

## INFORMAȚII PERSONALE



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500036  
Brașov, România  
[macedon.moldovan@unitbv.ro](mailto:macedon.moldovan@unitbv.ro)

## EXPERIENȚĂ PROFESIONALĂ

- 2013 - prezent Șef Lucrări**  
Universitatea Transilvania din Brașov, Bd. Eroilor nr. 29, 500036, Brașov, România [www.unitbv.ro](http://www.unitbv.ro)  
**Tipul sau sectorul de activitate** Educație, Cercetare
- 2002 - 2013 Inginer proiectant**  
S.C. Pentagon S.R.L., str. Sarmisegetuza nr. 5, Brașov, România  
**Tipul sau sectorul de activitate** Proiectare instalații pentru construcții
- 1997 - 2002 Inginer proiectant**  
S.C. Design Construct S.A., str. Mattis Teutsch nr. 4, Brașov, România  
**Tipul sau sectorul de activitate** Coordonator ofertare decontare lucrări construcții și instalații

## EDUCAȚIE ȘI FORMARE

- 2014 – 2015 Studii Postdoctorale în Inginerie Mecanică**  
Universitatea Transilvania din Brașov  
*Mixuri bazate pe energii regenerabile implementate în clădiri cu consum energetic redus*
- 2009 – 2012 Studii Doctorale în Inginerie Mecanică**  
Universitatea Transilvania din Brașov  
*Optimizarea eficienței sistemelor fotovoltaice prin dispunerea șururilor și orientare monoaxială cu mecanisme articulate*
- 2009 – 2011 Studii de Master în Inginerie Civilă**  
Universitatea Transilvania din Brașov  
*Efficientizare energetică în mediul construit prin îmbunătățirea performanțelor instalațiilor de încălzire și preparare apă caldă menajeră cu sisteme hibrid formate din colectoare solar termice și pompe de căldură*
- 2007 – 2009 Studii de Licență în Inginerie Civilă**  
Universitatea Transilvania din Brașov  
*Instalații pentru construcții*
- 1996 - 1997 Studii de Master în Inginerie Mecanică**  
Universitatea Transilvania din Brașov  
*Energetica Sistemelor Tractor - Mașină Agricolă*
- 1991 - 1996 Studii de Licență în Inginerie Mecanică**  
Universitatea Transilvania din Brașov  
*Mecanică Agricolă*
- 05 – 07.09.2016 Training School on Building Integration of Solar Thermal Systems**  
COST Action TU1205, Warsaw, Poland
- 15 – 28.07.2013 International Summer School, Transilvania University of Brașov, România**  
RESREC (Renewable Energy Systems & Recycling Research Centre) &  
ESEIA (European Sustainable Energy Innovation Alliance)  
Sustainable Smart Metropolitan Regions of Tomorrow
- 04 - 16.07.2010 Styrian Academy for Sustainable Energies International Summer School**  
Graz University of Technology, Austria,  
Regional Sustainable Energy Systems

## COMPETENȚE PERSONALE

Limba maternă Română

## Alte limbi străine cunoscute

|         | INTELEGERE |        | VORBIRE                    |              | SCRIERE |
|---------|------------|--------|----------------------------|--------------|---------|
|         | Ascultare  | Citire | Participare la conversație | Discurs oral |         |
| Engleză | C1         | C1     | C1                         | B2           | B2      |

Certificat de competență lingvistică nr. 808/12.12.2012. Nivel B2

Niveluri: A1/2: Utilizator elementar - B1/2: Utilizator independent - C1/2: Utilizator experimentat  
Cadrul european comun de referință pentru limbi străine

## Competențe de comunicare

- prelegere referitoare la conceptul „Nearly Zero Energy Building” susținută la Cyprus University of Technology, Limassol, la invitația prof. as. dr. ing. Alexandros Charalambides, coordonator proiect ECSOL – PROGNOSIS
- prelegere referitoare la Centrul de Cercetare Sisteme de Energii Regenerabile și Reciclare din cadrul Institutului de Cercetare Dezvoltare al Universității Transilvania din Brașov, susținută la Cyprus University of Technology, Limassol, la invitația prof. as. dr. ing. Alexandros Charalambides, coordonator proiect ECSOL – PROGNOSIS

## Competențe organizaționale/manageriale

- membru în Comitetul de Organizare al Conferinței CSE2017, Brașov, România
- membru Comisie Admitere Facultatea de Design de Produs și Mediu 2015-2016
- membru în Comitetul Științific al Conference of Sustainable Energy CSE2014, Brașov, România
- membru al Consiliului de Conducere al Școlii Doctorale Interdisciplinare a Universității Transilvania din Brașov 2009-2012
- președinte al Comisiei Electorale de alegere a reprezentanților studenților în Consiliul Facultății de Design de Produs și Mediu și în Senatul Universității, 2011
- coordonare microechipe studenți pentru efectuarea stagiilor de practică în cadrul Centrului de Cercetare Sisteme de Energii Regenerabile și Reciclare (RESREC)
- îndrumare studenți pentru participare la Sesiuni de comunicări științifice studențești
- coordonare studenți pentru realizarea lucrărilor de diplomă și disertație cu tematică de cercetare în domeniul sistemelor de energii regenerabile (pompe de căldură, sisteme solar termice și fotovoltaice) implementate în mediul construit din cadrul Centrului de Cercetare RESREC
- tutoriat studenți specializare Ingineria Sistemelor de Energii Regenerabile

## Competențe informatice

- AutoCAD, ArchiCAD, Nemetschek, SolidWorks, Catia, Adams, Trnsys, SketchUp
- MatLab, MathCAD, Mathematica, Visual FoxPro, Delphi
- MS Office, Latex, Corel Draw,

## Alte competențe

- Instalator autorizat gaze naturale (proiectare și execuție), Grad I D, din 1999
- Electrician autorizat (proiectare și execuție), Grad II A, II B, din 2009

## Afiliari

- Asociația Inginerilor de Instalații din România, AIIR, din 2009.
- Asociația Română de Știința Mecanismelor și Mașinilor, ARoTMM, din 2010
- International Solar Energy Society, ISES, din 2016

## Distincții

- Premiul Universității Transilvania pentru Dezvoltarea infrastructurii de cercetare științifică; Spații – Clădirile Institutului de Cercetare Dezvoltare Inovare al Universității Transilvania 2011
- Premiul Universității Transilvania pentru Transfer Tehnologic 2010
- Locul I la nivel național la REHVA Student Competition, cu calificare și participare la concursul studențesc internațional din Antalya în calitate de reprezentant al României la 10th REHVA World Congress “CLIMA 2010 - Sustainable Energy Use in Buildings” Antalya, Turkey, 9-12 May, 2010

