

BRIEF CV OF PROF. ENG. ANTONIO FORMISANO

SCIENTIFIC QUALIFICATION

Antonio Formisano is Associate Professor of Structural Design at the Department of Structures for Engineering and Architecture of the University of Naples Federico II.

Licensed to the role of Full Professor since 2021, his research activity deals with seismic vulnerability and risk assessment of urban habitats, seismic and structural behaviour of steel and aluminium structures and connections, seismic analysis of historical and cultural heritage buildings, seismic retrofitting systems based on steelwork techniques, structural robustness and multi-hazards analysis, sustainable building products and Life Cycle Assessment of building structures.

The results obtained from all the above research activities, demonstrated by more than 450 papers published in international journals and conference proceedings, were presented in the framework of several national and international research projects, where he participated as member or leader. Moreover, he established agreements of research contracts with many private companies to investigate new seismic retrofitting systems and novel green materials based on agricultural and industry wastes. He was and is involved in several standard committees on metal structures and cultural heritage. He received several awards in the fields of metal structures, innovation technologies and green materials and sustainability

EDUCATIONAL AND PROFESSIONAL EXPERIENCES

2018 – Present: Course of Structural Design within the II level Master ARINT “Architecture and design for internal areas” at the Faculty of Architecture, University of Naples “Federico II”, ITA.

2017 – Present: Reviewer and Jury Committee Member of PhD theses developed in Italian and International Universities.

2016 – Present: Erasmus Committee Member of the Department of Structures for Engineering and Architecture, University of Naples “Federico II”, ITA.

2016 – Present: Course of Structural Design in the Degree Course of Building Engineering and Architecture at the Faculty of Engineering, University of Naples “Federico II”, ITA.

2015-Present: Course of Rehabilitation and Maintenance of Structures (English language) within the II level International Master on “Sustainable Constructions under natural hazard and catastrophic events” (SUSCOS)

2014 –2016: Course of Structural Design within the Degree Course of Building Engineering at the Faculty of Engineering, University of Naples “Federico II”, ITA.

2013-Present: Course of Theory and Design of Steel Constructions (English language) within the II level International Master on “Emerging Technologies for Construction” (ETeC)

2011-Present: Tutor within the PhD course in Management System FCT (Fundacao para a Ciencia e Tecnologia) at the Portugal Universities of Aveiro, Braga, Lisbon, Porto and Minho.

2012 - Present: Co-tutor of MsC theses at the Degree Courses of Architectural Design and Architecture (unique cycle) at the Faculty of Architecture, University of Naples “Federico II”, ITA.

2011-2015: Course of Steel in Refurbishment and Aluminium Structures (English language) within the level Master on "Design of Steel Structures" at the Faculty of Engineering, University of Naples “Federico II”, ITA.

2011 – 2014: Course of Theory and Design of Steel Constructions (English course) within the MsC course on Structural and Geotechnical Engineering at the Faculty of Engineering, University of Naples “Federico II”, ITA.

2011-2012: Professor of the Laboratory of Structural Design and Design course at the Faculty of Architecture, University of Naples “Federico II”, ITA.

2010 - Present: Tutor of BsC and MsC theses at the Degree Courses of Civil Engineering, Environmental Engineering, Building Engineering, Building Engineering-Architecture and Structural and Geotechnical Engineering of the Faculty of Engineering, University of Naples “Federico II”, ITA.

2010-Present: Tutor of training activities in the field of Structural and Seismic Engineering for students of the degree courses in Building Engineering, Architecture-Building Engineering and Structural and Geotechnical Engineering at the University of Naples “Federico II”, ITA

2009 - Present: Co-tutor of students within the PhD Course in Construction Engineering (now Structural Engineering, Geotechnics and Seismic Risk) of the Engineering Faculty (now School of Polytechnic and Basic Sciences), University of Naples “Federico II”, ITA

2003 – 2011: Assistant to the Course of Structural Design (Prof. Federico M. Mazzolani) at the MsC on Civil Engineering at the Faculty of Engineering, University of Naples “Federico II”, ITA.

2003-2009: Co-Tutor of MsC theses at the Degree Course of Civil Engineering, University of Naples “Federico II”, ITA.

2011–Present: Consultant of Structural Engineering projects for the design of new reinforced concrete, steel and timber structures and the seismic assessment and retrofitting of historical and monumental masonry constructions.

2000–2010: Independent co-worker at Mazzolani & Partners - Engineering Office in Naples, ITA.

NORMATIVE ACTIVITIES

2005-2006: Advisor for the Unification Italian National Entity (UNI) aimed at translating to Italian the European code EN-1993-1-8 for the design of steel joints;

2008-2011: Member of the study committee for the preparation of the new version of the Italian Building Code, section: CNR-DT 208/2011 on the design of aluminium structures (Research National Council – CNR);

2011-2012: Member of the study committee for the review of the Italian Building Code (2008), section: Steel and composite steel-r.c. structures;

2015 - Present: Member of the Italian Technical Committee for the UNI U7309 “Aluminium Structures”;

2015 - Present: Member of the Project Team for the development of a new version of the Eurocode 9 - Aluminium Structures (EC9). Task PT2 “New Types of Connection”

2017-Present: Member of the Project Team for the development of a new version of the Eurocode 9 - Aluminium Structures (EC9). Task PT3 “Long span structures”

RESEARCH ACTIVITIES

His scientific activity is testified from more than 450 scientific papers published on national and international journals and national and international conferences, where he has participated as speaker.

