131-031-2, ISSN: 1842-0133, DOI: 10.1109/OPTIM.2008.4602456.

Annex 2

List of Coordinated PhD Theses

1. Sistem distribuit pentru controlul multi-ax al mișcării aplicat roboților industriali.
2. Localizarea și maparea simultană a mediilor închise folosind roboți mobili dotați cu vedere artificială.
3. Cercetări privind utilizarea procesării digitale a imaginilor în sistemele de vedere activă aplicate roboților mobili autonomi.
4. Utilizarea procesării paralele în modelarea multiscalară a hemodinamicii coronariene.
5. Cercetări privind estimarea volumetrică 3D utilizată în structurile robotice pentru prehensarea obiectelor.
6. Procesarea evenimentelor complexe cu atribute inexacte.
7. Cercetări privind mecanismele cognitive bazate pe constrângeri și aplicarea acestora la sistemele de control autonome.
8. Contribuții la securizarea datelor în sistemele pe chip folosind circuite PUF.
9. Modelarea și simularea sistemului cardiovascular uman, utilizând tehnici de procesare digitală a imaginilor și de inteligență artificială.

18.04.2019

Florin Dumitru MOLDOVEANU