

INFORMAȚII PERSONALE

**Radu VĂCĂREANU**

📍 Str. Trestiana, nr. 11, Sector 4, București, cod poștal 040374, România

☎ (40-21) 242.11.61 📠

✉ radu.vacareanu@utcb.ro

Sexul masculin | Data nașterii 22/10/1966 | Naționalitatea Română

POZIȚIA

Profesor universitar

EXPERIENȚA PROFESIONALĂ

Din martie 2008 – până în
prezent

Profesor universitar

Universitatea Tehnică de Construcții București, Facultatea de Construcții Civile, Industriale și Agricole, Departamentul Construcții de Beton Armat
B-dul. Lacul Tei, nr.122 - 124, Sector 2, București, cod 020396, România

Website: <http://www.utcb.ro>

Tel.: (40-21) 242 11 61 - Fax (40-21) 242 07 81

- Activitate didactică și de cercetare

Sectorul de activitate Învățământ superior

Din octombrie 2002 – până în
iunie 2008

Director

Centrul Național pentru Reducerea Riscului Seismic

- Implementarea Proiectului JICA de Cooperare Tehnică pentru Reducerea Riscului Seismic la Clădiri și Structuri în România

Sectorul de activitate Cercetare – inginerie seismică

Din iulie 2001 – până în
februarie 2008

Conferențiar universitar

Universitatea Tehnică de Construcții București, Facultatea de Construcții Civile, Industriale și Agricole, Catedra Construcții de Beton Armat

- Activitate didactică și de cercetare/proiectare

Sectorul de activitate Învățământ superior

Din octombrie 1992 – până în
iunie 2001

Preparator, asistent, șef de lucrări

Universitatea Tehnică de Construcții București, Facultatea de Construcții Civile, Industriale și Agricole, Catedra de Construcții Civile

- Activitate didactică și de cercetare / proiectare

Sectorul de activitate Învățământ superior

Din aprilie 1992 – până în
octombrie 1992

Inginer

INCERC București

- Inginer în cadrul secției de Inginerie Seismică

Sectorul de activitate Cercetare – inginerie seismică

Din august 1991 – până în
martie 1992

Inginer

AROCONSTRUCT București

- Șef de punct de lucru - consolidarea Policlinicii Lahovary

Sectorul de activitate Construcții – execuție

EDUCAȚIE ȘI FORMARE

ianuarie – februarie 2007 octombrie – decembrie 2005 august – octombrie 2002	Specialist în inginerie seismică Inginerie seismică Building Research Institute, Tsukuba, Japonia
noiembrie 2014	Doctor abilitat Inginerie civilă Universitatea Tehnică „Gheorghe Asachi” din Iași
august – noiembrie 1999	Stagiu post-doctoral Siguranța structurilor Institute of Engineering Mechanics, University of Innsbruck, Austria
1992 – 1999	Doctor inginer Statica, dinamica și stabilitatea construcțiilor / inginerie seismică Universitatea Tehnică de Construcții București
1986-1991	Inginer Construcții Civile, Industriale și Agricole Institutul Politehnic „Gheorghe Asachi” Iași, Facultatea de Construcții

COMPETENTE PERSONALE

Limba maternă Română

Alte limbi străine cunoscute

	INTELEGERE		VORBIRE		SCRIERE
	Ascultare	Citire	Participare la conversație	Discurs oral	
Engleză	C1	C1	C1	C1	B2
Franceză	B1	B1	A2	A2	A2

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

Competențe de comunicare

Bune competențe de comunicare prin experiența acumulată ca profesor, conferențiar, șef de lucrări, asistent universitar și preparator

Competențe organizaționale /manageriale

- 2019 – Ordinul Național *Serviciu Credincios* în grad de *Cavaler* conferit de Președintele României
- 2016 – prezent – Rector al Universității Tehnice de Construcții București
- 2012 – 2016 - Prorector al Universității Tehnice de Construcții București
- 2014 – 2016 - Director al Centrului de Cercetare „Evaluarea Riscului Seismic” din UTCB
- 2008 – 2012 - Prodecan al Facultății de Construcții Civile, Industriale și Agricole
- 2002-2008 – Director al Centrului Național pentru Reducerea Riscului Seismic
- 2000 – 2008 - Secretar științific al Facultății de Construcții Civile, Industriale și Agricole
- 2000 și 2002 - Membru al Comitetelor de organizare pentru “JICA International Seminar: Earthquake Hazard and Countermeasures for Existing Fragile Buildings” și “International Conference Earthquake Loss Estimation and Risk Reduction”, București

Competențe și aptitudini tehnice

- Președinte al Asociației Europene de Inginerie Seismică
- Președinte executiv al Comisiei Naționale de Inginerie Seismică organizată de Ministerul Dezvoltării, Lucrărilor Publice și Administrației (MDLPA)

