Angelo Marcello Tarantino

Nationality: Italian | **Gender:** Male | **Phone number:** (+39) 3316213102 (Mobile) |

Email address: angelomarcello.tarantino@unimore.it |

Address: Via Pietro Vivarelli, 10, 41125, Modena (MO), Italy (Work)

WORK EXPERIENCE

22/11/1995 – 31/10/1998 Ancona, Italy

ENGINEERING LECTURER MARCHE POLYTECHNIC UNIVERSITY, ANCONA (ITALY)

01/11/1998 – 30/12/2002 Modena, Italy

ASSOCIATE PROFESSOR OF STRUCTURAL MECHANICS UNIVERSITY OF MODENA AND REGGIO EMILIA, MODENA (ITALY)

31/12/2002 – CURRENT Modena, Italy

FULL PROFESSOR OF STRUCTURAL MECHANICS UNIVERSITY OF MODENA AND REGGIO EMILIA, MODENA (ITALY)

05/10/2015 – 04/10/2021

DIRECTOR OF THE INTERDEPARTMENTAL RESEARCH CENTER AND FOR SERVICES IN THE CONSTRUCTION AND ENVIRONMENT SECTORS (CRICT-UNIMORE).

The laboratory obtained the accreditation as Industrial research laboratory and Innovation Center of Emilia-Romagna Region- High Technology Network (Tecnopoli Network). The Center proposes itself as an interlocutor for industrial companies and local companies that need consultancy, services and collaborations for the development of new products, technologies and processes.
During 2019 the Center won the participation in three POR-FERS projects in Emilia Romagna: -InSPiRE, IntegratedtechnologiesforSmartbuildingsandPREdictivemaintenance;
-TIMESAFE, Integratedandinnovativetechnologieswithlimitedimpactandinvasivenessforseismic improvement of buildings without interruption of use;
- IMPReSA, Use of recycled plastic materials for lightened structural mortars and concretes.

EDUCATION AND TRAINING

09/1979 – 12/11/1985

DEGREE IN CIVIL ENGINEERING, MARCHE POLYTECHNIC UNIVERSITY

03/1987 – 17/10/1990

PH.D IN STRUCTURAL ENGINEERING, UNIVERSITY OF FLORENCE

LANGUAGE SKILLS

Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	B2	B2	B2
FRENCH	A2	A2	A2	A2	A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PROFESSIONAL EXPERIENCE

Professional experience

November 22, 1995, he is assistant professor at the Faculty of Engineering, University of Ancona.
With italian D.M. August 6, 1998, he was proclaimed the winner, with an unanimous judgment, of the national competition for associate professor, and on November 1998 he took the service at the Faculty of Engineering of the University of Modena and Reggio Emilia.
With Rector's Decree no. 447 of 18 May 2001, he was proclaimed the winner of the competition for full professor at the Faculty of Engineering of the University of Modena and Reggio Emilia.
Since 2004 he is referent of the degree courses in Civil Engineering and Building Engineering at the Military Academy of Modena.
2007-present: Director of the School in Civil Engineering at the University of the San Marino Republic.
2008-2016: PresidentoftheDegreeCourseinCivilEngineeringattheUniversityofModenaand Reggio Emilia.
In August 2014 he was appointed member of the jury for the achievement of the national scientific qualification (ASN) as professor of I and II role for the competition sector 08 / B2 – Scienza delle Costruzioni.

EDITORIAL BOARD MEMBERSHIP OF PEER-REVIEW INTERNATIONAL JOURNALS

Editorial board membership of peer-review international journals

2018-present: member of the Editorial Board of the International Journal of Mathematical Physics.
March 2015, Lead guest editor of the Special Issue in the Journal: Modeling and Simulation in Engineering, Hindawi Publishing Corporation. Title: Structural modeling at the micro, meso and nano scales.
May 2019, Lead guest editor of the Special Issue in the Journal: Materials MPDI. Title: Advances in Structural Mechanics Modeled with FEM.

