

Dan ZAMFIRESCU

Personal Information

Place of Birth: Bucharest 12-th of November 1967.

Education

1987 – 1992 - Technical University of Civil Engineering Bucharest.
Faculty of Civil, Industrial and Agricultural Buildings – Structural Engineering.

2001 - Ph.D (Cum Laude) Civil Engineering. Technical University of Civil Engineering Bucharest. Thesis: Seismic Design of Reinforced Concrete Structures Using Advanced Methods

Professional experience

2004-present: Associate Professor, Reinforced Concrete Structures - Technical University of Civil Engineering Bucharest

2005 - 3 months JICA stage at Tsukuba within the Japan- Romania programme.

2002-2003: Invited researcher at „Disaster Prevention Research Institute”, Kyoto University, Japan

2001-2002: Invited researcher at University of Ljubljana, Slovenia, within European program „Safety Assessment for Earthquake Risk Reduction”

1999: Stage at Instituto Superior Technnico – Lisabon, Portugal within European program Socrates

1998-2004: Lecturer, Reinforced Concrete Structures Technical University of Civil Engineering Bucharest

March 1995: Stage at Hibbit, Karlsson & Sorensen, Providence, Rhode Island, USA, Finite Element Analysis

1995-1998: Research Assistant, Reinforced Concrete Structures Technical University of Civil Engineering Bucharest

1992-1995: Teaching Assistant, Reinforced Concrete Structures Technical University of Civil Engineering Bucharest

During these years, I have held courses and applications of RC (and PS) structures seismic design, both in Romanian and English languages (at the English Department of the Technical University of Civil Engineering Bucharest).

My main research activities were conducted towards the design and evaluation of earthquake resistant structures. The main subjects involved the dynamic or static nonlinear analysis of structures and the estimation of the deformation and strength capacities of RC elements. I was particularly interested in the development and implementation of displacement-based procedures and in performance-based engineering.

I worked on several research projects financed by the Romanian Government and one European research programme. The most important are:

- Guidelines and Commentaries for Evaluation and Consolidation of existing Buildings - 2013.
- Romanian Seismic Design Code for New Buildings - 2013
- Safety Assessment for Earthquake Risk Reduction (SAFERR). EC programme HPRN-CT-1999-00035/2003.
- P100-3/2008 Romanian Code for Seismic Evaluation and Consolidation of Existing Buildings - 2008

I performed design activities in collaboration with renown structural Romanian engineers. A selective list of the design projects I worked on is presented:

- New designed buildings:
 - Residential building – S+P+4E – Sinaia.
 - Residential building – S+P+9E – Bucharest.
 - Hospital – S+P+4E, S+P+ 5E – Urziceni.
 - Office Building S+P+9E – Bucharest (Grivco Headquarters).
 - Hotel Izvor S+P+8E – Bucharest.
 - Hotel NOVOTEL 3S+P+14E.
 - Stadionul national LIA MANOLIU - Bucuresti.
 - Asmita residential complex S+P+24E.
 - Romfelt residential complex S+P+22E.
 - Swan office complex S+P+9E.
 - Berceni residential complex P+20E.
 - Auchan Mall - Giulesti Bucuresti
 - Auchan Mall - Ghencea Bucuresti.
 - Auchan Mall - Coresi Brasov.
- Evaluation and strengthening of existent buildings:
 - ISPCAIA center – S + P+ 8E.
 - RENEL center – S + P + 7E.
 - The mail transit center of Bucharest.
 - Castelul Huniazilor – Hunedoara.
 - Railway Water Tower – Ploiesti.
 - Industrial chimneys in several locations.
 - Hotel Continental S+P+6E – Constanta.
 - Constanta County Hospital
 - Trial Court - Ploiesti
 - "Taranul Roman" museum – Bucuresti
 - Ursus Breweries Bacau.
 - Ursus Breweries Brasov
 - Brazi Refinery Ploiesti.

Patents and publications

I am author and co-author of papers and software programs. I have participated at many professional national and international conferences and workshops. The list of the publications will be enclosed at the end.

- List of elaborated software:
 - **Gricad** – strength evaluation of reinforced concrete beam frames. Co-author conf. M Munteanu.

