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Viorel Popa

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ACADEMIC EXPERIENCE

15/04/2024 – CURRENT
Vice-Rector

Technical University of Civil Engineering of Bucharest
Academic and quality assurance

2016 – 2020
Dean

Faculty of Civil Engineering, Technical University of Civil Engineering of Bucharest

2015 – 2016
Director

Department of Reinforced Concrete Structures, Technical University of Civil Engineering of Bucharest

2012 – 2015
Director

Department for Continuous Professional Development, Technical University of Civil Engineering of Bucharest

01/10/1999 – CURRENT
Associate professor, lecturer, teaching assistant

2008 – CURRENT
Member of the Faculty Council

Faculty of Civil Engineering, Technical University of Civil Engineering of Bucharest

2016 – 2024
Member of the University Senate

Technical University of Civil Engineering of Bucharest

2022 – 2024
Representative of the University Senate in the Council for Quality Assurance

Technical University of Civil Engineering of Bucharest

30/11/2007 – 30/11/2011
Member of Department Council

Reinforced Concrete Department

2022 – CURRENT
Coordinator of the master programs in civil engineering

Technical University of Civil Engineering of Bucharest

2018 – CURRENT
Expert at the Romanian Agency for Quality Assurance in Higher Education

WORK EXPERIENCE

EXPERT, DIRECTOR – NATIONAL CENTRE FOR SEISMIC RISK REDUCTION – 2002 – 2010 – BUCHAREST, ROMANIA

- Research - seismic design and evaluate of buildings structures

MEMBER OF THE NATIONAL COMMITTEE FOR SEISMIC ENGINEERING – MINISTRY OF REGIONAL DEVELOPMENT AND PUBLIC ADMINISTRATION – 2015 – Current – BUCHAREST, ROMANIA

COORDINATOR OF THE COMMITTEE FOR PROFESSIONAL CERTIFICATION OF CIVIL ENGINEERS – MINISTRY OF REGIONAL DEVELOPMENT AND PUBLIC ADMINISTRATION – 2018 – Current – BUCHAREST, ROMANIA

- Domain A1 - Concrete structures for buildings

MEMBER OF THE TECHNICAL COMMITTEE A1 - CONCRETE STRUCTURES – MINISTRY OF REGIONAL DEVELOPMENT AND PUBLIC ADMINISTRATION – 2021 – Current – BUCHAREST, ROMANIA

MEMBER OF THE TECHNICAL-ECONOMIC COMMITTEE – MINISTRY OF NATIONAL EDUCATION – 2015 – Current – BUCHAREST, ROMANIA

MEMBER OF THE TECHNICAL-ECONOMIC COMMITTEE – THE GENERAL SECRETARIAT OF THE GOVERNMENT OF ROMANIA – 2022 – Current – BUCHAREST, ROMANIA

MEMBER OF THE INTERMINISTERIAL COMMITTEE FOR SEISMIC RISK ANALYSIS – RO GOVERNMENT – 2023 – Current – BUCHAREST, ROMANIA

Representative of the Technical University of Civil Engineering Bucharest

EDUCATION AND TRAINING

2000 – 2006 Bucharest, Romania
PH.D. Technical University of Civil Engineering of Bucharest

Website www.utcb.ro

1999 – 2000 Bucharest, Romania
POST-GRADUATE COURSE IN STRUCTURAL ENGINEERING Technical University of Civil Engineering of Bucharest

Website www.utcb.ro

1994 – 1999 Bucharest, Romania
CIVIL ENGINEER Technical University of Civil Engineering of Bucharest

Website www.utcb.ro

1990 – 1994 Bucharest, Romania
ANALYST, PROGRAMMER ASSISTANT Computer Science High School, Bucharest

Website portal.lbi.ro

2021 Bucharest, Romania
PROJECT MANGER Athena - Centru de calificare și perfecționare

Website www.centrul-athena.ro

CONTINUOUS PROFESSIONAL DEVELOPMENT

2012

Contract management under the FIDIC Conditions of the Contract

Professional development course organized by the International Federation of Consulting Engineers, March 3-5, 2012, Copenhagen

2010

Seismic disaster preparedness in Japan

Tokyo University, Institute of Industrial Science, Tokyo, Japan, Training/Documentation Internship funded by the Japan Foundation , July - August 2010

2007

Training internship within the cooperation program for seismic risk reduction between the Government of Japan and the Government of Romania

Building Research Institute, Tsukuba, Japan.

2003

Training internship within the cooperation program for seismic risk reduction between the Government of Japan and the Government of Romania

Building Research Institute, Tsukuba, Japan.

2002

Research internship within the European Safety Assessment for Earthquake Risk Reduction program

University of Ljubljana, Slovenia, IKPIR, Department of Civil Engineering

2000

Study scholarship, Socrates-Erasmus program

University of Lisbon, Portugal, Higher Technical Institute, Department of Civil Engineering

PROFESSIONAL CERTIFICATIONS

2013

Technical expert

Certified by the Ministry of Regional Development and Public Administration of Romania for civil, industrial, and agrozootechnical buildings with structures made of concrete, reinforced concrete, masonry, wood for the essential requirement „mechanical strength and stability”.