## Permis de conducere

- categoria B din 1994

## INFORMAȚII SUPLIMENTARE

|   |  |
|---|--|
| Proiecte  | <ol style="list-style-type: none"> <li>1. <i>Concepția și proiectarea optimă a unui mix energetic bazat pe surse de energie regenerabile pentru un ansamblu de locuințe multifamiliale din Brașov</i>, ctr. 1099 / 2017</li> <li>2. <i>BioEnergyTrain( BET) Program H2020</i>, apel H2020-LCE-2014-2, DG Research GA Nr. 656760</li> <li>3. <i>Sistem autonom durabil de monitorizare a surselor de apă naturale pentru nitrifi / nitrifi și metale grele</i>, (WaterSafe), M-ERA.NET, finanțator: PNIII, ctr. 39/2016,</li> <li>4. <i>Demonstrator și tehnologie de laborator pentru suprafețe bazate pe colectoare solar-termice plan-plate de tip triunghi (Sol_Tri_Col)</i>, finanțator: PN-III-P2-2.1-PED-2016-0338</li> <li>5. <i>Demonstrator și tehnologie în flux continuu bazată pe reactor de fotocataliză și adsorbție în film subțire pentru epurarea avansată a apelor</i>, finanțator: PN-III-P2-2.1-PED-2016-0514</li> <li>6. <i>Creșterea competitivității SC ELDON SRL prin optimizarea tehnologiei de fabricație a dulapurilor industriale de podea</i>, finanțator: PN-III-P2-2.1-BG-2016-0349</li> <li>7. <i>Sistem inovativ integrat materiale-Tehnologie -Echipament pentru procese simultane de fotocataliza și adsorbție aplicate în epurarea sustenabilă a apelor uzate (SimFotoAd)</i> PN II PCCA ctr. 217/2014</li> <li>8. <i>Sistem inovativ sustenabil pentru auto-decontaminarea fotocatalitică a echipamentelor de protecție CBRN – CB-PhotoDea</i> PN II PCCA ctr. 282/2014</li> <li>9. <i>Efectul norilor asupra radiației solare (ECSOL-PROGNOSIS)</i>, Capacity, RO-CY, 765 / 30.04.2014, program de cooperare bilaterală România – Cipru</li> <li>10. <i>Sisteme solar termice eficiente cu acceptanță ridicată pentru implementare în mediul urban (EST IN URBA)</i>, Proiect Parteneriate PNII 28/2012</li> <li>11. <i>Institut de Cercetare Dezvoltare Inovare Produse HighTech pentru Dezvoltare Durabilă (PRODD, ICDT Contract 11/2009</i></li> </ol>  |
| Brevete de invenții și propuneri de brevete de invenții | <ol style="list-style-type: none"> <li>1. Visa I., Diaconescu D., Neagoe M., Eftimie E., Serban C., Moldovan M., Saulescu R., Vatasescu Porca M., Burduhos B., Totu I., <i>Mecanism de orientare monoaxială cu două actuatori liniare</i>, RO127979 (B1) / 2016</li> <li>2. Visa M., Duta-Capra A., Visa I., Moldovan M., Neagoe M., <i>Reactor tubular în flux continuu pentru procese simultane de fotocataliză și adsorbție în suspensie</i>, RO131776 (A0) / 2017</li> <li>3. Visa I., Comsit M., Duta A., Neagoe M., Saulescu R., Ciobanu D., Moldovan M., Burduhos B., Perniu D., Enesca A. Isac L., Ienei E., Totu I., <i>Colector solar termic modular pentru optimizarea prin testare a eficienței conversiei și creșterea acceptanței arhitecturale</i>, RO130275 (A0) / 2015</li> <li>4. Visa I., Duta-Capra A., Neagoe M., Comsit M., Moldovan M., Burduhos B., <i>Sistem de panouri solare plane poligonale modularizate pentru integrare în fațade</i>, RO128860 (A0), 2013</li> <li>5. Visa I., Diaconescu D., Neagoe M., Moldovan M., Saulescu R., Vatasescu Porca M.M., Burduhos B., Totu I., Serban C., Grigorescu C.M., <i>Mecanism de orientare cu două actuatori liniari în paralel pentru sisteme alcătuite din șiruri fotovoltaice</i>, RO128315 (A0), 2013</li> <li>6. Visa I., Diaconescu D., Neagoe M., Jaliu C., Alexandru C., Dobre B., Botoman M., Saulescu R., Moldovan M., Porca Vatasescu M., <i>Actuator de joasă viteză cu reductor articulat intermitent</i>, RO128120 (A0), 2013</li> <li>7. Visa I., Dombi V., Neagoe M., Moldovan M., Saulescu R., Totu I., Badea M., Vatasescu Porca M., Serban C., <i>Sistem și metodă de orientare a unui colector solar termic plan în funcție de necesarul termic</i>, RO127678(A0), 2012</li> </ol>  |
| Cărți și capitole de carte                              | <ol style="list-style-type: none"> <li>1. Visa I., Comsit M., Duta A., Neagoe M., Moldovan M., Burduhos B., Perniu D., Enesca A., Isac L., Cosnita M., Totu I., Savvides I., Vassiliades C., <i>Novel solar-thermal collectors/array with increased architectural acceptance for building integration, building integration of solar thermal systems design and applications handbook</i>, 373-391, COST Office, 2017</li> <li>2. Moldovan M., Visa I., Duta A., <i>Future trends for solar energy use in nearly zero energy buildings (nZEB)</i>, Woodhead Publishing Series In Energy, Elsevier, 2016</li> <li>3. Visa I., Neagoe M., Moldovan M., <i>Structural synthesis of planar geared linkage mechanisms as multibody systems</i>, 99-106, Springer, 2016</li> <li>4. Burduhos B. G., Moldovan M. D., <i>Controlul sistemelor de energii regenerabile</i>, Transilvania University of Brasov Publishing House, 2016</li> <li>5. Visa I., Jaliu C., Duta A., Neagoe M., Comsit M., Moldovan M., Ciobanu D., Burduhos B., Saulescu R., <i>The role of mechanisms in sustainable energy systems</i>, Transilvania University of Brasov Publishing House, 2015</li> <li>6. Moldovan M., Visa I., Ciobanu I., <i>Towards nZEB—sustainable solutions to meet thermal energy demand in office buildings</i>, Sustainable Energy in the Built Environment - Steps Towards nZEB, 115-133, Springer, 2014</li> <li>7. Comsit M., Visa I., Moldovan M. D., Isac L., <i>Architecturally integrated multifunctional solar-thermal façades</i>, Sustainable Energy in the Built Environment - Steps Towards nZEB, 47-65, Springer, 2014</li> <li>8. Moldovan M., Visa I., Saulescu R., Comsit M., <i>Four-bar linkages with linear actuators used for solar trackers with large angular diurnal strokes</i>, The 11th IFToMM International Symposium on Science of Mechanisms and Machines, 411-423, Springer, 2014</li> <li>9. Vatasescu M., Moldovan M., Burduhos B., <i>Sisteme articulate pentru orientare solară</i>, Transilvania University of Brasov Publishing House, 2011</li> </ol> |

