

## Allegato B

Decreto Rettore Università di Roma “La Sapienza” n 2755/2018 del 19.11.2018 (CODICE CONCORSO 2018PAR043)

# GIUSEPPE QUARANTA

## Curriculum Vitae

### Part I – General Information

Full Name	Giuseppe Quaranta
Date of Birth	
Place of Birth	
Citizenship	
Permanent Address	
Mobile Phone Number	
E-mail	
Spoken Languages	

### Part II – Education

Type	Year	Institution	Notes (Degree, Experience,...)
PhD	2011	Università di Roma “La Sapienza”	Ph.D. in Structural Engineering (in Italian: Dottorato di Ricerca in Ingegneria delle Strutture)
University graduation	2006	Politecnico di Bari	M.Sc. in Civil Engineering (in Italian: Laurea in Progettazione e Gestione delle Opere di Ingegneria Civile 28/S, Classe delle lauree specialistiche in ingegneria civile), final grade: 110/110 e lode
University graduation	2004	Politecnico di Bari	B.Sc. in Civil Engineering (in Italian: Laurea in Ingegneria Civile), final grade: 110/110 e lode
Specialty	2008	International Centre for Mechanical Sciences (CISM)	Advanced course: “Advanced nonlinear strategies for vibration mitigation and system identification”
Specialty	2008	International Centre for Mechanical Sciences (CISM)	Advanced course: “New trends in vibration based structural health monitoring”
Licensure	2007	Charter of Professional Engineers of Taranto, n. 2440 (in Italian: Ordine degli Ingegneri di Taranto, n. 2440)	Professional Engineer

### Part III – Appointments

#### IIIa – Main Academic Appointments

Start	End	Institution	Position
2012	Present	Università di Roma “La Sapienza”	Assistant Professor in Structural Engineering (in Italian: Ricercatore Universitario in Tecnica delle Costruzioni)
2012	2012	Politecnico di Bari	Postdoctoral Scholar in Structural Engineering (in Italian: Assegnista di Ricerca in Tecnica delle Costruzioni)
2011	2012	University of California Davis (USA)	Postdoctoral Scholar in Structural Engineering

#### IIIb – Other Academic/non-Academic Appointments

Start	End	Institution	Position
2018	Present	Frontiers in Built Environment – Bridge Engineering	Review Editor of the Editorial Board
2018	Present	Advances in Civil Engineering (Hindawi Publishing Corporation)	Member of the Editorial Board
2016	Present	Mathematical Problems in Engineering (Hindawi Publishing Corporation)	Member of the Editorial Board
2013	Present	International Journal of Fuzzy Computation and Modelling (Inderscience Publishers)	Member of the Editorial Board
2013	2013	Università di Roma “La Sapienza”, Facoltà di Ingegneria Civile e Industriale	Membro della Commissione Elettorale per le elezioni dei rappresentanti degli studenti nell’Assemblea di Facoltà e nei Consigli d’Area Didattica
2013	2013	Università di Roma “La Sapienza”, Facoltà di Ingegneria Civile e Industriale	Presidente della Commissione d’aula per le prove ad accesso programmato alla Facoltà di Ingegneria Civile e Industriale

### Part IV – Teaching Experience

Year	Institution	Lecture/Course
Since 2013	Università di Roma “La Sapienza”, Facoltà di Ingegneria Civile e Industriale	Course “Tecnica delle Costruzioni”
2015, 2016, 2018	Università di Roma “La Sapienza” et al., Master di II livello “Progettazione Strutturale Avanzata secondo gli Eurocodici”	Lecture “EN 1990: Basis of structural design”
2014	Università Roma Tre, Master di II livello “Innovazione nella Progettazione, Riabilitazione e Controllo delle Strutture in Cemento Armato”	Lecture “Introduction to Finite Element Method”