2012

Project verifier

Certified by the Ministry of Regional Development and Public Administration of Romania for civil, industrial, and agrozootechnical buildings with structures made of concrete, reinforced concrete, masonry, wood for the essential requirement „mechanical strength and stability”.

ACADEMIC EXPERIENCE - COURSES FOR ENGINEERS

2023

Fundamentals of shear walls structures design in accordance with the revised technical regulation CR 2-1-1.1 in 2022

In cooperation with the Romanian Association of Strrucural Engineers (In Romanian)

2020

Seismic compliance of concrete structures

In cooperation with the Romanian Association of Strrucural Engineers (In Romanian)

2020
Amendment and supplementation of the technical regulation Seismic Design Code - Part I - Design provisions for buildings, indicative P100-1/2013

(In Romanian)

2019
Seismic evaluation of concrete structures according to P100-3: fundamental requirements and evaluation methods

In cooperation with the Romanian Association of Strrucural Engineers (In Romanian)

2011
Seismic Design Code P100, Part I - design provisions for buildings

In cooperation with the Romanian Association of Strrucural Engineers (In Romanian)

ACADEMIC EXPERIENCE - MASTER COURSES

2020 – CURRENT
Monitoring and control of construction investment works

Master's degree program in Construction Project Management (in Romanian)
Faculty of Civil Engineering

2018 – CURRENT
Concrete structures for special buildings and industrial facilities

Master's degree program in Structural Engineering (in Romanian)
Faculty of Civil Engineering

2014 – 2018
Rehabilitation of structures

Master's degree program in Structural Engineering
Faculty of Engineering in Foreign Languages

ACADEMIC EXPERIENCE - UNDERGRADUATE COURSES

30/11/2006 – CURRENT
Reinforced concrete structures

Faculty of Civil Engineering (in Romanian)

2018
Reinforced concrete structures II

Faculty of Engineering in Foreign Languages

2016 – 2018
Computer assisted design

Faculty of Civil Engineering

PROJECTS

30/05/2025 – 05/05/2026
Methodology for developing seismic risk maps

Member of the elaboration committee.

30/05/2025 – CURRENT
Methodology for seismic microzonation

Member of the elaboration committee.

30/11/2022 – 30/11/2025

Revision of the Romanian Seismic Design Code for Buildings - P 100-1

Coordinator of the elaboration committee, project manager

2022 – 2022

Methodology for Rapid Visual Screening of Buildings, RTC 10 - 2022

Project manager, member of the elaboration committee

30/11/2021

Guide for integrated interventions in multifamily residential buildings and public buildings, RTC 1 - 2022

Project manager, coordinator of the elaboration committee

2022

Audit and Revision the Technical Regulations System in Romania

Project manager, expert

2017 – 2019

Revision of the Romanian Seismic Assessment Code for Existing Buildings - P 100-3

Coordinator of the elaboration committee, project manager

2010 – 2013

Revision of the Romanian Seismic Design Code for Buildings - P 100-1

Project manager

2007 – 2008

Elaboration of the National Annex to Eurocode EN 1998-1:2004, EN 1998-3:2004, EN 1998-6:2004

2007 – CURRENT

IPRED - International Platform for Reducing Earthquake Disaster

Member

2000 – 2006

Revision of the Romanian Seismic Design Code for Buildings - P 100

Member of the elaboration committee

30/05/2023 – CURRENT

Post-earthquake inspection methodology

Romanian methodology for the post-earthquake inspection of buildings, ME-003. Member of the elaboration committte.

30/05/2018 – 30/05/2019

Experimental testing program for precast beams with emulative connections using grouted sleeves and mechanical couplers under cyclic loading

Experimental testing program. Project manager.

30/05/2008 – 30/05/2026

Experimental testing on emulative connections for precast columns using grouted corrugated steel sleeves

Project manager.

31/12/2022 – 31/12/2023

Conducting studies, technical expertise of buildings from a seismic point of view, preparation of documentation - technical solutions for compliance

Project manager

2002 – 2007

JICA Technical Cooperation Project for Seismic Risk Reduction for Buildings and Structures in Romania

Expert, seismic design and evaluation of buildings

INVITED LECTURES

2022

Impact of long period ground motions on the design of concrete structures

3rd European Conference on Earthquake Engineering and Seismology, Bucharest

2019

Current Approach in Concrete Structures Engineering in Romania

The 29th National Conference of the Association of Structural Design Engineers, Eforie

2017

Challenges of earthquake resistant design for buildings in Bucharest

6th National Conference on Earthquake Engineering and the 2nd National Conference on Earthquake, Bucharest

2016

Limitations of technical regulations in structural design

New perspectives in construction law, Annual conference of Romanian Society for Construction Law, Bucharest

2013

The new seismic design code P100-1

Symposium 'Current Research in the Field of Metal Constructions – Structural Systems and Innovative Solutions', Timisoara Academic Days, Timisoara

2013

Update of the P100-1 Concrete Provisions

C60 International Conference" Tradition and Innovation – 60 Years of Constructions in Transilvania, Cluj Napoca