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| Articole științifice | <ol style="list-style-type: none"> <li>1. Moldovan M., Visa I., Duta A., <i>Enhanced sustainable cooling for low energy office buildings in continental temperate climate</i>, in print ASCE's Journal of Energy Engineering, 2017</li> <li>2. Visa I., Moldovan M., Comsit M., Neagoe M., Duta A., <i>Facades integrated solar-thermal collectors – challenges and solutions</i>, Energy Procedia, 112, 176-185, 2017</li> <li>3. Visa I., Burduhos B.G., Neagoe M., Moldovan M.D., Duta A., <i>Comparative analysis of the infield response of five types of photovoltaic modules</i>, Renewable Energy, 95, 178-190, 2016</li> <li>4. Visa I., Cotorcea A., Neagoe M., Moldovan M., <i>Adaptability of solar energy conversion systems on ships</i>, IOP Conference Series: Materials Science and Engineering, 147 (1), 012070, 2016</li> <li>5. Visa I., Cotorcea A., Moldovan M., Neagoe M., <i>Two degrees of freedom parallel linkage to track solar thermal platforms installed on ships</i>, IOP Conference Series: Materials Science and Engineering, 147 (1), 012071, 2016</li> <li>6. Visa I., Duta A., Comsit M., Moldovan M.D., Ciobanu D., Saulescu R., Burduhos B.G., <i>Design and experimental optimization of a novel flat plate solar thermal collector with trapezoidal shape for facades integration</i>, Applied Thermal Engineering, 90, 432-443, 2015</li> <li>7. Moldovan M., Visa I., Neagoe M., <i>Optimising the strokes and loads of the linear actuators in a two degrees of freedom linkage used in solar tracking systems</i>, Proceedings of the 14th IFToMM World Congress, Taipei, Taiwan, 2015</li> <li>8. Visa I., Neagoe M., Moldovan M., <i>Algorithm for structural synthesis of planar mechanisms as multibody systems</i>, Proceedings of the 14th IFToMM World Congress, Taipei, Taiwan, 2015</li> <li>9. Cotorcea A., Visa I., Moldovan M., Ristea M., <i>Performance assessment of solar thermal collectors in various sea states</i>, Scientific Bulletin Mircea cel Batran Naval Academy 18 (1), 173, 2015</li> <li>10. 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</li> <li>11. 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, 1-12, 2014</li> <li>12. Moldovan M., Visa I., Neagoe M., Burduhos B., <i>Solar heating &amp; cooling energy mixes to transform low energy buildings in nearly zero energy buildings</i>, Energy Procedia, 48, 924-937, 2014</li> <li>13. Neagoe M., Visa I., Burduhos B., Moldovan M., <i>Thermal load based adaptive tracking for flat plate solar collectors</i>, Energy Procedia, 48, 1401-1411, 2014</li> <li>14. Visa I., Neagoe M., Moldovan M., Comsit M., <i>Structural synthesis of parallel linkages by multibody systems method</i>, Applied Mechanics and Materials, 658, 153-160, 2014</li> <li>15. Neagoe M., Visa I., Cretescu N., Moldovan M., <i>On a new parallel tracking system for accurate orientation of concentrated solar converters</i>, Applied Mechanics and Materials, 658, 105-110, 2014</li> <li>16. Moldovan M., <i>Renewable Energy Mixes For Sustainable Agrosystems</i>, The VIIIth Edition of the Annual Conference the Academic Days of the Academy of Technical Sciences in Romania – Products and Technologies for Sustainable Development, 356-362, 2014</li> <li>17. Moldovan M., Visa I., Duta A., <i>The influence of thermal zoning on the thermal comfort and energy consumption in low energy office buildings</i>, Proceedings of the 45th International Congress &amp; Exhibition on Heating, Refrigeration and Air Conditioning, Belgrad, Serbia, 2014</li> <li>18. Visa I., Diaconescu D., Moldovan M., <i>A new solar tracking linkage with 2 actuators in parallel connected</i>, 2nd IFToMM Asian Conference on Mechanism and Machine Science, Tokyo, 2012</li> <li>19. Moldovan M., Visa I., Burduhos B., <i>Energetic autonomy for a solar house</i>, Environmental Engineering and Management Journal, 10, 9, 1283-1290, 2011</li> <li>20. Burduhos B., Toma C., Neagoe M., Moldovan M., <i>Pseudo-equatorial tracking optimization for small photovoltaic platforms</i>, Environmental Engineering and Management Journal, 10, 1059-1068, 2011</li> <li>21. Moldovan M., Visa I., Burduhos B., <i>Energy modeling of a single axis tracked string PV system from a hybrid RES</i>, Proceedings of 26th European Photovoltaic Solar Energy Conference and Exhibition, Hamburg, Germany, 3804-3807, 2011</li> <li>22. Schaletchi I., Visa I., Velicu R., Moldovan M., <i>Torsion moment from wind action on pv platforms</i>, Proceedings of 26th European Photovoltaic Solar Energy Conference and Exhibition, Hamburg, Germany, 3556-3559, 2011</li> <li>23. Moldovan M., Visa I., Duta A., <i>Energetic monitoring and optimization of a solar house</i>, Bulletin of the Transilvania University of Braşov, 3 (52), Series I: Engineering Sciences, 91-98, 2010</li> <li>24. Moldovan M., Boian I., <i>Heat pump operation &amp; data collection</i>, Proceedings of Sixth International Conference Mechanics And Machine Elements, Sofia, Bulgaria, 261-270, 2010</li> <li>25. Boian I., Serban A., Moldovan M., Chiriac F., <i>Heat pump testing rig</i>, 19th Conference Installation for Building and the Ambiental Confort, 135-144, Timişoara, Romania, 2010</li> <li>26. 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 Palic, Serbia, 265-268, 2010</li> <li>27. Dombi V., Moldovan M., Boian I., Visa I., <i>Thermal comfort in an office room</i>, 10th REHVA world congress Clima Sustainable Energy Use in Buildings Antalya, Turkey, 307-308, 2010</li> <li>28. Boian I., Serban A., Moldovan M., Chiriac F., <i>Heat pump laboratory</i>, 1st international conference on manufacturing engineering, Quality And Production Systems, 136-141, 2009</li> <li>29. Boian I., Moldovan M., <i>Energy efficient operation of the open loop heat pump systems</i>, Bulletin of the Transilvania University of Braşov, 2 (51), Series I: Engineering Sciences, 361-370, 2009</li> </ol> |
