

MIRKO CORIGLIANO

PERSONAL DETAILS

Birth: [REDACTED]

Nationality: [REDACTED]

Residency: [REDACTED]

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WORK EXPERIENCES

ENEL S.p.A. Global Thermal Generation Unit

Senior Civil Engineer, Geotechnical Earthquake Engineering

since 06/2013

Engineering and Construction Unit, Milan

12/2010 – 05/2013

Nuclear Technical Area, Rome

University of Pavia

A.Y. 2010-2011

Lecturer of graduate course "Foundations and Earth Retaining Structures" at the Engineering Faculty, Degree in Civil and Environmental Engineering.

A.Y. 2009-2010

EUCENTRE (Pavia)

European Centre for Training and Research in Earthquake Engineering

10/2007 – 12/2010

Researcher of the Geotechnical Earthquake Engineering and Engineering Seismology Section.

01/2007 – 09/2007

Research fellow at the Geotechnical Earthquake Engineering and Engineering Seismology Section.

11/2001 – 12/2003

Technical University of Turin

Collaboration with the Rock Mechanics Research Group, Structural and Geotechnical Engineering Department.

03/2002 – 02/2004

Studio Geotecnico Italiano s.r.l.

Geotechnical Engineer, Milan.

01/2002 – 02/2002

Si.Me.Te. s.n.c. (Studio O. Siniscalco)

Geotechnical Engineer, Turin.

EDUCATION AND TRAINING

2004-2006

PhD. in Geotechnical Engineering

Technical University of Turin,
Qualification obtained on 04/06/2007

1995-2001

Degree in Civil Engineering

Technical University of Turin,
Qualification obtained on 17/07/2001 (Summa cum Laude)

Postgraduate courses:

ROSE School (European School for Advanced Studies in Reduction of Seismic Risk): Seismic Response of Soil Structures and Foundations, Basics of seismology and seismic hazard assessment, Seismic Wave Propagation, Soil structure-interaction, Dynamic of structures, Non Linear Finite Element Analysis, Fundamental of seismic design, Seismic response of masonry structures.

Technical University of Turin: Constitutive Laws for Porous Materials, Measurement of soil parameters for Geotechnical Engineering, Soil Plasticity, Soil and waves.

LANGUAGES

- Italian: Native
- English: High level, both written and spoken
International English Language Testing System, IELTS: Academic module (07/2006)-6.5
Preliminary English Test (PET), University of Cambridge (06/2006) - pass with merit
- French: Scholastic level

SKILLS AND COMPETENCES

Social

I'm a proactive and dynamic person always used to work in international and multidisciplinary environment. I'm able to work in a self-organized way, as independent worker and collective team player.

Technical

Are part of my background: Probabilistic and Deterministic Seismic Hazard Analysis; Site response analysis; Definition of seismic input; Selection of accelerogram for dynamic analysis; Geotechnical characterization; Static and dynamic analysis of foundations and retaining structures; Analysis of soil-structure interaction; Seismic response of underground structures.

Computer

- WINDOWS, Internet
- Microsoft OFFICE (Excel, Word, Powerpoint)
- AUTOCAD
- Geotechnical software: FLAC^{2D}, Plaxis, Paratie, SlopeW, PHASE2, SETTLE 3D
- Geotechnical Earthquake Engineering and Engineering Seismology software: STRATA, EERA, NERA, DYNA6, SHAKE, Deepsoil, Wavegen, Grft12s, RSPMATCH
- Analysis of signals: Seismosignal, Degtra
- Software for seismic hazard analysis: EZ-FRISK, CRISIS, KERFRACT
- Programming languages: MATLAB and basic knowledge of PYTHON and FORTRAN

ADDITIONAL INFORMATION

Further qualifications

- 2015 Ordine degli Ingegneri di Milano (Register of Professional Engineers)– since 11/02/2015
- 2007 Mention to expert of Geotechnical topic at the Engineering Faculty of Pavia University
- 2002 Ordine degli Ingegneri di Torino (Register of Professional Engineers) – since 06/03/2002 to 10/02/2015
- 2001 Chartered Civil Engineer in Italy

Academic awards

- 2002 Construction of tunnels titled to Prof. G. Dardanelli (Association of Ex-Alumni Technical University of Turin)
- 2005 In memory of Eng. G. Vigliano (Technical University of Turin)

Author of software

ASCONA: Automated Selection of COMPATIBLE Natural Accelerograms – MATLAB code for selection of Natural accelerograms spectrum-compatible (Corigliano et al., 2012)

Other experiences

- Teaching activities As expert on Geotechnics at the Faculty of Engineering of University of Pavia, between 2007 and 2011, I taught courses in the field of Geotechnical Engineering and Foundations.
From 2006 I was involved in teaching activities at professional updating courses in the field of Geotechnical Earthquake Engineering and Foundations.
In 2016 I was lecturer of the module "Seismic design of underground structures" at the Post Graduate Master in "Tunnelling and Tunnel Boring Machines", Politecnico di Torino.
- Abroad experiences On February 2010 I did a period at the Research group of prof. M. Cubrinovski, School of Engineering, Canterbury University, Christchurch (New Zealand).
- Invited speaker
- February 2017, XVI Ciclo Conferenza Nazionale di Meccanica delle Rocce (Politecnico di Torino) on topic "Progettazione di gallerie profonde in condizioni sismiche"
 - December 2011, Colloquium of the ETH in Zurich on topic "Tunnel under seismic conditions".