- Delegat național la Asociația Internațională de Inginerie Seismică
 - Membru al Comitetului ministerial pentru situații de urgență produse de factori naturali - cutremure și/sau alunecări de teren organizat de MDLPA
 - Membru al colectivelor de elaborare P100-1/2006 și P100-1/2013 - Cod de proiectare seismică - Partea I- Prevederi de proiectare pentru clădiri
 - Membru al colectivului de elaborare a P100-3/2008 și P100-3/2019 - Cod de proiectare seismică — Partea a III-a — Prevederi pentru evaluarea seismică a clădirilor existente
 - Membru al colectivului de elaborare a CR 0/2012 - Cod de proiectare. Bazele proiectării construcțiilor și a CR 1-1-3/2012 - Cod de proiectare. Evaluarea acțiunii zăpezii asupra construcțiilor
 - Coordonator al colectivului de elaborare a CR 1-1-4/2012 - Cod de proiectare. Evaluarea acțiunii vântului asupra construcțiilor
 - Membru al Comisiei CNATDCU de Inginerie civilă și managementul lucrărilor de construcții
 - Membru al Comitetului Tehnic de Specialitate CTS 1- Hazarduri și riscuri naturale organizat de MLPDA
 - Membru al ASRO/CT 343 Bazele proiectării și Eurocoduri pentru structuri
 - Membru al Comitetului de Redacție al Earthquakes and Structures.
- An International Journal
- Editor Invitat al Bulletin of the International Institute of Seismology and Earthquake Engineering
 - Membru al Earthquake Engineering Research Institute și Seismological Society of America
 - Recenzor pentru revistele Bulletin of the Seismological Society of America, Journal of Earthquake Engineering, Bulletin of Earthquake Engineering, Soil Dynamics and Earthquake Engineering, Earthquake Spectra,, Earthquakes and Structures. An International Journal si Earthquake Engineering and Engineering Vibration
 - 2022 - Co-Președinte al celei de a Treia Conferințe Europene de Inginerie Seismică Seismologie (3ECEES), București
 - 2022 - Co-Președinte al celei de a Opta Conferințe Europene și Africane de Inginerie Vântului (8EACWE), București,
 - 2018 - Membru al Comitetului Științific Internațional al 16th European Conference on Earthquake Engineering, Salonic, Grecia
 - 2017 - Membru al Comitetului Științific al „Sixth National Conference on Earthquake Engineering and Second National Conference on Earthquake Engineering and Seismology”, 6CNIS & 2CNISS, București
 - 2015 - Membru al Comitetului Științific al Simpozionului Național „75 de ani de la cutremurul vrâncean din 10 noiembrie 1940”, București
 - 2014 - Membru al Comitetului Științific al „Fifth National Conference on Earthquake Engineering and First National Conference on Earthquake Engineering and Seismology”, 5CNIS & 1CNISS, București
 - 2013 - Membru al Comitetului Științific al International Conference "Skopje Earthquake - 50 Years of European Earthquake Engineering" (SE-50EEE), Skopje
 - 2007 - Co-presedinte al "International Symposium on Seismic Risk Reduction, ISSRR2007", București
 - 2007 - Membru al Comitetului Științific al "International Symposium on Strong Vrancea Earthquakes and Risk Mitigation", București

Competențe digitale

AUTOEVALUARE				
Procesarea informației	Comunicare	Creare de conținut	Securitate	Rezolvarea de probleme
Experimentat	Experimentat	Experimentat	Independent	Independent

Niveluri: Utilizator elementar - Utilizator independent - Utilizator experimentat

[Competențele digitale - Grilă de auto-evaluare](#)

Ianuarie 2024

Prof. dr. ing. Radu Văcăreanu

Anexă***Lista publicațiilor științifice (în ultimii 10 ani)****Cărți sau capitole în cărți*

- Văcăreanu, R., Ionescu, C. (eds). (2022). Progresses in European Earthquake Engineering and Seismology. Third European Conference on Earthquake Engineering and Seismology – Bucharest, 2022. Springer Proceedings in Earth and Environmental Sciences. Springer, Cham, ISBN 978-3-031-15103-3, ISBN 978-3-031-15104-0 (eBook), XIX, 488 p., <https://doi.org/10.1007/978-3-031-15104-0>
- Văcăreanu, R., Ionescu, C. (Eds) (2018). Seismic Hazard and Risk Assessment. Updated Overview with Emphasis on Romania, Springer Natural Hazards Book Series, 544 p., eBook ISBN 978-3-319-74724-8, Hardcover ISBN 978-3-319-74723-1, DOI 10.1007/978-3-319-74724-8
- Pavel, F., Popa, V., Văcăreanu, R. (2018). Impact of Long-Period Ground Motions on Structural Design: A Case Study for Bucharest, Romania, SpringerBriefs in Geotechnical and Earthquake Engineering, Springer, 87p., ISBN 978-3-319-73402-6, DOI10.1007/978-3-319-73402-6
- Pavel, F., Văcăreanu, R. (2018). Applications of Probabilistic Methods in Structural Reliability and Risk Assessment, Editura Conspress, 199p., ISBN 978-973-100-472-3
- Pavel, F., Văcăreanu, R. (2017). Elemente generale de hazard și risc seismic, Editura MatrixRom, 315p., ISBN 978-606-25-0333-8
- Văcăreanu, R., Ionescu, C. (Eds) (2016). The 1940 Vrancea Earthquake. Issues, Insights and Lessons Learnt. Proceedings of the Symposium Commemorating 75 Years from November 10, 1940 Vrancea Earthquake, Springer Natural Hazards Book Series, 521 p., eBook ISBN 978-3-319-29844-3, Hardcover ISBN 978-3-319-29843-6, DOI 10.1007/978-3-319-29844-3
- Văcăreanu, R., Aldea, A., Lungu, D., Pavel, F., Neagu, C., Arion, C., Demetriu, S., Iancovici, M. (2016). Probabilistic Seismic Hazard Assessment for Romania. In: D'Amico, S. (Eds) Earthquakes and Their Impact on Society, Springer Natural Hazards Book Series, p. 137-169, ISBN: 978-3-319-21752-9 (Print) 978-3-319-21753-6 (Online), <http://dx.doi.org/10.1007/978-3-319-21753-6>
- Văcăreanu, R., Pavel, F., Aldea, A., Arion, C., Neagu, C. (2015). Elemente de analiză a hazardului seismic, Editura Conspress, 215p., ISBN 978-973-100-386-3
- Văcăreanu, R., Ionescu, C. (Eds.) (2014). Proceedings of the Fifth National Conference on Earthquake Engineering & First National Conference of Earthquake Engineering and Seismology, Editura Conspress, 426 p., ISBN 978-973-100-342-9
- Văcăreanu, R., Pavel, F., Aldea, A. (2013). Îndrumător pentru evaluarea acțiunii vântului asupra construcțiilor conform CR 1-1-4/2012, Editura Conspress, 89p., ISBN 978-973-100-279-9

