

## LISTA DE LUCRĂRI PUBLICATE

NUMELE ȘI PRENUMELE: DOBRE Gabriela-Roxana

### I. LISTA PUBLICAȚIILOR RELEVANTE

(Lista celor maximum 10 lucrări considerate de candidat a fi cele mai relevante pentru realizările profesionale proprii, care sunt incluse în format electronic în dosar și care se pot regăsi și în celelalte categorii de lucrări)

1. **Holban, G. -R** (2007): *The variational approach to deriving plate model*, Trends and challenges in applied mathematics, ICTCAM 2007, Bucharest, Romania, <http://www.zentralblatt-math.org/zmath/en/search/?q=an:1135.00011&format=complete>
2. **Dobre, G. -R.** Drobot, R. (2011): *Estimating soil hydraulic parameters using a metaheuristic algorithm*, Scientific Bulletin. Series, Mathematical Modeling in Civil Engineering, ISSN 1841-5555, Issue 1/2, p. 102  
[https://www.researchgate.net/profile/Radu\\_Drobot2/publication/268323424\\_ESTIMATING\\_SOIL\\_HYDRAULIC\\_PARAMETERS\\_USING\\_A\\_METAHEURISTIC\\_ALGORITHM/links/5689510108ae051f9af762c3.pdf](https://www.researchgate.net/profile/Radu_Drobot2/publication/268323424_ESTIMATING_SOIL_HYDRAULIC_PARAMETERS_USING_A_METAHEURISTIC_ALGORITHM/links/5689510108ae051f9af762c3.pdf)
3. **Dobre, G. -R.** (2014): *R language: statistical computing and graphics for modeling of hydrologic time series*, Scientific Bulletin. Series, Mathematical Modeling in Civil Engineering, No. 4  
DOI: <https://doi.org/10.2478/mmce-2014-0018>
4. **Dobre, G.-R.**, Gaitanaru, D.S., Gogu, R. (2017): *Snowmelt infiltration using Hydrus-1D based on a snow surface energy balance model for Bucegi mountains, Romania*, SGEM 2017- International Multidisciplinary Scientific GeoConference Proceedings, ISBN 978-619-7408-05-8 / ISSN 1314-2704, Vol. 17, Issue 32, 483-490 pp,  
DOI: [10.5593/sgem2017/32/S13.063](https://doi.org/10.5593/sgem2017/32/S13.063)
5. **Dobre, G.-R.**, Gaitanaru, D.S., Gogu, R. (2017): *Snowmelt modelling in urban areas*, Procedia Engineering 209, 127–134,  
<https://doi.org/10.1016/j.proeng.2017.11.138>
6. Gaitanaru, D.S., **Dobre, G.-R.**, Gogu, R. (2017): *Estimation of Snowmelt Infiltration*, Remote sensing, model and in-situ data fusion for snowpack parameters and related

hazards in a climate change perspective, Editura Printech Bucuresti, ISBN 978-606-23-0733-2, SnowBall project,

<https://www.researchgate.net/publication/320559630>

7. **Dobre, G.-R.** (2017): *Solving partial differential equation using R*, Proceedings of the 14th Scientific Communications Session of the Department of Mathematics and Computer Science of Technical University of Civil Engineering, ISSN 2067-1332  
<http://civile-old.utcb.ro/mie/proceedings2017.pdf>
8. **Dobre, G.-R.**, Gaitanaru, D.S., (2018): *Estimating soil hydraulic properties for unsaturated zone using gradient ant metaheuristic methods*, SGEM 2018- International Multidisciplinary Scientific GeoConference Proceedings, Vol. 18, Iss. 3.2: 165-172.  
[DOI:10.5593/sgem2018/3.2/S13.022](https://doi.org/10.5593/sgem2018/3.2/S13.022)
9. **Dobre, G.-R.**, Sandu, A. E. (2018): *Using R for soil parameter estimation*, Proceedings of the 15th Scientific Communications Session of the Department of Mathematics and Computer Science of Technical University of Civil Engineering, ISSN 2601-9299  
<http://civile-old.utcb.ro/mie/proceedings2018.pdf>
10. **Dobre, G. -R.**, Sandu, A. E. (2019): *Climate Change Impact Assessment of Snowmelt in Bucegi Mountains Using RCP Scenarios*, Proceedings of the 16th Scientific Communications Session of the Department of Mathematics and Computer Science of Technical University of Civil Engineering, ISSN 2601-9299  
<http://civile-old.utcb.ro/mie/proceedings2019.pdf>