PARTICIPATION TO THE MOST RECENT RESEARCH PROJECTS

2014-17: SNOWBALL - Lower the impact of aggravating factors in crisis situations thanks to adaptive foresight and decision-support tools - Funding scheme: FP7 - Security within the EU Agenda 2014-20. Coordinator: GIULIO ZUCCARO - Role: Member

2014-17: METRICS - Methodologies and technologies for management and requalification of historical centres and cultural heritage buildings. Funding scheme: P.O.N.03PE_00093_5 - MIUR 2014-20 Agenda, EU co-funding. Scientific Responsible: Andrea Prota - Role: Member

2014-17: METROPOLIS Sustainable and integrated methodologies and technologies for adjusting and safety of urban systems. Funding Scheme: P.O.N.03PE_00093_4 - MIUR 2014-20 Agenda, EU co-funding. Scientific Responsible: Gerardo Mario Verderame - Role: Member

2014-18: RELUIS III 'Network of University Laboratories of Seismic Engineering'. Funding scheme: The Italian Civil Protection Department.

a) Thematic area: “Masonry Structures” – Task: Design and assessment of vulnerability and safety of artworks and buildings. Coordinators: S. Lagomarsino, G. Magenes, C. Modena. Research line “Numerical modeling of masonry structures made of blocks” - Scientific responsables: Claudia Casapulla, Francesco Portoli - Role: Member of the research unit – UNINA

b) Thematic area: “Masonry Structures” - Coordinators: S. Lagomarsino, G. Magenes, C. Modena. Research line “Reparation of buildings damaged by earthquakes and resilience-based intervention strategies – focus on ecclesiastic buildings” - Scientific responsible: Gabriele Milani, Carlo Poggi - Role: Member of the research unit – POLIMI

c) Thematic area: “General themes”. Research line: “Seismic design of new constructions” - Task 2 “Steel and composite steel-concrete structures” - Coordinators: R. Landolfo and R. Zandonini - Role: Member of the research unit – UNINA

2019-21: RELUIS 'Network of University Laboratories of Seismic Engineering'. Funding scheme: The Italian Civil Protection Department.

a) Thematic area WP2: “Database of existing structural and building typologies (CARTIS)” - Coordinator: G. Zuccaro. Research lines: Task 2.1 “Survey and data collection into an apposite database” and Task 2.3 “Vulnerability of masonry structures and seismic risk analysis at large scale”- Scientific responsible: Raffaele Landolfo - Role: Member of the research unit – UNINA c

b) Thematic area WP2: “Database of existing structural and building typologies (CARTIS)” - Coordinator: G. Zuccaro. Research lines: Task 2.1 “Survey and data collection into an apposite database” and Task 2.3 “Vulnerability of masonry structures and seismic risk analysis at large scale”- Scientific responsible: Antonio Formisano - Role: Coordinator of the research unit – UNINA g

c) Thematic area WP12: “Steel and steel-rc composite structures” - Coordinators: R. Landolfo and R. Zandonini. Research line “Standard contributions related to civil and industrial constructions made of steel and steel-rc composite structures” - Scientific responsible: Raffaele Landolfo - Role: Member of the research unit – UNINA

d) Thematic area WP5: “Quick execution and integrated interventions with low impact”. Coordinators: A. Prota and F. da Porto. Research line: “Quick execution and low impact interventions” - Scientific responsible: Raffaele Landolfo - Role: Member of the research unit – UNINA

e) Thematic area WP10: “Normative contributions related to existing masonry structures”. Coordinators: G. Magenes. Research line: “Modelling of masonry spandrels and automation of out-of-plane mechanisms” - Scientific

responsible: Gabriele Milani - Role: Member of the research unit – POLIMI

2019-21: DIGIBETON “Digital prefabrication of building components in GasBeton: from design to sustainable use in housing modules 4.0”. Research line: “Support for development of innovative housing modules manufacturing processes in AAC”. Funding scheme: POR Campania FESR 2014-2020. Scientific responsible: Dr. Eng.