Articole în reviste cu recenzori

- Cristian-Scupin, A, Văcăreanu, R. (2023). Performance criteria expressed by means of relative displacements for a retrofitted masonry school building. *Engineering Failure Analysis*. 153. doi: 10.1016/j.engfailanal.2023.107531
- Pavel, F., Văcăreanu, R. (2023). Review of Methodologies for Displacement Checks in Modern Seismic Design Codes. *Buildings*, 13(4), doi:10.3390/buildings13040940
- Scupin, A, Văcăreanu, R. (2023). Seismic risk reduction through retrofitting of school masonry buildings from Romania. *Front. Built Environ*. 8:1104234. doi: 10.3389/fbuil.2022.1104234
- Pavel, F., Văcăreanu, R. (2022). Seismic Risk Assessment for Elements of the Electric Network in Romania. *Buildings*, 12, 244, <https://doi.org/10.3390/buildings12020244>
- Pavel, F., Văcăreanu, R., Pitilakis, K. (2022). Preliminary Evaluation of the Impact of Eurocode 8 Draft Revision on the Seismic Zonation of Romania. *Appl. Sci.* 2022, 12(2), 649; <https://doi.org/10.3390/app12020649>
- Tiganescu, A., Craifaleanu, I-G, Aldea, A., Grecu, B., Vacareanu, R., Toma-Danila, D., Balan, S.-F. and Dragomir, C.-S. (2022). Evolution, Recent Progress and Perspectives of the Seismic Monitoring of Building Structures in Romania. *Front. Earth Sci.* 10:819153. doi: 10.3389/feart.2022.819153
- Georgescu, D., Văcăreanu, R., Aldea, A., Apostu, A., Arion, C., Girboveanu, A. (2022). Assessment of the Sustainability of Concrete by Ensuring Performance during Structure Service Life. *Sustainability*, 14, 617. <https://doi.org/10.3390/su14020617>
- Pavel, F., Văcăreanu, R., Arion, C., Aldea, A., Scupin, A. (2021). Seismic risk assessment of lifelines in Bucharest, *International Journal of Disaster Risk Reduction*, 66 (2021) 102629, <https://doi.org/10.1016/j.ijdr.2021.102629>
- Olteanu, P., Văcăreanu, R. (2021). Inelastic displacement demand of RC buildings subjected to earthquakes generated by intermediate-depth Vrancea seismic source, *Natural Hazards*, <https://doi.org/10.1007/s11069-021-04930-3>
- Coțovanu, A., Văcăreanu, R. (2021). Recommended Path Durations for Stochastic Simulations of Ground Motions Generated by Vrancea Intermediate-Depth Seismic Source, *Pure and Applied Geophysics*, <https://doi.org/10.1007/s00024-021-02782-3>
- Pavel, F., Văcăreanu, R., Marcu, D. (2021). Seismic performance assessment and rating for a flat-slab RC core wall structure in Bucharest, Romania, *Structures*, 31: 1006-1016
- Pavel, F., Văcăreanu, R., Scupin, A. (2020). Seismic fragility assessment for post-1977 high-rise reinforced concrete structures in Romania, *Bulletin of Earthquake Engineering*, <https://doi.org/10.1007/s10518-020-01014-8>
- Pavel, F., Văcăreanu, R. (2020). Re-assessment of peak ground accelerations for large magnitude Vrancea intermediate-depth earthquakes, *Journal of Seismology*, DOI: 10.1007/s10950-020-09955-y
- Olteanu, P., Văcăreanu, R. (2020). Ground Motion Model for Spectral Displacement of Intermediate-Depth Earthquakes Generated by Vrancea Seismic Source, *Geosciences*, 10(8), 282; <https://doi.org/10.3390/geosciences10080282>
- Coțovanu, A., Văcăreanu, R. (2020). Modeling energy release parameters in stochastic simulation of ground motions generated by Vrancea intermediate-depth seismic source, *Bulletin of Earthquake Engineering*, 18: 2557–2580, <https://doi.org/10.1007/s10518-020-00805-3>
- Pavel, F., Văcăreanu, R. (2020). Assessment of the Seismic Performance for a Low-Code RC Shear Walls Structure in Bucharest (Romania), *The Open Construction and Building Technology Journal*, 14:111-123, DOI: 10.2174/1874836802014010111
- Pavel, F., Văcăreanu, R., Pitilakis, K., Anastasiadis A. (2020). Investigation on site-specific seismic response analysis for Bucharest (Romania), *Bulletin of Earthquake Engineering*, 18: 1933–1953, <https://doi.org/10.1007/s10518-020-00789-0>
- Coțovanu, A., Văcăreanu, R. (2019). Local site conditions modeling in stochastic simulation of ground motions generated by Vrancea (Romania) intermediate-depth seismic source. *Journal of Seismology*, 24(1): 229–241, DOI: 10.1007/s10950-019-09892-5
- Pavel, F., Văcăreanu, R. (2019). Analysis of exceedance probabilities for design spectral accelerations from crustal earthquakes in Romania. *Journal of Seismology*, 23: 1327–1345, <https://doi.org/10.1007/s10950-019-09869-4>

