

# Nicola Impollonia

Professor, Ph.D.

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## Info

Birth 02 July 1972, Messina, Italy

Citizenship Italian (EU) Citizen

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## Education

1996 – 2000 **Ph.D. (*Dottore di Ricerca*) in Structural Engineering**, Department of Civil Engineering, University of Catania, Italy.

Doctoral thesis on Static and Dynamic Analysis of Structures subjected to Uncertain Parameters; Supervisor: Professor Giuseppe Muscolino

1996 – 1997 **Exchange Visiting Student**, Florida Atlantic University, Boca Raton, USA.

Several Master course examinations passed of the Master in Mechanical Engineering

1996 **Civil Engineering Master Degree**, Department of Civil Engineering, University of Messina, Italy.

Graduated magna cum laude

## Current Positions

October 2016 – present **Professor (*Professore di Prima Fascia*) of Strength of Material**, School of Architecture, University of Catania, Italy.

Among the main duties and responsibilities there are: carrying out research on the area of Architectural Structures and Design, Structural Mechanics and Construction Technology, with the main scope of publishing the research outputs on international scientific venues; seeking funding at national and international level to support research activities; building up a strong networking and strong set of collaborations among different research groups both at national and international scale; actively contributing to the development of discipline-based Architectural and Civil Engineering Degree Courses at all levels; supervising Bachelor, Master and PhD students; providing personal tutorials and mentoring advices to students and their careers

January 2014 – present **Eligible for the Full-Professorship position (*Professore di Prima Fascia*) in the field of Strength of Materials (*Scienza Delle Costruzioni*)**.

Following the National Scientific Qualification Examination (ASN-Miur, 08/B2 Scienza delle Costruzioni) in 2012, the position has been assigned by the Italian Universities Scientific Committee, which has scrutinized candidates at national and international level.

- October 2012 – present **Member of the Faculty Committee of the Ph.D Course of Evaluation and Risk Reduction of Urban and Built Environment**, *Department of Civil Engineering and Architecture*, University of Catania, Italy.  
 The Course, established within the Department of Civil Engineering and Architecture (DICAR) UniCT, is done in collaboration with the groups of Structural Engineering and Architecture. The main objectives of the course are devoted to the design and analysis of seismic-resistant structures and infrastructures as well as the rehabilitation of the existing urban heritage, integration and well-functioning of the diverse infrastructural systems, as stated within the framework and agenda of the European Project Horizon 2020. The main aim is to build up new professional figures able to master advanced and innovative technologies and to address multiple sources of risk at territorial level, such as seismic risk, hydraulic and flooding risks, management and disposal of urban wastes
- October 2012 – present **Chair of the Strength of Material Experimental Laboratory**, *School of Architecture*, University of Catania, Italy.
- July 1996 – present **Licensed Professional Civil Engineer**, *School of Engineering*, University of Palermo, Italy.

## Past Positions

- December 2015 – June 2016 **Visiting Academic**, *Department of Civil and Building Engineering*, Loughborough University, UK, under the invitation of Dr. A. Palmeri.  
 The research carried out over this period of time focuses on: Seismic Vulnerability of existing structures by means of dissipative devices and reaction towers; Artificial Earthquake Modeling and generation by means of harmonic wavelets
- October 2007 – July 2016 **Senior Lecturer/Reader (*Professore di Seconda Fascia*) of Strength of Material**, *School of Architecture*, University of Catania, Italy.
- January 2004 – September 2007 **Lecturer (*Ricercatore universitario*) of Strength of Materials**, *School of Architecture*, University of Catania, Italy.
- September 1997 – July 1998 **Graduate research assistant**, *Florida Atlantic University*, Boca Raton, USA.  
 Research on the field of Structural instability of non-conservative problems. Supervisor: Professor Isaac Elishakoff

## Academic Experience and Responsibilities

- From 2015 – present **Member of the Expert Panel for “University Third Mission Evaluation for Entrepreneurial activities”**, Italy.  
 The panel has been selected by the Italian Research Council ANVUR
- 2014 **Invited Lecturer**, *the National Technical University of Athens*, Athens, Greece.
- 2010 – 2013 **Member of the European Space Agency ECSS-E-HB-32-24**, *ESA*, Paris, France.  
 Working Group, Author of the “Space engineering - Buckling of structures ECSS-E-HB-32-24”. ESA Requirements and Standards Division. Noordwijk, p. 1-463, 2010
- 2013 – present **Member of the board “Seismic reliability evaluation of major Italian museums”**, Italy.  
 The panel has been established by the Italian Ministry of Cultural Heritage
- 2008 **Visiting Professor**, *Institut für Leichtbau RWTH University*, Aachen, Germany.

