

PERSONAL INFORMATION

MOLDOVAN Macedon Dumitru



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WORK EXPERIENCE

- 2017 - present **Associate Professor**
Transilvania University of Braşov, Eroilor Bd. no. 29, 500036, Braşov, România www.unitbv.ro
Business or sector Education, Research
- 2013 - 2017 **Lecturer**
Transilvania University of Braşov, Eroilor Bd. no. 29, 500036, Braşov, România www.unitbv.ro
Business or sector Education, Research
- 2002 - 2013 **Design Engineer**
S.C. Pentagon S.R.L., Sarmisegetuza Str. no. 5, Braşov, România
Business or sector Facilities for buildings
- 1997 - 2002 **Design Engineer**
S.C. Design Construct S.A., Mattis Teutsch Str. no. 4, Braşov, România
Business or sector Tender coordinator for buildings and facilities for buildings works

EDUCATION AND TRAINING

- 2014 – 2015 **Postdoctoral Studies in Mechanical Engineering**
Transilvania University of Braşov
Renewable energy based mixes implemented in low energy buildings
- 2009 – 2012 **Doctoral Studies in Mechanical Engineering**
Transilvania University of Braşov
Efficiency optimization of the photovoltaic systems by strings arrangement and tracking with linkages
- 2009 – 2011 **Masteral Studies in Civil Engineering**
Transilvania University of Braşov
Improving the energy efficiency in the built environment through performances optimization of solar thermal collector - heat pump hybrid systems
- 2007 – 2009 **Bachelor Studies in Civil Engineering**
Transilvania University of Braşov
Facilities for Buildings
- 1996 - 1997 **Masteral Studies in Mechanical Engineering**
Transilvania University of Braşov
Engineering of Tractor - agricultural machine systems
- 1991 - 1996 **Bachelor Studies in Mechanical Engineering**
Transilvania University of Braşov
Agricultural Mechanics
- 24 - 26.06.2019 **Project writing training course on priority axis 1 for the regional operational programme (ROP), ADR Centru, Târgu Mureş, European Academy, Liepajas Iela, Riga, Latvia**
- 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 Braşov , 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

PERSONAL SKILLS

Mother tongue Romanian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Listening	
English	C1	C1	C1	B2	B2

Language Proficiency Certificate no.:808/12.12.2012. B2 Level

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

Communication skills

- invited keynote speaker on „Solar energy based mixes implemented in the built environment” in 17th International Conference on Clean Energy (ICCE) 2019, at Shenyang Jianzhu University, China
- invited speaker on „Renewable Energies Integration in the Biorefinery II”, at ESEIA International Summer School at LNEG, Lisbon, Portugal, 2018
- invited speaker on „Renewable Based Energy Mixes”, in the frame of the Horizon 2020 project *Bioenergy Train* (BET), at Graz Technological University, Austria, 2018
- invited speaker on „Sustainable built environment, Solar thermal and Geothermal systems”, at BEST International Summer School „Renewable energy systems in sustainable communities”, Transilvania University of Braşov, România, 2016
- invited speaker on „Nearly Zero Energy Building” at Cyprus University of Technology, Limassol, by prof. as. dr. eng. Alexandros Charalambides, ECSOL – PROGNOSIS project coordinator, 2015
- invited speaker on „Renewable Energy Systems and Recycling Research Centre of the R&D Institute of the Transilvania University of Braşov”, at Cyprus University of Technology, Limassol, by prof. as. dr. eng. Alexandros Charalambides, ECSOL – PROGNOSIS project coordinator, 2014