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| Conferințe | <ol style="list-style-type: none"> <li>1. Visa I., Moldovan M., Comsit M., Duta A., <i>Infield output of a new solar-thermal façade with increased architectural acceptance</i>, TechConnect World Innovation Conference, Washington, USA, 2017</li> <li>2. Moldovan M., Visa I., Duta A., <i>Experimental evaluation of the efficiency of Photovoltaic / Thermal (PV/T) modules integrated in the built environment</i>, First International Conference on Building Integrated Renewable Energy Systems, BIREs 2017, Dublin Ireland, 2017</li> <li>3. Visa I., Duta A., Moldovan M., <i>Outdoor performance of a trapeze solar-thermal collector for facades integration</i>, First International Conference on Building Integrated Renewable Energy Systems, BIREs 2017, Dublin, Ireland, 2017</li> <li>4. Moldovan M., Visa I., Burduhos B., Moldovan C., <i>Optimizing the opaque to glazed ratio in office buildings to increase the solar fraction in the sustainable energy mix</i>, 11th ISES EuroSun International Conference on Solar Energy for Buildings and Industry, Palma, Spain, 2016</li> <li>5. Visa I., Duta A., Comsit M., Moldovan M., <i>Optimised prototype of a novel trapeze solar-thermal collector for facades integration</i>, 11th ISES EuroSun International Conference on Solar Energy for Buildings and Industry, Palma, Spain, 2016</li> <li>6. Visa I., Cotorcea A., Moldovan M., Neagoe M., <i>Two degrees of freedom tracking system for solar thermal platforms installed on ships</i>, 7th International Conference on Advanced Concepts in Mechanical Engineering ACME 2016, Iasi, Romania, 2016</li> <li>7. Visa I., Cotorcea A., Neagoe M., Moldovan M., <i>Adaptability of solar energy conversion systems on ships</i>, 7th International Conference on Advanced Concepts in Mechanical Engineering ACME 2016, Iasi, Romania, 2016</li> <li>8. Moldovan M., Neagoe M., Visa I., <i>Renewable energy systems for agricultural buildings</i>, Sixth International Conference On Energy Efficiency And Agricultural Engineering, Ruse, Bulgaria, 2015</li> <li>9. Neagoe M., Moldovan M., Burduhos B., <i>Sustainable Mobile Buildings For Agriculture</i>, Sixth International Conference On Energy Efficiency And Agricultural Engineering, Ruse, Bulgaria, 2015</li> <li>10. Moldovan M., Visa I., Neagoe M., <i>Optimising the strokes and loads of the linear actuators in a two degrees of freedom linkage used in solar tracking systems</i>, The 14th IFToMM World Congress, Taipei, Taiwan, 2015</li> <li>11. Visa I., Neagoe M., Moldovan M., <i>Algorithm for structural synthesis of planar mechanisms as multibody systems</i>, The 14th IFToMM World Congress, Taipei, Taiwan, 2015</li> <li>12. Moldovan M., Visa I., <i>Decreasing the cooling load in low energy buildings by natural night ventilation</i>, World Renewable Energy Congress WREC XIV, Bucuresti, Romania, 2015</li> <li>13. Moldovan M., Visa I., Duta A., <i>The influence of thermal zoning on the thermal comfort and energy consumption in low energy office buildings</i>, 45th International Congress &amp; Exhibition on Heating, Refrigeration and Air Conditioning, KHG, Belgrad, Serbia, 2014</li> <li>14. Moldovan M., Visa I., Ciobanu D., <i>Towards nZEB—sustainable solutions to meet thermal energy demand in office buildings</i>, 4th Conference on Sustainable Energy, CSE, Brasov, Romania, 2014</li> <li>15. Comsit M., Visa I., Moldovan M., Isac L., <i>Architecturally integrated multifunctional solar-thermal façades</i>, 4th Conference on Sustainable Energy, CSE, Brasov, Romania, 2014</li> <li>16. Burduhos B., Visa I., Neagoe M., Moldovan M., Duta A., <i>Tracking algorithms for solar energy conversion systems: comparative analysis</i>, 29th European Photovoltaic Solar Energy Conference and Exhibition, EUPVSEC, Amsterdam, Netherlands, 2014</li> <li>17. Visa I., Duta A., Moldovan M., Ciobanu D., <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, Aix les Bains, France, 2014</li> <li>18. Moldovan M., Visa I., Duta A., <i>Improving the efficiency in low energy office buildings through thermal zoning optimization an experimental approach</i>, World Renewable Energy Congress, WREC, London, Great Britain, 2014</li> <li>19. Visa I., Moldovan M., Duta A., <i>Sustainable and affordable energy mixes for nearly zero energy buildings</i>, World Renewable Energy Congress, WREC, London, Great Britain, 2014</li> <li>20. Neagoe M., Visa I., Duta A., Moldovan M., Ciobanu D., Burduhos B., <i>Multi-purpose tracking of flat plate solar collectors</i>, World Renewable Energy Congress, WREC, London, Great Britain, 2014</li> <li>21. Comsit M., Visa I., Moldovan M., Duta A., Neagoe M., <i>Increasing the efficiency of facade integrated solar thermal collectors by using single-axis tracking systems</i>, World Renewable Energy Congress, WREC, London, Great Britain, 2014</li> <li>22. Visa I., Neagoe M., Moldovan M., Comsit M., <i>Structural synthesis of parallel linkages by multibody systems method</i>, 6th International Conference ACME, Iasi, Romania, 2014</li> <li>23. Neagoe M., Visa I., Cretescu