Full Name:	Marco Corradi
Home Address:	12 Hall Lee Fold Huddersfield, HD3 3NX, United Kingdom
Work Address:	Department of Engineering and Technology School of Computing and Engineering University of Huddersfield Queensgate, Huddersfield HD1 3DH, United Kingdom m.corradi@hud.ac.uk
Telephone No:	+44 75 0784 3296

#### EDUCATION & QUALIFICATIONS

Nov. 1998- Oct. 2001 <u>University of Perugia</u>, Italy, PhD, "Mechanical characterization of masonry walls and seismic retrofit"
 Nov. 1990- June 1997 <u>University of Perugia</u>, Italy, MSc Degree in Structural Engineering, 102/110

## ADMINISTRATIVE ROLES

2024 - to date	Head of Civil Engineering, Eng. & Tech Dept., Huddersfield University, UK
2023 - 2024	Member of Newcastle Conservation Advisory Panel, Newcastle City Council, UK
2021 - 2023	Head of Civil Engineering, Mech. & Constr. Eng. Dept., Northumbria University, UK
2021 - 2023	Council Member, Institution of Structural Engineers (IStructE), London, UK
2021 - 2023	Chair of Northern Counties Committee, Institution of Structural Engineers (IStructE), UK
2020 - 2021	Director of Employability, Mech. & Constr. Eng. Dept., Northumbria University, UK
2020 - 2020	Health & Safety Lead, Mech. & Constr. Eng. Dept., Northumbria University, UK
2020 - 2021	Vice-Chair, Northern Counties Committee, Institution of Structural Engineers, UK
2016 - 2017	Director of International Recruitment & Development, Northumbria University, UK

#### ACADEMIC EXPERIENCE

Aug 2023 – to date	Huddersfield University, Huddersfield, UK	Full Professor
Feb 2020 – Aug 2023 Sept 2016 – Mar 2017	<u>Northumbria University</u> , Newcastle upon Tyne, UK	Associate Professor
Sept 2013 – Aug 2016		Senior Lecturer
Mar 2017 – Feb. 2020 Jan 2005 – Aug 2013	<u>University of Perugia</u> , Italy	Ricercatore Universitario

## INDUSTRY EXPERIENCE

 Paid posts

 Jan 2007 – May 2022
 County Court at Liverpool (UK), Perugia (IT), Terni (IT), Technical Consultancies

 Jan 2002 – Aug 2013
 TMP Engineering Firm, Part-time collaboration, Design of Steel, Timber Structures

Mar 1999 – Oct 2000	<u>ISRIM</u> (Institute for Research and Training in Specialized Materials for Advanced Tech-
	nologies), Researcher, Terni, Italy
	Non-Paid posts
Oct 2022 – to date	International Masonry Society, Stoke-on-Trent, UK, council member
Apr 2023 – to date	Newcastle Conservation Advisory Panel, Newcastle upon Tyne, committee member
Jan 2016 – to date	Institution of Structural Engineers (IStructE), Northern Counties, committee member
Jan 2004 – to date	Italian Association of Composites in Civil Eng. (AICO), Italy, committee member
Jun 2017 – to date	Italian Institution of Engineers, Terni, Italy, Member of the committee

## MEMBERSHIP of PROFESSIONAL SOCIETIES

1. Fellow of the HEA - Higher Education Academy, UK 2. Fellow of Institution of Structural Engineers (FIStructE) London, UK, 3. Chartered Engineer of Engineering Council (CEng), London, UK. 4. RILEM (Int-Union of Laboratories & Experts in construct. materials systems & structures), Paris, France, 5. Chartered member of Italian Institution of Professional Engineers, Italy, 6. Italian Association of Forensic Engineering (AIF), Naples, Italy, 7. Italian Association of Composites in Civil Engineering (AICO), Venice, Italy, 8. Accademia Raffaello (appointed member), Urbino, Italy, 9. Deputazione di Storia Patria per l'Umbria (appointed member), Perugia, Italy, 10. International Masonry Society, London, UK, 11. Italian Society for Earthquake Engineering (Anidis), Rome, Italy, 12. Centro Studi Sisto Mastrodicasa, Perugia, Italy, 13. Sangemini Preservation Studies, Sangemini, Italy

#### ACHIEVEMENTS AS HEAD OF CIVIL ENGINEERING

- June 2022: The National Student Survey reported 96% overall satisfaction for Civil Engineering at Northumbria University, an increase from 90% in 2021.
- September 2022: Civil Engineering at Northumbria University ranked 7th in the UK, improving from 21<sup>st</sup> in 2021, according to *The Guardian University League Table*.
- October 2024: Civil Engineering at Huddersfield University ranked 41st in the UK, making its debut in The Times World University Ranking.