CONSULTING ACTIVITIES

Consulting activities

With the resolution of 09/28/2009 he was appointed member of the Technical Scientific Committee on Seismic Matters of the Emilia-Romagna Region pursuant to art. 4 of the L.R. n. 19 of 2008 "Regulations for the reduction of seismic risk".
In April 2017, prof. Tarantino was commissioned by the Autostrade per l'Italia Spa to study the causes of the collapse of bridge no. 167, of the A14 - near Ancona south, which occurred on 9 March 2017, in which two people died.

TEACHING ACTIVITIES

Teaching activities

1985-1988, Prof. Tarantino has taught at the Institute of Science and Technology of Construction at theAncona University,collaboratingmainlytothecourseof“Scienzadellecostruzioni”.
1988-present, he is teacher of 'Scienza delle Costruzioni' (9 credits) and Theory of Elasticity (9 credits) for undergraduate and master degree in Civil Engineering at the University of Modena and Reggio Emilia.
2007-present, Prof. Tarantino holds the same teachings at the University of Rupubblica of San Marino.
He has conducted research and study abroad (Northwestern University, Evanston, USA 1986; Besançon, Université de Franche-Comté, France 1995; University College Dublin, Ireland in 1997 and 1999, Université Lyon, France in 1998, etc.).

RESEARCH TOPICS

Research topics

The entire research carried out by Prof. Tarantino can be subdivided into the following topics: viscoelasticity; fracture mechanics and dynamic propagation of cracks; bifurcation theory, nonlinear dynamics and chaos; piezoelasticity and magnetoelasticity; contact problems; equilibrium, bifurcation and stability in finite elasticity; fiber-reinforced concrete and earthquake engineering.
He was reviewer of scientific papers for several international journals, including:
- Quarterly Journal of Mechanics and Applied Mathematics;
- International Journal of Solids and Structures;
- International Journal for Numerical Methods in Engineering;
- Engineering Structures;
- ACI Journal;
- Structural Engineering and Mechanics;
- Journal of Elasticity;
- ASCE Journal;
- International Journal of Engineering Science;

- International Journal of Non-Linear Mechanics;
- IMA Journal of Applied Mathematics;
- Engineering Fracture Mechanics;
- Mathematical Reviews;
- International Journal of Damage Mechanics;
- Advances in Mathematical Physics;
- Mathematics and Mechanics of Solids;
- Journal of Engineering Mechanics, ASCE;
- SIAM Journal on Applied Mathematics;
- Engineering Failure Analysis;
- Composite Part B: Engineering;
- Advances in Structural Engineering.

He was reviewer of the research projects on behalf of the Italian Ministry of Education (Prin, FIRB, in Future Research) and the Ministry of Economic Development (Fit).