N., Moldovan M., <i>On a new parallel tracking system for accurate orientation of concentrated solar converters</i>, 6th International Conference Advanced Concepts In Mechanical Engineering, ACME, Iasi, Romania, 2014</li> <li>24. Visa I., Moldovan M., Duta A., <i>Steps to transform a low energy building towards the nearly zero energy status</i>, Conference Smart and Green Transitions in Regions, Twente, Netherlands, 2014</li> <li>25. <i>Mixuri de energii regenerabile pentru agricultura sustenabilă</i>, Conferința Energii regenerabile și soluții de aplicare a lor în agricultură, AGIR, București, România, 2014</li> <li>26. Moldovan M., Visa I., Saulescu R., Comsit M., <i>Four-bar linkages with linear actuators used for solar trackers with large angular diurnal strokes</i>, The 11th IFToMM International Symposium on Science of Mechanisms and Machines, SYROM, Brasov, Romania, 2013</li> </ol> |
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27. Moldovan M., *Renewable energy mixes for sustainables 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, Brasov, Romania, 2013
28. Moldovan M., Visa I., Comsit M., *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, Paris, France, 2013
29. Visa I., Comsit M., Moldovan M., Duta A., *Façade integrated arrays of PVs and solar thermal flat plate collectors*, 28th European Photovoltaic Solar Energy Conference and Exhibition, Paris, France, 2013
30. Burduhos B., Neagoe M., Jaliu C., Comsit M., Moldovan M., Saulescu R., *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, Paris, France, 2013
31. Comsit M., Visa I., Burduhos B., Moldovan M., *Efficiency analysis for four different types of pv modules by using an outdoor tracked platform*, 28th European Photovoltaic Solar Energy Conference and Exhibition, EUPVSEC, Paris, France, 2013
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33. Neagoe M., Visa I., Burduhos B., Moldovan M., Duta A., *Thermal load based adaptive tracking for flat plate solar collectors*, International Conference on Solar Heating and Cooling for Buildings and Industry, SHC, Freiburg, Germany, 2013
34. Visa I., Moldovan M., Duta A., *Tailored Solutions to reach the nearly zero energy building status*, The first International Conference 3E – Energy, Environment and Efficiency, Galati Romania, 2013
35. Neagoe M., Visa I., Moldovan M., Burduhos B., *Novel tracking systems for increasing the overall efficiency of the solar energy conversion*, The first International Conference 3E – Energy, Environment and Efficiency, Galati, Romania, 2013
36. Moldovan M., Visa I., *Sustainable Built Environment. A case study for a solar house*, CAPE Forum 2013, Graz University of Technology, Austria, 2013
37. 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, 2012
38. Moldovan M., Visa I., Burduhos B., *Energetic autonomy for a solar house*, The 3rd International Conference on Sustainable Energy, CSE, Transilvania University of Brasov, Romania, 2011
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40. Moldovan M., Visa I., Duta A., *Promoting the concept of low energy building*, Cooperation in R&D&Innovation for Economic and Social Development in CBC Area Romania – Bulgaria INNOGATE 21, Giurgiu, Romania, 2011
41. Moldovan M., Visa I., Burduhos B., *Energy modeling of a single axis tracked string PV system from a hybrid RES*, 26th European Photovoltaic Solar Energy Conference and Exhibition, Hamburg, Germany, 2011
42. Schaletchi I., Visa I., Velicu R., Moldovan M., *Torsion moment from wind action on PV platforms*, 26th European Photovoltaic Solar Energy Conference and Exhibition, Hamburg, Germany, 2011
43. Moldovan M., Visa I., Badea M., *Nearly zero energy building with hybrid PV-HP system*, Solar and Wind International Conference SWIC, Agigea, Romania, 2011
44. Moldovan M., Nastase G., Visa I., Serban A., *Solar cooling at transilvania university of brasov assembly hall and library*, representing Romania at REHVA Student Competition, 10th REHVA World Congress CLIMA 2010 - Sustainable Energy Use in Buildings Antalya, Turkey, 2010
45. Moldovan M., Boian I., Serban A., Chiriac F., *Heat pump laboratory and data acquisition*, 19th International Conference Facilities for Buildings and Indoor Confort, Timisoara, Romania, 2010
46. Dombi V., Moldovan M., Boian I., Visa I., *Thermal comfort in an office room*, Proceedings of 10th REHVA world congress Clima Sustainable Energy Use in Buildings, Antalya, Turkey, 2010
47. Dombi V., Visa I., Moldovan M., Burduhos B., *Step orientation system for a solar thermal platform*, Proceedings of 6th International Symposium Shape, Mechanical And Industrial Design Of Products In Mechanical Engineering Kod, Palic, Serbia, 2010
48. Moldovan M., Nastase G., Visa I., Serban A., *Solar cooling at Transilvania University of Brasov assembly hall and library*, First prize on national REHVA Student Competition, 44th National Conference of Facilities for Buildings, Sinaia, Romania, 2009
49. Moldovan M., Boian I., *Heat pump operation & data collection*, Proceedings of Sixth International Conference Mechanics And Machine Elements, Sofia, Bulgaria, 2010
50. Moldovan M., Boian I., *Heat pump performance simulation for brasov climatic conditions*, 18th International Conference Facilities for Buildings and Indoor Comfort, Timisoara, Romania, 2009
51. Boian I., Serban A., Moldovan M., Chiriac F., *Heat pump laboratory*, 1st International Conference on Manufacturing Engineering, Quality And Production Systems, Brasov, Romania, 2009