Organizational / managerial skills

- coordinator of the Study programme „ Engineering of the Renewable Energy Systems”, Faculty of Product Design and Environment, Transilvania University of Brasov, Romania, 2019-present
- deputy chairperson of the Technical Committee for Sustainable Energy Systems, International Federation for the Promotion of Mechanism and Machine Science, 2019-present
- member of the Commission for the selection, equivalence and recognition of periods of study or practice carried out within the framework of mobility through the Erasmus + Program(C-SER), Faculty of Product Design and Environment, Transilvania University of Brasov, Romania, 2019-present
- member of the Scientific Committee of the Conference for Sustainable Energy CSE2020 – Solar Energy Conversion in Communities, Braşov, România
- member of the Scientific Committee of the Conference for Sustainable Energy CSE2017 – Nearly Zero Energy Communities, Braşov, România
- member of the Product Design and Environment Faculty Student Admission Board 2015-2016
- member of the Scientific Committee of the Conference for Sustainable Energy CSE2014 – Nearly Zero Energy Buildings, Braşov, România
- member of the Interdisciplinary Transilvania University of Braşov Doctoral School Board 2009-2012
- president of the Election Commission of students’ representatives in the Council of Product Design and Environment Faculty and in the University Senate, 2011
- coordination of micro-teams of students to perform internships within Renewable Energy Systems and Recycling Research Centre (RESREC)
- tutoring students for participation in the Student Scientific Sessions
- tutoring students for participation in the competition AFCCO
- coordination of bachelor and masteral students for diploma and dissertation thesis with research themes in the field of renewable energy systems (heat pumps, solar thermal and photovoltaic systems) implemented in the built environment of the Research Center RESREC
- tutoring students from Renewable Energy Systems Engineering specialization

Digital competence

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

- Certifications**
- Energy auditor for buildings, I Rank, since 2019
 - Authorized electrician (design and execution), IIA, IIB Rank, since 2009
 - Authorized gas installer (design and execution), ID Rank, since 1999
- Affiliations**
- International Solar Energy Society, ISES, since 2016
 - Romanian Professional Association for Machine and Mechanism Theory, AROTMM since 2010
 - Romanian Professional Association of Facilities for Buildings Engineers, AIIR since 2009
- Honours and awards**
- Romanian Academy Award „Constantin Budeanu 2017” for the book *The Role of Mechanisms in Sustainable Energy Systems* authored by Vișa Ion, Jaliu Codruța, Duță Anca, Neagoe Mircea, Comșit Mihai, Moldovan Macedon, Ciobanu Daniela, Burduhos Bogdan, Săulescu Radu
 - Transilvania University Award for development of scientific research infrastructure; Spaces – Buildings of the R&D Institute of the Transilvania University of Brasov 2011
 - Transilvania University Award for Technological Transfer 2010
 - First prize in the national phase of international student competition organized by REHVA (Federation of European Heating, Ventilation and Air Conditioning Associations) with a research on the "Solar cooling for the Assembly Hall and Library of the Transilvania University of Brasov, Romania, 2009
- Driving licence**
- B category since 1994

