Gianluca Quinci

BScEng, MScEng, CEng

Curriculum Vitae

PERSONAL INFORMATION

Name	Gianluca Quinci
Profession	Civil Engineer – Ph.D. Candidate in Civil Engineering
Nationality	
Professional e-mail	
Personal e-mail	
Certified e-mail	

WORK EXPERIENCE

Mar. 2022 – Sept. 2022
Technical Civil Engineering
Department of Engineering of Roma Tre University – Via Vito Volterra 62, 00146 Rome (Italy)
Technical civil engineering for the study of a methodology for the seismic and static risk assessment of existent bridges

Jun. 2021 - Present
Technical Advisor
ALC Engineering S.r.l.– Via delle Rose, 5, 00019, Tivoli (Italy)
Technical advisor on static analysis and safety conditions of bridges located in Italy, with respect on exceptional transports.

Jan. 2021– Mar. 2021
Research Fellow
Department of Engineering of Roma Tre University – Via Vito Volterra 62, 00146 Rome (Italy)
Research Activity on Seismic Risk analysis of equipment of an Industrial Plant based on fragility curves.

Nov. 2019– Present
Ph.D. in Civil Engineering
Department of Engineering of Roma Tre University – Via Vito Volterra 62, 00146 Rome (Italy)
Research Activity on Seismic Risk of Industrial Facilities: Development of a valid methodology for the evaluation of seismic risk oh Major-Hazard Industrial Plants. Design and development of mitigation strategies to reduce the seismic risk in industrial plants using Smart sensors and artificial intelligence.

Jul. 2019-Nov. 2019
Research Fellow
Department of Engineering of Roma Tre University – Via Vito Volterra 62, 00146 Rome (Italy)
Research Activity on Mitigation of the Seismic Risk in Major-Hazard Industrial Plants using Smart Sensors technology.

Apr. 2019-Jul. 2019
Design Engineer
C.S.M. Company - Via Marino Laziale 44, 00179 Rome (Italy)
Professional activity in an architecture and engineering company: Design of Civil Structure

Dec. 2018- Mar. 2019
Curricular Trainee
Department of Techn. Innovation of INAIL - Via Torraccio di Torrenova 7,00133 Rome (Italy)
Curricular Internship on Seismic Risk of Major-Hazard Industrial Plants and Mitigation Strategies.

EDUCATION

Oct. 2016– Mar. 2019   Master's Degree in Civil Engineering for the Protection of Territory from Natural Risks Roma Tre University – Via Vito Volterra 62, 00146 Rome (Italy)
- Specialization Area: Structures and Seismic Risk
- Mark: 105/110
- Title of thesis: "Risk Analysis of an unanchored steel tank for the petrochemical industry", March 2019

Sep. 2011– Dec. 2015   Bachelor's Degree in Civil Engineering
University of Rome Tor Vergata - Via del Politecnico 1, 00133 Rome (Italy)
- Title of thesis: "Self-Healing in cementitious materials"
- Mark: 104/110

Sep. 2006 - Jul. 2011   High School Diploma in Scientific Studies
High School in Science Education "Lazzaro Spallanzani" – Via Rivellese 1, 00019 Tivoli, Rome(Italy)

PROFESSIONAL LICENCE

Jan. 2020 - Present   License to the professional activity of Civil and Environmental Engineer (Nov. 2019)
Enrolment in the Board of Engineers of Rome, Section A (Civil and Environmental Engineering) (January 2020)

COURSES ATTENDED

May. 2021   PASSAGGI SICURI: rilievo e modellazione BIM delle infrastrutture
Course about relief and BIM modelling of civil infrastructures (i.e. bridges)

June 2022   Giornata di studio Fabre: "Nuove tecnologie e recenti esperienze nel monitoraggio delle infrastrutture", Portonovo (AN), 27 June 2022

Sept. 2022   NaTech Risk: Management Strategies and Resilience Towards Technological Accidents Caused by Natural Events, Udine, 4-9 Sept. 2022

SCOLARSHIPS

Nov. 2019 - Present   3-year Ph.D. Scholarship

INTERNATIONAL AND NATIONAL ACTIVITIES

May 2019   Participation at national project "MSMART". The aim of the project is the investigation of the seismic behaviour of critical infrastructures, i.e. industrial and chemical plant, in order to evaluate efficient seismic mitigation system to reduce the seismic risk. Traditional and innovative sensor has been studied and tested in order to perform their potential. The project has been conducted with the collaboration of Department of Technological Innovations of INAIL.

