

Listă lucrări științifice publicate

Lucrări publicate în articole

- 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
- 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>
- 3 **Pop O.G.**, Fehete 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: 8.426 / 2018**); - **WOS Q1** DOI: <https://doi.org/10.1016/j.apenergy.2017.12.122>
- 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>
- 5 **Pop O.G.**, Abrudan A.C., Dogeanu A.M., Pocola A.G., Fehete 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)
- 6 **Pop O.G.**, Fehete 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>
- 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>
- 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;
- 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)
- 10 **Pop O.G.**, Fehete 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)
- 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;
- 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>
- 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>

- 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>
- 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;

Articole în curs de indexare

- 1 **O.G. Pop**, C.A Iuga, L. Fechete Tutunaru, F. Domnita, M.C. Balan, Numerical modelling of PCMs encapsulated in spherical shells using inverse enthalpy-temperature functions, 5th International Conference on Energy Engineering and Smart Materials ICEESM 2020 (Europe), 15 – 17 aprilie, 2020, Barcelona, Spania (desfășurată on-line, software comunicare Zoom)
- 2 **O.G. Pop**, C.A Iuga, L. Fechete Tutunaru, M.C. Balan, Experimental Investigation of the Solidification and Melting Processes of PCMs, 2020 IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR), May 21-23 2020, Cluj-Napoca, Romania (desfășurată on-line, software comunicare Teams)
- 3 Kapalo P., Domnița F., **Pop O.**, Adamski M., Voznyak O., Considerations about the required volumetric air flow rate inside an office room with one occupant – Case study, Journal of applied engineering sciences, 10(23), ISSN: 2247-3769 / e-ISSN: 2284-7197

Carte – Îndrumător proiectare

- 1 Pop I., Oprețoiu 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
- 2 **Pop O.** și Domnița F., Instalații de utilizare gaze naturale – Îndrumător de proiectare, Editura UTPRESS, Cluj-Napoca 2020 ISBN 978-606-737-455-1.

Capitole de carte

- 1 Magurean A., **Pop O.**, Pocola A., Serban A. și Balan M., Einstein's Equation in Nuclear and Solar Energy, Editura IntechOpen, 2019, DOI: <http://dx.doi.org/10.5772/intechopen.90574>;
- 2 **Pop O.G.**, Magurean A.M., Pocola A.G., Ciocan M. și Balan M.C., Zaaoumi A., Performances of solar thermal collectors in different climatic conditions, Springer Nature, Elveția (acceptat spre publicare)

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;

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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