ADDITIONAL INFORMATION

- Research projects**
1. *Optimal design of a renewable energy mix for a multifamily housing complex in Brasov, Romania*, no. 1099 / 2017
 2. *Environmental factors and their influence on the performance of solar thermal collectors*; no. 15098 / 2017
 3. *BioEnergyTrain (BET)*, Program H2020, H2020-LCE-2014-2, CE, DG Research ctr. GA No. 656760
 4. *Sustainable autonomous system for nitrites/nitrates and heavy metals monitoring of natural water sources (WaterSafe) M-ERA.NET*, no. 39/2016
 5. *Solar-thermal laboratory demonstrator and technology based on arrays of triangle flat plate collectors (Sol_Tri_Col)*, PN-III-P2-2.1-PED-2016-0338
 6. *Continuous flow advanced wastewater treatment demonstration technology based on thin film photocatalysis and adsorption reactor (PhotoCatFlow)*, PN-III-P2-2.1-PED-2016-0514
 7. *Increasing the functional performances of the Multiflex cabinets*, SC ELDON SRL, no. 162/2016
 8. *Increasing the competitiveness of SC ELDON SRL by optimizing the manufacturing technology of industrial floor cabinets*, no. 102BG/2015
 9. *Integrated innovative system materials-technology-equipment for simultaneous photocatalysis and adsorption processes applied in sustainable waste water treatment (SimFotoAd)* PN II no. 217/2014
 10. *Innovative sustainable photocatalytic system for self-decontamination of protection equipment CBRN – CB-PhotoDeg* PN II PCCA no. 282/2014
 11. *Effect of Clouds of Solar Irradiance (ECSOL-PROGNOSIS)*, Capacity, RO-CY, 765 / 30.04.2014, RO-CY Bilateral cooperation programs
 12. *Efficient thermal solar systems with high acceptance for implementation in urban areas (EST IN URBA)*, Proiect Parteneriate PNII 28/2012
 13. *R&D Institute High –Tech Products for Sustainable Development (PRODD, ICDT)* Contract 11/2009
- Patents and patent proposals**
1. Neagoe M., Vișa I., Săulescu R., Bârsan I., Crețescu N., Moldovan M., Burduhos B., *Plane-Parallel Guiding Device and Method*, RO 133154 A0, BOPI 3/29.03.2019
 2. Vișa I., Neagoe M., Moldovan M., Duță A., Burduhos B., *Bi-mobile articulated mechanism of parallel type for orienting solar converters at any latitude*, RO 133554 A2/2018
 3. Duta-Capra A., Moldovan M., Bogatu C., Covei M., Vișa I., Perniu D., Neagoe M., *Thin-film photoreactor for advanced water purification by photocatalysis and adsorption*, RO132804 (A0) / 2018
 4. Vișa I., Moldovan M., Neagoe M., Duta-Capra A., Isac L., Perniu D., *Triangular flat plane thermal solar collector*, RO 132733 (A0) / 2018
 5. Vișa I., Dombi V., Neagoe M., Moldovan M., Saulescu R., Totu I., Badea M., Vatasescu Porca M., Serban C., *Method for adjusting orientation of a flat thermal solar collector*, RO127678, 2018
 6. Moldovan M., Duta-Capra A., Comsit M., Totu I., *Solar energy collectors*, f 2016 0339/2016
 7. Burduhos B., Vișa I., Neagoe M., Duta-Capra A., Comsit M., Moldovan M., *Stand of controlled climatic parameters for testing solar converters*, RO132448 (A0) / 2017
 8. Vișa M., Vișa I., Moldovan M., Neagoe M., Tilimpea I., Olaru A., Cosasu D., *Continuous-flow modular parallelepipedal reactor for simultaneous processes of photocatalysis and adsorption*, RO132340 (A0) / 2017
 9. Vișa M., Duta-Capra A., Vișa I., Moldovan M., Neagoe M., *Continuous-flow tubular reactor for simultaneous processes of photocatalysis and adsorption in suspension*, RO131776 (A0) / 2017

10. Visa I., Diaconescu D., Neagoe M., Eftimie E., Serban C., Moldovan M., Saulescu R., Vatasescu Porca M., Burduhos B., Totu I., *Monoaxial orientation mechanism with two linear actuators*, Patent no. RO12799 (B1) / 2016
11. Visa I., Comsit M., Duta A., Neagoe M., Saulescu R., Ciobanu D., Moldovan M., Burduhos B., Perniu D., Enesca A. Isac L., Ienei E., Mihoreanu C., Totu I., *Modular solar thermal collector for the optimisation of the conversion efficiency through experimental testing and for increasing of the architectural acceptance*, RO130275 (A0) / 2015
12. Visa I., Duta-Capra A., Neagoe M., Comsit M., Moldovan M., Burduhos B., *System of flat polygonal solar panels modular built for being integrated into the facades*, RO128860 (A0), 30.09.2013
13. Visa I., Diaconescu D., Neagoe M., Moldovan M., Saulescu R., Vatasescu Porca M.M., Burduhos B., Totu I., Serban C., Grigorescu C.M., *Orienting mechanism with two parallelly connected linear actuators for photovoltaic series*, RO128315 (A0), 2013
14. Visa I., Diaconescu D., Neagoe M., Jaliu C., Alexandru C., Dobre B., Botoman M., Saulescu R., Moldovan M., Porca Vatasescu M., *Low speed actuator with intermittent articulated reducer*, RO128120 (A0), 2013