## LISTA DE LUCRĂRI ALE CANDIDATULUI

### A) lista celor mai relevante 10 lucrări științifice pentru realizările profesionale proprii

1. **Moldovan M.**, Visa I., Duta A., *Enhanced sustainable cooling for low-energy office buildings in continental temperate climate*, acceptată spre publicare în ASCE's Journal of Energy Engineering, 2017, **factor de impact 1,944**
2. Visa I., **Moldovan M.**, Comsit M., Neagoe M., Duta A., *Facades integrated solar-thermal collectors – challenges and solutions*, Energy Procedia, 112, 176-185, 2017, **jurnal ISI**
3. Visa I., Burduhos B. G., Neagoe M., **Moldovan M. D.**, Duta A., *Comparative analysis of the in-field response of five types of photovoltaic module*, Renewable Energy, 95, 178-90, 2016, **factor de impact 3,404**
4. Visa I., Duta A., Comsit M., **Moldovan M. D.**, Ciobanu D., Saulescu R., Burduhos B. G., *Design and experimental optimization of a novel flat plate solar thermal collector with trapezoidal shape for facades integration*, Applied Thermal Engineering, 90, 432-443, 2015, **factor de impact 3,043**
5. Visa I., **Moldovan M.**, Comsit M., Duta A., *Improving the Renewable Energy Mix in a Building Towards the Nearly Zero Energy Status*, Energy and Buildings, 68, 72-78, 2014, **factor de impact 2,884**
6. Visa I., Comsit M., **Moldovan M. D.**, Duta A., *Outdoor simultaneous testing of four types of photovoltaic tracked modules*, Journal of Renewable and Sustainable Energy 6, 2014, **factor de impact 0,904**
7. **Moldovan M. D.**, Visa I., Neagoe M., Burduhos B. G., *Solar heating & cooling energy mixes to transform low energy buildings in nearly zero energy buildings*, Energy Procedia, 48, 924-937, 2014, **jurnal ISI**
8. Neagoe M., Vișa I., Burduhos B., Moldovan M., *Thermal Load Based Adaptive Tracking for Flat Plate Solar Collectors*, Energy Procedia, 48, 1401–1411, 2014, **jurnal indexat ISI**
9. **Moldovan M.**, Visa I., Burduhos B., *Energetic Autonomy for A Solar House*, Environmental Engineering and Management Journal, Vol.10, No.9, 1283-1290. Gheorghe Asachi Technical University of Iași, România 2011, **factor de impact 1,004**
10. 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 Iași, România 2011, **factor de impact 1,004**

## **B) 1 Teză de doctorat:**

1. Optimizarea eficienței sistemelor fotovoltaice prin dispunerea șirurilor și orientare monoaxială cu mecanisme articulate. Universitatea Transilvania din Brașov, 2012.

## **C) 1 brevet de invenție și 6 propuneri de brevete de invenție:**

1. Vișa, I., Diaconescu, D., Neagoe, M., Eftimie, E., Șerban, C., **Moldovan, M.**, Săulescu, R., Vătășescu Porca, M., Burduhos, B., Țoțu, I., *Mecanism de orientare monoaxială cu două actuatoare liniare* Brevet nr. RO12799 din 30.05.2016;
2. Vișa M., Duță-Capra A., Vișa I., **Moldovan M.**, Neagoe M., *Reactor tubular în flux continuu pentru procese simultane de fotocataliză și adsorbție în suspensie*, propunere de brevet nr. RO131776/28.04.2017;
3. Vișa I., Comșiș M., Duță A., Neagoe M., Săulescu R., Ciobanu D., Moldovan M., Burduhos B., Perniu D., Eneșca A., Isac L., Ienei E., Mihoreanu C., Țoțu I., *Colector solar termic modular pentru optimizarea prin testare a eficienței conversiei și creșterea acceptanței arhitecturale*, propunere de brevet nr. RO130275/29.05.2015;
4. Vișa I., Duță Capra A., Neagoe M., Comșiș M., **Moldovan M.**, Burduhos B., *Sistem de panouri solare plane poligonale modularizate pentru integrare în fațade*, propunere de brevet nr. RO128860/30.09.2013;
5. Vișa I., Diaconescu D., Neagoe M., **Moldovan M.**, Săulescu R., Vătășescu Porca, M.M., Burduhos B., Țoțu I., Șerban C., Grigorescu C.M., *Mecanism de orientare cu două actuatoare liniare în paralel pentru sisteme alcătuite din șiruri fotovoltaice*, propunere de brevet nr. RO128315/30.04.2013;
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7. Vișa I., Dombi V., Neagoe M., **Moldovan M.**, Săulescu R., Țoțu I., Badea M., Vătășescu Porca M., Șerban C., *Sistem și metodă de orientare a unui colector solar termic plan în funcție de necesarul termic*, propunere de brevet nr. RO127678/30.07.2012.



#### D) 9 cărți și capitole în cărți

1. Vișa I., Comsit M., Duță A., Neagoe M., **Moldovan M.**, Burduhos B., Perniu D., Enesca A., Isac L., Cosnita M., Totu I., Savvides I., Vassiliades C., *Novel Solar-Thermal Collectors/Array With Increased Architectural Acceptance For Building Integration*, Building Integration of Solar Thermal Systems Design and Applications Handbook, 373-391, COST Office, 2017
2. **Moldovan M.**, Visa I., Duta A., *Future trends for solar energy use in nearly zero energy buildings*, Advances in Solar Heating and Cooling, 547-569, Elsevier, 2016
3. Visa I., Neagoe M., **Moldovan M.**, *Structural synthesis of planar geared linkage mechanisms as multibody systems*, New advances in mechanisms mechanical transmissions and robotics, 99-106, Springer, 2016
4. Burduhos B. G., **Moldovan M. D.**, Controlul sistemelor de energii regenerabile, Editura Universității Transilvania din Brașov, 2016
5. Vișa I., Jaliu C., Duță A., Neagoe M., Comșit M., **Moldovan M.**, Ciobanu D., Burduhos B., Săulescu R., The Role of Mechanisms in Sustainable Energy Systems, Editura Universității Transilvania din Brașov, 2015
6. **Moldovan M.**, Visa I., Ciobanu I., *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, Springer, 2014
7. Comsit M., Visa I., **Moldovan M. D.**, Isac L., *Architecturally Integrated Multifunctional Solar-Thermal Façades*, Sustainable Energy in the Built Environment - Steps Towards nZEB, 47-65, Springer, 2014
8. **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, 411-423, Springer, 2014
9. Vătășescu, M., **Moldovan, M.**, Burduhos B., *Sisteme Articulate pentru Orientare Solară*, Editura Universității Transilvania din Brașov, Brașov, România, 2011.