- Pavel, F., Văcăreanu, R., Pitiliakis, K. (2019). Intensity-dependent site amplification factors for Vrancea intermediate-depth earthquakes. *Bulletin of Earthquake Engineering*, 17(5): 2363–2380, DOI: 10.1007/s10518-019-00563-x
- Pavel, F., Văcăreanu, R. (2018). Investigation on regional attenuation of Vrancea (Romania) intermediate-depth earthquakes. *Earthquake Engineering and Engineering Vibration*, 17(3): 501–509, DOI: 10.1007/s11803-018-0458-5
- Văcăreanu, R., Pavel, F., Crăciun, I., Colibă, V., Arion, C., Aldea, A., Neagu, C. (2018). Risk-targeted maps for Romania. *Journal of Seismology*, 22(2):407–417, DOI 10.1007/s10950-017-9713-x
- Pavel, F., Calotescu, I., Văcăreanu, R., Săndulescu, A.M. (2018). Assessment of seismic risk scenarios for Bucharest, Romania. *Natural Hazards*, 93 (Suppl 1): 25-37, <https://doi.org/10.1007/s11069-017-2991-3>
- Bejan, A-S., Damian, R. M., Leiber, T., Neuner, I., Niculiță, L., Văcăreanu, R. (2018) Impact evaluation of institutional evaluation and programme accreditation at Technical University of Civil Engineering Bucharest (Romania), *European Journal of Higher Education*, 8:3, 319-336, DOI: 10.1080/21568235.2018.1474780
- Pavel, F., Văcăreanu, R. (2017). Evaluation of the seismic hazard for 20 cities in Romania using Monte Carlo based simulations. *Earthquake Engineering and Engineering Vibration*, 16(3): 513-523, DOI: 10.1007/s11803-017-0400-2
- Pavel, F., Văcăreanu, R., Calotescu, I., Săndulescu, A.-M., Arion, C., Neagu, C. (2017). Impact of spatial correlation of ground motions on seismic damage for residential buildings in Bucharest, Romania. *Natural Hazards*, 87(2): 1167–1187, DOI 10.1007/s11069-017-2814-6
- Pavel, F., Văcăreanu, R. (2017). Ground motion simulations for seismic stations in southern and eastern Romania and seismic hazard assessment. *Journal of Seismology*, DOI 10.1007/s10950-017-9649-1
- Pavel, F., Văcăreanu, R. (2017). Spatial Correlation of Ground Motions from Vrancea (Romania) Intermediate-Depth Earthquakes. *Bulletin of the Seismological Society of America*, 107(1): 489-494, February 2017, DOI: 10.1785/0120160095
- Pavel, F., Văcăreanu, R. (2016). Scenario-based earthquake risk assessment for Bucharest, Romania. *International Journal of Disaster Risk Reduction*, 20: 138-144, DOI: <http://dx.doi.org/10.1016/j.ijdr.2016.11.006>
- Pavel, F., Văcăreanu, R. (2016). Scaling of ground motions from Vrancea (Romania) earthquakes. *Earthquakes and Structures. An International Journal*, 11(3): 505-516, DOI: 10.12989/eas.2016.11.3.505
- Pavel, F., Văcăreanu, R., Douglas, J., Radulian, M., Cioflan, C. O., Barbat, A. (2016). An Updated Probabilistic Seismic Hazard Assessment for Romania and Comparison with the Approach and Outcomes of the SHARE Project. *Pure and Applied Geophysics*, 173(6): 1881-1905, DOI: 10.1007/s00024-015-1223-6
- Văcăreanu, R., Iancovici, M., Neagu, C., Pavel, F. (2015). Macroseismic intensity prediction equations for Vrancea intermediate-depth seismic source. *Natural Hazards*, 79(3):2005-2031, DOI: 10.1007/s11069-015-1944-y
- Pavel, F., Văcăreanu, R. (2015). Investigation on site conditions for seismic stations in Romania using H/V spectral ratio. *Earthquakes and Structures. An International Journal*, 9(5): 983-997, DOI: 10.12989/eas.2015.9.5.983
- Văcăreanu, R., Radulian, M., Iancovici, M., Pavel, F., Neagu, C. (2015). Fore-arc and back-arc ground motion prediction model for Vrancea intermediate depth seismic source. *Journal of Earthquake Engineering*, 19(3): 535-562, DOI: 10.1080/13632469.2014.990653
- Pavel, F., Văcăreanu, R., Radulian, M., Cioflan, C. (2015). Investigation on directional effects of Vrancea subcrustal earthquakes. *Earthquake Engineering and Engineering Vibration*, 14(3): 399-410, DOI: 10.1007/s11803-015-0032-3
- Pavel, F., Văcăreanu, R. (2015). Assessment of the ground motion levels for the Vrancea (Romania) November 1940 earthquake. *Natural Hazards*, 78(2): 1469-1480, DOI 10.1007/s11069-015-1767-x
- Pavel, F., Văcăreanu, R. (2015). Kappa and regional attenuation for Vrancea (Romania) earthquakes. *Journal of Seismology*, 19:791–799, DOI 10.1007/s10950-015-9490-3