Jul. 2019   Participation at the European project "SPIF": Seismic Performance of multi-component systems in special risk Industrial Facilities
The objective of the project is the holistic investigation of the seismic behavior of industrial plants equipped with complex process technology by means of shaking table tests. Members: Center for Wind and Earthquake Engineering, RWTH Aachen (Germany) National Technical University of Athens (Greece), University of Belgrade (Serbia), Swissnuclear (Switzerland), Wölfel Engineering GmbH (Germany), University of Trento (Italy), Maurer Engineering GmbH (Germany), Roma TRE University (Italy), Purdure University (USA)

Jan. 2020	Member of The European Association for Earthquake Engineering (EAEE). The main topic of the association is the Seismic assessment, design and resilience of industrial facilities. The association have the aim to create a network with other European Engineer. Members of the Association: Roma TRE University (Italy), Aachen university (Germany), SDA-Engineering Gmbh (Germany), University of Trento (Italy), KOERI (Turkey), GEBZE (Turkey), University of Belgrade (Serbia), NTUA (Greece), University of Ljubjiana (Slovenia), University of Bristol (UK)
Jul. 2020	Participation at the European project "FIRST WIRE": Fiber Reinforced Steel WIREs for high performance lightweight ropes and cables operating in demanding scenarios FIRST-WIRE (Fiber Reinforced Steel WIRE) project aims at developing a lightweight steel-based wire to be used for ropes and cables for a wide range of industrial and civil (i.e. bridges) where high performance over weight ratio plays a decisive role and the recourse to traditional full steel wire is unfeasible due to the excessive selfweight and/or the unsatisfactory structural performances. Members: Astarte Strategies SRL (Italy), Redaelli Tecna S.p.a. (Italy), national technical university of athens - NTUA (Greece), Universita degli Studi di Padova (Italy), Università degli Studi Roma Tre (Italy), Universitaet Stuttgart (Germany), KME GERMANY GMBH & CO KG (Germany), IHC MTI BV (Netherlands)
Jan. 2022	Participation at regional project "MLAZIO": Modello Lazio. MLAZIO project aims at developing a smart and innovative methodology for the static and seismic risk assessment of the existent bridges of the Lazio Region. The primary goal of the project is to develop a bridge management system to manage the existent bridges through innovative technology such as satellite monitoring and machine learning.
Sep. 2022	Member of the ASME PVP Seismic Engineering Technical Committee (SETC). International group of seismic engineers with the aim to develop and study innovative seismic design techniques and analyses.
Jan. 2023	Chair of the session "SE-04 Machine Learning for Seismic Analysis of Industrial Facilities SE-04 Machine Learning for Seismic Analysis of Industrial Facilities" in PvP Conference 2023

SCIENTIFIC TITLES

Presenting author and speaker in Pressure Vessels & Piping Division Conference PVP 2022, July 17-22, 2022, Las Vegas, Nevada. Memory: Quinci G., Paolacci F., Phan N. "On the use of artificial neural network technique for seismic fragility analysis of a three-dimensional industrial frame".

Invited speaker to technical seminar "Monitoraggio delle infrastrutture critiche via satellite", organized by Ordine degli Ingegneri della provincia di Roma, 27 May 2022, Memory:" Monitoraggio multi-livello di opere in elevazione: il progetto MLAZIO"

Invited speaker to technical seminar "Tecniche avanzate di raccolta ed utilizzo dati nell'ingegneria civile", organized by Università degli Studi Roma Tre and Ordine degli Ingegneri della provincia di Roma, 31 May 2022, Memory:" Uso di tecniche intelligenza artificiale nella valutazione della vulnerabilità sismica di impianti industriali"

Presenting author and speaker in XIX Convegno ANIDIS L'ingegneria Sismica in Italia: Torino, 11-15 settembre 2022. Memory Quinci G., Paolacci F., Fragiadakis M. "An innovative framework for risk assessment of non-structural components for industrial plants"

First runner-up prize in PhD category in in Pressure Vessels & Piping Division Conference PVP 2022, July 17-22, 2022, Las Vegas, Nevada. Memory: Quinci G., Paolacci F., Phan N. "On the use of artificial neural network technique for seismic fragility analysis of a three-dimensional industrial frame".

Visiting PhD candidate at National Technical University of Athens, March 2022- June 2022. Research topic: Machine learning techniques applied to civil engineering

Technical Manager of Work Package 4 of the regional project "MLazio" founded by Lazio region. Topic of the work package "Development of a methodology for the quantitative static and seismic risk assessment of the bridges of the Lazio region".

TEACHING ACTIVITIES

Teaching assistant within Theory and Design of Bridges course at the Department of Engineering of Roma Tre University (N 2019-Present)