## MEMBERSHIP of INTERNATIONAL TECHNICAL COMMITTEES

BSI Committee Member, British Standards Institution, B/525/6, Use of masonry [2023-]

BSI Committee Member, British Standards Institution, B/525/9, Structural use of aluminum [2023-]

Technical Committee, IMC "Durability of Inorganic Matrix Composites used for Strengthening of Masonry Constructions", Cluster E of RILEM, [2019-]

Technical Committee TC 250-CSM "Composites for sustainable strengthening of masonry" of RILEM (International Union of Laboratories and Experts in construction materials systems and structures), [2012-2019]

Technical Committee TC 223-MSC "Masonry Strengthening with Composite materials" of RILEM (International Union of Laboratories and Experts in construction materials systems and structures), [2009-2013]

Joint Technical Committee ACI [American Concrete Institute] – RILEM. ACI committee C005490L Liaison with RILEM TC 250 [Thin Reinforced Cementitious Products and Ferrocement], [2014-2021]

North America Masonry Society (TMS) [105 South Sunset St., Longmont, CO, USA 80501-6172] (www.masonrysociety.org): Awards Committee Voting Member, Existing Masonry Committee Consulting Member, Meetings Committee Corresponding Member, Scholarships Committee Voting Member, TMS402/602 Seismic/Limit Design Corresponding Member, TMS402/602 Structural Members Corresponding Member, TMS 402/602 ALL Corresponding Member

#### INVITED KEYNOTE LECTURES

The use of Titanium in Conservation and Seismic Reinforcement of Masonry Structures, 9th Euro-American Congress Construction Pathology, Rehabilitation Technology and Heritage Management, 13-15 Sept 2022, Granada, Spain.

*Embedding Sustainability in Retrofit and Repair of Architectural Heritage,* F-EIR Conf. Environment Concerns and its Remediation, 18-22 Oct 2021, Chandigarh, India

*The Masonry Quality Index (MQI) and the Seismic Assessment of Masonry Structures*, 4th International Balkans Conference on Challenges of Civil Engineering, 18 Dec 2020, Tirana, Albania.

*A new method for out-of-plane reinforcement of masonry walls using high strength steel strand*, 17th International Brick and Block Masonry Conference 17th IB2MaC 2020, 5-8 Jul 2020, Kraków, Poland.

*Reinforcement and rehabilitation of masonry structures,* International workshop on rehabilitation and retrofitting of masonry structures (INWOREMS) 8-9 July 2019, Lyon, France.

#### INVITED LECTURES

University of Ferrara, Italy [A series of lectures at the post-graduate Professional Master: Miglioramento sismico, restauro e consolidamento del costruito storico e monumentale – 24 hrs], 8-10 Nov 2020, 16 Dec 2021, 13-14 Mar 2023, 5-6 Feb 2024