- Popa, V., Văcăreanu, R., Opreșoreanu, V., Albotă, E., Köber, D. (2015). Suitability of Current Assessment Techniques to Retrodict the Seismic Damage of Buildings: A Case Study in Van, Turkey. *The Open Civil Engineering Journal*, 9: 330-343, DOI: 10.2174/1874149501509010330
- Bejan, S-A., Janatuinen, T., Jurvelin, J., Klöpping, S., Malinen, H., Minke, B., Văcăreanu, R. (2015) Quality assurance and its impact from higher education institutions' perspectives: methodological approaches, experiences and expectations, *Quality in Higher Education*, 21:3, 343-371, DOI: 10.1080/13538322.2015.1112546
- Văcăreanu, R., Iancovici, M., Pavel, F. (2014). Conditional mean spectrum for Bucharest. *Earthquakes and Structures. An International Journal*, 7(2): 141-157, DOI: 10.12989/eas.2014.7.2.141
- Pavel, F., Văcăreanu, R., Cioflan, C., Iancovici, M. (2014). Spectral Characteristics of Strong Ground Motions from Intermediate-Depth Vrancea Seismic Source. *Bulletin of the Seismological Society of America*, 104(6): 2842–2850, December 2014, DOI: 10.1785/0120130334
- Pavel, F., Văcăreanu, R., Ionescu, C., Iancovici, M., Sercăianu, M. (2014). Investigation of the variability of strong ground motions from Vrancea earthquakes. *Natural Hazards*, 74(3): 1707-1728, DOI 10.1007/s11069-014-1273-6
- Popa, V., Coțofană, D., Văcăreanu, R. (2014). Effective stiffness and displacement capacity of short reinforced concrete columns with low concrete quality. *Bulletin of Earthquake Engineering*, 12(6): 2705–2721, DOI 10.1007/s10518-014-9618-9
- Pavel, F., Văcăreanu, R., Neagu, C., Pricopie, A. (2014). Bi-normalized response spectra and seismic intensity in Bucharest for 1986 and 1990 Vrancea seismic events. *Earthquake Engineering and Engineering Vibration*, 13(1): 125-135, DOI: 10.1007/s11803-014-0217-1
- Văcăreanu, R., Demetriu, S., Lungu, D., Pavel, F., Arion, C., Iancovici, M., Aldea, A., Neagu, C. (2014). Empirical ground motion model for Vrancea intermediate-depth seismic source. *Earthquakes and Structures, An International Journal*, 6(2): 141-161, DOI: 10.12989/eas.2014.6.2.127
- Pavel, F., Văcăreanu, R., Lungu, D. (2014). Bi-normalized response spectra for various frequency content ground motions. *Journal of Earthquake Engineering*, 18(2): 264-289, DOI:10.1080/13632469.2013.846283
- Pavel, F., Văcăreanu, R., Arion, C., Neagu, C. (2014). On the variability of strong ground motions recorded from Vrancea earthquakes. *Earthquakes and Structures, An International Journal*, 6(1): 1-18, DOI: 10.12989/eas.2014.6.1.001
- Văcăreanu, R., Mărmureanu, Gh., Pavel, F., Neagu, C., Cioflan, C.A., Aldea, A. (2014). Analysis of soil factor S using strong ground motions from Vrancea subcrustal seismic source. *Romanian Reports in Physics*, 66(3): 893–906
- Văcăreanu, R., Pavel, F., Aldea, A. (2013). On the selection of GMPEs for Vrancea subcrustal seismic source. *Bulletin of Earthquake Engineering*, 11(6): 1867-1884, DOI: 10.1007/s10518-013-9515-7
- Pavel, F., Văcăreanu, R., Aldea, A., Arion, C. (2013). Source Effects on the Spectral Characteristics of Strong Ground Motions Recorded in Bucharest Area During Vrancea Earthquakes of 1986 and 1990, *Journal of Earthquake Engineering*, 17(8): 1192-1211, DOI:10.1080/13632469.2013.830997
- Lungu, D., Văcăreanu, R., Aldea, A., Arion, C. (2013). Earthquake Hazard and Risk in Romania. *Bulletin International Institute for Seismology and Earthquake Engineering, Tsukuba, Japan*, 47: 139-148, ISSN 0074-655X
- Văcăreanu R., Lungu D., Aldea A., Arion C., Neagu C., Gaman F., Petrescu F., Aldea M. (2013). Expected direct seismic losses assessment using GIS. Case study for Iași Municipality, *Technical University of Civil Engineering Bucharest - Scientific Journal – Series: Mathematical Modeling in Civil Engineering*, 3: 12-18

