Curriculum vitae - Edoardo M. Marino (October 2024)

Full name: Edoardo Michele Marino
Date and place of birth: September 29, 1971, Catania, Italy
Marital status: Married, one daughter
Position: Full Professor
Affiliation: Department of Civil Engineering and Architecture
University of Catania
Address: Via Santa Sofia, 64 – Catania, Italy
Phone: +39 095 7382274
Fax: +39 095 7382298
Cell: +39 335 7995267
E-mail: edoardo.marino@ unict.it

Education

10/1996 Degree in Civil Engineering with the score of 110/110 cum laude on a scale of 110 as maximum, Advisor Prof. Aurelio Ghersi, University of Catania.
04/2001 Ph.D. in Structural Engineering, Advisor Prof. Aurelio Ghersi, University of Catania.

Fellowships, Licences and Qualifications

02/1997 Licensed as profession engineer.
10/1997 Ph.D. Fellowship, three years, Ph.D. program in "Structural Engineering", University of Catania.
08/2001 PostDoc Fellowship, two years, University of Catania.
10/2003 PostDoc Fellowship, one year, JSPS, DPRI, Kyoto University, Japan.

Work experiences

08/2001 – 08/2003 Post-doctorate Research Fellow, Department of Civil and Environmental Engineering, University of Catania, Italy.
10/2003 – 10/2004 Guest Research Associate, Disaster Prevention Research Institute, Kyoto University, Japan. Advisor Prof. Masayoshi Nakashima.
10/2004 – 09/2007 Adjunct Professor, Faculty of Engineering and Faculty of Architecture, University of Catania, Italy.
10/2007 – 01/2018 Assistant Professor, University of Catania, Italy.
06/2016 – 08/2016 Visiting Professor, Disaster Prevention Research Institute, Kyoto University, Japan.
02/2018 – 09/2024 Associate Professor, University of Catania, Italy.
05/2018 – 05/2018 Visiting Professor, Department of Civil Engineering, Tsinghua University, China.
10/2024 – present Full Professor, University of Catania, Italy.

Research interests

Analysis of the seismic behaviour and design criteria for steel structures (moment resisting frames, concentrically braced frames, eccentrically braced frames and frames with buckling restrained braces), nonlinear static methods for seismic assessment, formulation of techniques for seismic upgrading of existing buildings mainly focusing on low disturbance ones, performance based design, and seismic codes.

Academic activity at University of Catania

1. Member of the board of professors of the Ph.D. courses from 2009 to present
2. Supervisor of 7 Ph.D. students.
3. Supervisor or co-supervisors of more than 90 Master Theses.

Invited lectures

1. "Evaluation of seismic response of buildings by nonlinear static method", Tongji University, Shanghai, China, 5 June 2010.

2. "Introducing BRB technology into the European practice of steel braced frames", DPRI, Kyoto University, Kyoto, Japan, 16 May 2015.
3. "Design of steel structures according to the European code", Tsinghua University, Beijing, China, 28 June 2015.
4. "Design of buckling restrained braces (BRBs) for seismic upgrading of RC frames", Nippon Steel Central Research Institute, Tokyo, Japan, 29 August 2016.
5. "Achieving a more effective concentric braced frame by the double-stage yield BRB", Tsinghua University, Beijing, China, 19 May 2018.

Member of Editorial Board of Scientific Journals

- Academic Editor and Editorial Board member of *Buildings*, Open Access Journal, MDPI
- Editorial Board member of *The Open Construction & Building Technology Journal*, Open Access Journal, Bentham Open

Reviewer for Scientific Journals (selected)

- *Bulletin of Earthquake Engineering*, Springer.
- *Earthquake Engineering & Structural Dynamics*, John Wiley & sons, Ltd.
- *Engineering Structures*, Elsevier Science Ltd.
- *Journal of Structural Engineering (ASCE)*
- *Soil Dynamics and Earthquake Engineering*, Elsevier Science Ltd.

Research projects served as Principal Investigator (PI)

1. Grant for researchers "Validation of innovative nonlinear static methods for prediction of displacement demand of in-plan irregular buildings", year 2012, University of Catania, Italy.
2. Grant for Research 2014, FIR 2014 "Formulation of a nonlinear static method based on adaptive multimodal analysis for seismic assessment of buildings", years 2014 and 2015, University of Catania, Italy.
3. Grant for Research 2016/2018 (Piano Triennale per la Ricerca 2016/2018), "Soluzioni Strutturali innovative con controventi ad instabilità impedita per la PRotezione sismica di EDifici in acciaio, SSPRED", year 2018, Department of Civil Engineering and Architecture, University of Catania, Italy.
4. Grant for Research RELUIS 2022/2024, "R.C. structures", National Coordinators Proff. G. Monti, A. Prota and E. Spacone, Civil Protection Department, Italy.

Member of Research projects (selected)