## II. LISTA COMPLETĂ DE PUBLICAȚII, CREAȚII, INVENȚII

### A. Teza de doctorat.

(Titlul, conducătorul tezei, denumirea exactă a instituției unde s-a realizat, calificativul obținut)

A1: **HOLBAN (DOBRE) Gabriela-Roxana**: *Modelarea cuplată a curgerii și transportului în mediul saturat și nesaturat*, Teza de doctorat, UTCB, 2014

Conducător științific: Prof. univ. dr. ing. Radu Drobot

Teza a fost susținută în data de 16/09/2014 obținându-se calificativul "Foarte bine" și acordarea titlului de dr. în domeniul inginerie civilă

## B. Cărți publicate

(Autor/autorii, titlul, volumul, editura, localitatea unde are sediul editura, anul, numărul de pagini totale, capitolul și numărul de pagini ce revin autorului, ISBN.)

### B2. Cărți (manuale, monografii, tratate, îndrumare etc.) publicate în țară, la edituri recunoscute CNCSIS.

1. Gaitanaru, D.S., **Dobre, G.-R.**, Gogu, R. (2017): Remote sensing, model and in-situ data fusion for snowpack parameters and related hazards in a climate change perspective, *Estimation of Snowmelt Infiltration*, Editura Printech Bucuresti, ISBN 978-606-23-0733-2, SnowBall project,  
<https://www.researchgate.net/publication/320559630>
2. **Dobre Gabriela-Roxana** (2020): *Ecuatii diferentiale si ecuatii cu derivate partiale. Metode analitice si numerice. Note de curs si aplicatii in inginerie.* ISBN: 978-606-25-0574-5, Editura Matrix Rom  
[https://www.matrixrom.ro/categorii/carti/?filter\\_autor=gabriela-roxana-dobre](https://www.matrixrom.ro/categorii/carti/?filter_autor=gabriela-roxana-dobre)

## C. Lucrări științifice publicate

(Autor/ autorii în ordinea înscrisă în publicație, titlul lucrării, periodicul, volumul, anul, numărul, paginile)

### C1. Lucrări științifice publicate în reviste cotate ISI

1. **Dobre, G.-R.**, Gaitanaru, D.S., Gogu, R. (2017): *Snowmelt infiltration using Hydrus-1D based on a snow surface energy balance model for Bucegi mountains, Romania*, SGEM 2017- International Multidisciplinary Scientific GeoConference Proceedings, ISBN 978-619-7408-05-8 / ISSN 1314-2704, Vol. 17, Issue 32, 483-490 pp, DOI: 10.5593/sgem2017/32/S13.063  
(Urmează a fi indexat de Thomson Reuters, ISI Web of Science, ISI Web of Knowledge și este deja indexată de ELSEVIER, SCOPUS, EBSCOHost, ProQuest, Springer Nature).
2. **Dobre, G.-R.**, Gaitanaru, D.S., Gogu, R. (2017): *Snowmelt modelling in urban areas*, Procedia Engineering 209, 127–134,  
<https://doi.org/10.1016/j.proeng.2017.11.138>  
(The impact factor (IF) 2018 of Procedia Engineering is 0.97)

3. **Dobre, G. -R.** Gaitanaru, D.S., (2018): *Estimating soil hydraulic properties for unsaturated zone using gradient ant metaheuristic methods*, SGEM 2018- International Multidisciplinary Scientific GeoConference Proceedings, Vol. 18, Iss. 3.2: 165-172.  
DOI:10.5593/sgem2018/3.2/S13.022  
(SGEM Conference Proceedings din 2018 urmează a fi indexat de Clarivate Analytics ISI Web of Science/ Web of Knowledge, SCOPUS, Engineering Village/Compendex, ProQuest, EBSCOhost, British Library, Springer Nature).

