

Listă lucrări științifice publicate

Lucrări publicate în articole notate cu „P”;
Citările unor autori terți, notate cu „C”.

- P.1 Abrudan A.C., Pop O.G., Serban A., Balan M.C., *New Perspective on Performances and Limits of Solar Fresh Air Cooling in Different Climatic Conditions*, Energies, 12, 2019, 2113 (IF: 2.676/2017); - WOS Q2 doi:10.3390/en12112113 doi:10.3390/en12112113
- P.2 Petreus D., Balan M.C., Pop O.G., Etz R., Patarau T., *Evaluation of the PV energy production determined by measurements, simulation and analytical calculations*, E3S Web of Conferences 85, 2019, 04002, 5th International Conference on Sustainable Solutions for Energy and Environment EENVIRO 2018; DOI: <https://doi.org/10.1051/e3sconf/20198504002>
- P.3 Pop O.G., Fechete Tutunaru L.V., Bode F., Abrudan A.C., Bălan M.C., *Energy efficiency of PCM integrated in fresh air cooling systems in different climatic conditions*, Applied Energy, 212, 2018, p. 976-996, (IF: 7.900 / 2017); - WOS Q1 DOI: <https://doi.org/10.1016/j.apenergy.2017.12.122>
- C.3.1 Souayfane F., Biwole P.H., Fardoun F., Thermal behavior of a translucent superinsulated latent heat energy storage wall in summertime, Applied Energy, 217, 2018, p. 390-408 (IF: 7.900/2017); DOI: <https://doi.org/10.1016/j.apenergy.2018.02.119>
- C.3.2 Lee H., Ozaki A., Sensitivity analysis for optimization of renewable-energy-based air-circulation-type temperature-control system, Applied Energy, 230, 2018, p. 317–329 (IF: 7.900/2017); DOI: <https://doi.org/10.1016/j.apenergy.2018.08.111>
- C.3.3 Said M.A., Hassan H., Parametric study on the effect of using cold thermal storage energy of phase change material on the performance of air-conditioning unit, Applied Energy, 230, 2018, p.1380–1402 (IF: 7.900 / 2017); DOI: <https://doi.org/10.1016/j.apenergy.2018.09.048>
- C.3.4 Li C., Yu H., Song Y., Liang H., Yan X., Preparation and characterization of PMMA/TiO₂ hybrid shell microencapsulated PCMs for thermal energy storage, Energy, 167, 2019 p. 1031-1039 (IF: 4.968/2017); DOI: <https://doi.org/10.1016/j.energy.2018.11.038>
- C.3.5 Khaireldin Faraj, Mahmoud Khaled, Jalal Faraj, Farouk Hachem, Cathy Castelain, *Use of phase change materials thermal energy storage systems for cooling applications in buildings: A review*, The 6th International Conference on Emerging and Renewable Energy: Generation and Automation ICEREGA'18, At Sousse, Tunissia, 2018;
- C.3.6 Fan Li, Hongxia Chen, Fade Wu, Qingwei Zhu, Tingting Qi, Xiaofei Zhang, *The Effects of Phase-Change Materials on Building in Different Climatic Regions: Energy Saving and Indoor Thermal Comfort*, Material Sciences 材料科学, 9(5), 2019, p. 437-446; DOI: <https://doi.org/10.12677/ms.2019.95056>
- P.4 Pop O.G., Iuga C.A., Tutunaru L.F., Balan M.C., *Modeling and experimental validation of the thermal behavior of PCM using DSC input data*, AIP Conference Proceedings, 2004, 2018, p. 020005 1 – 7, susținută la conferința ICEESM 2018, Milano; DOI: <https://doi.org/10.1063/1.5051100>
- P.5 Pop O.G., Abrudan A.C., Dogeanu A.M., Pocola A.G., Fechete Tutunaru L.V., Balan M.C., *Dynamic thermal modeling of buildings and application to a hospital*, IEEE, International Conference on Automation, Quality and Testing, Robotics (AQTR), Cluj-Napoca, 24-26 May 2018, p. 1-6, susținută la conferința AQTR 2018, Cluj-Napoca; DOI: [10.1109/AQTR.2018.8402769](https://doi.org/10.1109/AQTR.2018.8402769)