1. Centro Studi Mastrodicasa & Italian Institution of Civ. Eng. (Orvieto), Rehabilitation of timber elements in religious buildings, 24 May 2024 2. Indian Institute of Technology Patna, Bihta, Experimental and Analytical Techniques for Evaluating the Seismic Strengthening Measures for Masonry Structures, 28 Oct 2021 3. [CPD] Italian Institution of Engineers, Terni Structural timber and retrofit methods of masonry buildings, 11 Mar 2021 4. University of Ferrara, Italy, [A series of lectures at the post-graduate Professional Master: Miglioramento sismico, restauro e consolidamento del costruito storico e monumentale – 6 hrs], 9-10 Nov 2020 5. [CPD] Italian Institution of Engineers, Terni Reinforcement of timber with advanced materials, 12 May 2020 6. [CPD] Italian Institution of Engineers, Terni Timber engineering: properties and defects, 5 May 2020 7. Northumbria University, Newcastle Upon Tyne, UK, Reinforcement of Timber Heritage Structures, 1 Mar 2020 8. Epoka University, Tirana, Albania Reinforcement and Repair of Historic Masonry Structures, 24 May 2019 9. Epoka University, Tirana, Albania Effective industry-academia partnership in Civil Engineering, 23 May 2019 10. Northumbria University, Newcastle Upon Tyne, UK, Design of Timber Structures: the material and its characteristics, 18 Feb 2019 11. [CPD] The Institution of Structural Engineers, Newcastle Upon Tyne, UK Reinforcement of Timber Structures, 19 Feb 2019 12. Northumbria University, Newcastle Upon Tyne, UK, Earthquake Engineering: the Structural Behaviour of Buildings, 19 Feb 2019 13. [CPD] Italian Institution of Engineers, Terni L'uso dei Materiali Compositi nel Rinforzo delle Murature Storiche, 6 Dec 2018 14. Strathclyde University, Glasgow, UK The Analysis and Design of Existing Structures under the Seismic Action, Jul 2018 15. [CPD] Italian Institution of Engineers, Viterbo, Italy Le NTC 2018 per gli edifici in muratura, 21 Jun 2018 16. [CPD] The Institution of Structural Engineers, Middlesbrough, UK, Seismic Reinforcement of Masonry 13 Feb. 2018 17. Department of Architecture and Built Environment, Northumbria University, UK, Feb 2018 18. [CPD] The Institution of Structural Engineers, Newcastle Upon Tyne, UK, Seismic Reinforcement of Masonry, 7 Feb 2017 19. Faculty of Engineering, University of Rome 3, Rome, Italy, Reinforcement of Historic Masonry, Apr 2015 20. [CPD] The Concrete Society, Newcastle, UK, New method of reinforcement of brickwork using FRP reinforced Render 19 Nov 2014 21. Sangemini Preservation Studies, Sangemini, Italy, Recent advancements in Conservation Engineering Jun 2011 22. Valdosta State University, USA, Recent advancements in Conservation Engineering May 2010 23. [CPD] Italian Institution of Engineers, Terni, Reinforcement of Timber Structures, Mar. 2010 24. [CPD] Italian Institution of Engineers, Terni, Reinforcement of Timber Structures, Jan 2008 25. University of Wisconsin-Milwaukee, USA, Recent advancements in Conservation Engineering, May 2004 26. Italian Institution of Engineers, Lanciano, Rinforzo di strutture in legno, Nov. 2003 27. Italian Institution of Engineers, Chieti, Rinforzo strutturale di solai lignei, Nov 2003 28. Italian Institution of Engineers, Florence, Rinforzo strutturale di solai lignei, Apr 2003 29. Italian Institution of Engineers, Cremona, Rinforzo strutturale di solai lignei, Jan. 2003 30. Italian Institution of Engineers, Terni, Rinforzo strutturale di

#### CVRRICVLVM VITAE

solai lignei, Nov 2002 **31**. AICO, Italian Society for Composites in Civil Eng, Tecniche innovative di consolidamento delle murature storiche, May 2002 **32**. University of Wisconsin-Milwaukee, U.S.A., Reinforcement Methods of Historic Masonry, May 2002 **33**. Centro Studi Sisto Mastrodicasa, Perugia, Italy, Rinforzo strutturale di solai lignei, Apr. 2001 **34**. Edilcalce, Foligno, Italy, Seimic Behavior of Masonry Structures, Sept 2001 **35**. University of Wisconsin-Milwaukee, USA, Recent advancements in Conservation Engineering, Jun 2001

[CPD] means if the delivered seminar was granting credits for Continuing Professional Development, according to EU legislation.

## VISITING PROFESSOR & HONORARY STATUS

Visiting Professor at the *Epoka University*, Tirana, from 2021 Adjunct Professor at the *University of Ferrara*, Ferrara, Italy, from 2020 Honorary Partner at the *University of Aberdeen*, Aberdeen, from 2017 to 2022 Visiting Fellow at *Northumbria University*, Newcastle upon Tyne, UK from 2017 to 2020

# EDITOR OF SCIENTIFIC JOUNALS

Editor of *Construction and Building Materials (Elsevier)* ISSN 0950-0618 (**IF=6.146**), [2018-present] Associate Editor of *Materials (MDPI)* ISSN 1996-1944 (**IF=3.4**), [2023-present] Editor of *Ingenium* ISSN 1971-6648, edited by the *Institution of Engineers*, Terni, Italy, [2017- to date]