**C2. Lucrări științifice publicate în reviste indexate în baze de date internaționale**  
(indicați și baza de date).

1. **Holban, G.-R.** (2007): *The variational approach to deriving plate model*, Trends and challenges in applied mathematics, ICTCAM 2007, Bucharest, Romania, (Zentralblatt)  
<http://www.zentralblatt-math.org/zmath/en/search/?q=an:1135.00011&format=complete>
2. **Dobre, G.-R.** (2011): *Estimating soil hydraulic parameters using a metaheuristic algorithm*, Scientific Bulletin. Series, Mathematical Modeling in Civil Engineering, ISSN 1841-5555, Issue 1/2, p. 102  
(EBSCO, Google Scholar)
3. **Dobre, G.-R.** (2014): *R language: statistical computing and graphics for modeling of hydrologic time series*, Scientific Bulletin. Series, Mathematical Modeling in Civil Engineering, No. 4  
(EBSCO, Google Scholar)
4. **Dobre, G.-R.** (2017): *Solving partial differential equation using R*, Proceedings of the 14th Scientific Communications Session of the Department of Mathematics and Computer Science of Technical University of Civil Engineering, ISSN 2067-1332  
(Google Scholar)
5. **Dobre, G.-R.**, Sandu, A. E. (2018): *Using R for soil parameter estimation*, Proceedings of the 15th Scientific Communications Session of the Department of Mathematics and Computer Science of Technical University of Civil Engineering, ISSN 2601-9299  
(Google Scholar)

6. Sandu, A. E., **Dobre, G.-R.** (2018): *Eigenvalues, eigenvectors and the diagonalization of a matrix with MATLAB, MATHCAD and R software*, Proceedings of the 15th Scientific Communications Session of the Department of Mathematics and Computer Science of Technical University of Civil Engineering, ISSN 2601-9299  
(Google Scholar)
7. **Dobre, G.-R.**, Sandu, A. E. (2019): *Climate Change Impact Assessment of Snowmelt in Bucegi Mountains Using RCP Scenarios*, Proceedings of the 16th Scientific Communications Session of the Department of Mathematics and Computer Science of Technical University of Civil Engineering, ISSN 2601-9299  
(Google Scholar)
8. Sandu, A. E., **Dobre, G.-R.** (2019): *Analysis of software packages for modeling water quality in a water distribution network*, Proceedings of the 16th Scientific Communications Session of the Department of Mathematics and Computer Science of Technical University of Civil Engineering, ISSN 2601-9299  
(Google Scholar)
9. **Dobre, G.-R.**, Sandu, A. E. (2020): *Mathematical Modeling of Infectious Disease, in the Context of the Spread of the Novel Coronavirus (Covid 19)*, Proceedings of the 17th Scientific Communications Session of the Department of Mathematics and Computer Science of Technical University of Civil Engineering.  
(Is in a process of evaluation and indexation by Google Scholar)
10. Sandu, A. E., **Dobre, G.-R.** (2020): *A Comparative Analysis Of Infection Cases With Sars-Cov-2 Coronavirus In The First Three Months From The Outbreak Of The Infection Cases In Some European Countries*, Proceedings of the 17th Scientific Communications Session of the Department of Mathematics and Computer Science of Technical University of Civil Engineering.  
(Is in a process of evaluation and indexation by Google Scholar)

#### **C6. Lucrări științifice publicate în volumele manifestărilor științifice**

(Autor/autorii în ordinea înscrisă în publicației, titlul lucrării, titlul volumului, editorul sau redactorul, editura, locul, volumul, anul, paginile)