- **EFO 1.2** – computation of reinforced concrete sections subjected to eccentric axial force. Co-author prof. M. Gabor.
- **EFO 2.0** – computation of reinforced concrete sections subjected to eccentric axial force on two directions. Co-author prof. M. Gabor.
- **ARPER** – computation of reinforced concrete structural walls. Co-authors: prof. M. Gabor & T. Postelnicu.
- **Torsdin** – simplified nonlinear dynamic analysis of structures.
- **Sinel** – inelastic response spectrum analysis.

Additional professional activities

- Very good computer skills:
 - Very good knowledge of structural analysis software.
 - Very good knowledge of Visual Basic and good knowledge of Fortran.
 - Very good knowledge of software and hardware debugging.
 - Good knowledge of networking.

Languages

English – fluent. French –poor.

Interests and activities

Main research interests:

- Seismic design of Reinforced Concrete Structures
- Elastic and inelastic seismic response spectra
- Displacement-Based design of Reinforced Concrete structures
- Performance-based design of Reinforced Concrete structures
- Torsional analysis of Reinforced Concrete structures
- Seismic base-isolation of structures

LIST OF PUBLICATIONS (selective)

1. Romanian code for assessment of existing buildings. concepts and methods. **First European Conference on Earthquake Engineering and Seismology (1st ECEES). September 4-6, 2008, GENEVE.** Tudor Postelnicu, *Dan Zamfirescu*.
2. Zamfirescu, D., Morariu, E. & Damian, I. (2010). Seismic performance of a tall structure for long predominant periods. In Abstract Book of the Fourteenth European Conference on Earthquake Engineering, 30 August-03 September 2010 (pp. 564). Ohrid, Macedonia: MAEE, Macedonian Association for Earthquake Engineering.
3. Köber, D. & Zamfirescu D. (2010). Simplified method for the assessment of general torsional effects on structural displacements. In Abstract Book of the Fourteenth European Conference on Earthquake Engineering, 30 August-03 September 2010 (pp. 303). Ohrid, Macedonia: MAEE, Macedonian Association for Earthquake Engineering.
4. Oprişoreanu, V. V. & Zamfirescu, D. (2010). Studiu privind eficiența soluției de izolare a bazei, pentru structuri din beton armat din România. Revista AICPS, 2010(1), 71-75. ISSN: 1454-928X.
5. Zamfirescu, D, Gutunoi, A. & Damian, I. (2011). Studiu asupra relației dintre deplasarea inelastică și cea elastică pentru cutremurele vrâncene. În lucrările Conferinței Naționale "Ingineria Clădirilor", 29-30 Septembrie 2011 (pp. 131-138). București, România: Conspress.
6. Oprişoreanu, V. V., & Zamfirescu, D. (2011). Evaluarea și consolidarea unei structuri cu pereți din beton armat amplasată în București. În lucrările Conferinței Naționale "Ingineria Clădirilor", 29-30 Septembrie 2011 (pp. 69-78). București, România: Conspress.
7. Köber, D., Zamfirescu D. (2012). Issues concerning general torsion in code provisions. In Paper electronic library of the Fifteenth World Conference on Earthquake Engineering, 24-28 September 2012. Lisbon, Portugal.
8. Köber, D., Zamfirescu D. (2012). Influence of nonlinearity on general torsion. In Paper electronic library of the Fifteenth World Conference on Earthquake Engineering, 24-28 September 2012. Lisbon, Portugal.
9. Oprisorenu, V. V., Zamfirescu, D. (2012). Evaluation and retrofitting of a concrete wall building placed in Bucharest using multistage rubber bearings. In Paper electronic library of the Fifteenth World Conference on Earthquake Engineering, 24-28 September 2012. Lisbon, Portugal.
10. PROIECTAREA STRUCTURILOR DE BETON ARMAT IN ZONE SEISMICE - 3 vol. Marlink 2012.
11. Buzăianu, B., & Zamfirescu, D. (2013). Calculul structurilor cu pereți structurali din beton armat conform normelor europene si nationale. AICPS 1-2/2013.
12. Zamfirescu, D. , Iancu D., Florea M., Nicolau M. (2013). Cladire rezidentiala protejata seismic cu izolatori de tip pendul cu frecare. AICPS 1-2/2013.
13. Köber, D. & Zamfirescu, D. (2013). Plan irregular structures. Simplified approach. Eds. Lavan, O. & De Stefano, M., Seismic Behaviour and Design of Irregular and Complex Civil Structures Springer ISBN-10: 9400753764.