- P.6 **Pop O.G.**, Fechete Tutunaru L., Bode F. and Balan M.C., *Preliminary investigation of thermal behaviour of PCM based latent heat thermal energy storage*, E3S Web of Conferences, 32, 2018, p. 01017: 1-8, susținută la Workshop EENVIRO 2017 București; DOI: <https://doi.org/10.1051/e3sconf/20183201017>
- P.7 **Pop O.G.**, Abrudan A.C., Adace D.S, Pocola A.G., Bălan M.C., *Potential of HVAC and solar technologies for hospital retrofit to reduce heating energy consumption*, E3S Web of Conferences, 32, 2018, p. 01016: 1-8, sustinuta la Workshop EENVIRO 2017 București; DOI: <https://doi.org/10.1051/e3sconf/20183201016>
- P.8 **O. POP**, I. POP, *SOLAR WATER HEATING FOR A SWIMMING POOL*, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, 61, Issue II, June, 2018, p. 279-286, ISSN 1221-5872;
- P.9 Unguresan P.V., Porumb R.A., Petreus D., Pocola A.G., **Pop O.G.**, Balan M.C., *Orientation of Facades for Active Solar Energy Applications in Different Climatic Conditions*, Journal of Energy Engineering, 143, 2017, p. 04017059:1-11 (IF: 1.944 / 2016); - WOS Q2 DOI: [10.1061/\(ASCE\)EY.1943-7897.0000486](https://doi.org/10.1061/(ASCE)EY.1943-7897.0000486)
- C.9.1 Molani F., Ziapour B.M., *Performance Analyses of Ammonia-Water Absorption Cooling Cycle Combined with Enhanced Passive PVT System*, Journal of Energy Engineering, Volume 145, Issue 3, 1 June 2019, Article number 04019008; (IF: 1.944 / 2016) DOI: [10.1061/\(ASCE\)EY.1943-7897.0000603](https://doi.org/10.1061/(ASCE)EY.1943-7897.0000603)
- P.10 **Pop O.G.**, Fechete Tutunaru L., Bălan M.C., *Numerical Model for Solidification and Melting of PCM Encapsulated in Spherical Shells*, Energy Procedia, 112, 2017, p. 336-343, susținută în cadrul conferinței internaționale EENVIRO 2016, București; doi: [10.1016/j.egypro.2017.03.1060](https://doi.org/10.1016/j.egypro.2017.03.1060)
- C.10.1 Stritih U., Zavrl E., Paksoy H.O., *Energy Analysis and Carbon Saving Potential of a Complex Heating System with Solar Assisted Heat Pump and Phase Change Material (PCM) Thermal Storage in Different Climatic Conditions*, European Journal of Sustainable Development Research, 2018; DOI: <https://doi.org/10.20897/ejosdr/3930>
- C.10.2 Refat Al-Shannaq, Brent Young, Mohammed Farid, *Cold energy storage in a packed bed of novel graphite/PCM composite spheres*, Energy, 171, 2019, p. 296-305; (IF: 4.968/2017) DOI: <https://doi.org/10.1016/j.energy.2019.01.024>
- C.10.3 Ahmed K. Alsharaa, *Numerical Simulation of Packed Bed Cubical Storage Unit Filled with Spherical Capsules of PCM*, Wasit Journal of Engineering Science, Vol. 6, nr. 3, p.39-50; DOI: <https://doi.org/10.31185/ejuow.Vol6.Iss3.103>
- C.10.4 Songheng Loem, Thoranis Deethayat, Attakorn Asanakham, Tanongkiat Kiatsiriroat, *Thermal characteristics on melting/solidification of low temperature PCM balls packed bed with air charging/discharging*, Case Studies in Thermal Engineering, 14, 2019, 100431; DOI: <https://doi.org/10.1016/j.csite.2019.100431>
- P.11 **O. POP**, I. POP, *STUDY CONCERNING THE OPERATING PARAMETERS OF CENTRAL HEATING PLANTS IN CONDENSATION REGIME*, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, 60, Issue II, June, 2017, p. 275-284, ISSN 1221-5872;
- P.12 **Pop O.G.**, Bălan M.C., *Assessments about calculation of the PCM's phase change temperature in the climatic conditions of Romania*, TERMOTEHNICA Supliment 1/2016, p. 37 – 42; <http://www.revistatermotehnica.agir.ro/articol.php?id=2647>
- P.13 **O. Pop**, A. Abrudan, I. Pop, *Closed Expansion Vessel Dimensioning – Part III*, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, 58, Issue I, March, 2016, p.137-144, ISSN 1221-5872; <https://atna-mam.utcluj.ro/index.php/Acta/article/view/529>
- P.14 A. Abrudan, **O. Pop**, I. Pop, *Closed Expansion Vessel Dimensioning - Part I*, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, 57, Issue III, September, 2014, p. 393-402, ISSN 1221-5872; <https://atna-mam.utcluj.ro/index.php/Acta/article/view/395>

- P.15** I. Pop, **O. Pop**, A. Abrudan, *Closed Expansion Vessel Dimensioning - Part II*, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, 57, Issue IV, November, 2014, p. 515-522, ISSN 1221-5872;

Teză doctorat

Titlu teză: *Studiu privind eficiența utilizării materialelor cu schimbare de fază în climatizare*, elaborată în cadrul IOSUD-Universitatea Tehnică din Cluj-Napoca, conducător științific Prof.dr.ing. Mugur Ciprian Bălan, Susținută public la data: 17 Ianuarie 2019, calificativ obținut: Excelent/Suma cum Laude;

Carte – Îndrumător proiectare

- P.1** Pop I., Oprișoiu P. și **Pop O.**, Cazane pentru încălzire – Îndrumător de proiectare, Ediția a II-a completată, Editura UTPRESS, Cluj-Napoca 2015 ISBN 978-606-737-124-6

Granturi/contracte de cercetare

Eficientizarea energetică a sistemelor de climatizare prin utilizarea materialelor cu schimbare de fază, Grant intern Universitatea tehnică din Cluj-Napoca –Director Grant, contract nr. 2013/12.07.2017, obținut prin competiție internă CICDI-2017, valoare 20000 lei.

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Asist.dr.ing. Pop Octavian-Gabriel