1. "Criteria and design methodologies of innovative steel seismic-resistant structures", National Coordinator Prof. F.M. Mazzolani, Coordinator of the team of University of Catania Prof. A. Ghersi, years 2003 and 2004, Italian Ministry of Education, University and Research, Italy.
2. "Innovative strategies and tecniques for seismic upgrading of r.c. existing structures", National Coordinator Prof. C. Faella, Coordinator of the team of University of Catania Prof. A. Ghersi, years 2005 and 2006, Italian Ministry of Education, University and Research, Italy.
3. RELUIS line 2, "Evaluation and mitigation of the seismic vulnerability of existing r.c. buildings" National Coordinators Proff. E. Cosenza and G. Monti, Coordinator of the team of University of Catania Prof. A. Ghersi, from 2005 to 2008, Civil Protection Department, Italy.
4. RELUIS II line 1.2, "New aspects in assessment of existing buildings, in retrofitting techniques, and in evaluation of seismic risk of buildings in regional scale", National Coordinators Proff. G. Manfredi, G. Monti and E. Spacone, Coordinator of the team of University of Catania Prof. A. Ghersi, from 2009 to 2013, Civil Protection Department, Italy.
5. RELUIS 2014/2018, "R.C. structures", National Coordinators Proff. G. Monti, A. Prota and E. Spacone, Coordinator of the team of University of Catania Prof. A. Ghersi, from 2014 to 2018, Civil Protection Department, Italy.
6. Guest Researcher, "Seismic Performance and Seismic Design of Free Standing Structures", PI Prof. M. Nakashima, from 2015 to 2016, Japan Society for the Promotion of Science, Japan.
7. Member of the research team, "A precast high-rise building structure system with damage controllability (Grant No. 2016A06)", Principal Investigator Prof. Tao Wang, from 2015 to 2017, Scientific Research Fund of Institute of Engineering Mechanics, China Earthquake Administration.

8. Member of the research team and Task leader, e-SAFE "Energy and Seismic AFfordable rEnovation solutions", Horizon 2020, EUROPEAN COMMISSION - Executive Agency for Small and Medium-sized Enterprises. Project manager: Prof. Giuseppe Margani. WP3 - Conceiving and prototyping the e-SAFE technologies, Task 3.2 - Numerical and experimental structural characterization. Task leader: Prof. Edoardo M. Marino. Total duration: 48 months, from 1-10-2020 to 30-09-2024

Journal papers (selected)

1. E.M. Marino, M. Nakashima: Seismic performance and new design procedure for chevron braced frames. *Earthquake Engineering & Structural Dynamics*, John Wiley & sons, Ltd., ISSN: 0098-8847, Vol. 35/4 (2006), pp. 433-452: DOI: 10.1002/eqe.539.
2. M. Bosco, A. Ghersi, E.M. Marino: On the Evaluation of Seismic Response of Structures by Nonlinear Static Methods. *Earthquake Engineering & Structural Dynamics*, John Wiley & sons, Ltd., ISSN: 0098-8847, Vol. 38/13 (2009), pp. 1465-1482: DOI: 10.1002/eqe.911.
3. M. Bosco, A. Ghersi, E.M. Marino: Corrective eccentricities for assessment by the nonlinear static method of 3D structures subjected to bidirectional ground motions. *Earthquake Engineering & Structural Dynamics*, John Wiley & sons, Ltd., ISSN: 0098-8847, Vol. 41/13 (2012), pp. 1751-1773: DOI: 10.1002/eqe.2155.
4. M. Bosco, E.M. Marino: Design method and behavior factor for steel frames with buckling restrained braces. *Earthquake Engineering & Structural Dynamics*, John Wiley & sons, Ltd., ISSN: 0098-8847, Vol. 42 (2013), pp. 1243-1263: DOI: 10.1002/eqe.2269.
5. E.M. Marino. A unified approach for the design of high ductility steel frames with concentric braces in the framework of Eurocode 8. *Earthquake Engineering and Structural Dynamics*, John Wiley & sons Ltd., ISSN: 0098-8847, Vol. 43 (2014), pp. 97-118: DOI: 10.1002/eqe.2334.
6. F. Barbagallo, M. Bosco, E.M. Marino, P.P. Rossi, P.R. Stramondo: A multi-performance design method for seismic upgrading of existing RC frames by BRBs. *Earthquake Engineering and Structural Dynamics*, John Wiley & sons, Ltd., ISSN: 0098-8847, Vol. 46 (2017), pp. 1099-1119: DOI: 10.1002/eqe.2846.
7. L. Zhang, M. Kurata, E.M. Marino, T. Takeda: Development of a Minimal-Disturbance Rehabilitation System for Sustaining Bidirectional Loading. *Journal of Structural Engineering, United States – ASCE*, ISSN:0733-9445, Vol. 144 (2018), Article number 04018054: DOI: 10.1061/(ASCE)ST.1943-541X.0002089.
8. H. Wang, E.M. Marino, P. Pan: Design, testing and finite element analysis of an improved precast prestressed beam-to-column joint. *Engineering Structures*, Elsevier Science Ltd. ISSN: 0141-0296, Vol. 199 (2019), paper n. 109661: DOI: 10.1016/j.engstruct.2019.109661.
9. Y. Qie, Barbagallo, E.M. Marino, C. Du, T. Wang: Full-scale hybrid test for realistic verification of a seismic upgrading technique of RC frames by BRBs. *Earthquake Engineering and Structural Dynamics*, John Wiley & sons, Ltd., ISSN: 0098-8847, Vol. 49 (2020), pp. 1452–1472: DOI: 10.1002/eqe.3312.
10. F. Barbagallo, M. Bosco, A. Ghersi, E.M. Marino: An over-damped multimodal adaptive nonlinear static analysis for seismic assessment of infilled RC buildings. *Engineering Structures*, Elsevier Science Ltd. ISSN: 0141-0296, Vol. 229 (2021), paper n. 111622: DOI: 10.1016/j.engstruct.2020.111622.
11. F. Boggian, C. Tardo, A. Aloisio, E.M. Marino, R. Tomasi: Experimental Cyclic Response of a Novel Friction Connection for Seismic Retrofitting of RC Buildings with CLT Panels. *Journal of Structural Engineering, United States – ASCE*, ISSN: 07339445, Vol. 148 (2022), Article number 04022040: DOI: 10.1061/(ASCE)ST.1943-541X.0003313.

Total number of journal papers: 62.

Total number of publications: 182.

Edoardo Michele Marino