

RADU VĂCĂREANU

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<i>Nationality</i>	Romanian
<i>Age</i>	50 (born in 1966), married, two children
<i>Summary of qualifications</i>	Civil Engineer Professor of Structural Reliability and Risk Analysis at the Technical University of Civil Engineering, Bucharest
<i>Education</i>	June 1991- Graduate from Faculty of Civil Engineering of Iasi, general mark at 9.86 (on a scale from 1 to 10) September 1995 – 18 th European Regional Earthquake Engineering Seminar, <i>Ecole Centrale de Lyon</i> January 1999 – Ph. D. in Civil Engineering at <i>Technical University of Civil Engineering</i> of Bucharest; field of Ph.D.: Structural Reliability and Earthquake Engineering August 1999 – November 1999 –Post-doctoral studies in Structural Reliability, <i>Department of Engineering Mechanics, University of Innsbruck</i> ; June 2000 – International Advanced School on Wind Excited and Aeroelastic Vibrations of Structures, <i>University of Genoa</i> ; August – October 2002 – Training in Earthquake Engineering at Buildings Research Institute, Tsukuba, Japan October – December 2005 – Training in Earthquake Engineering at Buildings Research Institute, Tsukuba, Japan November 2014 – Habilitation thesis in Civil Engineering defended at <i>Technical University of Iasi</i> ; Thesis title: Probabilistic Seismic Hazard, Fragility and Risk Analyses for Romania. Developments and Insights

Key qualifications

- Seismic hazard, vulnerability and risk assessment
- Earthquake resistant design of buildings
- Seismic evaluation of existing buildings
- Structural reliability
- Wind engineering

Professional experience

- *July 1991 – April 1992: Site Engineer at the American School retrofitting site in Bucharest*
- *April 1992 – Oct. 1992: Engineer at Building Research Institute of Bucharest (INCERC), Earthquake Engineering Division*
- *Oct. 1992 – June 1997: Assistant Professor at Technical University of Civil Engineering of Bucharest*
- *June 1997 – August 2001: Lecturer at the Technical University of Civil Engineering of Bucharest*
- *July 1997 – August 1999: Consultant on infrastructure issues for World Bank Project Social Development Fund in Romania*
- *January 28, 1999: Ph.D. Thesis - Risk of exceedance of ductility supplies in reinforced concrete structures exposed to earthquakes*
- *July 2001 – August 2002: Participation in the negotiation of JICA Technical Cooperation Project for Seismic Risk Reduction for Buildings and Structures in Romania*
- *August 2001- March 2008: Assoc. Prof. at the Technical University of Civil Engineering of Bucharest - Courses and seminars in Structural Reliability and Risk Analysis*
- *October 2002 – June 2008: Director of the National Centre for Seismic Risk Reduction, implementing agency of JICA Technical Cooperation Project for Seismic Risk Reduction for Buildings and Structures in Romania*
- *April 2008 - present: Prof. at the Technical University of Civil Engineering of Bucharest - Courses and seminars in Structural Reliability and Risk Analysis and Seismic Vulnerability and Risk*
- *February 2014 – May 2016: Director of Seismic Risk Assessment Research Centre of Technical University of Civil Engineering of Bucharest (ccers.utcb.ro)*
- *National Delegate at International Association for Earthquake Engineering*
- *Member of Earthquake Engineering Research Institute and Seismological Society of America*
- *Editorial Board Member of Earthquakes and Structures. An International Journal*
- *Guest Editor of Bulletin of the International Institute of Seismology and Earthquake Engineering*