## Part V - Society Memberships, Awards and Honors

Year	Title
2015-present	National Habilitation for the position of Associate Professor in Structural Engineering (in Italian: Abilitazione Scientifica Nazionale per la posizione di Professore di II Fascia in Tecnica delle Costruzioni”) from January 13, 2015 to January 13, 2021
2018	The paper “A permanent wireless dynamic monitoring system for the Colosseum in Rome” by G. Monti, F. Fumagalli, G. Quaranta, M. Sgroi, M. Tommasi has been selected within the Exclusive Editor’s Choice Collection (2018 Editor’s Choice Articles) for Journal of Structural Integrity and Maintenance
2018	Invited lecture “Energy harvesting from ambient vibrations using piezoelectric polymeric materials: computational insights for structural monitoring applications”, Xi’an Jiaotong University (China)
2018	Invited lecture “Energy harvesting from ambient vibrations using piezoelectric polymeric materials: computational insights for structural monitoring applications”, 1st International Conference on Vibration and Energy Harvesting Application, Shenzhen (China)
2018	The abstract "Nonlinear modelling of a piezoelectric fractional order system for energy harvesting applications" by C. Maruccio, G. C. Marano, G. Quaranta, G. Grassi has been selected by the Review Panel of the 5th Workshop in Devices, Materials and Structures for Energy Harvesting and Storage (April 23-24, 2018, Dublin, Ireland) for oral presentation
2016	Invited lecture “Smart monitoring of structures and infrastructures”, Fuzhou University (China)
2016	Receipt of the “Global Exchange Distinguished Visiting Scholarship” from Nanjing Tech University (China)
2016	Invited lecture “Experimental dynamic assessment of critical infrastructures and development of smart monitoring systems”, Nanjing Tech University (China)
2016	M.Sc. thesis “Dynamic monitoring of a cable-stayed bridge” by Enrico Nuti (supervisor: Giuseppe Quaranta, co-supervisor: Giorgio Monti) awarded as best thesis by CIAS "International Center for Experimental and Scientific Updating" within the session "Bridges and Viaducts" (in Italian: premio miglior tesi nella sessione "Ponti e Viadotti" dal CIAS "Centro di Aggiornamento Sperimentale-Scientifico")
2015	Invited lecture “Evaluation of the plastic hinge length for nonlinear analysis of reinforced concrete buildings”, 4th International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering, Prague (Czech Republic)
2011-2014	The paper "Modified genetic algorithm for the dynamic identification of structural systems using incomplete measurements" by G. C. Marano, G. Quaranta, G. Monti ranked as "excellent" by the Italian Research and University Evaluation Agency (VQR 2011-2014)
2010	The paper "Finite element analysis with uncertain probabilities" by G. Quaranta ranked 12th among the Top 25 Hottest Articles published by Computer Methods in Applied Mechanics and Engineering (period: from October to December 2010)
2008	The paper "Fuzzy-based robust structural optimization" by G. C. Marano and G. Quaranta ranked 12th among the Top 25 Hottest Articles published by International Journal of Solids and Structures (period: from April to June 2008)

## Part VI - Funding Information

Within this Section, the following legend has been adopted: principal investigator/grant holder (PI), co-principal investigator (co-PI), research unity leader (RUL), working group member (WGM).

Year	Research project title	Program
2017-present	“Smart solutions for the assessment of structures in seismic areas” (PI)	Università di Roma “La Sapienza”, Progetti di Ricerca Universitari 2016

2017-present	“Strutture in cemento armato” (WGM)	Convenzione ReLUIS-DPC
Present	“Visiting Professorship for research activities” for Prof. S. K. Kunnath, University of California Davis, USA (PI)	Visiting Professor for research activities 2016, Università di Roma “La Sapienza”
2017-Present	“Finanziamento annuale individuale delle attività base di ricerca” (PI)	MIUR
2015-present	"Quality Specifications for Roadway Bridges, Standardization at a European Level" (WGM)	COST Action TU1406
2013-2015	“Inertial Force-Limiting Floor Anchorage Systems for Seismic-Resistant Building Structures” (WGM)	National Science Foundation (NSF) George E. Brown Network for Earthquake Engineering Simulation Research (NEESR) project
2011-2012	“Novel Computational Simulation Methodology for Complex Structural System Analysis” (WGM)	National Science Foundation (NSF) project
2014-2016	“Trattamento delle incertezze nella valutazione degli edifici esistenti” (co-PI)	Convenzione ReLUIS-DPC
2014-2016	“Osservatorio sismico delle strutture e monitoraggio” (RUL)	Convenzione ReLUIS-DPC

## Part VII – Research Activities

### Keywords

Sensing systems for structural monitoring
Dynamic identification
Diagnostic of civil structures and infrastructures
Passive devices for seismic protection of structures

### Brief description

Technologies and methodologies for monitoring structures and infrastructures are important for several applications, such as physics-based or data-driven model calibration and updating, damage detection and reliability assessment. Within this framework, current researches are concerned with the dynamic monitoring and testing of heritage structures, bridges, critical structural details and anti-seismic devices. Sensor network design, systems identification and diagnostic problems are addressed. As regards the devices for seismic protection, analysis and design problems are also considered. Special attention is paid on the analysis, design and testing of innovative smart devices intended for structural monitoring applications.

Reinforced concrete structures
Truss-reinforced composite steel-concrete beams

Researches in the field of structural concrete are mainly concerned with ordinary reinforced concrete and a special class of composite steel-concrete beams. The analysis of ordinary reinforced concrete structures via numerical approaches is performed by means of finite element, fiber element or meshfree methods. Analytical solutions are also developed to estimate the capacity of single reinforced concrete members. The studies are focused on columns and beams of framed structures as well as shear walls. Moreover, analysis and design of special steel-concrete beams are addressed. Differently from typical composite steel-concrete beams, here the reinforcing element is a truss structure whose bottom chord is made of a steel plate that supports the precast floor system. All relevant loading conditions are examined, with special attention to seismic loads.