Books and book chapters

1. Moldovan M., Visa I., Duta A., *Outdoor Performance of Triangle Solar Thermal Collectors for Facades Integration*, Solar Energy Conversion in Communities, Springer Nature Switzerland, 2020
2. Visa I., Duta A., Moldovan M., Burduhos B., Neagoe M., *Solar Energy Conversion Systems in the Built Environment*, Green Energy and Technology, Springer Nature Switzerland AG, 2020
3. Moldovan M., Visa I., *Angular stroke requirements for solar tracking azimuthal mechanism at any latitude*. In: Uhl T. (eds) *Advances in Mechanism and Machine Science*. IFToMM WC 2019. Mechanisms and Machine Science, 73, 3573-3582, Springer, Cham, 2019
4. Visa I., Moldovan M., *Solar Tracking Linkage RSSR for all Latitudes*. In: Uhl T. (eds) *Advances in Mechanism and Machine Science*. IFToMM WC 2019. Mechanisms and Machine Science, vol 73, 3541-3550, Springer, Cham, 2019
5. Moldovan M.D., *Geothermal energy conversion*, Transilvania University of Brasov, 2017
6. Moldovan M., Visa I., *Renewable Energy Systems for a Multi-family Building Community*, *Nearly Zero Energy Communities*, 129-147, Springer, 2017
7. Visa I., Duta A., Moldovan M., Burduhos B., *Implementing Renewable Energy Systems in Nearly Zero Energy Communities*, *Nearly Zero Energy Communities*, 3-24, Springer, 2017
8. Burduhos B., Duta A., Moldovan M., *The Role of Energy Management Systems in nZEB and nZEC*, *Nearly Zero Energy Communities*, 50-69, Springer, 2017
9. Comsit M., Moldovan M., Neagoe M., *Deployable Mobile Units Concepts for Photovoltaic and Solar Thermal Arrays*, *Nearly Zero Energy Communities*, 364-374, Springer, 2017
10. 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, 2017
11. 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., *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
12. Moldovan M., Visa I., Duta A., *Future trends for solar energy use in nearly zero energy buildings (nZEB)*, Woodhead Publishing Series In Energy, Elsevier, 2016
13. Visa I., Neagoe M., Moldovan M., *Structural synthesis of planar geared linkage mechanisms as multibody systems*, 99-106, Springer, 2016
14. Burduhos B. G., Moldovan M. D., *Control of renewable energy systems*, Transilvania University of Brasov Publishing House, 2016
15. Visa I., Jaliu C., Duta A., Neagoe M., Comsit M., Moldovan M., Ciobanu D., Burduhos B., Saulescu R., *The role of mechanisms in sustainable energy systems*, Transilvania University of Brasov Publishing House, 2015
16. 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
17. 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
18. 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
19. Vatasescu M., Moldovan M., Burduhos B., *Linkages for solar tracking*, Transilvania University of Brasov Publishing House, 2011