PUBBLICATIONS

Sep. 2019	Ciucci M., Marino A., Barbieri L., Quinci G. "*Seismic risk assessment and management in major hazard industrial plants*", in [Atti del XVIII Convegno ANIDIS L'ingegneria Sismica in Italia: Ascoli Piceno, 15-19 settembre 2019][Pisa : Pisa University Press, 2019.] - Permalink: http://digital.casalini.it/10.1400/271039 - Permalink: http://digital.casalini.it/4551308
July. 2021	Nardin, C, Bursi O., …, Quinci G. "*Shake Table Testing for a Multi-component Prototype Industrial Plant: Input and System Modelling Issues.*" American Society of Mechanical Engineers, Pressure Vessels and Piping Division (Publication) PVP 5 (2021): American Society of Mechanical Engineers, Pressure Vessels and Piping Division (Publication) PVP, 2021, Vol.5. Web.
July 2021	Butenweg, C., Paolacci F, …, Quinci G. "*Experimental Investigation on the Seismic Performance of a Multicomponent System for Major-hazard Industrial Facilities.*" American Society of Mechanical Engineers, Pressure Vessels and Piping Division (Publication) PVP 5 (2021): American Society of Mechanical Engineers, Pressure Vessels and Piping Division (Publication) PVP, 2021, Vol.5. Web.
Sep. 2021	Christoph Butenweg, Oreste S. Bursi, Fabrizio Paolacci, Marko Marinković, Igor Lanese, Chiara Nardin, Gianluca Quinci "*Seismic performance of an industrial multi-storey frame structure with process equipment subjected to shake table testing*", Engineering Structures, Volume 243, 2021, https://doi.org/10.1016/j.engstruct.2021.112681.
Sep. 2021	F. Paolacci, G. Quinci, C. Nardin, V. Vezzari, A. Marino, M. Ciucci, "*Bolted flange joints equipped with FBG sensors in industrial piping systems subjected to seismic loads*", Journal of Loss Prevention in the Process Industries, Volume 72, 2021, https://doi.org/10.1016/j.jlp.2021.104576.
May 2022	Nardin, C., Bursi, OS, Paolacci, F, Pavese, A, Quinci, G., "*Experimental performance of a multi-storey braced frame structure with non-structural industrial components subjected to synthetic ground motions*". Earthquake Engineering Structural Dynamics. 2022; 1– 24. https://doi.org/10.1002/eqe.3656
June 2022	Quinci, G, Phan, NH, & Paolacci, F. *"On the Use of Artificial Neural Network Technique for Seismic Fragility Analysis of a Three-Dimensional Industrial Frame."* Proceedings of the .Volume 5: Operations, Applications, and Components; Seismic Engineering; ASME Nondestructive Evaluation, Diagnosis and Prognosis (NDPD) Division. Las Vegas, Nevada, USA. July 17–22, 2022. V005T08A013. ASME. https://doi.org/10.1115/PVP2022-83874
June 2022	Kalemi, B, Paolacci, F, Caputo, AC, Corritore, D, & Quinci, G. *"Quantitative Probabilistic Seismic Resilience Assessment of Industrial Facilities."* Proceedings of the .Volume 5: Operations, Applications, and Components; Seismic Engineering; ASME Nondestructive Evaluation, Diagnosis and Prognosis (NDPD) Division. Las Vegas, Nevada, USA. July 17–22, 2022. V005T08A010. ASME. https://doi.org/10.1115/PVP2022-84660
Aug 2022	Giannini R., Paolacci F., Phan H. N., Corritore D. and Quinci, G, "*A novel framework for seismic risk assessment of structures*" Earthquake Engineering and Structural Dynamics, 2022, pp. 118 DOI:10.1002/eqe.3729
Sep. 2022	Quinci G., Paolacci F., Fragiadakis M. "*An innovative framework for risk assessment of non-structural components for industrial plants*", XIX Convegno ANIDIS L'ingegneria Sismica in Italia: Torino, 11-15 settembre 2022
Sep 2022	Paolacci F., De Felice G., Quinci G., Meriggi P., Pallante L.. "*A regional model for classifying, managing, evaluating, and monitoring the seismic safety of bridge structures: the MLAZIO project*", XIX Convegno ANIDIS L'ingegneria Sismica in Italia: Torino, 11-15 settembre 2022
Sep 2022	Quinci, G., Gagliardi, V., Pallante, L., Manalo, J. R.D., Napolitano, A., Bertolini, L., Bianchini Ciampoli, L., Meriggi, P., D'Amico, F., Paolacci, F. "*A Novel Bridge Monitoring System Implementing Ground-Based, Structural and Remote Sensing Information into A GIS-Based Catalogue*". SPIE Remote Sensing 2022, Earth Resources and Environmental Remote Sensing/GIS Applications XIII.
Sep 2022	Paolacci F., Giannini R., Phan N. H., Quinci G. "*Scores: an algorithm for records selection to employ in seismic risk and resilience analysis*", XIX Convegno ANIDIS L'ingegneria Sismica in Italia: Torino, 11-15 settembre 2022
Oct 2022	Quinci G., Paolacci F., Phan N. "*On the use of artificial neural network technique for seismic fragility analysis of Non-Structural Component located on an industrial frame*", American Society of Mechanical Engineers, Journal of Pressure Vessel Technology, submitted

PERSONAL SKILLS AND COMPETENCES

Language skills	Italian – mother tongue English – FCE (First Certificate in English), Elementary First Education, Mark: Grade B2 – 2016.
Computer skills	OS: Windows & Macintosh Technical sfotwares: AutoCAD, SAP2000, MathCad, Wolfram Mathematica, SeismoSignal, VCASLU, Midas Gen, Midas Civil, CSI Bridge, SismiCad, OpenSees Programming languages: Matlab, Pyton Daily use of Internet Explorer, web browser and electronic mail SWs; Daily use of all the SWs of MS-OFFICE;
Driving license(s)	B

Data

21/01/2023

Firma

CV firmato da Gianluca
Quinci – documento in
originale conservato agli atti