## EDITOR OF SPECIAL ISSUES IN SCIENTIFIC JOUNALS

2024: Properties and application of green materials as construction materials for circular economy and 3D printing, Frontiers in Built Environment, IF=3 (together with Prof B Ikotun, South Africa University)
2021: Strengthening of Masonry Constructions, Construction and Building Materials (Elsevier) ISSN 0950-0618, IF=6.14 (together with Prof V Sarhosis, Leeds University)
2021: Structural Performance of Cold-Formed Steel Structures, Buildings (MDPI) ISSN 2075-5309, IF=2.65 (together with Dr K Poologanathan and Dr G Perampalam)
2019: Repair, Reinforcement, Conservation of Existing Building Stock: Materials, Methods, and Assessment Materials (MDPI) ISSN 1996-1944, IF = 2.944

2019: *Reinforcement and Repair Materials for Masonry Structures*, Materials (*MDPI*) ISSN 1996-1944, IF=2.944 2019: *Seismic Vulnerability Assessment for Heritage Buildings* for the Journal *Heritage (MDPI)* ISSN 2571-9408 (together with prof A Borri, Perugia University)

2018: Construction and Building Materials in Materials Science (AIMS) ISSN 2372-0484, IF= 0.832

# MEMBERSHIP OF EDITORIAL BOARD OF SCIENTIFIC JOUNALS

1. Materials ISSN 1966-1944 (**IF=2.64**) [2020-to date], 2. Polymers ISSN 2073-4360 (**IF=3.164**) [2020-to date], 3. Heritage ISSN 2571-9408 [2020-to date], 3. J. Composites for Construction ISSN 1090-0268 (**IF=2.606**) [2018to date], 4. Advances in Civil Engineering ISSN 1687-8094 (**IF=1.104**) [2018-to date], 5. The Open Materials Science J. ISSN 1874-088X (**IF=0.123**) [2017- to date], 6. American J. Construction and Building Materials [2017- to date], 7. Recent Patents on Materials Science ISSN 1874-4648 (**IF=0.21**) [2017- to date], 8. The Open Construction & Building Technology ISSN 1874-8368 [2017- to date], 9. Int. J. Masonry Research and Innovation ISSN 2056-9467 [2016- to date], 10. Challenge Journal of Structural Mechanics ISSN 2149-8024 [2015- to date]

## PATENTS & PATENT APPLICATIONS

Ruzzittu U, Corradi M, Polchicchia D (2008). "Dispositivo lineare per la misurazione dello spostamento tra due elementi", registered at the *Italian Ministry of Economic Development* and *Ufficio Italiano Brevetti e Marchi (UIBM)* April 24th, 2008, Italian Patent n. MI2008-A000750.

# DIRECTION OF STRUCTURES LABORATORIES

Chief Operations Manager of the *Structures Laboratory, Perugia University, Faculty of Engineering,* Loc. Pentima, Terni (Italy) 05100, [2005-2013, 2017-2020]

Responsible of the *Structures Laboratory, Northumbria University, Faculty of Engineering and Environment,* Ellison Building, Newcastle Upon Tyne (UK) NE1 8ST, [2013-2017]

## PEER REVIEWING for National Research Councils

UK Engineering and Physical Sciences Research Council (*EPSRC*), – UK Research and Innovation (UKRI), Croatian Research Council (*HRZZ*). Czech Science Foundation (*GAČR*), Hungarian Scientific Research Fund (*OTKA*), National Center of Science & Technology Evaluation of Kazakhstan, Swiss National Science Foundation, Switzerland (SNSF), Netherlands Organization for Scientific Research (*NWO*) Applied and Engineering Sciences.

