

Universitatea Transilvania din Braşov
Facultatea Design de Produs şi Mediu
Departamentul DPMM

Poz. postului 56
Disciplinele postului SER în mediul construit /
RES in the built environment; Designul
sistemelor de energii regenerabile / RES Design;
Implementarea SER în mediul construit;
Dezvoltare durabilă

**FIŞA DE VERIFICARE A ÎNDEPLINIRII STANDARDELOR UNIVERSITĂŢII
ŞEF LUCRĂRI, poziţia 56**

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Candidat: **Ş. L. dr. ing. MOLDOVAN Macedon-Dumitru** Data naşterii **10.12.1972**
Funcţia actuală **Şef Lucrări pe perioadă determinată la Universitatea Transilvania din Braşov**

1. Studii universitare (licenţă şi masterat)

Nr. crt.	Instituţia de învăţământ superior şi facultatea	Domeniul	Perioada	Titlul acordat
1	Universitatea Transilvania din Braşov, Facultatea de Mecanică	Inginerie Mecanică	01.10.1991 15.07.1996	Inginer
2	Universitatea Transilvania din Braşov, Facultatea de Mecanică	Inginerie Mecanică	01.10.1996 15.07.1997	Master
3	Universitatea Transilvania din Braşov, Facultatea de Construcţii	Ingineria Instalaţiilor	01.10.2007 15.07.2009	Inginer
4	Universitatea Transilvania din Braşov, Facultatea de Construcţii	Inginerie Civilă	01.10.2009 15.07.2011	Master

2. Studii de doctorat

Nr. crt.	Instituţia organizatoare de doctorat	Domeniul	Perioada	Titlul ştiinţific acordat
1	Universitatea Transilvania din Braşov	Inginerie Mecanică	01.10.2009 30.09.2012	Doctor

3. Studii şi burse postdoctorale (stagii de cel puţin 6 luni)

Nr. crt.	Instituţia	Domeniul/ Specializarea	Perioada	Tipul de bursă
1	Universitatea Transilvania din Braşov	Inginerie Mecanică	15.04.2014 15.10.2015	Bursă postdoctorală

4. Realizările profesional-ştiinţifice

Calitatea activităţilor didactice/ profesionale	Din Fişa de evaluare şi din Propunerea de dezvoltare a carierei universitare			
Lucrări publicate în reviste de specialitate recunoscute naţional internaţional	1.	Visa I., Moldovan M. , Comsit M., Duta A., <i>Improving the Renewable Energy Mix in a Building Towards the Nearly Zero Energy Status</i> , Energy and Buildings, 68, 72-78, 2014; factor de impact 2,465 ; scor relativ de influenţă 2,099;		
	2.	Visa I., Comsit M., Moldovan M. , Duta A., <i>Outdoor simultaneous testing of four types of photovoltaic tracked modules</i> , Journal of Renewable and Sustainable Energy 6, 033142 1-12, 2014; factor de impact 0,925 ; scor		

relativ de influență 0,446;