## Part VIII – Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international]	38	Scopus (access date: December 12, 2018)	2008	2018
Book chapters [scientific]	2	Scopus (access date: December 12, 2018)	2008	2018
Conference [national/international]	14	Scopus (access date: December 12, 2018)	2008	2018
Total Impact Factor <sup>1</sup>	InCites Journal Citation Report (access date: November 27, 2018)		71.467 (all), 69.388 (w/o only papers accepted)	
Total Citations	Scopus (access date: December 12, 2018)		458 (journals only), 468 (all)	
Average Citations per Product	Scopus (access date: December 12, 2018)		12.05 (journals only), 8.66 (all)	
Hirsch (H) index	Scopus (access date: November 27, 2018)		13	
Normalized H index <sup>2</sup>	Scopus (access date: November 27, 2018)		1.3	

The following table reports impact factor values for the journal papers listed in Section Xa.

Journal	Publication year	Impact factor <sup>3</sup>
Mechanical Systems and Signal Processing	2019	4.370
	2018	4.370
	2010	1.762
Earthquake Spectra	accepted for publication	2.079
Journal of Intelligent Material Systems and Structures	in press	2.211
Bulletin of Earthquake Engineering	2018	2.303
Journal of Structural Integrity and Maintenance	2018	N/A
Shock and Vibration	2018	1.857
Engineering Structures	2018	2.755
	2017	2.755
	2016	2.258
	2012	1.713
	2009	1.256
Meccanica	2016	2.196
Smart Materials and Structures	2016	2.909
International Journal of Architectural Heritage	2016	1.053
Earthquakes and Structures	2016	0.970
Journal of Vibration and Control	2016	2.101
Computers and Structures	2016	2.847
Journal of Computing in Civil Engineering	2016	2.310
	2010	0.900
Computers and Concrete	2014	0.869
Applied Soft Computing	2014	2.810
	2009	2.415

<sup>1</sup> Sum of the journal impact factors for the journal papers listed in Section Xa.

<sup>2</sup> H index divided by the academic seniority (i.e., from the first published paper indexed in Scopus).

<sup>3</sup> The source is “InCites Journal Citation Report” (access date: November 27, 2018). For papers in press, accepted for publication or published on 2018 and 2019, the value refers to the last available year (2017). The label “N/A” means that “InCites Journal Citation Report” does not provide the impact factor value for the corresponding journal.

Structural and Multidisciplinary Optimization	2014	1.974
	2009	1.516
Structure and Infrastructure Engineering	2014	1.454
	2010	0.592
International Journal of Mechanical Sciences	2013	2.061
Advanced Materials Research	2013	N/A
Journal of Structural Engineering	2011 <sup>4</sup>	1.488
Computer Methods in Applied Mechanics and Engineering	2011	2.651
Computer aided Civil and Infrastructure Engineering	2011	3.382
The Structural Design of Tall and Special Buildings	2011	1.041
Asian Journal of Civil Engineering	2011	N/A
Acta Mechanica	2010	1.024
Earthquake Engineering and Engineering Vibration	2010	0.880
International Journal of Solids and Structures	2008	1.809
Journal of Materials in Civil Engineering	2008	0.526
Total impact factor	all	71.467
	w/o only accepted papers	69.388
Mean impact factor <sup>5</sup>	all	1.985
	w/o only accepted papers	1.982

## Part IX – Short-list of publications selected for the evaluation (max 10, last 5 years)

Please see the separated file with the short-list of publications selected for the evaluation.

## Part X– List of publications

### Xa – Selected Journal Papers

1. G. Fiorentino, G. Quaranta, G. Mylonakis, D. Lavorato, A. Pagliaroli, G. Carlucci, F. Sabetta, G. Della Monica, G. Lanzo, V. Aprile, G. C. Marano, B. Briseghella, G. Monti, N. Squeglia, R. Bartelletti, C. Nuti, “Seismic reassessment of the leaning Tower of Pisa: monitoring, site response and SSI”, Earthquake Spectra, accepted for publication.
2. A. Kefal, C. Maruccio, G. Quaranta, E. Oterkus, “Modelling and parameter identification of electromechanical systems for energy harvesting and sensing”, Mechanical Systems and Signal Processing, 121, 890-912, 2019.
3. C. Maruccio, M. Scigliuzzo, S. Rizzato, P. Scarlino, G. Quaranta, M. S. Chiriaco, A. G. Monteduro, G. Maruccio, “Frequency and time domain analysis of surface acoustic wave propagation on a piezoelectric GaAs substrate: a computational insight”, Journal of Intelligent Material Systems and Structures, in press (doi: 10.1177/1045389X18803461).
4. A. Fiore, F. Mollaioli, G. Quaranta, G. C. Marano, “Seismic response prediction of reinforced concrete buildings through nonlinear combinations of intensity measures”, Bulletin of Earthquake Engineering, 16(12), 6047-6076, 2018.
5. G. Monti, F. Fumagalli, G. Quaranta, M. Sgroi, M. Tommasi, “A permanent wireless dynamic monitoring system for the Colosseum in Rome”, Journal of Structural Integrity and Maintenance, 3(2), 75-85, 2018.
6. C. Maruccio, G. Quaranta, P. Montegiglio, F. Trentadue, G. Acciani, “A two-step hybrid approach for modelling the nonlinear dynamic response of piezoelectric energy harvesters”, Shock and Vibration (Special Issue "Vibration energy harvesting for monitoring dynamical systems"), 2054873, 2018.