RECENT PUBLICATIONS

Recent publications

1. V. Savino, L. Lanzoni, A.M. Tarantino, M. Viviani. An extended model to predict the compressive, tensile and flexural strengths of HPFRCs and UHPFRCs: Definition and experimental validation. **Composites Part B: Engineering**, vol. 163, 2019, pp. 681-689.
2. M. Pelliciari, A.M. Tarantino. Equilibrium paths for Von Mises trusses in finite elasticity. **Journal of Elasticity**, vol. X, 2019, pp. 00-00.
3. M. Bacciocchi, A.M. Tarantino. Time-dependent behaviour of viscoelastic three-phase composite plates reinforced by Carbon nanotubes. **Composite Structures**, vol. 216, 2019, pp. 20-31.
4. F.O. Falope, L. Lanzoni, A. M. Tarantino. Bending device and anticlastic surface measurement of solids under large deformations and displacements. **Mechanics Research Communications**, vol. 97, 2019, pp. 52-56.
5. M. Bacciocchi, A.M. Tarantino. Natural frequency Analysis of Functionally Graded Orthotropic Cross-Ply Plates Based on the Finite Element Method. **Math. Comp. Appl. MDPI**, 2019, 24, 52; doi:10.3390/mca24020052.
6. L. Lanzoni. A.M. Tarantino. *The bending of beams in finite elasticity*. **Journal of Elasticity**, 2019, in press.
7. M. Pelliciari, B. Briseghella, F. Tondolo, L. Veneziano, C. Nuti, R. Greco, D. Lavorato, A.M. Tarantino. *A degrading Bouc-Wen model for the hysteresis of reinforced concrete structural elements*. **Structure and Infrastructure Engineering**, 2019, in press.
8. M. Bacciocchi, R. Luciano, C. Majorana, A.M. Tarantino. *Free vibrations of sandwich plates with damaged soft-core and non-uniform mechanical properties: Modeling and Finite Element analysis*. Materials **MDPI**, 2019, in press.
9. F.O. Falope, L. Lanzoni, A. M. Tarantino. The bending of fully nonlinear beams. Theoretical, numerical and experimental analyses. **International Journal of Engineering Science**, 2019.
10. M. Pelliciari, S. Sirotti, A.M. Tarantino. A strain energy function for large deformations of compressible elastomers. **Journal of the Mechanics and Physics of Solids (JMPS),** 176, 2023.
11. M. Franciosi, V. Savino, L. Lanzoni, A. M. Tarantino, M. Viviani. Long-term creep behavior of new earth composite materials. **ASCE Journal of Materials in Civil Engineering** , 2024.
12. F.O. Falope, L. Lanzoni, A.M. Tarantino. Large twisting of non-circular cylinders in unconstrained elasticity. **International Journal of Non-Linear Mechanics**, 2024.
13. M. Franciosi, V. Savino, L. Lanzoni, A.M. Tarantino, M. Viviani. Structural design of Reinforced Earthcrete (ReC) Beams. **Engineering Structures,** 306, 2024, 117739.
14. S. Sirotti, M. Pelliciari, A.M. Tarantino. Effect of compressibility on the mechanics of hyperelastic membranes. **International Journal of Mechanical Science**, 2024,
doi: https://doi.org/10.1016/j.ijmecsci.2024.109441.
15. F.O. Falope, L. Lanzoni, A.M. Tarantino. Lateral buckling of the compressed edge of a beam under finite bending. **European Journal of Mechanics / A Solids**, 2024.

RECENT INTERNATIONAL CONFERENCES

Recent international conferences

1. D.M. Barbieri, B. Chen, E. Mazzarolo, B. Briseghella, A. M. Tarantino. Longitudinal Joint Performance of a Concrete Hollow Core Slab Bridge. Transportation Research Board 97th Annual MeetingTransportation Research Board. 2018. N. 18-00258.
2. F.O. Falope, L. Lanzoni, A. M. Tarantino. Coactive stresses in MEMS and NEMS based on periodically bent crystals. First International Conference on Mechanics of Advanced Materials and Structures – ICMAMS, Torino, 17-20 June, 2018.

3. M. Bacciocchi, A. M. Tarantino. Transient response of three-phase composite plates made of viscoelastic matrix reinforced by carbon nanotubes and oriented straight fibers. 5th International Conference on Mechanics of Composites. MECHCOMP 2019, Lisbon, 1-4 July 2019.

RECENT BOOKS

Recent books

A. M. Tarantino, L. Lanzoni, F.O. Falope. *The bending theory of fully nonlinear beams*. Springer, 2019, pp. 87.

PATENTS

Patents

Brevetti:
Inventor of the Patent n. BO2500U000074 depositato il 28/11/2005 relativo a fibre in polipropilene per calcestruzzi strutturali fibrorinforzati. Successivo brevetto internazionale n. 06124764.9-2303.
Inventor of the Patent n. ITBO2120496/7/8 (tre versioni) depositato il 21/03/2014 dal titolo “Strato in misto cementato per pavimentazioni stradali”.
Inventor of the Patent no. 102020000027029, granted on 11/11/2020 entitled “Dispositivo smorzatore assiale ad elastomeri”.
Inventor of the Patent no. 102020000027026, granted on 22/11/2020 entitled “Dispositivo per l’isolamento di apparecchiature industriali, strutture ed infrastrutture civili basato su moduli reticolari a traliccio”.

