

# CURICILUM VITAE

NAME: VISSARION PAPADOPOULOS  
BIRTH DATE: 26 /11 / 1968  
TOWN: ATHENS, GREECE

## EDUCATION

### a) Elementary – high-school education

1974 - 1980 : Elementary school of Filothei, Athens.

1980 - 1986 : High-school of Filothei, Athens.

### b) Graduate studies

1986 – 1991: National Technical University of Athens (NTUA), Dept. of Civil Engineering

### c) Post-graduate studies

1992 - 1993: Master of Science (MSc) and Diploma of Imperial College (DIC) in «Earthquake Engineering and Structural Dynamics», Imperial College of Science Technology and Medicine, Dept. of Civil Engineering, London, UK.

1992 - 1998: PhD Thesis, NTUA : «Limit reliability analysis of 3D framed structures using the Stochastic Finite Element Method».

### d) Post-doctoral research

2000 - 2006 : Post doctoral research in NTUA and Columbia University at New York in the area of computational stochastic mechanics (Supervisors: Manolis Papadrakakis and George Deodatis). During this period I was also temporal Assistant Professor at the University of Thessaly, Dept. of Civil and Mechanical Engineering.

## CURRENT POSITION:

Lecturer, School of Civil Engineering, Department of Structural Engineering, Lab of Structural Analysis and Antiseismic research, National Technical University of Athens, Greece.

## ACADEMIC –RESEARCH RECORD

Vissarion has more than 15 years academic and research record. His main research body focuses on probabilistic computational mechanics in which he has contributions in the area of reliability analysis and stochastic finite element methods. Starting in 1995, he has published 20 papers in peer reviewed journals and 32 in peer reviewed conference proceedings with more than 180 total number of citations and  $h$ -index = 7 (excluding self citations of all co-authors). More than half of his publications are related to imperfection-sensitive structures and he has proposed various methodologies for the treatment of imperfections as well as other types of model uncertainties, in a rational probabilistic context. Recently, he and one of his students proposed a novel methodology for the accurate estimation of narrow-band stochastic fields, such as initial imperfections, enabling for modeling imperfections from existing data which is a major effort in the project undertaken related not only to the description of initial imperfections of industrial facilities but also to their stochastic analysis (see [9] below). He also has significant contributions in the fields of reliability and seismic vulnerability analysis with a number of research papers in peer reviewed journals on the aforementioned topics. During his PhD (1996) he developed a novel Neural Network–based reliability analysis methodology which has been extensively used and cited (more than 80 citations) by other researchers. As recognized expert in the area of Computational Stochastic Mechanics, member of the International Association of Structural Safety and Reliability (IASSAR), he is a regular reviewer for 9 scientific journals, has co-organized the Second South-East European Conference on Computational Mechanics, SEECM 2009 and is member of the organizing committee of the

Computational Methods in structural Dynamics and Earthquake Engineering COMPDYN 2009 and 2011 conferences. He has also organized 6 Minisymposia for various International Conferences.

### Research projects

Vissarion has participated in the following 5 completed National and EU research projects:

- **Vulnerability of buried pipelines under seismic loading**, EU- environment, 1993.
- **Prediction and measurement of residual stresses**, JRC- EU, The Netherlands, 1993.
- **IALAD, Integrity Assessment of LArge Concrete Dams**, EU Network, 2002-2004.
- **AsProGe, Earthquake protection of Egnatia highway bridges** Greek Ministry of Education, General Secretariat of Research and Technology (GGET), 2003-2006.
- **PYTHAGORAS, Numerical solutions for coupled soil-structure interaction problems with large scale finite element models**, Greek Ministry of Education, General Secretariat of Research and Technology (GGET), 2004-2007.

### Current Grants

Vissarion is scientific responsible of the following research project:

- **PEBE, Development of spectral stochastic finite elements with galerkin based methods**, National Technical University of Athens, Basic research Support Program, 2009-2011.

and as member of the research Team of the Lab of Structural Analysis and AntiSeismic research of NTUA, he is also currently involved in the following project:

- **MRECT, Multiscale Reinforcement of semi-crystalline thermoplastic sheets and honeycombs**, Collaborative project, EC, FP7, 2010-2013.

in which he is responsible for the multiscale stochastic modelling of damping behaviour of Carbon Nanotube reinforced thermoplastic materials.

### Professional Activities

Consultancy and design of Bridges and Buildings privately and in collaboration with the following companies: D. Bairaktaris & Co, 1991 – 1996., DENCO Consultant Engineers L.t.d 1997- 1998, O.T.M L.t.d., 1997-2002. My professional activities involve the analysis and design of a large number of Reinforced Concrete Buildings as well as a large number of Reinforced concrete and prestressed High-way Bridges in Greece.