- Reviewer for *Bulletin of the Seismological Society of America*, *Earthquake Spectra*, *Bulletin of Earthquake Engineering*, *Earthquakes and Structures. An International Journal* and *Earthquake Engineering and Engineering Vibration*
- Member of *National Council for Scientific Research*
- President of *National Commission for Earthquake Engineering* of Ministry of Regional Development and Public Administration
- Member of *Technical Committee 4 – Actions and Structural Safety* of Ministry of Regional Development and Public Administration
- Member of *ASRO/CT 343 Basis of Design and Structural Eurocodes*
- Evaluator of technical proposals and research projects for domestic and international bodies
- Numerous papers on seismic hazard, vulnerability and risk presented in journals, national and international conferences on earthquake engineering
- Co-author – Romanian Earthquake Resistant Design Code – *P100-1/2006 & 2013* editions
- Co-author – Romanian Seismic Evaluation and Seismic Retrofitting Code – *P100-3*
- Co-author – Romanian Code on Wind Loads *CR 1-1-4-2012*, Romanian Code on Basis of Structural Design, *CR 0-20012* and Code on Snow Load, *CR 1-1-3-20012*
- Co-worker at research/consultancy projects on earthquake engineering, structural safety and wind engineering
- Proficiency in English

Fellowships and awards

General Association of Engineers of Romania Award for the book “Constructii amplasate in zone cu miscari seismice puternice” by Aldea, A., Arion, C., Ciutina, A., Cornea, T., Dinu, F., Fulop, L., Grecea, D., Stratan, A., Văcăreanu, R. – coordinated by: Dubina, D., Lungu, D. 2003., Editura Orizonturi Universitare, Timisoara

University teaching

Structural Reliability and Risk Analysis – undergraduate level

The course provides an insight into the concepts, methods and procedures of structural reliability and risk analysis considering the presence of random uncertainties. The course is envisaged as to provide the background knowledge for the understanding and implementation of the Eurocodes and of the new generation of Romanian structural codes (calibration of earthquake, wind and snow loads; calibration of material strengths; calibration of partial safety coefficients).

Reliability of Structures Subjected to Natural Hazard Loads & Seismic Vulnerability and Risk – M.Sc. courses

These courses are envisaged to provide the background knowledge of performing reliability analysis of structures subjected to wind or earthquake loads and vulnerability and risk analysis of structures subjected to seismic action. The courses

addresses both the modelling of actions due to natural hazards as well as the modelling of the structural response induced by wind or earthquake loads.

University service

Scientific Secretary of Faculty of Buildings, Technical University of Civil Engineering Bucharest 2000-2008

Vice-Dean of Faculty of Buildings, Technical University of Civil Engineering Bucharest 2008-2012

Vice-Rector for Research of Technical University of Civil Engineering Bucharest 2012-2016

Rector of Technical University of Civil Engineering Bucharest 2016-present

Member of Faculty Council, Faculty of Buildings, Technical University of Civil Engineering Bucharest 2000-present

Member of Senate of Technical University of Civil Engineering Bucharest 2012-present

International Projects

- IPRED - International Platform for Reducing Earthquake Disaster – 2007-present
- ANDROID-Academic Network for Disaster Resilience to Optimise Educational Development – 2012 - present
- JICA Technical Cooperation Project for Seismic Risk Reduction for Buildings and Structures in Romania, financed by Japan International Cooperation Agency – Coordinator – Director of the National Centre for Seismic Risk Reduction – Project Implementing Agency – 2002-2008
- IAEA CRP-NFE Camus Benchmark - IAEA Research Contract No: 12146/RBF - Numerical Simulations and Engineering Methods for the Evaluation of Expected Seismic Performances – Researcher – 2002-2005
- RISK-UE "An advanced approach to earthquake risk scenarios with applications to different European towns", financed by European Commission, Fifth Framework, Researcher – 2001-2004
- NEMISREF “New methods of mitigation of seismic risk on existing foundations”, financed by European Commission, Fifth Framework, Researcher – 2002-2005
- Collaborative Research Centre (CRC) 461 of SFB, Germany: Strong Earthquakes: A Challenge for Geosciences and Civil Engineering” at Karlsruhe University – Researcher – 2000-2007
- COST Action C26: “Urban Habitat Constructions Under Catastrophic Events”, Working Group 2 “Earthquake Resistance”