<sup>4</sup> “InCites Journal Citation Report” provides impact factor values for Journal of Structural Engineering since 2013. Therefore, the value here reported refers to 2013.

<sup>5</sup> Papers without impact factor are not considered in the mean value.

7. G. Quaranta, F. Trentadue, C. Maruccio, G. C. Marano, "Analysis of piezoelectric energy harvester under modulated and filtered white Gaussian noise", *Mechanical Systems and Signal Processing*, 104, 134-144, 2018.
8. G. Quaranta, F. Mollaioli, "On the use of the equivalent linearization for bilinear oscillators under pulse-like ground motion", *Engineering Structures*, 160, 395-407, 2018.
9. G. Quaranta, F. Trentadue, G. C. Marano, "Closed-form approximation of the axial force-bending moment interaction diagram for hollow circular reinforced concrete cross-sections", *Engineering Structures*, 153, 516-524, 2017.
10. F. Trentadue, G. Quaranta, G. C. Marano, "Closed-form approximations of the interaction diagrams for assessment and design of reinforced concrete columns and concrete-filled steel tubes with circular cross-section", *Engineering Structures*, 127, 594-601, 2016.
11. W. Lacarbonara, B. Carboni, G. Quaranta, "Nonlinear normal modes for damage detection", *Meccanica*, 51(11), 2629-2645, 2016.
12. C. Maruccio, G. Quaranta, L. De Lorenzis, G. Monti, "Energy harvesting from electrospun piezoelectric nanofibers for structural health monitoring of a cable-stayed bridge", *Smart Materials and Structures*, 25(8), 085040, 2016.
13. N. Nisticò, S. Gambarelli, A. Fascetti, G. Quaranta, "Experimental dynamic testing and numerical modeling of historical belfry", *International Journal of Architectural Heritage*, 10(4), 476-485, 2016.
14. G. Quaranta, F. Mollaioli, G. Monti, "Effectiveness of design procedures for linear TMD installed on inelastic structures under pulse-like ground motion", *Earthquakes and Structures*, 10(1), 239-260, 2016.
15. G. Quaranta, B. Carboni, W. Lacarbonara, "Damage detection by modal curvatures: numerical issues", *Journal of Vibration and Control*, 22(7), 1913-1927, 2016.
16. A. Scodreggio, G. Quaranta, G. C. Marano, G. Monti, R. B. Fleischman, "Optimization of force-limiting seismic devices connecting structural subsystems", *Computers and Structures*, 162, 16-27, 2016.
17. A. Fiore, G. Quaranta, G. C. Marano, G. Monti, "Evolutionary polynomial regression-based statistical determination of the shear capacity equation for reinforced concrete beams without stirrups", *ASCE Journal of Computing in Civil Engineering*, 30(1), 04014111, 2016.
18. F. Trentadue, G. Quaranta, R. Greco, G. C. Marano, "New analytical model for the hoop contribution to the shear capacity of circular reinforced concrete columns", *Computers and Concrete*, 14(1), 59-71, 2014.
19. G. Quaranta, G. C. Marano, R. Greco, G. Monti, "Parametric identification of seismic isolators using differential evolution and particle swarm optimization", *Applied Soft Computing*, 22, 458-464, 2014.
20. G. Quaranta, A. Fiore, G. C. Marano, "Optimum design of prestressed concrete beams using constrained differential evolution algorithm", *Structural and Multidisciplinary Optimization*, 49(3), 441-453, 2014.
21. G. Quaranta, G. C. Marano, F. Trentadue, G. Monti, "Numerical study on the optimal sensor placement for historic swing bridge dynamic monitoring", *Structure and Infrastructure Engineering*, 10(1), 57-68, 2014.
22. F. Trentadue, G. Quaranta, "Limit analysis of frictional block assemblies by means of fictitious associative-type contact interface laws", *International Journal of Mechanical Sciences*, 70, 140-145, 2013.
23. G. C. Marano, R. Greco, G. Quaranta, A. Fiore, J. Avakian, D. Cascella, "Parametric identification of nonlinear devices for seismic protection using soft computing techniques", *Advanced Materials Research*, 639, 118-129, 2013.
24. G. Quaranta, S. K. Kunnath, N. Sukumar, "Maximum-entropy meshfree method for nonlinear static analysis of planar reinforced concrete structures", *Engineering Structures*, 42, 179-189, 2012.
25. F. Trentadue, G. Quaranta, G. C. Marano, G. Monti, "Simplified lateral-torsional buckling analysis in special truss-reinforced composite steel-concrete beams", *ASCE Journal of Structural Engineering*, 137(12), 1419-1427, 2011.
26. G. Quaranta, "Finite element analysis with uncertain probabilities", *Computer Methods in Applied Mechanics and Engineering*, 200(1-4), 114-129, 2011.
27. G. C. Marano, G. Quaranta, G. Monti, "Modified genetic algorithm for the dynamic identification of structural systems using incomplete measurements", *Computer aided Civil and Infrastructure Engineering*, 26(2), 92-110, 2011.
28. G. C. Marano, G. Monti, G. Quaranta, "Comparison of different optimum criteria for sensor placement in lattice towers", *The Structural Design of Tall and Special Buildings*, 20(8), 1048-1056, 2011.
29. G. Quaranta, F. Petrone, G. C. Marano, F. Trentadue, G. Monti, "Structural design of composite concrete-steel beams with spatial truss reinforcement elements", *Asian Journal of Civil Engineering*, 12(2), 155-178, 2011.