- 2008 – **Editorial Board Member.**  
 present International Journal “JP Journal of Solids and Structures”; International Journal “ISRN Mechanical Engineering”; International Journal “Solids and Structures (SAS)”; International Journal of Materials Engineering and Technology; International “Journal of Civil Engineering and Science JCES; International Scholarly Research Notices – Mechanical Engineering
- 2007 – 2015 **Vice-President of the Architecture Degree Board** , University of Catania.  
 Italy
- 2007 – 2014 **Chair of the teaching evaluation board at the School of Architecture**, University of Catania, Italy.
- 2005-2015 **Member of Final Examination Committees.**  
 He graduated more than 10 Ph.D Students, one of them at the Department of Civil & Building Engineering at Loughborough University in 2013
- 1998 **Researcher**, *Department of Mechanical Engineering, Florida Atlantic University, Boca Raton, USA.*  
 Research field ‘ Vibrations of pipes and their stability’

## Research Grants and Responsibilities

- 2014 – 2016 **Principal investigator of the "Seismic reliability evaluation of the Museum of Medieval and Modern Art of Matera at Palazzo Lanfranchi, and the ‘National Archeological Museum Vito Capalbi", Vibo Valentia Castle, Italy.**  
 The project has been led in collaboration with Prof. Caterina Carocci, commissioned and funded by the Italian Ministry of Cultural Heritage (£60.000)
- 2014 **Member of the research group leading the project on “Formulation of a nonlinear static method based on adaptive multi-modal analysis for seismic assessment of buildings”, University of Catania, Italy.**  
 Granted by University of Catania (£22.000)
- 2014 **Principal investigator of the Project on “Vulnerability evaluation and retrofit design of the Federico II Castle of Syracuse, Sicily”, Italy.**  
 Commissioned and granted by the Municipality of Syracuse (£19.000)
- 2013 **Principal investigator and supervisor of the Research Fellowship on Structural Retrofit of existing building, Univeristy of Catania, Italy.**  
 Supervisory activity of Dr. Eng. Leopoldo Greco (£21.000)
- 2012 **Principal investigator of the Project “Experimental dynamic measurements and seismic evaluation of a bridge in Catania, Italy”, Italy.**  
 Commissioned and funded by the Infrastructure Local Authority of Catania (£15.000)
- 2011 **Principal investigator of the Project “Shape memory alloys devices for vibration reduction on existing bridges”, Italy.**  
 granted by The Commission and Regional Funds (£285.000)
- 2011 **Principal investigator of the Project “Seismic evaluation and retrofitting of 2 bridges” , Italy.**  
 Commissioned and funded by the Municipality of Syracuse, Sicily (£15.000)
- 2009 **Local investigator for the project “CINEMAT - 2D and 3D digital images for evaluation of material characteristics and behavior”, Italy.**  
 Evaluated as considered feasible by the Italian Research Ministry (not funded)
- 2008 **Local investigator of the project “Protocols for knowledge and reduction of seismic vulnerability of historical heritage ” .**  
 Granted by Italian Research Ministry (£48.000)

- 2008 **Principal investigator of the “Experimental dynamic analysis and measurements of the Archbishop’s Palace of Syracuse”**, Italy.  
The project has been carried out under the auspices of the Municipality of Syracuse, in collaboration with Prof. Sara Casciati
- 2007 **Principal investigator on “Seismic assessment evaluation of 19 schools ”**, Syracuse, Italy.  
Granted by the Municipality of Syracuse (£16.000)
- 2007 **Principal investigator for Ideas Program Call ERC-2007-S project “Intelligent structural health monitoring for historical buildings”**, Italy.  
Evaluated as meritorious but not funded
- 2006 **Principal investigator for the research on “Explicit solution for structural analysis”**, Italy.  
Granted by University of Catania (£2.700)
- 2005 **Principal investigator for the experimental and analytical research on “Systems for the measurement of tension on tie installed in ancient building”**, Italy.  
Granted by the European Commission and Regional Funds ( £230.000).
- 2005 **Principal investigator for the research on “Structural identification by inverse method”**, Italy.  
Granted by University of Catania (£4.500)

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## Honors and Awards

- 2011 **Gold Medal of Italian Architecture 2012 for the Project "Artemide Pavilion Museums"**, Syracuse, Italy.  
Co-advisor and leader of the team in charge for the structural and seismic analyses of the project. The prize has been assigned based on criteria related to the specific insights of quality, integration with the historical surrounding context and technical innovation, with specific referenc to the use of seismic base isolators
- 2006 – 2014 **Rated first among the 5% Departmental Member of the Staff in terms of Quality of Teaching at the College of Architecture of Catania, School of Architecture**, University of Catania, Italy.  
Ranking according to student satisfaction
- 2002 **Research Fellowship**, University of Messina, Italy.  
Grant to be spent for a period of four years of study abroad on the topic of Structural Reliability
- 2001 **Winner of the ‘Young Research Fellowship Award’ for exemplary research in Computational Mechanics, MIT, USA.**  
Granted by Massachussets Institute of Technology, during the "First MIT Conference on Fluid and Solid Mechanics"
- 2000 **CNR-NATO Fellowship**, Italy.  
Granted by Centro Nazionale di Ricerca (CNR)
- 2000 **Winner of the Fellowship Award for attending The Stochastic Mechanics Methods Ph.D Course, DTU, Lyngby, Denmark.**  
Granted by the Technical University of Denmark
- 1996 **Winner of the Research Fellowship**, University of Messina, Italy.  
Granted to spend for a period of study abroad in an Overseas International Institution