## GRANTS (successful)

2023	Light-Weight High Performance Concrete for Modular Floating Struc- tures, Horizon Europe (HORIZON), Call: HORIZON-MSCA-2022-SE- 01Project: 10112971, (Dr Corradi Co-I) € 110,400 for Northumbria Un.	€ 611,800	EU Commission
2022	Consultancy & Testing, different projects (Intelligent Steel Solutions Ltd, Mrs Hill, Jarrow Hall Anglo-Saxon Farm, Village and Bede Museum)	£ 23,155	Different funders
2020	Research projects sponsored by private industry. Use of Titanium in <i>Conservation Engineering</i> (Dr Corradi P-I)	\$ 23,120	Perryman Co., USA
2020	Research projects sponsored by private industry. Use of Titanium for ex- ternal reinforcement of Reinforced Concrete bridges (Dr Corradi P-I)	€ 11,320	TiFast Com- pany, Italy
2019	Reluis-DPC framework programme, Linea Muratura, [Analysis of Me- chanical Properties of Historic Masonry, Historic Masonry] DPC - Reluis 2019 (Dr Corradi Co-I)	€ 24,320	Italian Government
2018	Historic Stone Masonry: Methods For Increasing The Level of Connec- tion of Adjacent Walls, Reaction Wall, European Laboratory for Struc- tural Assessment (ELSA) (Dr Corradi PI), <u>Outcome: in reserve list</u>	approx. € 62,000	EU Funding
2018	Reluis-DPC framework programme, Linea Materiali, Linea RS4, Linea Cartis [Analysis of Mechanical Properties of Historic Masonry, Advanced Ma- terials and Methods for Civil Applications] DPC - Reluis 2018 Rep. Dpc N. 36 Del 15/01/2018 (Dr Corradi Co-I)	€ 22,125	Italian Government
2017	Analysis of new metallic materials for applications in earthquake, automotive and energy systems engineering] (Dr Corradi Co-I)	€ 25,150	Foundation CARIT, Italy
2017	Reluis-DPC framework programme, lines 1 and 5, task 1 edifici in mura- tura DPC/ ReLUIS 2016-2018 - AQ DPC/Re LUIS 2014-2018 (Dr Corradi co-investigator) <u>Outcome: Successful</u>	€ 33,325	Italian Government
2017	Support to research of outstanding researchers, funded by the Italian Ministry for Research (MIUR) (Dr Corradi PI)	€ 3,000	Italian Gov- ernment
2016	Sustainable applications of bioethanol and basalt fibres in terms of me- chanical, emissive and acoustic performance, Ricerca di base, <i>Department</i> <i>of Engineering</i> (Dr Corradi Co-I)	€ 15,000	University of Perugia, Ita- ly

2015- 2016	Strengthening of timber beams/masonry assemblages using unglued Fibre Rein- forced Polymers, QR Support, (Dr Corradi PI)	£ 3,225	Northumbria University
2014- 2017	Structural Identification of St. Nicholas Cathedral and Northumberland Reli- gious Historic Constructions This project was aimed at funding a PhD stu- dent (Dr Corradi PI)	£ 48,000	Northumbria University
2014- 2015	Mechanical behavior of Brick Masonry Structures under extreme loading, QR Support Fund, (Dr Corradi PI)	£ 6,500	Northumbria University
2013- 2014	Structural behavior and classification of historic masonry typologies of North- East England QR Support (Dr Corradi PI)	£ 8,500	Northumbria University
2010- 2015	Reluis-DPC framework programme, area 1 line 1 task 1 edifici in muratura e centri storici [Masonry buildings and historic centres] (Dr Corradi Co-I)	€ 68,850	Italian Min- istry for Re- search
2010- 2015	Reluis-DPC framework programme, <i>RELUIS II area 2 line 2 task 5 Con-</i> <i>tenuti museali e aree architettoniche [Contents of museums and historic areas]</i> (Dr Corradi Co-I)	€ 25,500	Italian Min- istry for Re- search
2013- 2014	Bond behavior of titanium reinforcements with hydraulic mortars and clay ma- terials, funded by the Umbrian Innovation Pole for Special Materials and Mi- cro- and Nano-technologies (PUMAS) (Dr Corradi PI)	€ 5,000	Region of Umbria, Ita- ly
2010	Reluis-DPC framework programme, <i>RELUIS I Linea 1: Valutazione e rid-</i> uzione della vulnerabilità di edifici in muratura [Analysis and mitigation of seismic vulnerability of existing masonry structures], (Dr Corradi Co-I)	€ 119,850	Italian Min- istry for Re- search

## INDUSTRY COLLABORATIONS

From 2005 to 2013, and again from 2017, Dr Corradi was the operations manager of LASTRU lab (Materials and Structures Laboratory) of the University of Perugia, located in Terni, Italy. On his start in that position in 2005 Dr Corradi developed a network industrial collaborators/consultancy/research with more than 200 SME and multinational large companies [such as Wienerberger (www.wienergerger.com), F.B.M. (www.fbm.it), Fibre Net company (www.fibrenet.it)].