Scientific articles

1. Moldovan, M., Visa, I., *One Year Experimental Evaluation of the Electrical Gain by Solar Tracking a 12 KW Photovoltaic System Installed on a Building Rooftop*, Mechanisms and Machine Science, 91, pp. 551–559, Springer, Cham, 2021
2. Moldovan M., Visa I., Rusea I., *The influence of the solar thermal collectors integrated in the building façade on the building thermal energy demand across Europe*, Journal of Science and Arts, 1(50), 203-214, 2020
3. Moldovan M., Visa I., Burduhos B., *Experimental Comparison of Flat Plate and Evacuated Tube Solar Thermal Collectors for Domestic Hot Water Preparation in Education Facilities*, Journal of Sustainable Development of Energy, Water and Environment Systems, 8(2), 293-303, 2020
4. Visa I., Moldovan M., Duta A., *Experimental Performance Assessment of Vertically Installed Solar Thermal Collectors*, Journal of Sustainable Development of Energy, Water and Environment Systems, 2020
5. Visa I., Moldovan M., *Energy Efficient Built Environment of the R&D Institute of the Transilvania University of Brasov Romania*, 2020 7th International Conference on Energy Efficiency and Agricultural Engineering (EE&AE), Ruse, pp. 1-4, 2020
6. Cotorcea A., Pocora A., Nicolae F., Visa I., Moldovan M., *Experimental Assessment Of The Tilt Angle Influence On The Solar Thermal Collectors Performance*, 2020 7th International Conference on Energy Efficiency and Agricultural Engineering (EE&AE), Ruse, pp. 1-6, 2020
7. Visa I., Moldovan M., Duta A., *Novel triangle flat plate solar thermal collector for facades integration*, Renewable Energy, 143, 252-262, 2019
8. Visa I., Duta A., Moldovan M., *Outdoor performance of a trapeze solar thermal collector for facades integration*, Renewable Energy, <https://doi.org/10.1016/j.renene.2018.01.101>, 2018
9. Moldovan M., Visa I., *Development of an indoor testing rig for façade integrated solar thermal collectors*, E3S Web of Conferences, 85, 04005 (2019), Eenviro 2018
10. Visa I., Neagoe M., Moldovan M., *Solar tracking parallel linkage applicable for all latitudes*, Mechanisms and Machine Science, 57, 3-11, 2018
11. Visa I., Duta A., Moldovan M., *Nearly Zero Energy Community - a transition concept towards sustainability*, Journal of Engineering Sciences and Innovation, 2 (3), 69-79, 2017
12. Moldovan M., Visa I., Duta A., *Enhanced sustainable cooling for low energy office buildings in continental temperate climate*, ASCE's Journal of Energy Engineering, 143 (5), 1-12, 2017
13. Visa I., Moldovan M., Comsit M., Duta A. *Infield output of a new solar-thermal façade with increased architectural acceptance*, Advanced Materials - TechConnect Briefs, 2, 62-65, 2017
14. Visa I., Moldovan M., Comsit M., Neagoe M., Duta A., *Facades integrated solar-thermal collectors – challenges and solutions*, Energy Procedia, 112, 176-185, 2017
15. Visa I., Burduhos B.G., Neagoe M., Moldovan M.D., Duta A., *Comparative analysis of the infield response of five types of photovoltaic modules*, Renewable Energy, 95, 178-190, 2016
16. Visa I., Cotorcea A., Neagoe M., Moldovan M., *Adaptability of solar energy conversion systems on ships*, IOP Conference Series: Materials Science and Engineering, 147 (1), 012070, 2016
17. Visa I., Cotorcea A., Moldovan M., Neagoe M., *Two degrees of freedom parallel linkage to track solar thermal platforms installed on ships*, IOP Conference Series: Materials Science and Engineering, 147 (1), 012071, 2016
18. 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
19. Moldovan M., Visa I., Neagoe M., *Optimising the strokes and loads of the linear actuators in a two degrees of freedom linkage used in solar tracking systems*, Proceedings of the 14th IFToMM World Congress, Taipei, Taiwan, 2015
20. Visa I., Neagoe M., Moldovan M., *Algorithm for structural synthesis of planar mechanisms as multibody systems*, Proceedings of the 14th IFToMM World Congress, Taipei, Taiwan, 2015
21. Cotorcea A., Visa I., Moldovan M., Ristea M., *Performance assessment of solar thermal collectors in various sea states*, Scientific Bulletin Mircea cel Batran Naval Academy 18 (1), 173, 2015
22. 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
23. Visa I., Comsit M., Moldovan M., Duta A., *Outdoor simultaneous testing of four types of photovoltaic tracked modules*, Journal of Renewable and Sustainable Energy 6, 033142, 1-12, 2014
24. 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
25. Neagoe M., Visa I., Burduhos B., Moldovan M., *Thermal load based adaptive tracking for flat plate solar collectors*, Energy Procedia, 48, 1401–1411, 2014
26. 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
27. Neagoe M., Visa I., Cretescu N., Moldovan M., *On a new parallel tracking system for accurate orientation of concentrated solar converters*, Applied Mechanics and Materials, 658, 105-110 2014
28. Moldovan M., *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, 356-362, 2014
29. 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