30. G. Quaranta, G. Monti, G. C. Marano, "Parameters identification of Van der Pol - Duffing oscillators via particle swarm optimization and differential evolution", *Mechanical Systems and Signal Processing* (Special Issue "ISMA 2010"), 24(7), 2076-2095, 2010.
31. G. Monti, G. Quaranta, G. C. Marano, "Genetic-algorithm-based strategies for dynamic identification of nonlinear systems with noise corrupted response", *ASCE Journal of Computing in Civil Engineering*, 24(2), 173-187, 2010.
32. G. C. Marano, G. Quaranta, S. Sgobba, R. Greco, M. Mezzina, "Fuzzy reliability analysis of RC structures by using an improved time-dependent model of chloride ingress", *Structure and Infrastructure Engineering*, 6(1-2), 205-223, 2010.
33. G. C. Marano, G. Quaranta, "A new possibilistic reliability index definition", *Acta Mechanica*, 210(3-4), 291-303, 2010.
34. G. C. Marano, G. Quaranta, S. Sgobba, "Fuzzy-entropy based robust optimization criteria for tuned mass dampers", *Earthquake Engineering and Engineering Vibration*, 9(2), 285-294, 2010.
35. G. C. Marano, E. Morrone, G. Quaranta, "Analysis of randomly vibrating structures under hybrid uncertainty", *Engineering Structures*, 31(11), 2677-2686, 2009.
36. G. C. Marano, G. Quaranta, "Robust optimum criteria for tuned mass dampers in fuzzy environments", *Applied Soft Computing*, 9(4), 1232-1243, 2009.
37. G. C. Marano, G. Quaranta, R. Greco, "Multi-objective optimization by genetic algorithm of structural systems subject to random vibrations", *Structural and Multidisciplinary Optimization*, 39(4), 385-399, 2009.
38. G. C. Marano, G. Quaranta, "Fuzzy-based robust structural optimization", *International Journal of Solids and Structures*, 45(11-12), 3544-3557, 2008.
39. G. C. Marano, G. Quaranta, M. Mezzina, "Fuzzy time-dependent reliability analysis of RC beams subject to pitting corrosion", *ASCE Journal of Materials in Civil Engineering*, 20(9), 578-587, 2008.

#### Xb – Books

1. F. Trentadue, G. C. Marano, G. Quaranta, E. Mastromarino, *La instabilità delle travi reticolari miste autoportanti*, Waveng srl Ed., ISBN 978-88-903782-2-5, 2011 (in Italian).

#### Xc – Book Chapters

1. A. Fiore, G. Quaranta, G. C. Marano, "Evaluation of the plastic hinge length for nonlinear analysis of reinforced concrete buildings", in J. Kruis, Y. Tsompanakis and B.H.V. Topping, (Editors), *Computational Techniques for Civil and Structural Engineering*, Saxe-Coburg Publications, Chapter 11, pp 255-280, 2015.
2. F. Mosti, G. Quaranta, W. Lacarbonara, "Numerical and experimental assessment of the modal curvature method for damage detection in plate structures", in M. Belhaq (Editor), *Structural Nonlinear Dynamics and Diagnosis*, Springer, Chapter 3, pp 59-68, 2015.
3. G. Quaranta, G. C. Marano, "Soft computing applications in structural dynamic monitoring", in Y. Tsompanakis, P. Iványi, B. H. V. Topping, (Editors), *Civil and Structural Engineering Computational Methods*, Saxe-Coburg Publications, Chapter 8, pp 157-170, 2013.
4. G. C. Marano, G. Quaranta, J. Avakian, A. Palmeri, "Identification of passive devices for vibration control by evolutionary algorithms", in A. H. Gandomi, X.-S. Yang, S. Talatahari, A. H. Alavi, (Editors), *Metaheuristic Applications in Structures and Infrastructures*, Elsevier, Chapter 15, pp 373-387, 2013.
5. G. C. Marano, G. Quaranta, G. Monti, "Genetic algorithms in mechanical systems identification: state-of-the-art review", in B. H. V. Topping, Y. Tsompanakis, (Editors), *Soft Computing in Civil and Structural Engineering*, Saxe-Coburg Publications, Chapter 2, pp 43-72, 2009.

#### Xd – Selected Conference Contributions

Herein, the underlined *Italic-style* name of the candidate means that he was the presenting author of the contribution. The following legend has been adopted: paper (P), abstract or extended abstract (A), poster (Ps).