During this period Dr Corradi secured a total of € 1,213,732.08 (VAT incl.) through have supervised analyses, in-site tests for industries and firms for the following annual revenues:  $2019 \in 113,322.21, 2018 \in 101,455.64, 2017, \in 98,957.48, 2013 \in 85,957.48, 2012 \in 153,338.32, 2011 \in 168,114.69, 2010 \in 134,811.40, 2009 \in 41,291.30, 2008 \in 129,672.72, 2007 \in 96,428.17, 2006 \in 105,266.87, 2005 \in 96,562.46$ . All figures excluding of VAT.

# SUPERVISION OF RESEARCH STUDENTS

Active supervision and assessment of engineering student projects of more than 47 Undergraduate Students) and more than 35 graduate students (Perugia University, Northumbria University).

## PhD SUPERVISION

In progress:

*Student: Mehvesh Mushtaq,* 2024-2027, Climate adaptation of transport infrastructure, *Principal Supervisor,* **Huddersfield University**, UK; *Fitsum Haile,* 2021-2024, Reinforcement of existing building stock, *Principal Supervisor,* **Northumbria University**, UK

#### Completed:

Alex Mcintosh, 2019-2022, Web crippling design of optimised cold-formed channel beams, Second Supervisor, Elilarasi Kanthasamy, 2020-2023, Second Supervisor; Gatheeshgar Perampalam, 2019-2022, Optimum de-

#### CVRRICVLVM VITAE

sign of cold-formed steel lipped channel beams: bending, shear & web crippling, *Second Supervisor; Hoang X. Nguyen*, 2014-2017, Behaviours of nano/micro functionally graded structures, *Second Supervisor, Romina Sisti*, 2013-2016, Shear reinforcement of historic wall panels with a composite-reinforced inorganic matrix, *Second Supervisor; Giulio Castori*, 2003-2006, *Strengthening of masonry elements with innovative composite laminates, Principal supervisor; Luca Righetti*, 2014-2020, Nonlinear static and dynamic analyses of St. Nicolas Cathedral, Newcastle, *Principal Supervisor*, (withdrawn); *Chiara Quintaliani*, 2019-2022, Experimental analysis of sustainable mortar for structural application, *Principal Supervisor*.

#### ACADEMIC PROGRAMME EXTERNAL EXAMINER

2023-to date MSc Programme - University of Leeds, UK, School of Civil Engineering 's -Transport Infrastructure: Construction and Design MSc programme

#### PhD EXTERNAL EXAMINER

Akshay Gupta, 2021-2024, Indian Institute of Technology Patna, India, Enhancing the seismic performance of confined masonry walls without and with openings, Boon Tiong Chua, 2020-2023, La Trobe University, Australia, Finite Element Modelling of Two-Layer Soil Systems Reinforced with Geogrid, Abdulrahman Alenezi, 2020-2023, Virginia Tech University, USA, Optimizing the variability in the deformation of a biomimetic pinna. <u>Ali -</u> Dalalbashi Esfahani, 2018-2021, Universidade do Minho, Portugal, Multi-scale investigation of the durability performance of TRM-strengthened masonry, Shuai Jiao, 2017-2020, Griffith University, Australia, Development of an Innovative Composite Mullion Made of Aluminium and Timber, Nicko Kassotakis, 2017-2020, Newcastle University, UK, Efficient and Robust Numerical Modelling of Masonry. Domenico Giaccone, 2017-2020, University of Tuscia, Italy, Climate changes and architectural heritage: an experimental study on brickwork masonry walls affected by rising damp. Sara Stefanini, 2017-2020, University of Florence, Italy, Il Patrimonio architettonico delle culture del Maghreb a rischio di scomparsa per perdita di conoscenza ed aggressione ambientale. Valutazione delle vulnerabilità e del rischio sismico della medina di Fes in Marocco. Luca Sbrogiò, 2016-2019, University of Padua, Italy, Progettazione di un sistema costruttivo multifunzionale di copertura per la protezione e la valorizzazione di siti archeologici. Studio metodologico per la risposta integrata a esigenze complesse, <u>Nuria</u> Chiara Palazzi, 2016-2019, Pontifical Catholic University of Chile, Chile & University of Florence, Italy, Seismic fragility assessment of unreinforced masonry churches in central Chile. Grigor Angieliu, 2014-2017, Polytechnic University of Milan, Italy: Integrated structural modelling and experimental observations in historic masonry constructions. Elena Perria, 2013-2016, University of Florence, Italy and Braunschweig University, Germany: characterization of halved undersquinted scarf joint and stop-splayed undersquinted and tabled scarf joint. Carla Vinci, 2012-2015, University of Palermo, Italy: Structural behavior of historic timber connections. Enrico Genova, 2012-2015, University of Palermo, Italy: Energy analysis of historic buildings. Liucija Berezanskyte, 2012-2015, University of Palermo, Italy: Analysis of Lithuanian churches between 18th and 19th century. Daniela Sinicropi, 2011-2014, Braunschweig University, Germany and University of Florence, Italy: FRCM Durability: Experimentation and Numerical Analysis. Marco Morini, 2012-2015, University of Palermo, Italy: Architecture and Photovoltaics: strategies, technologies and novel components.