### 10-YEAR-TRACK RECORD

#### Publications in international journals with referees

- 1 V. Papadopoulos, M. Papadrakakis, The effect of material and thickness imperfections on the buckling load of shells with random initial imperfections, *Computer Methods in Applied Mechanics and Engineering*, 194, (12-16), pp. 1405-1426, 2005 (cited 17 times).
- 2 V. Papadopoulos, G. Deodatis and M. Papadrakakis, Flexibility-based upper bounds on the response variability of simple beams, *Computer Methods in Applied Mechanics and Engineering*, 194, (12-16), 8, pp. 1385-1404, 2005 (cited 10 times).
- 3 V. Papadopoulos and P. Inglessis, The effect of imperfect boundary conditions on the buckling analysis of cylindrical shells with random geometric material and thickness imperfections, *International Journal of Solids and Structures*, 44 (18-19), pp. 6299-6317, 2007 (cited 5 times).
- 4 N. Lagaros and V. Papadopoulos «Optimum design of shell structures with random geometric, material and thickness imperfections», *International Journal of Solids and Structures*, 43 (22-23), pp. 6948-6964, 2006 (cited 6 times).

- 5 M. Papadrakakis, V. Papadopoulos, N. Lagaros, J. Oliver, A. E. Huespe, and P. Sánchez, Vulnerability Analysis of Large Concrete Dams using the Continuum Strong Discontinuity Approach and Neural Networks, *Structural Safety*, 30 (3), pp. 217-235, 2008 (cited 6 times).
- 6 V. Papadopoulos, G. Deodatis, Response variability of stochastic frame structures using evolutionary field theory, *Computer Methods in Applied Mechanics and Engineering*, 195 (9-12), pp. 1050-1074, 2006 (cited 4 times).
- 7 V. Papadopoulos, M. Papadrakakis and G. Deodatis, Analysis of mean response and response variability of stochastic finite element systems, *Computer Methods in Applied Mechanics and Engineering*, 195 (41-43), pp. 5454-5471, 2006 (cited 6 times).
- 8 V. Papadopoulos, N. Lagaros, Vulnerability-based robust design optimization of imperfect shell structures, *Structural Safety*, 31(6), 475-482, 2009 (cited 1 times).
- 9 D. Schillinger, V. Papadopoulos, Accurate Estimation of Evolutionary Power Spectra for Strongly Narrow-Band Random Fields, *Computer Methods in Applied Mechanics and Engineering*, 199 (17-20), pp 947-9601, 2010 (cited 1 times).
- 10 V. Papadopoulos, G. Stefanou and M. Papadrakakis, Buckling load variability of cylindrical shells with stochastic imperfections, *Int. Journal for Reliability and safety*, 5(2), pp 191-208, 2011 (cited 0 times).

#### Books-Conference Proceedings

- **Computational Methods in Stochastic Dynamics**, M. Papadrakakis, G. Stefanou and V. Papadopoulos (eds) in Computational Methods in Applied Sciences, series of ECCOMAS, Springer
- **Proceedings of Second South-East European Conference on Computational Mechanics**, SEECCM 2009, M. Papadrakakis, M. Kojic, V. Papadopoulos (2009) Rhodes, Greece, June 22-24.

#### Book Chapters

- M. Papadrakakis, V. Papadopoulos and N. Lagaros, **Structural reliability analysis of elastic-plastic structures using Neural Networks and Monte Carlo simulation**, in M. Papadrakakis and G. Bugeda (Eds.), Advanced Finite Element Solution Procedures, CIMNE Publications, Barcelona, pp 348-374, 1996.
- Dominik Schillinger and Vissarion Papadopoulos, **The Method of Separation: A Novel Approach for Accurate Estimation of Evolutionary Power Spectra**, in Computational Methods in Stochastic Dynamics, M. Papadrakakis, G. Stefanou and V. Papadopoulos (eds), in Computational Methods in Applied Sciences, series of ECCOMAS, Springer, pp209-228, 2011.

#### INVITED LECTURES

- Lecture at the Workshop on Integrity Assessment of Large Concrete Dams with title: «Dam Safety and Integrity», National Technical University Athens, Greece, 2005.
- Lecture at the International Center for Mechanical Sciences (CISM) organized by the Centro Elettrotecnico Sperimentale Italiano (CESI) with title: “Safety assessment of Dams”, Udine, Italy, 2004.