3. **Moldovan, M.**, Visa I., Burduhos B., 2011, *Energetic Autonomy for a Solar House*, Environmental Engineering and Management Journal, Vol.10, No.9, pp. 1283-1290, Gheorghe Asachi Technical University of Iasi, Romania 2011; **factor de impact 1,004**;
4. Burduhos B., Toma C., Neagoe M., **Moldovan, M.**, *Pseudo-Equatorial Tracking Optimization for Small Photovoltaic Platforms*, Environmental Engineering and Management Journal, Vol. 10, No. 8, 1059-1068, Gheorghe Asachi Technical University of Iasi, Romania 2011; **factor de impact 1,004**;
5. **Moldovan M.**, Visa I., Neagoe M., Burduhos B., *Solar Heating & Cooling Energy Mixes to Transform Low Energy Buildings in Nearly Zero Energy Buildings*, Energy Procedia, 48, 924-937, 2014; (**ISI journal**);
6. Neagoe M, Visa I, Burduhos B, **Moldovan M.**, *Thermal Load based Adaptive Tracking for Flat Plate Solar Collectors*, Energy Procedia, 48, 1401-1411, 2014; (**ISI journal**);
7. Visa I, Neagoe M, **Moldovan M.**, Comsit M, *Structural Synthesis of Parallel Linkages by Multibody Systems Method*, Applied Mechanics and Materials, 658, 153-160, 2014; (**ISI journal**);
8. Neagoe M, Visa I, Cretescu N, **Moldovan M.**, *On a New Parallel Tracking System for Accurate Orientation of Concentrated Solar Convertors*, Applied Mechanics and Materials, 658, 105-110, 2014; (**ISI journal**);
9. **Moldovan M.**, Visa I, Ciobanu D, *Towards nZEB—Sustainable Solutions to Meet Thermal Energy Demand in Office Buildings*, Sustainable Energy in the Built Environment - Steps Towards nZEB Springer Proceedings in Energy, 115-133, 2014;
10. Comsit M, Visa I, **Moldovan M.**, Isac L, *Architecturally Integrated Multifunctional Solar-Thermal Façades*, Sustainable Energy in the Built Environment - Steps Towards nZEB, Springer Proceedings in Energy, 47-65, 2014;
11. **Moldovan M.**, Visa I., Saulescu R., Comsit M., *Four-Bar Linkages with Linear Actuators Used for Solar Trackers with Large Angular Diurnal Strokes*, The 11th IFToMM International Symposium on Science of Mechanisms and Machines, Springer International Publishing Switzerland, ISBN: 978-3-319-01844-7, 411-423, 2014;
12. **Moldovan M.**, Visa I., Duta A., *The Influence of Thermal Zoning on the Thermal Comfort and Energy Consumption in Low Energy Office Buildings*, Proceedings of the 45th International Congress & Exhibition on Heating, Refrigeration and Air Conditioning, Belgrad, Serbia, 2014;
13. Visa I., Diaconescu D., **Moldovan M.**, *A New Solar Tracking Linkage with 2 Actuators in Parallel Connected*, The 2nd IFToMM Asian Conference on Mechanism and Machine Science, Tokyo, Japan, 2012;
14. **Moldovan, M.**, Visa, I., Burduhos, B., *Energy modeling of a single axis tracked string PV system from a hybrid RES*, Proceedings of 26th European Photovoltaic Solar Energy Conference and Exhibition, 3804-3807, Hamburg, Germany, 2011;
15. Schaletchi, I., Visa, I., Velicu, R., **Moldovan, M.**, *Torsion Moment from Wind Action on PV Platforms*, Proceedings of 26th European Photovoltaic Solar Energy Conference and Exhibition, 3556-3559, Hamburg, Germany, 2011;
16. **Moldovan, M.**, Visa, I., Duta, A., *Energetic Monitoring And Optimization Of A Solar House*, Bulletin of the Transilvania University of Brasov, Vol. 3 (52), Series I: Engineering Sciences, 91-98, Brasov, Romania, 2010;

	<p>17. Dombi, V., Visa, I., Moldovan, M., Burduhos, B., <i>Step orientation system for a solar thermal platform</i>, Proceedings of 6th International Symposium Shape, Mechanical And Industrial Design Of Products In Mechanical Engineering Kod 2010, 265-268, Palic, Serbia, 2010;</p> <p>18. Dombi, V., Moldovan, M., Boian, I., Visa, I., <i>Thermal comfort in an office room</i>, Proceedings of 10th REHVA world congress Clima 2010 Sustainable Energy Use in Buildings, 307-308, Antalya, Turkey, 2010;</p> <p>19. Boian, I., Serban, A., Moldovan, M., Chiriac, F., <i>Heat Pump Laboratory</i>, Proceedings of 1st International Conference on Manufacturing Engineering, Quality And Production Systems (MEQAPS'09), 136-141, Brasov, Romania, 2009; (ISI journal)</p> <p>20. Boian, I., Moldovan, M., „<i>Energy Efficient Operation of the Open Loop Heat Pump Systems</i>”, „<i>Bulletin of the Transilvania University of Braşov</i>”, Vol. 2 (51), Series I: Engineering Sciences, pp. 361-370, Braşov, România, 2009.</p> <p>21. Boian, I., Şerban, A., Moldovan, M., Chiriac, F., „<i>Laborator pompe de căldură</i>”, Proceedings of „<i>19th Conference Installation for Building and the Ambienta Confort</i>”, pp. 135-144, Timişoara, România, 2010.</p> <p>22. Moldovan, M., Boian, I., „<i>Heat Pump Operation & Data Collection</i>”, Proceedings of „<i>Sixth International Conference Mechanics And Machine Elements</i>”, pp. 261-270, Sofia, Bulgaria, 2010.</p>
<p>Lucrări prezentate la conferințe naționale/ internaționale în profilul postului</p>	<p>1. <i>The Influence of Thermal Zoning on the Thermal Comfort and Energy Consumption in Low Energy Office Buildings</i>, 45th International Congress & Exhibition on Heating, Refrigeration and Air Conditioning, KHG 2014, Belgrad, Serbia; http://kongres.kgh-kongres.rs/index.php/en/</p> <p>2. <i>Towards nZEB—Sustainable Solutions to Meet Thermal Energy Demand in Office Buildings</i>, 4th Conference on Sustainable Energy, CSE 2014, Brasov, Romania; http://www.unitbv.ro/icdt/Evenimente/CSE.aspx</p> <p>3. <i>Architecturally Integrated Multifunctional Solar-Thermal Façades</i>, 4th Conference on Sustainable Energy, CSE 2014, Brasov, Romania; http://www.unitbv.ro/icdt/Evenimente/CSE.aspx</p> <p>4. <i>Tracking algorithms for solar energy conversion systems: comparative analysis</i>, 29th European Photovoltaic Solar Energy Conference and Exhibition, EUPVSEC 2014, Amsterdam, Netherlands; https://www.photovoltaic-conference.com/;</p> <p>5. <i>Using A Heat Pump – Photovoltaic System To Transform A Low Energy Building Into A Nearly Zero Energy Building</i>, International Conference on Solar Energy and Buildings, EuroSun 2014, Aix les Bains, France, http://www.eurosun2014.org/cms/home.html</p> <p>6. <i>Sustainable and Affordable Energy Mixes for Nearly Zero Energy Buildings</i>, World Renewable Energy Congress, WREC 2014, London, Great Britain, http://www.wrenuk.co.uk</p> <p>7. <i>Improving The Efficiency In Low Energy Office Buildings Through Thermal Zoning Optimization An Experimental Aproach</i>, World Renewable Energy Congress, WREC 2014, London, Great Britain, http://www.wrenuk.co.uk</p> <p>8. <i>Increasing the efficiency of facade integrated solar thermal collectors by using single-axis tracking systems</i>, World Renewable Energy Congress, WREC 2014, London, Great Britain, http://www.wrenuk.co.uk</p> <p>9. <i>Structural Synthesis of Parallel Linkages by Multibody Systems Method</i>, 6th International Conference Advanced Concepts In Mechanical Engineering, ACME 2014, Iasi, Romania, http://www.mec.tuiasi.ro/acme2014</p> <p>10. <i>On a New Parallel Tracking System for Accurate Orientation of</i></p>