1. G. Quaranta, C. Maruccio, “Energy harvesting from ambient vibrations using piezoelectric polymeric materials: computational insights for structural monitoring applications”, 1st International Conference on Vibration and Energy Harvesting Application (VEH 2018), Shenzhen (P. R. China), November 2-4, 2018 (A).
2. Kefal, C. Maruccio, G. Quaranta, P. Montegiglio and E. Oterkus, “Synchronization-based approach for parameters identification in linear and nonlinear energy harvesting systems dynamics”, 28th International Workshop on Computational Mechanics of Materials (IWCMM28), Glasgow (United Kingdom), September 10-12, 2018 (A).
3. F. Trentadue, G. Quaranta, “Limit analysis of masonry structures based on fictitious associative-type contact interface laws”, 9th International Conference on Computational Methods (ICCM2018), Rome (Italy), August 6-10, 2018 (A).
4. G. Quaranta, F. Trentadue, C. Maruccio, G. C. Marano, “Probabilistic analysis and design of piezoelectric energy harvesting devices under modulated and filtered white Gaussian noise”, 7th World Conference on Structural Control and Monitoring (7WCSCM), Qingdao (P. R. China), July 22-25, 2018 (P).
5. G. Fiorentino, D. Lavorato, G. Quaranta, B. Briseghella, C. Nuti, “Dynamic monitoring and model updating of the Leaning Tower of Pisa”, 7th World Conference on Structural Control and Monitoring (7WCSCM), Qingdao (P. R. China), July 22-25, 2018 (P).
6. C. Demartino, C. Maruccio, G. Quaranta, “Energy harvesting from vertical pedestrian-induced vibrations of footbridges”, 7th World Conference on Structural Control and Monitoring (7WCSCM), Qingdao (P. R. China), July 22-25, 2018 (P).
7. G. Quaranta, C. Demartino, W. Yue, Y. Xiao, “Dynamic properties of a bamboo-steel spatial truss structure”, Global Bamboo and Rattan Congress 2018 (BARC2018), Beijing (P. R. China), June 25-27, 2018 (A).
8. G. Fiorentino, D. Lavorato, G. Quaranta, A. Pagliaroli, G. Carlucci, G. Mylonakis, N. Squeglia, B. Briseghella, G. Monti, C. Nuti, “Leaning tower of Pisa: recent studies on dynamic response and soil-structure interaction”, 16th European Conference on Earthquake Engineering (16ECEE), Thessaloniki (Greece), June 18-21, 2018 (P).
9. G. Quaranta, F. Trentadue, C. Maruccio, G. C. Marano, “Energy harvesting from electrospun piezoelectric nanofibers: analysis and design under non-stationary random vibrations”, 5th Workshop in Devices, Materials and Structures for Energy Harvesting and Storage, Dublin (Ireland), April 23-24, 2018 (Ps).
10. C. Maruccio, G. C. Marano, G. Quaranta, G. Grassi, “Nonlinear modeling of a piezoelectric fractional order system for energy harvesting applications”, 5th Workshop in Devices, Materials and Structures for Energy Harvesting and Storage, Dublin (Ireland), April 23-24, 2018 (A).
11. G. Fiorentino, D. Lavorato, G. Quaranta, C. Nuti, “Leaning Tower of Pisa: new results on dynamic response considering soil structure interaction”, 5th International Workshop Dynamic Interaction of Soil and Structures - Dynamic interaction between Soil, Monuments and Built Environment (DISS 2017), Rome (Italy), October 19-20, 2017 (P).
12. G. Quaranta, F. Trentadue, C. Maruccio, G. C. Marano, “Energy harvesting from earthquake for vibration-powered wireless sensors”, 4th Conference on Smart Monitoring, Assessment and Rehabilitation of Structures (SMAR 2017), Zürich (Switzerland), September 13-15, 2017 (P).
13. C. Maruccio, G. Quaranta, F. Trentadue, G. C. Marano, “Multi-scale and multi-uncertainty modeling of energy harvesters under environmental vibrations”, ECCOMAS Thematic Conference on Computational Modelling of Multi-Uncertainty and Multi-Scale Problems (COMUS17), Porto (Portugal), September 12-14, 2017 (A).
14. G. Fiorentino, D. Lavorato, G. Quaranta, A. Pagliaroli, G. Carlucci, C. Nuti, F. Sabetta, G. Della Monica, M. Piersanti, G. Lanzo, G. C. Marano, G. Monti, N. Squeglia, R. Bartelletti, “Numerical and experimental analysis of the leaning Tower of Pisa under earthquake”, X International Conference on Structural Dynamics (EURODYN 2017), Rome (Italy), September 10-13, 2017 (P).
15. C. Maruccio, G. Quaranta, G. Monti, L. De Lorenzis, “A FE<sup>2</sup> based approach for multiscale modeling and design of energy harvesting devices”, XXIII Conference of the Italian Association of Theoretical and Applied Mechanics (AIMETA 2017), Salerno (Italy), September 4-7, 2017 (P).
16. Fiore, F. Mollaioli, G. Quaranta, G. C. Marano, “Nonlinear combination of intensity measures for response prediction of RC buildings”, Proceedings of the 1st European Conference on OpenSees (EOSD 2017), Porto (Portugal), June 19-20, 2017 (A).