Costantino Menna - Role: Member of the research unit – UNINA

2019-20: Joint Research Center (JRC/E/04) – Contract from European Commission as expert to study seismic and energetic retrofitting systems of existing buildings. Funding scheme: European Committee. Leader: Antonio Formisano

MEMBER OF THE EDITORIAL BOARD OF THE FOLLOWING INTERNATIONAL JOURNALS

– NED University Journal of Research – An international journal (ISSN 1023-3873); (since 2011). website:

<http://www.neduet.edu.pk/NED-Journal/>

– American Journal of Geographic Information System (p.ISSN: 2163-1131; e.ISSN: 2163-114X; (since 2012). website: <http://www.sapub.org/journal/aimsandscope.aspx?journalid=1053>

– Trends Journal of Sciences Research (TJSR) (ISSN: 1819-3579); (since 2014). website: <http://www.tjsr.org/>

– Open Construction and Building Technology Journal (ISSN: 1874-8368); (since 2014). website:

<http://benthamopen.com/tobctj/>

– American Journal of Civil Engineering and Architecture (ISSN (Print): 2328-398X; ISSN (Online): 2328-3998, (since 2014). website: <http://www.sciepub.com/journal/AJCEA>

– The International Journal of Sustainable Materials and Structures (IJSMS) (ISSN online: 2043- 863X; ISSN print: 2043-8621); (since 2014). website: <http://www.inderscience.com/jhome.php?jcode=ijsms>

– Scienze e Ricerche. (ISSN 2283-5873); (since 2014). website: www.scienzericerche.com

– Journal of Civil Engineering and Architecture research (ISSN 2333-911X); (since 2015). website:

<http://www.ethanpublishing.com/index.php?m=content&c=index&a=lists&catid=101>

– Civil Engineering Journal (ISSN: 2476-3055) (since 2016). website: <http://civilejournal.org/index.php/cej>

– Cogent Engineering (Editorial Board member and Editor) (ISSN: 2331-1916) (since 2016). Website:

<http://www.tandfonline.com/loi/oaen20>

– The Open Civil Engineering Journal (ISSN: 1874-1495) (since 2017). website: <https://benthamopen.com/tociej/>

– Frontiers in Built Environment (ISSN: 2297-3362) - Computational Methods in Structural Engineering (since 2017)

– Review Editor and Guest Associate Editor. website: <https://www.frontiersin.org/journals/built-environment/sections/computational-methods-in-structural-engineering>

– Frontiers in Built Environment (ISSN: 2297-3362) - Earthquake Engineering (since 2017) – Associate Editor and Guest Associate Editor - website: <https://www.frontiersin.org/journals/built-environment/sections/earthquake-engineering#>

– Hindawi – Advances in Civil Engineering (ISSN: 1687-8094) (since 2017) – Editorial Board member and Editor - website: <https://www.hindawi.com/journals/ace/>

EDITOR-IN-CHIEF OF THE FOLLOWING INTERNATIONAL JOURNALS

– International Journal of Masonry Research and Innovation (ISSN online 2056-9467 - ISSN print 2056-9459)

(since 2022) - Website: <https://www.inderscience.com/jhome.php?jcode=ijmri>

– The Open Civil Engineering Journal (ISSN online 1874-1495) (since 2022) - Website:

<https://opencivilengineeringjournal.com/index.php>

OTHER MEMBERSHIPS

2009 – Present: a member of the Italian Association on Seismic Engineering (ANIDIS).

2005 – Present: a member of the Italian Council of Steel Technicians (CTA)

2008 – Present: a member of the Italian Network ReLUIS

2002 - 2010: a member of the European Network Cost Action

2004 - Present: a member of the chamber of Engineers of Naples.

2011 - Present: a member of the Structural Committee of the chamber of Engineers of Naples.

AWARDS AND HONOURS

2007: Best paper in the category: Post-doc of the 15th ACME Conference - Association of Computational Mechanics in Engineering. Glasgow, UK.

2012: Award plaque in recognition of Exceptional Leadership and Devoted Service to the municipality of Cento (Ferrara, Italy) during the post-earthquake recovering after the Emilia Earthquake (2012).

2014: 3rd prize within an International Competition for the project of a tourist City in Abha - Saudi Arabia (structural engineer consultant). The project details are available in the monograph: Raffone S. “Tourist City in Abha, Saudi Arabia”, 2014, Giannini editor, ISBN: 9788874317554.

2015: "Web Prize" and third placement in the general classification in the context of Architecture prizes _VI edition "Urban Conviviality" with Project N. 6 "The dancing Equines " finalized to the requalification of the Agnano (district of

Naples) racecourse – role of structural consultant.

2016: Oscar Green prize with a special mention attributed for the experimentation (in collaboration with Eng. Luigi De Marco) on green buildings with the reuse of agricultural hemp wastes.

2017: “Innovation Prize” related to “Digital strategies for the optimization of products and business processes” within the SMAU 2017 event (Naples, December 14th)

2017: Visiting Professor at the TU Munich, Chair of Conservation-Restoration and Honorary Fellow of the TUM Institute for Advanced Studies within the excellence initiative programme August-Wilhelm Scheer Visiting Professorship.

2018: 5th placement in the international design competition for the realization of the school pole of Excellence Hotel and Agribusiness of the municipality of Ariano Irpino - role of structural consultant for the Solaro architectural firm in Herculaneum (NA)

SCOPUS papers (updated on 28/06/22)

H index: 32 – Records: 217 – Number of citations: 2811

<https://www.scopus.com/authid/detail.uri?authorId=54421738200>