#### E) 16 articole publicate în reviste din fluxul științific internațional principal

1. **Moldovan M.**, Visa I., Duta A., *Enhanced sustainable cooling for low-energy office buildings in continental temperate climate*, acceptată spre publicare în ASCE's Journal of Energy Engineering, 2017, **factor de impact 1,944**, **scor relativ de influență 0,853**
2. Visa I., **Moldovan M.**, Comsit M., Neagoe M., Duta A., *Facades integrated solar-thermal collectors – challenges and solutions*, Energy Procedia, 112, 176-185, 2017, **jurnal indexat ISI**
3. Visa I., Burduhos B. G., Neagoe M., **Moldovan M. D.**, Duta A., *Comparative analysis of the infield response of five types of photovoltaic module*, Renewable Energy, 95, 178-90, 2016, **factor de impact 3,404**, **scor relativ de influență 1,713**
4. Visa I., Duta A., Comsit M., **Moldovan M. D.**, Ciobanu D., Saulescu R., Burduhos B. G., *Design and experimental optimization of a novel flat plate solar thermal collector with trapezoidal shape for facades integration*, Applied Thermal Engineering, 90, 432-443, 2015, **factor de impact 3,043**, **scor relativ de influență 1,972**
5. Visa I., **Moldovan M.**, Comsit M., Duta A., *Improving the Renewable Energy Mix in a Building Towards the Nearly Zero Energy Status*, Energy and Buildings, 68, 72-78, 2014, **factor de impact 2,884**, **scor relativ de influență 2,099**
6. Visa I., Comsit M., **Moldovan M. D.**, Duta A., *Outdoor simultaneous testing of four types of photovoltaic tracked modules*, Journal of Renewable and Sustainable Energy 6, 2014, **factor de impact 0,904**, **scor relativ de influență 0,446**
7. **Moldovan M. D.**, Visa I., Neagoe M., Burduhos B. G., *Solar heating & cooling energy mixes to transform low energy buildings in nearly zero energy buildings*, Energy Procedia, 48, 924-937, 2014, **jurnal indexat ISI**
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12. 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 Iași, România 2011, **factor de impact 1,004**
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14. Dombi V., Visa I., **Moldovan M.**, Burduhos B., *Step orientation system for a solar thermal platform*, Proceedings of 6th International Symposium Shape, Mechanical And Industrial Design Of Products In Mechanical Engineering Kod 2010, 265-268, Palic, Serbia, 2010; **indexat ISI**
15. Boian I., Serban A., **Moldovan M.**, Chiriac F., *Heat Pump Laboratory*, *Proceedings of 1st International Conference on Manufacturing Engineering, Quality And Production Systems (MEQAPS'09)*, 136-141, Brasov, Romania, 2009; **indexat ISI**
16. Boian I., **Moldovan M.**, *Energy Efficient Operation of the Open Loop Heat Pump Systems*, Bulletin of the Transilvania University of Brașov, 2 (51), Series I: Engineering Sciences, 361-370, 2009

**F) 20 publicații în extenso, apărute în lucrări ale principalelor conferințe internaționale de specialitate**

1. Visa I., **Moldovan M.**, Comsit M., Duta A., *Infield Output of a New Solar-Thermal Façade with Increased Architectural Acceptance*, TechConnect World Innovation Conference, Washington, USA, 62 – 65, 2017
2. Visa I., Cotorcea A., **Moldovan M.**, Neagoe M., *Two degrees of freedom tracking system for solar thermal platforms installed on ships*, 7th International Conference on Advanced Concepts in Mechanical Engineering ACME 2016, Iasi, Romania, 2016
3. Visa I., Cotorcea A., Neagoe M., **Moldovan M.**, *Adaptability of solar energy conversion systems on ships*, 7th International Conference on Advanced Concepts in Mechanical Engineering ACME 2016, Iasi, Romania, 2016

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5. **Moldovan M.**, Vișa I., Duță 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;
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7. Comșit M., Vișa I., **Moldovan M.**, Isac L., *Architecturally Integrated Multifunctional Solar-Thermal Façades*, Springer Proceedings in Energy - 4th Conference on Sustainable Energy, CSE 2014, Sustainable Energy in the Built Environment - Steps Towards nZEB, 47-65, Brașov, România, 2014;
8. Visa I., Neagoe M., **Moldovan M.**, Comsit M., *Structural Synthesis of Parallel Linkages by Multibody Systems Method*, 6th International Conference Advanced Concepts in Mechanical Engineering, ACME 2014, Iasi, Romania, 2014
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10. **Moldovan M.**, Vișa I., Săulescu R., Comșit 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, 411-423, Brașov, România, 2014;
11. **Moldovan M.**, *Renewable Energy Mixes For Sustainable Agrosystems*, The 8th Edition of the Annual Conference the Academic Days of the Academy of Technical Sciences in Romania – Products and Technologies for Sustainable Development, Brașov, 2013.
12. **Moldovan M.**, Vișa I., *Sustainable Built Environment. A case study for a Solar House.*, CAPE Forum 2013, Graz University of Technology, 2013, Graz, Austria.
13. Vișa 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.**, Vișa 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. Schalețchi I., Vișa 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. Boian I., Șerban A., **Moldovan M.**, Chiriac F., *Heat Pump Laboratory and Data Acquisition*, Proceedings of 19th Conference Installation for Building and the Ambiental Confort, 135-144, Timișoara, România, 2010.
17. Dombi V., **Moldovan M.**, Boian I., Vișa I., *Thermal comfort in an office room*, Proceedings of 10th REHVA world congress Clima 2010 Sustainable Energy Use in Buildings, 307-308, Antalya, Turkey, 2010.
18. Dombi V., Vișa I., **Moldovan M.**, Burduhos B., *Step orientation system for a solar thermal platform*, Proceedings of 6th International Symposium Shape, Mechanical And Industrial Design Of Products In Mechanical Engineering Kod 2010, 265-268, Palic, Serbia, 2010.
19. **Moldovan M.**, Boian I., *Heat Pump Operation & Data Collection*, Proceedings of Sixth International Conference Mechanics And Machine Elements, 261-270, Sofia, Bulgaria, 2010.
20. Boian I., Șerban A., **Moldovan M.**, Chiriac F., *Heat Pump Laboratory*, Proceedings of 1st International Conference on Manufacturing Engineering, Quality And Production Systems (MEQAPS'09), 136-141, Brașov, România, 2009.