17. *G. Quaranta*, F. Mollaioli, “Accuracy of equivalent linear models for bilinear oscillators under pulse-like ground motion”, 6th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2017), Rhodes Island (Greece), June 15-17, 2017 (P).
18. Fiore, F. Mollaioli, *G. Quaranta*, G. C. Marano, “Finding correlations between engineering demand parameters and intensity measures through evolutionary polynomial regression”, 6th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2017), Rhodes Island (Greece), June 15-17, 2017 (P).
19. Maruccio, M. Scigliuzzo, S. Rizzato, G. Quaranta, G. Maruccio, “Computational and experimental analysis of surface acoustic wave propagation on piezoelectric GaAs layer”, 8th Conference on Smart Structures and Materials (SMART 2017), Madrid (Spain), June 5-8, 2017 (P).
20. Maruccio, *G. Quaranta*, L. De Lorenzis, G. Monti, “Piezoelectric polymeric nanowires for energy harvesting devices in wireless sensor networks of smart bridges”, RISUD Annual International Symposium 2016 - Smart Cities (RAIS 2016), Hong Kong (P. R. China), August 23-24, 2016 (A).
21. G. Monti, F. Fumagalli, G. C. Marano, G. Quaranta, M. Sgroi, M. Tommasi, R. Rea, B. Nazzaro, “Wireless dynamic monitoring of the Colosseum in Rome”, 4th International Workshop Dynamic Interaction of Soil and Structures - Dynamic interaction between Soil, Monuments and Built Environment (DISS 2015), Rome (Italy), November 12-13, 2015 (P).
22. E. Nuti, *G. Quaranta*, G. Monti, “Experimental dynamic assessment of a cable-stayed bridge”, 3rd Conference on Smart Monitoring, Assessment and Rehabilitation of Structures (SMAR 2015), Antalya (Turkey), September 7-9, 2015 (P).
23. C. Maruccio, G. Quaranta, L. De Lorenzis, G. Monti, “Energy harvesting from electrospun piezoelectric nanowires for structural health monitoring of a cable-stayed bridge”, 4th International Symposium on Energy Challenges and Mechanics (ECM4), Aberdeen (United Kingdom), August 11-13, 2015 (A).
24. R. Bartelletti, G. Fiorentino, G. Lanzo, D. Lavorato, G. C. Marano, G. Monti, C. Nuti, *G. Quaranta*, N. Squeglia, “Behavior of the leaning tower of Pisa: Analysis of experimental data from structural dynamic monitoring”, 2nd International Symposium on Advances in Civil and Infrastructure Engineering (ACE 2015), Vietri sul Mare (Italy), June 12-13, 2015 (P).
25. R. Bartelletti, G. Fiorentino, G. Lanzo, D. Lavorato, G. C. Marano, G. Monti, C. Nuti, G. Quaranta, N. Squeglia, “Behavior of the leaning tower of Pisa: Insights on seismic input and soil-structure interaction”, 2nd International Symposium on Advances in Civil and Infrastructure Engineering (ACE 2015), Vietri sul Mare (Italy), June 12-13, 2015 (P).
26. Fiore, G. Quaranta, A. Abrescia, G. C. Marano, “Shear strength of concrete beams without stirrups: An evolutionary polynomial regression-based approach”, 1st International Conference on Engineering and Applied Sciences Optimization (OPT-i 2014), Kos Island (Greece), June 4-6, 2014 (P).
27. F. Mosti, G. Quaranta, W. Lacarbonara, “Numerical and experimental assessment of the modal curvature method for damage detection in plate structures”, 2nd International Conference on Structural Nonlinear Dynamics and Diagnosis (CSNDD 2014), Agadir (Morocco), May 19-21, 2014 (P).
28. G. Monti, F. Fumagalli, G. C. Marano, *G. Quaranta*, R. Rea, B. Nazzaro, “Effects of ambient vibrations on heritage buildings: overview and wireless dynamic monitoring application”, 3rd International Workshop Dynamic Interaction of Soil and Structures - Dynamic interaction between Soil, Monuments and Built Environment (DISS 2013), Rome (Italy), December 12, 2013 (P).
29. *G. Quaranta*, S. K. Kunnath, N. Sukumar, “Problems and perspectives in implementing meshfree methods for nonlinear analysis of RC structures using OpenSees”, 1st Italian OpenSees Days, Rome (Italy), May 24-25, 2012 (P).
30. Scodeggio, G. Quaranta, G. C. Marano, R. Fleischman, G. Monti, “Optimum design of force-limiting self-centering anchorage systems: initial study and implemented methodology”, 1st Italian OpenSees Days, Rome (Italy), May 24-25, 2012 (P).
31. G. Quaranta, B. Carboni, W. Lacarbonara, “On the reliability of a PCA-based method for structural diagnosis in bridge structures with environmental disturbances”, 1st International Conference on Structural Nonlinear Dynamics and Diagnosis (CSNDD 2012), Marrakech (Morocco), April 30 - May 2, 2012 (P).
32. G. Quaranta, J. Avakian, G. C. Marano, G. Monti, “Numerical and experimental assessment of various non-classical methods for parametric identification of nonlinear viscous dampers”, 3rd International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2011), Corfu (Greece), May 25-28, 2011 (P).
33. G. Quaranta, S. Chakraborty, G. C. Marano, “Robust design of tuned liquid column dampers under stochastic ground motion considering fuzzy uncertainties”, 3rd International Conference on Computational

Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2011), Corfu (Greece), May 25-28, 2011 (P).