RESEARCH PROJECTS AND CONVENTIONS

01/01/2000 – 01/01/2024
Research Projects and Conventions

- PRRIITT Misura 3.1 Azione A Progetti di ricerca industriale e sviluppo precompetitivo di cui al bando del 07.07.08 DGR n.1043/2008. Progetto: Fibre polimeriche destinate al rinforzo in galleria, Fili&Forme s.r.l.
- Contratto di ricerca settembre 2011. In materia di riduzione del rischio sismico nel territorio modenese – continuazione. Comune di Modena.
- Contratto di Ricerca ottobre 2012. Caratterizzazione meccanica di un aggregato composto da sabbie quarzifere e resine epossidiche. Biodesign s.r.l.
- Contratto di ricerca settembre 2012. In materia di riduzione del rischio sismico nel territorio modenese – continuazione. Comune di Modena.
- Contratto di ricerca febbraio 2012. Valutazione della vulnerabilità sismica dell’edificio sito in via Fonteraso 15 – Modena, adibito a sede del STB affluenti Po. Regione ER.
- Contratto di ricerca settembre 2013. In materia di riduzione del rischio sismico nel territorio modenese – continuazione. Comune di Modena.
- Contratto di ricerca ottobre 2013. Valutazione della vulnerabilità sismica dell’edificio sito in via Santo Stefano 25 – Reggio Emilia, adibito a sede del STB affluenti Po. Regione ER.
- Contratto di ricerca dicembre 2014. Valutazione della vulnerabilità sismica dell’edificio sito in via Santa Franca 38 – Piacenza, adibito a sede del STB affluenti Po. Regione ER.
- Convenzione Interchimica Srl- Suisio (Bergamo) 2015. Caratterizzazione di un conglomerato con legante chiaro per lo strato di usura di pavimentazioni stradali.
- Contratto di ricerca dicembre 2016. Malte e calcestruzzi addittivati con derivato OTF. A.A.S.S. Repubblica di San Marino, Ricerche ambientali r.s.l.
- Contratto di Ricerca luglio 2017. Caratterizzazione e rimpiego delle materie prime argillose risultanti dalle lavorazioni in cava delle rocce da cui si ottengono gli inerti. Cabe S.r.l.
- Contratto di Ricerca luglio 2017. Caratterizzazione e rimpiego dei limi di lavaggio derivanti dalla produzione di inerti. Cabe S.r.l.
- Contratto di Ricerca settembre 2017. Caratterizzazione meccanica di panelli murari rinforzati. Kerakoll S.p.a.
- Prin2015. Responsabile unità locale.
- Convenzione Società Autostrade per l’Italia Spa 2018. Caratterizzazione meccanica di appoggi multistrato in neoprene armato**.**
- Firs2019. Responsabile nazionale. *Shot-earth and eco-friendly and human-confortable construction industry* (Terre proiettate per una industria delle costruzioni eco-sostenibile e a misura d’uomo). Finanziamento di circa 1.5 ml di euro.
- Prin 2022. Principal Investigator. New eco-friendly building materials inspired by ancient constructions. Prot. 2022Y2RHHT.
- Prin 2022 PNRR. Responsabile di unità locale. Energy harvesting via naturally induced piezoelectric vibration with a view towards applications. Prot. P2022ATTAR.
- Fisa2022. Principal Investigator. Implementation of new Shot-Earth technology in the construction industry. Fisa-2022-00183. Finanziamento di circa 2.4 ml di euro.

- **CV CREATED ON 24.07.2024**

CV created on 24.07.2024

Last version

Autorizzo il trattamento dei miei dati personali presenti nel CV ai sensi dell'art. 13 d. lgs. 30 giugno 2003 n. 196 - "Codice in materia di protezione dei dati personali" e dell'art. 13 GDPR 679/16 - "Regolamento europeo sulla protezione dei dati personali".