1. **Holban, G.-R** (2003): *Rezervoare cilindrice cu pereti de grosime variabila*, Lucrarile sesiunii stiintifice a Catedrei de Matematica si Informatica, UTCB
2. **Holban, G.-R** (2005): *Justificarea cu metode asimptotice a ecuatiilor bidimensionale de membrane si incovoiere a unei placi liniar elastice incastrate*, Lucrarile sesiunii stiintifice a Catedrei de Matematica si Informatica, UTCB
3. **Dobre, G.-R** (2009): *Genetic Algorithms in Hydrology*, Proceedings of the 10th Workshop of the Dept. of Math. and Computer Sc., Tech. Univ. of Civil Eng.
4. **Dobre, G.-R** (2011): *Comparison of Metaheuristic Algorithms with applicatios in parameter estimation in vadose zone*, Proceedings of the 11th Workshop of the Dept. of Math. and Computer Sc., Tech. Univ. of Civil Eng
5. **Dobre, G.-R.**, Drobot. R. (2013): *Using Genetic and Gradient Algorithms for solving hydrogeological optimization problems*, Proceedings of the 12th Workshop of the Dept. of Math. and Computer Sc., Tech. Univ. of Civil Eng.
6. **Dobre, G.-R.**, Drobot. R. (2014): *Modelling the infiltration process*, Proceedings of Mathematics and Educational Symposium of Dept. of Math. and Computer Sc., 1<sup>st</sup> edition, Tech. Univ. of Civil Eng
7. **Dobre G.-R.** (2015): *Tabu search optimization with application in groundwater management*, Proceedings of the 13th Workshop of the Dept. of Math. and Computer Sc., Tech. Univ. of Civil Eng
8. **Dobre, G.-R.** (2016): *Solving differential equation in R*, Proceedings of Mathematics and Educational Symposium of Dept. of Math. and Computer Sc., 2<sup>nd</sup> edition, Tech. Univ. of Civil Eng

#### **G. Contracte de cercetare (menționați calitatea de director sau membru)**

(Titlul contractului calitatea persoanei (director, membru în echipă), modul de valorificare, exemple elocvente de publicații, brevete)

- **SnowBall** project (EEA Grants no EEA-JRP-RO-NO-2013-1-0285)-membru în echipa formată de prof. univ. dr. ing Radu Gogu și cercetătorul științific Găitanaru Dragoș din partea Centrului de Cercetare în Ingineria Apelor Subterane. UTCB.
- În 2017 am publicat ca membru al echipei din partea Centrului de Cercetare în Ingineria Apelor Subterane la a capitolul „Estimation of Snowmelt Infiltration” în cartea „Remote sensing, model and in-situ data fusion for snowpack parameters and related hazards in a climate change perspective“, în care m-am ocupat de partea de modelare matematică a proceselor de topire a zăpezii.

- În cadrul aceluiași colectiv, în 2017 și 2018 am participat la conferințele International Multidisciplinary Scientific GeoConference Surveying, Geology and Mining, Ecology and Management – **SGEM**, unde am și publicat două articole care sunt în proces de evaluare și indexare de cele mai importante de cele mai importante baze de date (Clarivate Analytics ISI Web of Science/ Web of Knowledge, SCOPUS, Engineering Village/Compendex, ProQuest, EBSCOhost, British Library, Springer Nature)
  1. **Dobre, G.-R.**, Gaitanaru, D.S., Gogu, R. (2017): Snowmelt infiltration using Hydrus-1D based on a snow surface energy balance model for Bucegi mountains, Romania, SGEM 2017- International Multidisciplinary Scientific GeoConference Proceedings, ISBN 978-619-7408-05-8 / ISSN 1314-2704, Vol. 17, Issue 32, 483-490 pp, DOI: 10.5593/sgem2017/32/S13.063
  2. **Dobre, G. -R.**, Gaitanaru, D.S., (2018): Estimating soil hydraulic properties for unsaturated zone using gradient ant metaheuristic methods, SGEM 2018- International Multidisciplinary Scientific GeoConference Proceedings, Vol. 18, Iss. 3.2: 165-172. DOI:10.5593/sgem2018/3.2/S13.022
- INXCES project: “INnovations for eXtreme Climatic eventS”, project number 48/2016, PNCDI III-membru în cadrul aceleiași echipe din Centrul de Cercetare în Ingineria Apelor Subterane
- Deasemenea, tot în 2017, am participat la conferința internațională SUB-URBAN 2017. Am continuat cu partea de modelare matematică a procesului de topire a zăpezii pentru zona urbană publicând lucrarea
  1. **Dobre, G.-R.**, Gaitanaru, D.S., Gogu, R. (2017): Snowmelt modelling in urban areas, Elsevier Procedia Engineering 209, 127–134, <https://doi.org/10.1016/j.proeng.2017.11.138> (The impact factor (IF) 2018 of Procedia Engineering is 0.97)

Data,  
23.07.2020

Semnătura,