## CONTRIBUTION TO CODES/STANDARDS/GUIDELINES

Joint European (RILEM) and American (ACI - American Concrete Institute) *Guide to Design and Construction of Externally Bonded Fabric-Reinforced Cementitious Matrix (FRCM) Systems for Repair and Strengthening Masonry Structures.* ACI 549 Committee "Thin Reinforced Cementitious Products and Ferrocement", and TC 250-CSM Report Composites for sustainable strengthening of masonry.

CNR-DT 201/2005 *Guidelines for the Design and Construction of Externally Bonded FRP Systems for Strengthening Existing Structures - Timber structures,* edited by the Italian National Research Council (CNR).

TC 223-MSC Report *Masonry strengthening with composite materials*, edited by the International Union of Laboratories and Experts in Construction Materials, Systems and Structures (RILEM).

TC 250-CSM Report *Composites for sustainable strengthening of masonry*, edited by the International Union of Laboratories and Experts in Construction Materials, Systems and Structures (RILEM).

# NATIONAL EVALUATION OF RESEARCH - REF

Contribution to VQR [Valutazione della Qualità della Ricerca / *Evaluation of Research Quality*] 2011-2014 (*Italy*) for Perugia University with 5 publications scoring **5.0**/5.0 [5: Excellent, 4: Good, 2.5: Pass; 0: Fail].

Contribution to REF 2013 [*Research Excellence Framework*] (*United Kingdom*) for Northumbria University with 4 publications scoring **14.5**/16.0 in the independent internal assessment.

Contribution to VQR [Valutazione della Qualità della Ricerca / *Evaluation of Research Quality*] 2004-2010 (*Italy*) for Perugia University with 3 publications scoring **5.8**/6.0 [6: Excellent, 4.8: Good, 3.0: Pass; 0: Fail].

Contribution to REF 2021 [*Research Excellence Framework*] (*United Kingdom*) for Northumbria University with 4 publications, and a single-authored REF Impact Case Study.

# TEACHING ACTIVITY

Teaching activity at University of Huddersfield, Huddersfield, UK		
From Academic year 2023/2024 to date:		
<ul> <li>Analysis of Materials</li> </ul>	NIA2287	
⊚ Final Year Project	NHP2400	
Teaching activity at Northumbria University, Newcastle Upon Tyne, UK		
From Academic year 2020/2021 to 2022/2023 (as Module Tutor):		
Introductory Design (BEng/MEng Civil) / Co-Tutor	KB4028	
⊚ Structural Design (BEng/MEng Civil)	KB5024	
<ul> <li>Structural Integrity and Historical Engineering (MEng Civil)</li> </ul>	KB7014	
Academic year 2015/2016 (as Module Tutor):		
Refurbishment & Maintenance of Buildings (BEng Manag. Eng.)	BE1287	
From Academic year 2013/2014 to 2016/2017 (as Module Tutor):		
<ul> <li>Introduction to Mechanics and Structures (BEng Civil)</li> </ul>	KB4024	
Introductory Mechanics (BEng Mech.)	EN0100	
Applied Mechanics (BEng Mech.) (Co-Tutor)	EN0200	
<ul> <li>Advanced Mechanics (BEng Mech.) (Co-Tutor)</li> </ul>	EN0300	