Articole în volumele conferințelor

- Aldea, A., Văcăreanu, R., Pavel, F., & Arion, C. (2023). Probabilistic analysis of seismic hazard – the case of Romania. *Academic Journal of Civil Engineering*, 41 (3), 39-49. <https://doi.org/10.26168/ajce.41.3.5>
- Aldea, A., Văcăreanu, R., Lungu, D., Pavel, F., Arion, C. (2022). GMPEs for Romania’s Vrancea Intermediate Depth Seismic Source. In: Văcăreanu, R., Ionescu, C. (eds) *Progresses in European Earthquake Engineering and Seismology. ECEES 2022. Springer Proceedings in Earth and Environmental Sciences*. Springer, Cham. https://doi.org/10.1007/978-3-031-15104-0_6
- Pavel, F., Văcăreanu, R., Arion, C., Aldea, A. (2022). New Insights on the Seismic Exposure and Vulnerability of Structures in Romania. In: Văcăreanu, R., Ionescu, C. (eds) *Progresses in European Earthquake Engineering and Seismology. ECEES 2022. Springer Proceedings in Earth and Environmental Sciences*. Springer, Cham. https://doi.org/10.1007/978-3-031-15104-0_12
- Coțovanu, A., Văcăreanu, R. (2022). Simulation of accelerograms specific to design hazard for Vrancea intermediate depth earthquakes, in *Proceedings of the Third European Conference on Earthquake Engineering and Seismology – 3ECEES*, Arion, C., Scupin, A., Țigănescu, A. (eds), ISBN 978-973-100-533-1, p. 9-18, Conspress, Bucharest
- Olteanu, P., Văcăreanu, R. (2022). Seismic input for displacement-based design of RC buildings in Romania, in *Proceedings of the Third European Conference on Earthquake Engineering and Seismology – 3ECEES*, Arion, C., Scupin, A., Țigănescu, A. (eds), ISBN 978-973-100-533-1, p. 449-458, Conspress, Bucharest
- Scupin, A., Văcăreanu, R., Pavel, F. (2022). Seismic vulnerability assessment of masonry buildings in the education sector in Romania, in *Proceedings of the Third European Conference on Earthquake Engineering and Seismology – 3ECEES*, Arion, C., Scupin, A., Țigănescu, A. (eds), ISBN 978-973-100-533-1, p. 1638-1645, Conspress, Bucharest
- Arion, C., Călărășu, E., Neagu, C., Aldea, A., Văcăreanu, R. (2022). Main dynamic parameters for the seismic characterization of Bucharest, Romania surface geology, in *Proceedings of the Third European Conference on Earthquake Engineering and Seismology – 3ECEES*, Arion, C., Scupin, A., Țigănescu, A. (eds), ISBN 978-973-100-533-1, p. 2215-2224, Conspress, Bucharest
- Crăifăleanu, I-G., Dragomir, C-S., Țigănescu, A., Aldea, A., Văcăreanu, R., Dobre, D., Georgescu, E-S. (2022). Seismic instrumentation of buildings in Romania: overview, challenges and future actions needed for a coordinated approach, in *Proceedings of the Third European Conference on Earthquake Engineering and Seismology – 3ECEES*, Arion, C., Scupin, A., Țigănescu, A. (eds), ISBN 978-973-100-533-1, p. 2281-2288, Conspress, Bucharest
- Văcăreanu, R., Pavel, F., Scupin, A. (2021). Probabilistic seismic risk assessment for reinforced concrete buildings in Romania, 17th World Conference on Earthquake Engineering, Sendai, Japan
- Scupin, A., Văcăreanu, R. (2021). Numerical Simulation of the Non-linear Response of Historic Masonry, 10th International Conference on ENERGY and ENVIRONMENT (CIEM), DOI: 10.1109/CIEM52821.2021.9614765
- Scupin, A., Văcăreanu, R., Pavel, F. (2021). Seismic performance assessment based on displacement capacity of unreinforced masonry structures, IOP Conference Series Earth and Environmental Science 664(1):012087, DOI: 10.1088/1755-1315/664/1/012087
- Scupin, A., Văcăreanu, R., Pavel, F. (2021). Evaluation of Invasive Retrofitting Interventions on an Unreinforced Masonry Heritage Building, 12th International Conference on Structural Analysis of Historical Constructions, DOI: 10.23967/sahc.2021.091
- Aldea, A., Demetriu, S., Văcăreanu, R., Lungu, D., Arion, C., Neagu, C. (2019). A short historical overview of wind characteristics and wind pressure for design in Romania, *Technical Transactions* 10/2019, *Civil Engineering*, DOI: 10.4467/2353737xct.19.109.11033
- Pavel, F., Văcăreanu, R., Pitilakis, K. (2019). Preliminary revision of the seismic zonation from the current Romanian seismic design code, *Proceedings of the 7th International Conference on Earthquake Geotechnical Engineering*, Rome, Italy
- Neagu, C., Arion, C., Aldea, A., Calarasu, E. A., Văcăreanu, R., Pavel, F. (2018) Ground Types for Seismic Design in Romania. In: Văcăreanu, R., Ionescu, C. (Eds) (2018). *Seismic Hazard and Risk Assessment. Updated Overview with Emphasis on Romania*, Springer Natural Hazards Book Series,