30. Visa I., Diaconescu D., Moldovan M., *A new solar tracking linkage with 2 actuators in parallel connected*, 2nd IFToMM Asian Conference on Mechanism and Machine Science, Tokyo, 2012
31. Moldovan M., Visa I., Burduhos B., *Energetic autonomy for a solar house*, Environmental Engineering and Management Journal, 10, 9, 1283-1290, 2011
32. Burduhos B., Toma C., Neagoe M., Moldovan M., *Pseudo-equatorial tracking optimization for small photovoltaic platforms*, Environmental Engineering and Management Journal, 10, 1059-1068, 2011
33. 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, Hamburg, Germany, 3804-3807, 2011
34. 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, Hamburg, Germany, 3556-3559, 2011
35. Moldovan M., Visa I., Duta A., *Energetic monitoring and optimization of a solar house*, Bulletin of the Transilvania University of Braşov, 3 (52), Series I: Engineering Sciences, 91-98, 2010
36. Moldovan M., Boian I., *Heat pump operation & data collection*, Proceedings of Sixth International Conference Mechanics And Machine Elements, Sofia, Bulgaria, 261-270, 2010
37. Boian I., Serban A., Moldovan M., Chiriac F., *Heat pump testing rig*, Proceedings of 19th Conference Installation for Building and the Ambient Comfort, 135-144, Timişoara, Romania, 2010
38. 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 Palic, Serbia, 265-268, 2010
39. 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, 307-308, 2010
40. Boian I., Serban A., Moldovan M., Chiriac F., *Heat pump laboratory*, Proceedings of 1st international conference on manufacturing engineering, Quality And Production Systems, 136-141, 2009
41. Boian I., Moldovan M., *Energy efficient operation of the open loop heat pump systems*, Bulletin of the Transilvania University of Braşov, 2 (51), Series I: Engineering Sciences, 361-370, 2009