Teaching Activity at Perugia University, Italy

From Academic year 2016/2017 to 2019/2020 (as Module Tutor):

© Circular Engineering of Civil Materials [Ingegneria Circolare in Italian] (MEng-Level 7)

Laboratory of Structural Mechanics [Laboratorio di Scienza delle Costruzioni in Italian] (MEng-Level 7)

© Sustainable Design in Structural Engineering [Progettazione Sostenibile in Italian] (MEng -Level 7)

Applied Mechanics [Scienza delle Costruzioni in Italian] (BEng Industrial-Level 5)

Advanced Mechanics [Complementi di Meccanica delle Strutture in Italian] (MEng Mechanical-Level 7)

Academic year 2007/2008 to 2012/2013 (as Module Tutor):

Introductory Mechanics II, (MEng Materials)

Material Science and Experimental Structural Analysis (MEng Materials);

Introductory Mechanics (MEng Materials) (as Co-Tutor)

Introductory Mechanics for Civil Engineers (MEng Civil) (as Co-Tutor)

From Academic year 1998/1999 to 2002/2003 (as Co-Tutor):

Introductory Mechanics (MEng Materials)

Introductory Mechanics for Civil Engineers (MEng Civil)

## February – March 2018

Upon invitation of the Eritrean Government, Training of 78 laboratory technicians for the new Eritrean Construction Materials Lab., *Feb.-March 2018*.

## STUDENT FEEDBACK/MODULE STATISTICS/STUDENT NOMINATIONS

● Feedbacks received from peer review (in 2015: Good practice being demonstrated, excellent ppt layout, oral presentation was loud and clear. Combining ppt and whiteboard was excellent. In 2016: Good practice being demonstrated. Marco started the session with a very good introduction and informed the students with the main aim of the session which was how to calculate shear stress. Clear drawings, explanations supported with step-by-step procedure to calculate stresses which is anticipated to help students to gain in-depth understanding of the topic discussed), in 2017: He made the lecture interesting and explained everything very well. Great lecturer. Good teacher enjoyed mechanics.

Student Led Teaching Awards 2015, nomination for Best Lecturer, Northumbria University

To nominate him not only because of the dramatic change seen in him, but also and more importantly for his enthusiasm, clear ability to convey his passion and interest in the subject and lastly for his talent to convey somewhat complex concepts, into simple ones.

Student Led Teaching Awards 2016, nomination for Best Lecturer, Northumbria University Captivates the audience with his demonstrations which includes amazing props such as elastic bands, rubbers and pencils. (How he does it I do not know). Humour, he makes the theatre burst into hysterics on the odd occasion when its acceptable. Enthusiasm, he always shows his love for the subject which he infects me with. I could go on but I have to get back to studying. Long story short has excellent at delivering the lecture.

Student Led Teaching Awards 2017, 3 nominations for Best Lecturer, Northumbria University He made the lecture interesting and explained everything very well, Great lecturer. Good teacher enjoyed mechanics.

◎ EN0100 - Introductory Mechanics [Northumbria University, UK]: Communications from Paul Dawson, Parttime students Rep: Thanks for yesterday's lecture, all of the part time students are very happy with the content and delivery from yourself. I Definitely see more than 100% improvement on year 1 and 2 lectures, but we will leave that in the past [different lecturer]..... So far this year though, it has been really good and I have come away from every session with an appreciation and basic understanding of the areas we have covered (24 Oct. 2014). ....In particular, Reaz covering EN0201, and Marco covering EN0300 have been excellent. Their teaching styles and seminars are very clear and methodical, which certainly helps when studying two fairly difficult subjects. It is definitely worth keeping this set up for the future year 3 students....(4 Nov. 2014).

Student feedback, (from Minutes of the Semester 1 Programme Committee Meeting held on 28 November 2013): *BE1379 - Introductory Mechanics for Civil Engineers* [Northumbria University, UK]:
"Students felt this was a really good module and liked how it was taught" *Student module overall satisfaction*: 4.53/5.0 (April 2014)

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# Codes, Standards and Guidelines

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In addition, I have published 37 publications in trade magazines and 124 conference publications, not listed here. Total number of publications is 297

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