- p. 157-172, eBook ISBN 978-3-319-74724-8, Hardcover ISBN 978-3-319-74723-1, DOI 10.1007/978-3-319-74724-8
- Crăciun, I., Văcăreanu, R., Pavel, F., Colibă, V. (2018) On the Ground Motions Spatial Correlation for Vrancea Intermediate-Depth Earthquakes. In: Văcăreanu, R., Ionescu, C. (Eds) (2018). Seismic Hazard and Risk Assessment. Updated Overview with Emphasis on Romania, Springer Natural Hazards Book Series, p. 191-210, eBook ISBN 978-3-319-74724-8, Hardcover ISBN 978-3-319-74723-1, DOI 10.1007/978-3-319-74724-8
 - Arion, C., Pavel, F., Văcăreanu, R., Neagu, C., Iancovici, M., Popa, V., Damian, I. (2018) Seismic Risk Assessment of Romania. In: Văcăreanu, R., Ionescu, C. (Eds) (2018). Seismic Hazard and Risk Assessment. Updated Overview with Emphasis on Romania, Springer Natural Hazards Book Series, p. 251-266, eBook ISBN 978-3-319-74724-8, Hardcover ISBN 978-3-319-74723-1, DOI 10.1007/978-3-319-74724-8
 - Pavel, F., Văcăreanu, R., Calotescu, I. (2018) Comparison of Seismic Risk Results for Bucharest, Romania. In: Văcăreanu, R., Ionescu, C. (Eds) (2018). Seismic Hazard and Risk Assessment. Updated Overview with Emphasis on Romania, Springer Natural Hazards Book Series, p. 267-280, eBook ISBN 978-3-319-74724-8, Hardcover ISBN 978-3-319-74723-1, DOI 10.1007/978-3-319-74724-8
 - Calotescu, I., Pavel, F., Văcăreanu, R. (2018) Earthquake Risk Awareness in Bucharest, Romania: Public Survey. In: Văcăreanu, R., Ionescu, C. (Eds) (2018). Seismic Hazard and Risk Assessment. Updated Overview with Emphasis on Romania, Springer Natural Hazards Book Series, p. 297-312, eBook ISBN 978-3-319-74724-8, Hardcover ISBN 978-3-319-74723-1, DOI 10.1007/978-3-319-74724-8
 - Mărmureanu, Gh., Văcăreanu, R., Cioflan, C.O., Ionescu, C., Toma-Dănilă, D. (2018) Historical Earthquakes: New Intensity Data Points Using Complementary Data from Churches and Monasteries. In: Văcăreanu, R., Ionescu, C. (Eds) (2018). Seismic Hazard and Risk Assessment. Updated Overview with Emphasis on Romania, Springer Natural Hazards Book Series, p. 103-116, eBook ISBN 978-3-319-74724-8, Hardcover ISBN 978-3-319-74723-1, DOI 10.1007/978-3-319-74724-8
 - Văcăreanu, R., Pavel, F., Crăciun, I., Aldea, A., Calotescu, I. (2017) Correlation models for strong ground motions from Vrancea intermediate-depth seismic source. Proceedings of the 16th World Conference on Earthquake Engineering, Santiago, Chile, paper no. 2026.
 - Pavel, F., Văcăreanu, R., Calotescu, I., Colibă, V. (2017) Design displacement response spectra for southern and eastern Romania. Proceedings of the 16th World Conference on Earthquake Engineering, Santiago, Chile, paper no. 1926.
 - Văcăreanu, R., Pavel, F., Colibă, V., Crăciun, I. (2016). Uniform risk-targeted maps for Romania. Proceedings of the 35th General Assembly of the European Seismological Commission, Trieste, Italy, paper no. 336.
 - Văcăreanu, R., Pavel, F., Iancovici, M., Aldea, A. (2016). Influence of GMPEs on site-specific uniform hazard spectra. Case study for Iasi, Romania. Proceedings of the 35th General Assembly of the European Seismological Commission, Trieste, Italy, paper no. 543.
 - Pavel, F., Văcăreanu, R. (2016) Investigation on the seismic risk of Bucharest, Romania. Proceedings of the 35th General Assembly of the European Seismological Commission, Trieste, Italy, paper no. 370.
 - Pavel, F., Calotescu, I., Văcăreanu, R., Sandulescu, A.M., Sibisteanu H. (2016). Investigation on community resilience in Bucharest, Romania. Proceedings of the 35th General Assembly of the European Seismological Commission, Trieste, Italy, paper no. 372.
 - Pavel, F., Calotescu, I., Văcăreanu, R. (2016). Evaluation of ground motion variability in Bucharest from Vrancea intermediate-depth earthquakes. Proceedings of the International Conference on Urban Risk, ICUR 2016, Lisbon, Portugal, paper no. 146.
 - Pavel, F., Calotescu, I., Văcăreanu, R., Săndulescu, A.M., (2016). Derivation of scenario earthquakes for Bucharest, Romania. Proceedings of the International Conference on Urban Risk, ICUR 2016, Lisbon, Portugal, paper no. 145.
 - Calotescu, I., Pavel, F., Săndulescu, A.M., Sibisteanu H., Văcăreanu, R., (2016). Preliminary investigation on community resilience of Bucharest, Romania. Proceedings of the International Conference on Urban Risk, ICUR 2016, Lisbon, Portugal, paper no.142.