**G) 44 lucrări științifice prezentate în cadrul lucrărilor conferințelor organizate de societăți profesionale naționale și internaționale:**

1. *Infield Output of a New Solar-Thermal Façade with Increased Architectural Acceptance*, TechConnect World Innovation Conference, Washington, USA, 2017
2. *Experimental evaluation of the efficiency of Photovoltaic / Thermal (PVT) modules implemented in the built environment*, First International Conference on Building Integrated Renewable Energy Systems, BIRES 2017, Dublin, Ireland, 2017
3. *Outdoor performance of a trapeze solar-thermal collector for facades integration*, First International Conference on Building Integrated Renewable Energy Systems, BIRES 2017, Dublin, Ireland, 2017

4. *Optimizing the Opaque to Glazed Ratio in Office Buildings to Increase the Solar Fraction in the Sustainable Energy Mix*, 11<sup>th</sup> ISES EuroSun International Conference on Solar Energy for Buildings and Industry EuroSun 2016, Palma de Mallorca, Spain, 2016
5. *Optimised prototype of a novel trapeze solar-thermal collector for facades integration*, 11<sup>th</sup> ISES EuroSun International Conference on Solar Energy for Buildings and Industry, Palma, Spain, 2016
6. *Two degrees of freedom tracking system for solar thermal platforms installed on ships*, 7th International Conference on Advanced Concepts in Mechanical Engineering ACME 2016, Iasi, Romania, 2016
7. *Adaptability of solar energy conversion systems on ships*, 7th International Conference on Advanced Concepts in Mechanical Engineering ACME 2016, Iasi, Romania, 2016
8. *Renewable energy systems for agricultural buildings*, Sixth International Conference on Energy Efficiency and Agricultural Engineering, Ruse, Bulgaria, 2015
9. *Sustainable Mobile Buildings For Agriculture*, Sixth International Conference On Energy Efficiency And Agricultural Engineering, Ruse, Bulgaria, 2015
10. *Optimising the Strokes and Loads of the Linear Actuators in a Two Degrees of Freedom Linkage Used in Solar Tracking Systems*, The 14th IFToMM World Congress, Taipei, Taiwan, 2015
11. *Algorithm for structural synthesis of planar mechanisms as multibody systems*, The 14th IFToMM World Congress, Taipei, Taiwan, 2015
12. *Decreasing the Cooling Load in Low Energy Buildings by Natural Night Ventilation*, World Renewable Energy Congress WREC XIV, Bucuresti, Romania, 2015
13. *The Influence of Thermal Zoning on the Thermal Comfort and Energy Consumption in Low Energy Office Buildings*, 45th International Congress & Exhibition on Heating, Refrigeration and Air Conditioning, KHG 2014, Belgrad, Serbia, 2014
14. *Towards nZEB—Sustainable Solutions to Meet Thermal Energy Demand in Office Buildings*, 4th Conference on Sustainable Energy, CSE 2014, Brasov, Romania, 2014
15. *Architecturally Integrated Multifunctional Solar-Thermal Façades*, 4th Conference on Sustainable Energy, CSE 2014, Brasov, Romania, 2014
16. *Tracking algorithms for solar energy conversion systems: comparative analysis*, 29th European Photovoltaic Solar Energy Conference and Exhibition, EUPVSEC 2014, Amsterdam, Netherlands, 2014
17. *Using A Heat Pump – Photovoltaic System To Transform A Low Energy Building Into A Nearly Zero Energy Building*, International Conference on Solar Energy and Buildings, EuroSun 2014, Aix les Bains, France, 2014

18. *Improving The Efficiency In Low Energy Office Buildings Through Thermal Zoning Optimization An Experimental Aproach*, World Renewable Energy Congress, WREC 2014, London, Great Britain, 2014
19. *Sustainable and Affordable Energy Mixes for Nearly Zero Energy Buildings*, World Renewable Energy Congress, WREC 2014, London, Great Britain, 2014
20. *Multi-purpose tracking of flat plate solar collectors*, World Renewable Energy Congress, WREC, London, Great Britain, 2014
21. *Increasing the efficiency of facade integrated solar thermal collectors by using single-axis tracking systems*, World Renewable Energy Congress, WREC 2014, London, Great Britain, 2014
22. *Structural Synthesis of Parallel Linkages by Multibody Systems Method*, 6th International Conference Advanced Concepts In Mechanical Engineering, ACME 2014, Iasi, Romania, 2014
23. *On a New Parallel Tracking System for Accurate Orientation of Concentrated Solar Convertors*, 6th International Conference Advanced Concepts In Mechanical Engineering, ACME 2014, Iasi, Romania, 2014
24. *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, 2014
25. *Mixuri de energii regenerabile pentru agricultura sustenabilă*, Conferința Energii regenerabile și soluții de aplicare a lor în agricultură, Asociația Generală a Inginerilor din România, București, România, 2014
26. *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, 2013
27. *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, Brașov, România, 2013
28. *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, 2013
29. *Façade integrated arrays of PVs and solar thermal flat plate collectors*, 28th European Photovoltaic Solar Energy Conference and Exhibition, EUPVSEC, Paris, France, 2013

30. *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, 2013
31. *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, 2013
32. *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, 2013
33. *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, 2013
34. *Tailored Solutions to Reach the Nearly Zero Energy Building Status, The first International Conference 3E – Energy, Environment and Efficiency*, IWEEE 2013, Galati, Romania, 2013
35. *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, 2013
36. *Sustainable Built Environment. A case study for a Solar House*, CAPE Forum 2013, Graz University of Technology, Graz, Austria, 2013
37. *A New Solar Tracking Linkage with 2 Actuators in Parallel Connected*, The 2nd IFToMM Asian Conference on Mechanism and Machine Science November 7 -10, 2012, Tokyo, Japan.
38. *Energetic Autonomy for A Solar House*, The 3rd International Conference on Sustainable Energy, CSE 2011, Transilvania University of Braşov, România, 10-12 November, 2011.
39. *Pseudo-equatorial tracking optimization for small photovoltaic platforms from Toronto/Canada*, The 3rd International Conference on Sustainable Energy, CSE, Transilvania University of Brasov, Romania, 2011
40. *Promoting The Concept Of Low Energy Building*, Cooperation in R&D&Innovation for Economic and Social Development in CBC Area Romania – Bulgaria INNOGATE 21, Giurgiu, România, 30 September, 2011.
41. *Energy Modeling Of A Single Axis Tracked String PV System From A Hybrid RES*, 26th EUPVSEC, Hamburg, Germany, 5-9 September, 2011.
42. *Torsion Moment From Wind Action On PV Platforms*, 26th EUPVSEC, Hamburg, Germany, 5-9 September, 2011.



43. *Nearly Zero Energy Building with Hybrid PV-HP System*, SWIC 2011, Solar and Wind International Conference, Agigea, România, 29-31 August, 2011.
44. *Solar Cooling at Transilvania University of Brasov Assembly Hall and Library*, **reprezentant al României** la REHVA Student Competition, 10th REHVA World Congress CLIMA 2010 - Sustainable Energy Use in Buildings, Antalya, Turkey, 9-12 May, 2010.
45. *Heat Pump Laboratory and Data Acquisition*, ASHRAE Danube Chapter Meeting, a 19-a Ediție a Conferinței cu participare internațională Instalații pentru construcții și confortul ambiental, Timișoara, România, 15-16 Aprilie, 2010.
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