Conferences

1. Moldovan M., Visa I., *One year experimental evaluation of the electrical gain by solar tracking a 12 kW photovoltaic system installed on a building rooftop*, Third International Conference of IFToMM Italy, Naples, Italy, 2020
2. Moldovan M., Rusea I., Visa I., *Optimising the thickness of the water layer in a triangle solar thermal collector*, 15th Conference on Sustainable Development of Energy, Water and Environment Systems (SDEWES), Cologne, Germany, 2020
3. Moldovan M., Visa I., Duta A., *Outdoor Performance of Triangle Solar Thermal Collectors for Facades Integration*, 6th Conference for Sustainable Energy (CSE), Brasov, Romania, 2020
4. Visa I., Moldovan M., *Energy Efficient Built Environment of the R&D Institute of the Transilvania University of Brasov Romania*, 7th International Conference on Energy Efficiency and Agricultural Engineering (EE&AE), Ruse, Bulgaria, 2020
5. Cotorcea A., Pocora A., Nicolae F., Visa I., Moldovan M., *Experimental Assessment Of The Tilt Angle Influence On The Solar Thermal Collectors Performance*, 2020 7th International Conference on Energy Efficiency and Agricultural Engineering (EE&AE), Ruse, 2020
6. Moldovan M., Visa I., Rusea I., *The influence of the solar thermal collectors integrated in the building facade on the building energy demand across Europe*, 18th Edition of the national conference of new and renewable energy sources (CNSNRE), Târgovişte, Romania, 2019
7. Moldovan M., Visa I., Burduhos B., *Increasing the output of the solar energy conversion systems implemented in the built environment*, A 14-a ediție a Conferinței „Zilele Academiei de Științe Tehnice din România” 2019, „Creativitatea în dezvoltarea Societății Cunoașterii”, Chişinău, Moldova, 2019
8. Visa I., Duta A., Moldovan M., Burduhos B., Ilie A., *The role of solar energy in sustainable communities*, A 14-a ediție a Conferinței „Zilele Academiei de Științe Tehnice din România” 2019, „Creativitatea în dezvoltarea Societății Cunoașterii”, Chişinău, Moldova, 2019
9. Moldovan M., Visa I., *Solar Energy Based mixes Implemented in the Built Environment. Case study-Renewable Energy Systems and Recycling (RESREC) R&D Centre from Transilvania University of Brasov, Romania*, The 17th International Conference on Clean Energy (ICCE-2019) Shenyang, China, 2019
10. Moldovan M., Visa I., *Angular stroke requirements for solar tracking azimuthal mechanism at any latitude*, 15th IFToMM World Congress, Krakow, Poland, 2019
11. Visa I., Moldovan M., *Solar Tracking Linkage RSSR for all Latitudes*, 15th IFToMM World Congress, Krakow, Poland, 2019
12. Moldovan M., *Mixuri de energii regenerabile implementate în mediul construit*, Conf. dr. ing. Macedon MOLDOVAN, RoEnergy – Eficiență energetică & Energii regenerabile, București, România, 2019
13. Moldovan M., Visa I., *Development of an indoor testing rig for façade integrated solar thermal collectors*, Conference on „Sustainable Solutions for Energy and Environment (EENVIRO), Cluj-Napoca, Romania, 2018
14. Visa I., Moldovan M., Duta A., *Novel triangle flat plate solar-thermal collector for facades integration*, 13th Conference on Sustainable Development of Energy, Water and Environment Systems (SDEWES), Palermo, Italia

15. Moldovan M., Visa I., Burduhos B., *Experimental Comparison of Flat Plate and Evacuated Tube Solar Thermal Collectors for Domestic Hot Water Preparation in Education Facilities*, 3rd South East European Conference on Sustainable Development of Energy Water and Environment Systems SDEWES SEE 2018, Novisad, Serbia, 2018
16. Visa I., Moldovan M., Duta A., Neagoe M., *Experimental Performance Assessment of Vertically Installed Solar Thermal Collectors*, 3rd South East European Conference on Sustainable Development of Energy Water and Environment Systems SDEWES SEE 2018, Novisad, Serbia, 2018
17. Moldovan M., Visa I., Duta A., *Upgrading Building Envelopes Using Façade Integrated Solar Thermal Collectors*, 3rd International Conference on Smart Energy Systems in Cities and Regions, Dublin Institute of Technology, Ireland, 2018
18. Visa I., Neagoe M., Moldovan M., Comsit M., *Solar Tracking Parallel Linkage Applicable for all Latitudes*, 12th IFToMM International Symposium on Science of Mechanisms and Machines SYROM, Iasi, Romania, 2017
19. Moldovan M., Visa I., *Renewable Energy Systems for a Multi-family Building Community*, Conference for Sustainable Energy - Nearly Zero Energy Communities, Brasov, Romania, 2017
20. Visa I., Duta A., Moldovan M., Burduhos B., *Implementing Renewable Energy Systems in Nearly Zero Energy Communities*, Conference for Sustainable Energy (CSE) - Nearly Zero Energy Communities, Brasov, Romania, 2017
21. Burduhos B., Duta A., Moldovan M., *The Role of Energy Management Systems in nZEB and nZEC*, Conference for Sustainable Energy (CSE) - Nearly Zero Energy Communities, Brasov, Romania, 2017
22. Comsit M., Moldovan M., Neagoe M., *Deployable Mobile Units Concepts for Photovoltaic and Solar Thermal Arrays*, Conference for Sustainable Energy (CSE) - Nearly Zero Energy Communities, Brasov, Romania, 2017
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