34. G. C. Marano, G. Quaranta, S. Sgobba, Y. Tsompanakis, “Domination-based selection schemes for handling constraints in particle swarm optimization algorithms”, IV European Conference on Computational Mechanics - Solids, Structures and Coupled Problems in Engineering (ECCM 2010), Paris (France), May 16-21, 2010 (P).
35. G. Monti, G. Quaranta, G. C. Marano, “Robustness against the noise in sensors network design for heritage structures: the case study of the Colosseum”, 4th International Workshop on Reliable Engineering Computation (REC 2010), Singapore, March 3-5, 2010 (P).
36. G. C. Marano, S. Sgobba, G. Quaranta, E. Morrone, G. Palombella, F. Trentadue, “Comparison on different approaches for robust optimum design of tuned mass dampers”, 8th World Congress on Computational Mechanics (WCCM 2008), Venice (Italy), June 30 - July 4, 2008 (P).

## **Part XI – Others**

### **XIa – Organization of Symposia, Conferences, Workshops**

1. Member of the Organizing Committee for the “1st International Nonlinear Dynamics Conference” (NODYCON 2019), Rome (Italy), February 17-20, 2019.
2. Member of the Organizing Committee for the “Workshop on Corrosion in RC Structures”, Rome (Italy), November 27, 2018.
3. Member of the Organizing Committee for the “International Workshop on Cyclic Behavior of Corroded Rebars in RC structures”, Rome (Italy), May 10, 2018.
4. Member of the Organizing Committee for the “4th International Workshop Dynamic Interaction of Soil and Structures – Dynamic interaction between Soil, Monuments and Built Environment” (DISS 2015), Rome (Italy), November 12-13, 2015.
5. Member of the Organizing Committee for the “2nd International Symposium on Advances in Civil and Infrastructure Engineering” (ACE 2015), Vietri sul Mare (Italy), June 12-13, 2015.
6. Member of the Organizing Committee for the “OpenSees Days Italy 2015”, Salerno (Italy), June 10-11, 2015

### **XIb – Participation to Scientific Boards of Symposia, Conferences, Workshops**

1. Member of the Technical Program Committee of the “1st International Conference on Vibration and Energy Harvesting Application” (VEH 2018), Shenzhen (P. R. China), November 2-4, 2018.
2. Member of the Conference Committee of the “28th International Workshop on Computational Mechanics of Materials” (IWCMM28), Glasgow (United Kingdom), September 10-12, 2018.
3. Member of the Conference Committee of the “International Conference on Plastics and Rubber Technology” (ICPRT 2018), Stockholm (Sweden), May 14-17, 2018.
4. Member of the Conference Committee of the “World Symposium on Civil Engineering 2017” (WSCE 2017), Hong Kong (P. R. China), March 15-17, 2017
5. Member of the Conference Committee of the “International Conference on Soft Computing and Applications 2016” (ICSCA16), San Francisco (United States), October 19-21, 2016.
6. Member of the Editorial Board of the “4th International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering” (CIVIL-SOFT-COMP 2015), Prague (Czech Republic), September 1-4, 2015.
7. Member of the Editorial Board of the “3rd International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering” (CSC 2013), Cagliari (Italy), September 3-6, 2013

### **XIc – Organization of Special Sessions within Symposia, Conferences, Workshops**

1. S. Rudykh, C. Maruccio, G. Quaranta, M. De Vittorio, E.-M. Craciun, Special session “Functional and Architected Materials & Computational modeling in energy harvesting and Analytical Methods”, 28th

International Workshop on Computational Mechanics of Materials (IWCMM28), Glasgow (United Kingdom), September 10-12, 2018.

2. G. Quaranta, G. C. Marano, Special session “Soft computing applications in vibration control and dynamic monitoring”, 3rd International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering (CSC 2013), Cagliari (Italy), September 3-6, 2013.
3. G. Fabbrocino, G. C. Marano, G. Monti, G. Quaranta, Special session “Structural monitoring and diagnostic via dynamic identification”, XIV National Conference of the Italian Association of Earthquake Engineering (ANIDIS 2011), Bari (Italy), September 18-22, 2011.

#### XId – Start-up

1. Co-founder of the being-established start-up “Sm@rt Vibrations” (approved by Dipartimento di Ingegneria Strutturale e Geotecnica, Sapienza Università di Roma, July 26, 2018).

Roma, December 14, 2018

Giuseppe Quaranta