- Concentrated Solar Convertors*, 6th International Conference Advanced Concepts In Mechanical Engineering, ACME 2014, Iasi, Romania, <http://www.mec.tuiasi.ro/acme2014>
11. *Steps to transform a Low Energy Building towards the Nearly Zero Energy status*, ESEIA-IGS Conference Smart and Green Transitions in Cities / Regions, 2014, Twente, Netherlands, <http://www.utwente.nl/igs/eseia/>
 12. *Mixuri de energii regenerabile pentru agricultura sustenabilă*, Energii regenerabile și soluții de aplicare a lor în agricultură, 2014, http://www.agir.ro/stiri/conferinta-”Energii-regenerabile-si-solutii-de-aplicare-a-lor-in-agricultura”_344.html
 13. *Four-Bar Linkages with Linear Actuators Used for Solar Trackers with Large Angular Diurnal Strokes*, The 11th IFToMM International Symposium on Science of Mechanisms and Machines, SYROM 2013, Brasov, Romania, <http://www.arotmm.ro/syrom2013>
 14. *Renewable Energy Mixes For Sustainable Agrosystems*, The VIIIth Edition of the Annual Conference the Academic Days of the Academy of Technical Sciences in Romania – Products and Technologies for Sustainable Development, 2013, Braşov, România, http://www.proceedings.agir.ro/numar_revista.php?id=103
 15. *Sustainability of a String Type Photovoltaic Platform Intended to Ensure the Nearly Zero Energy Status for a Solar House*, 28th European Photovoltaic Solar Energy Conference and Exhibition, EUPVSEC 2013, Paris, France; <https://www.photovoltaiac-conference.com>;
 16. *Experimental Study on the Influence of Solar Tracking Algorithms on Temperature and Conversion Efficiency of Si-Polycrystalline PV*, 28th European Photovoltaic Solar Energy Conference and Exhibition, EUPVSEC 2013, Paris, France; <https://www.photovoltaiac-conference.com>;
 17. *Efficiency Analysis for Four Different Types of PV Modules by Using an Outdoor Tracked Platform*, 28th European Photovoltaic Solar Energy Conference and Exhibition, EUPVSEC 2013, Paris, France; <https://www.photovoltaiac-conference.com>;
 18. *Solar Heating & Cooling Energy Mixes to Transform Low Energy Buildings in Nearly Zero Energy Buildings*, International Conference on Solar Heating and Cooling for Buildings and Industry, SHC 2013, Freiburg, Germany, <http://www.shc2013.org/cms/welcome.html>;
 19. *Thermal Load based Adaptive Tracking for Flat Plate Solar Collectors*, International Conference on Solar Heating and Cooling for Buildings and Industry, SHC 2013, Freiburg, Germany, <http://www.shc2013.org/cms/welcome.html>;
 20. *Tailored Solutions to Reach the Nearly Zero Energy Building Status*, The first International Conference 3E – Energy, Environment and Efficiency, IWEEE 2013, Galati Romania, <http://www.iweee.ugal.ro/>
 21. *Novel Tracking Systems for Increasing the Overall Efficiency of the Solar Energy Conversion*, The first International Conference 3E – Energy, Environment and Efficiency, IWEEE 2013, Galati Romania, <http://www.iweee.ugal.ro/>
 22. *Sustainable Built Environment. A case study for a Solar House*, Computer Aided Process Engineering – Graz University of Technology, CAPE Forum 2013, Graz, Austria, <http://cape2013.tugraz.at>.
 23. *A New Solar Tracking Linkage with 2 Actuators in Parallel Connected*, The 2nd IFToMM Asian Conference on Mechanism and Machine Science November, 2012, Tokyo, Japan, <http://www.jc-iftomm.org/Asian-MMS2012/>