PUBLICATIONS

2019

Experimental study on the joints of precast beams with moment continuity

Authors: Popa V., Pavel M., Lozincă E., Papurcu A., Iovănică E. | **Volume, Issue and Pages**: AICPS Review – 1-2/2019, pp. 52-64

2018

Design of Beam Anchorages in Beam-Column Joints in Seismic Structures

Authors: Cotofana D., Pavel M., Popa V., | **Journal Name**: SSeismic Hazard and Risk Assessment. Springer Natural Hazards

2018

Seismic Risk Assessment of Romania

Vacareanu R., Ionescu C. (eds)

Authors: Arion C., Pavel F., Vacareanu R., Neagu C., Iancovici M., Popa V., Damian I, | **Journal Name**: Seismic Hazard and Risk Assessment. Springer Natural Hazards. SpringerCham

Retrofitting of squat masonry walls by FRP grids bonded by cement-based mortar

Authors: Viorel Popa, Radu Pascu, Andrei Papurcu and Emil Albotă | **Journal Name**: Earthquakes and Structures - An International Journal | **Volume, Issue and Pages**: Vol.10, No.1, pp.125-139

2015
Sutiability of current assessment techniques to retrodict the seismic damage of buildings

Authors: Viorel Popa, Radu Vacareanu, Vasile Oprisoreanu, Emil Albota, Dietlinde Kober | **Journal Name**: The Open Civil Engineering Journal | **Volume, Issue and Pages**: 2015, 9: 330-343

2013
Experimental testing on emulative connections for precast columns using grouted corrugated steel sleeves

Authors: V. Popa, A. Papurcu, D. Cotofana, R. Pascu | **Journal Name**: Bulletin of Earthquake Engineering | **Volume, Issue and Pages**: 13-8, 2429-2447 | **Publisher**: Springer

2014
Effective stiffness and displacement capacity of short reinforced concrete columns with low concrete quality

Authors: V. Popa, D. Cotofana, R. Vacareanu | **Journal Name**: Bulletin of Earthquake Engineering | **Publisher**: Springer

2014
Upgrade of P100-1 concrete provisions, Mathematical Modeling in Civil Engineering

Authors: Viorel Popa | **Journal Name**: Mathematical Modeling in Civil Engineering | **Volume, Issue and Pages**: No 3/2014

2013
In plane cyclic behavior of masonry walls jacketed with fiber reinforced mortar and fiber grids

Authors: Viorel Popa, Radu Pascu, Andrei Papurcu | **Journal Name**: Mathematical Modeling in Civil Engineering | **Volume, Issue and Pages**: No 3/2013

2026
Sustainability of Building Stock Rehabilitation: CO2e Footprint of Energy Renovation and Seismic Strengthening, a Case Study

Authors: Viorel Popa; Bogdan Gheorghe | **Journal Name**: Sustainability | **Volume, Issue and Pages**: 18(8):373 | **Publisher**: Multidisciplinary Digital Publishing Institute

2026
Optimizing Investment Programs for Residential Buildings Through CO2e Footprint Assessment Under Seismic Risk

Authors: Viorel Popa | **Journal Name**: Sustainability | **Volume, Issue and Pages**: 18(10):5041

PUBLICATIONS (ENGINEERING BOOKS) (SELECTION)

2018
Impact of Long-Period Ground Motions on Structural Design: A Case Study for Bucharest, Romania

Pavel F., Popa V., Vacareanu R
SpringerBriefs in Geotechnical and Earthquake Engineering, Springer International Publishing
ISBN 978-3-319-73402-6, DOI 10.1007/978-3-319-73402-6, Softcover ISBN 978-3-319-73401-9

2015
Evaluarea seismică a halelor de beton

MatrixROM, ISBN: 978-606-25-0160-0 (in Romanian)

2009
Noi reglementari pentru beton (producere, proiectare, execuție)

V. Popa, D. Georgescu (editori)
Editura Conspress, ISBN 978-973-100-087-9 (in Romanian)

2020
Concrete structures - part II - lecture notes

Editura Conspress, 2020, ISBN 978-973-100-512-6 (in Romanian)

2018
Concrete frames - design guide

V. Popa, A. Papurcu
Editura Conspress, ISBN 978-973-100-463-1 (in Romanian)

2017
Concrete structures - part I - lecture notes

Editura Conspress, ISBN 978-973-100-454-9 (in Romanian)

PROFESSIONAL MEMBERSHIPS

30/11/2021 – CURRENT
Romanian Association of Seismic Engineering

2019 – CURRENT
Earthquake Engineering Research Institute

30/11/2016 – CURRENT
Romanian Association of Structural Engineers

Member of the Governing council since 2019.

CURRENT
WG 15 - European Earthquake Engineering Association

WG15 - integrated interventions for seimic retrofitting and energy renovation

VOLUNTEERING

www.encipedia.org

Encipedia.org is an open online platform for information and interaction in civil engineering developed and maintained by Viorel Popa and Mihai Pavel on voluntary basis. The platform having over 15000 registered users, is primarily aimed at engineers and students in the field of civil engineering, but also addresses the general public on topics of interest regarding the safety and durability of constructions.