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## Teaching Activities

- 2002-2015 *Teaching Coordination, both as Course Leader (100%) or Contributor (40%) for Bachelor and Master Courses at Faculty of Architecture, UNICT*
- 2014 – 2015 **Teaching Coordinator**, *School of Architecture*, University of Catania, Italy.  
Strength of Material (80 hours, 8 Credits), Advanced Techniques of Seismic Design (60 hours, 6 Credits)
- 2013 – 2014 **Teaching Coordinator**, *School of Architecture*, University of Catania, Italy.  
Strength of Material (80 hours, 8 Credits), and Advanced Techniques of Seismic Design (60 hours, 6 Credits)
- 2012 – 2013 **Teaching Coordinator**, *School of Architecture*, University of Catania, Italy.  
Strength of Material (100 hours, 8 Credits), and Advanced Techniques of Seismic Design (60 hours, 6 Credits)
- 2011 – 2012 **Teaching Coordinator**, *School of Architecture*, University of Catania, Italy.  
Strength of Material (100 hours, 8 Credits), and Advanced Techniques of Seismic Design (60 hours, 6 Credits)
- 2010 – 2011 **Teaching Coordinator**, *School of Architecture*, University of Catania, Italy.  
Strength of Material (100 hours, 8 Credits), at Master Level, Strength of Material (40 hours, 4 Credits), at Undergraduate Level
- 2009 – 2010 **Teaching Coordinator**, *School of Architecture*, University of Catania, Italy.  
Strength of Material (100 hours, 8 Credits), at Master Level, Strength of Material (40 hours, 4 Credits), at Undergraduate Level
- 2008 – 2009 **Teaching Coordinator**, *School of Architecture*, University of Catania, Italy.  
Strength of Material (120 hours), Structural Analysis Experimental Laboratory for Architecture (105 hours)
- 2008 – 2009 **Teaching Contributor**, *Department of Civil Engineerig*, University of Messina, Italy.  
Computational Mechanics of Structures (60 hours)
- 2007 – 2008 **Teaching Coordinator**, *School of Architecture*, University of Catania, Italy.  
Statics (120 hours), Strength of Material (60 hours)
- 2006 – 2007 **Teaching Coordinator**, *School of Architecture*, University of Catania, Italy.  
Statics (120 hours), Strength of Material (60 hours)
- 2005 – 2006 **Teaching Coordinator**, *School of Architecture*, University of Catania, Italy.  
Statics (120 hours), Strength of Material (60 hours)
- 2004 – 2005 **Teaching Coordinator**, *School of Architecture*, University of Catania, Italy.  
Statics (120 hours)
- 2002 – 2003 **Teaching Contributor**, *Department of Civil Engineerig*, University of Messina, Italy.  
Strength of Material (course given for part-time students)

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## Research Supervision and Mentoral Activities

- 2013 **Member of the Doctorate Committee of Research on Evaluation and Mitigation of Risk at Urban and Territorial Scale**, University of Catania, Italy.
- 2013 **Member of the Doctorate Committee**, *School of Civil and Building Engineering*, Loughborough University, UK.
- 2013 – 2013 **Member of the Committee of the Master on Integration of Architecture in Urban Landscaping**, University of Catania, Italy.
- 2012 **Member of the Doctorate Committee of Research of Civil and Environmental Engineering**, University of Messina, Italy.

- 2012 – 2011 **Member of the Final Committee at Master Course Level in Seismic Engineering, at the Department of Civil Engineering, *University of Messina*, Italy.**
- 2012 **Member of the Doctoral Research Committee on Structural and Geotechnical Engineering, University of Catania, Italy.**
- 2010 – 2011 **Member of the Doctoral Committee of Urban Landscaping Design, University of Catania, Italy.**
- 2008 – 2009 **Member of the Doctoral Research Committee on Materials and Technological Innovation for Engineering and Architecture, University of Catania, Italy.**
- 2006 – 2007 **Member of the Doctoral Research Committee on Architectural Engineering, University of Catania, Italy.**
- 2005 **Member of the Doctoral Research Committee of the Research on Civil Engineering, Health and Safety of Buildings and Environment, *Department of Civil Engineering*, University of Messina, Italy.**
- 2002 – 2016 **Supervisor and co-supervisor of more than 30 dissertations within the School of Architecture, University of Catania, Italy.**
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