- Crăciun, I., Văcăreanu, R., Pavel, F. (2016). Spectral Displacement Demands for Strong Ground Motions Recorded During Vrancea Intermediate-Depth Earthquakes. In: Văcăreanu, R., Ionescu, C. (Eds) (2016). The 1940 Vrancea Earthquake. Issues, Insights and Lessons Learnt. Proceedings of the Symposium Commemorating 75 Years from November 10, 1940 Vrancea Earthquake, Springer Natural Hazards Book Series, p. 169-188, eBook ISBN 978-3-319-29844-3, Hardcover ISBN 978-3-319-29843-6, DOI 10.1007/978-3-319-29844-3_12
- Pavel, F., Ciuiu, D., Văcăreanu, R. (2016). Site Dependent Seismic Hazard Assessment for Bucharest Based on Stochastic Simulations. In: Văcăreanu, R., Ionescu, C. (Eds) (2016). The 1940 Vrancea Earthquake. Issues, Insights and Lessons Learnt. Proceedings of the Symposium Commemorating 75 Years from November 10, 1940 Vrancea Earthquake, Springer Natural Hazards Book Series, p. 221-233, eBook ISBN 978-3-319-29844-3, Hardcover ISBN 978-3-319-29843-6, DOI 10.1007/978-3-319-29844-3_26
- Văcăreanu, R., Iancovici, M., Pavel, F. (2016). Selecting and Scaling Strong Ground Motion Records Based on Conditional Mean Spectra. Case Study for Iasi City in Romania. In: Văcăreanu, R., Ionescu, C. (Eds) (2016). The 1940 Vrancea Earthquake. Issues, Insights and Lessons Learnt. Proceedings of the Symposium Commemorating 75 Years from November 10, 1940 Vrancea Earthquake, Springer Natural Hazards Book Series, p. 377-391, eBook ISBN 978-3-319-29844-3, Hardcover ISBN 978-3-319-29843-6, DOI 10.1007/978-3-319-29844-3_15
- Olteanu, P., Colibă, V., Văcăreanu, R., Pavel, F., Ciuiu, D. (2016). Analytical Seismic Fragility Functions for Dual RC Structures in Bucharest. In: Văcăreanu, R., Ionescu, C. (Eds) (2016). The 1940 Vrancea Earthquake. Issues, Insights and Lessons Learnt. Proceedings of the Symposium Commemorating 75 Years from November 10, 1940 Vrancea Earthquake, Springer Natural Hazards Book Series, p. 463-479, eBook ISBN 978-3-319-29844-3, Hardcover ISBN 978-3-319-29843-6, DOI 10.1007/978-3-319-29844-3_33
- Văcăreanu, R., Lungu, D., Radulian, M., Pavel, F., Iancovici, M., Arion, C. (2014). New Developments in Probabilistic Seismic Hazard Analysis for Romania. Proceedings of the Second European Conference on Earthquake Engineering and Seismology (2ECEES), Istanbul, August 24-29, 2014, Paper no. 545
- Văcăreanu, R., Radulian, M., Iancovici, M., Pavel, F., Neagu, C. (2014). Fore-Arc and Back-Arc Ground Motion Prediction Model for Vrancea Intermediate-Depth Seismic Source. Proceedings of the Second European Conference on Earthquake Engineering and Seismology (2ECEES), Istanbul, August 24-29, 2014, Paper no. 484
- Pavel, F., Văcăreanu, R., Cioflan, C. (2014). Directivity Effects of Strong Ground Motions from Vrancea Subcrustal Earthquakes. Proceedings of the Second European Conference on Earthquake Engineering and Seismology (2ECEES), Istanbul, August 24-29, 2014, Paper no. 466
- Pavel, F., Văcăreanu, R., Aldea, A. (2014). Evaluation of GMPEs for Vrancea Intermediate-Depth Seismic Source. Proceedings of the Second European Conference on Earthquake Engineering and Seismology (2ECEES), Istanbul, August 24-29, 2014, Paper no. 423
- Demetriu, S., Văcăreanu, R., Lungu, D., Pavel, F., Arion, C., Iancovici, M., Aldea, A., Neagu, C. (2014). Ground motion prediction equations for Vrancea intermediate-depth earthquakes. Proceedings of the 9th International Conference on Structural Dynamics, EURO DYN 2014 Porto, Portugal, 30 June - 2 July 2014 A. Cunha, E. Caetano, P. Ribeiro, G. Müller (eds.) ISSN: 2311-9020; ISBN: 978-972-752-165-4, pp. 435 – 442
- Pavel F, Văcăreanu R, Neagu C, Arion C (2014) Probabilistic seismic hazard assessment for Romania. Part I: Selection of GMPEs. In: Vacareanu R, Ionescu C (eds) Proceedings of the 5th National Conference on Earthquake Engineering & 1st National Conference on Earthquake Engineering and Seismology, CONSPRESS, Bucharest, pp. 213-220.
- Aldea A, Văcăreanu R, Lungu D, Demetriu S, Pavel F (2014) Probabilistic seismic hazard assessment for Romania. Part II: Sensitivity analysis. Proceedings of the 5th National Conference on Earthquake Engineering & 1st National Conference on Earthquake Engineering and Seismology, CONSPRESS, Bucharest, pp. 221-228.
- Văcăreanu R, Lungu D, Aldea A, Demetriu S, Pavel F, Arion C, Iancovici M, Neagu C (2014) Probabilistic seismic hazard assessment for Romania. Part III: Seismic Hazard Maps. In: Vacareanu R, Ionescu C (eds) Proceedings of the 5th National Conference on Earthquake Engineering & 1st

National Conference on Earthquake Engineering and Seismology, CONSPRESS, Bucharest, pp. 229-236.

- Văcăreanu, R., Pavel, F., Lungu, D., Iancovici, M., Demetriu, S., Aldea, A., Arion, C., Neagu, C. (2013). Uniform hazard spectra for cities in Romania. Proceedings of the International Conference on Earthquake Engineering SE-50 EEE, Skopje, Macedonia, Paper no. 164.
- Văcăreanu, R., Lungu, D., Mărmureanu, G., Cioflan, C., Aldea, A., Arion, C., Neagu, C., Demetriu, S., Pavel, F. (2013). Statistics of seismicity for Vrancea subcrustal source. Proceedings of the International Conference on Earthquake Engineering SE-50 EEE, Skopje, Macedonia, Paper no. 138.
- Pavel, F., Aldea, A., Văcăreanu, R. (2013). Near-field strong ground motion records from Vrancea earthquakes. Proceedings of the International Conference on Earthquake Engineering SE-50 EEE, Skopje, Macedonia, Paper no. 190.
- Pavel, F., Văcăreanu, R., Arion, C., Neagu, C. (2013). Analysis of ground motions recorded in Bucharest during recent Vrancea earthquakes. Vienna Congress on Recent Advances in Earthquake Engineering and Structural Dynamics 2013 (VEESD 2013), Viena, Austria, Paper no. 180.
- Popa, V., Văcăreanu, R., Karadogan, F. (2013). Post-Earthquake Investigation and Seismic Evaluation of a Damaged RC Building in Van, Turkey. Paper no. 21-145. Proceedings, 10th International Conference on Urban Earthquake Engineering (10CUEE), Tokyo, Japan. 9 pp.

Ianuarie 2024

Prof. dr. ing. Radu Văcăreanu