	<p>24. <i>Energetic Autonomy for A Solar House</i>, The 3rd International Conference on Sustainable Energy, CSE 2011, Transilvania University of Braşov, România, 2011, http://unitbv.ro/cse.</p> <p>25. <i>Promoting The Concept Of Low Energy Building</i>, Cooperation in R&D&Innovation for Economic and Social Development in CBC Area Romania – Bulgaria INNOGATE 21, 2011, Giurgiu, România, http://www.innogate21.eu/resources/Newsletter/newsletter5.pdf.</p> <p>26. <i>Energy Modeling Of A Single Axis Tracked String PV System From A Hybrid RES</i>, 26th European Photovoltaic Solar Energy Conference and Exhibition, EUPVSEC 2011, Hamburg, Germany, http://www.photovoltaic-conference.com.</p> <p>27. <i>Torsion Moment From Wind Action On PV Platforms</i>, 26th European Photovoltaic Solar Energy Conference and Exhibition, EUPVSEC 2011, Hamburg, Germany, http://www.photovoltaic-conference.com.</p> <p>28. <i>Nearly Zero Energy Building with Hybrid PV-HP System</i>, Solar and Wind International Conference, SWIC 2011, Agigea, România, http://www.icpe.ro/ro/p/prezentari_swic_ro.</p> <p>29. <i>Solar Cooling At Transilvania University Of Brasov Assembly Hall And Library</i>, reprezentant al României la REHVA Student Competition, 10th REHVA World Congress - Sustainable Energy Use in Buildings, CLIMA 2010, Antalya, Turkey, http://www.clima2010.org.</p> <p>30. <i>Heat Pump Laboratory and Data Acquisition</i>, ASHRAE Danube Chapter Meeting, a 19-a Ediție a Conferinței cu participare internațională Instalații pentru construcții și confortul ambiental, 2010, Timișoara, România.</p> <p>31. <i>Thermal comfort in an office room</i>, 10th REHVA World Congress Clima 2010 Sustainable Energy Use in Buildings, 307-308, Antalya, Turkey, 2010, http://www.clima2010.org</p> <p>32. <i>Step orientation system for a solar thermal platform</i>, 6th International Symposium Shape, Mechanical And Industrial Design Of Products In Mechanical Engineering Kod 2010, 265-268, Palic, Serbia, 2010,</p> <p>33. <i>Solar Cooling At Transilvania University Of Brasov Assembly Hall And Library</i>, lucrare declarată câștigătoare a locului I pe țară la REHVA Student Competition, a 44-a Conferință Națională Instalații pentru Începutul Mileniului Trei, 2009, Sinaia, România.</p> <p>34. <i>Heat Pump Performance Simulation for Braşov Climatic Conditions</i>, a 18-a Ediție a Conferinței cu participare internațională Instalații pentru construcții și confortul ambiental, Timișoara, România, 02-04 Aprilie, 2009.</p> <p>35. <i>Heat Pump Laboratory</i>, 1st International Conference on Manufacturing Engineering, Quality And Production Systems MEQAPS 2009, Transilvania University of Braşov, Romania, http://www.wseas.us/conferences/2009/brasov/meqaps/.</p>
Volum(e) de specialitate publicat(e) în edituri recunoscute național	Vătăşescu M., Moldovan M. , Burduhos B., „Sisteme Articulate pentru Orientare Solară”, Editura Universității Transilvania din Braşov, Braşov, România, 2011

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