SCIENTIFIC PUBLICATIONS

I'm author of over 40 publications in journals, and national and international conferences. I have also been a reviewer for scientific journals: Earthquake Spectra, Journal of Earthquake Engineering, Rock Mechanics and Rock Engineering, Progettazione sismica.

List of main publications:

- Vanini M., Corigliano M., Faccioli E., Figini R., Luzi L., Pacor F., Paolucci R. (2017). Improving seismic hazard approaches for critical infrastructures: a pilot study/project in the Po plain. Bulletin of Earthquake Engineering online.
- Corigliano M. (2017). Progettazione di gallerie profonde in condizioni sismiche. XVI Ciclo Conferenza Nazionale di Meccanica delle Rocce, 16-17 Febbraio 2017 (Politecnico di Torino).
- Corigliano M., Lai C.G., Scandella L., Spacone E., Camata G., Cantagallo C., Spallarossa D., Ghiretti P. (2014). Probabilistic seismic hazard assessment of the European Extremely Large Telescope ("E-ELT") Project (Chile). Tenth U.S. National Conference on Earthquake Engineering Frontiers of Earthquake Engineering. July 21-25, 2014 Anchorage, Alaska.
- Zuccolo E., Corigliano M., Lai C.G. (2014). Selection of spectrum-and seismo-compatible accelerograms for the Tuscany region in Central Italy. Soil Dynamic and Earthquake Engineering, (66), 305-313.
- Zuccolo E., Corigliano M., Lai C.G. (2013). Probabilistic seismic hazard assessment of Italy using kernel estimation methods. Journal of Seismology, Volume 17, No 3, pp 1001-1020.
- Taverna L., Zuccolo E., Corigliano M., Rota M., Lai, C. G., Penna A. (2013). Definizione di accelerogrammi reali spettro-compatibili per l'intero territorio nazionale. Progettazione Sismica. Vol. 4 N°2, 63-79.
- Corigliano M., Lai C.G., Menon A., Ornthammarath T. (2012). Seismic input at the archaeological site of Kancheepuram in Southern India. Natural Hazard. Vol. 63, No 2, pp 845-866.
- Rota M., Zuccolo E., Taverna L., Corigliano M., Lai C. G., Penna A. (2012). Mesozonation of the Italian territory for the definition of real spectrum-compatible accelerograms. Bull. Earthquake Eng. Vol. 10, N 5, 1357-1375.
- Corigliano M., Lai C.G., Rota, M., Strobbia C. (2012) ASCONA: Automated Selection of COmpatible Natural Accelerograms. Earthquake Spectra, Vol. 28, No 3, pp. 965-987.
- Corigliano M., Scandella L. Lai C.G., Paolucci R. (2011) Seismic Analysis of Deep Tunnels in Near Fault Conditions: a Case Study in Southern Italy. Bulletin of Earthquake Engineering. Vol. 9, N 4, 975-995.
- Bozzoni F., Corigliano M., Lai C.G., Salazar W., Scandella L., Zuccolo E., Latchman J., Lynch L., Robertson R. (2011). Probabilistic Seismic Hazard Assessment at the Eastern Caribbean Islands. Bulletin of Seismological Society of America, Vol. 101, No. 5, pp. 2499-2521.
- Scandella L., Lai C.G., Spallarossa D., Corigliano M. (2011) Ground shaking scenarios at the town of Vicoforte, Italy. Soil Dynamic and Earthquake Engineering (31) 757-772
- Bozzoni F., Scandella L., Lai C.G., Corigliano M. (2011) Stima del danno sismico di porti marittimi attraverso la tecnologia GIS: il caso del porto di Salerno. Progettazione Sismica, vol. 1, pp. 117-137.
- Pasquali R., Lai C. G., Corigliano M.(2010). Some Issues in Seismic Analysis and Design of Blockwork Wharves. Journal of Earthquake Engineering, Vol. 14, No 1, 102-130.
- Menon A., Ornthammarath T., Corigliano M., Lai C.G. (2010). Probabilistic Seismic Hazard Macrozonation of Tamil Nadu in Southern India. Bulletin of Seismological Society of America, Vol. 100, No. 3, 1320-1341.
- Corigliano M., Lai C.G., Barla G. (2009). Approcci Semplificati nella Progettazione Sismica di Gallerie Profonde. Progettazione Sismica. N°1 Gennaio-Aprile 2009
- Lai C.G., Corigliano M., Agosti M. (2009) Dighe e terremoti: Il caso Aquilano. Progettazione Sismica. N°3 Settembre-Dicembre 2009
- Lai C.G., Corigliano M., Sanchez H. (2009). Some examples of 1D fully stochastic site response analyses of soil deposits. Advances in Performance-Based Earthquake Engineering, Geotechnical, Geological, and Earthquake Engineering 13, Springer, Editor: Fardis.

I authorize to use my personal data in accordance with the Italian law D.L. 30/06/2003, n. 196 "Codice in materia di protezione dei dati personali" and the corresponding European law.