Brief CV

Rosa Penna is an Associate Professor in Structural Mechanics at the Department of Civil Engineering, University of Salerno. She graduated with honours in Civil Engineering from the University of Salerno, obtaining both her Bachelor's degree on 26 February 2007 and her Master's degree in Structural Engineering on 20 November 2009. She earned her PhD in "Structural Engineering and Building and Urban Rehabilitation" on 29 September 2014 from the University of Salerno.

Professor Penna has authored over eighty scientific papers published in international journals and conference proceedings. Her research focuses on solid and structural mechanics, employing both theoretical-numerical and experimental approaches. Her main research topics include structural consolidation with composite materials, the study of innovative materials and structures, numerical-experimental analysis of pultruded composite beams and their structural connections, innovative materials for sustainable engineering, multiscale modelling of the mechanical response of materials and structures, and the development of self-sensing materials for SHM of civil engineering infrastructure.

She serves as the scientific coordinator for Nationally Significant Research Projects (PRIN) funded by the Italian Ministry of Research (MUR) and for University of Salerno's Basic Research Funds (FARB). Additionally, she participates as a member of research units in many others Nationally Significant Research Projects (PRIN), projects of the Consortium of University Laboratories of Seismic Engineering – Department of Civil Protection (ReLUIS-DPC), and other FARB-funded research projects.

Professor Penna is a member of several associations, scientific committees, and national and international research centres related to her field, including the International Community for Composites Engineering (ICCE), the Italian Association of Theoretical and Applied Mechanics (AIMETA), and the Italian Association for Stress Analysis (AIAS).

Throughout her academic career, she has collaborated with numerous national and international research groups and has participated as a speaker at various scientific conferences in Italy and abroad, occasionally serving as a session chairman. Among her awards and scientific recognitions are the "Key Scientific Article contributing to science and engineering research excellence", 2017, Advances in Engineering series"; the "Best Student Paper Award, 2016" at the International Workshop on Multi-Scale Innovative Materials and Structures; the "Student Paper Award, 2016" at the International Community for Composites Engineering (ICCE), the Top-cited scientists 2024 (World's Top 2% Scientists), Stanford University based on data extracted from the Elsevier/Scopus database up to 2023, the Best Paper Awards ICATH 2021" and "2024".

Regarding her teaching activities, since the 2016-2017 academic year, Professor Penna has been responsible for courses in Structural Mechanics, Structural Mechanics I (Bachelor's in Civil Engineering), and Innovative Structural Materials and Experimentation (Master's in Civil Engineering).

She has also been actively involved in supplementary teaching activities for various courses in the field of Structural Mechanics since the 2011-2012 academic year. In details: 2024/2025, Staff Mobility for Teaching Erasmus at University of Rijeka, Croatia, May 27-29, 2025; 2016/2017 -2024/2025: Structural Mechanics, Bachelor's Degree Course in Civil Eng., Univ. of Salerno (ECTS: 3 or 6); 2022/2023 -2024/2025: Finite Element Method, Bachelor's Degree Course in Civil Eng., Univ. of Salerno (ECTS: 3); 2018/2019 - 2024/2025: Composite Materials, Master's Degree Course in Civil Eng., University of Salerno (ECTS: 3 or 6); 2022/2023 - 2024/2025: Experimentation and Monitoring of Existing Structures, Master's Degree Course in Civil Eng., University of Salerno (ECTS: 3); 2020/2021- 2023/2024: Use of Innovative Composite Materials and Structures for Structural Safety, PhD Course in risk and sustainability in civil, architectural and environmental engineering systems (ECTS: 2); 11/2023 - Invited talk on "Applied Mathematics in Mechanics" to the Doctoral School of Mathematics of the Institute of Doctoral Studies "Ovidius" University of Constanta, Romania.

Professor Penna has been a member of many organizing committees of National and International Conference: AIAS 2013, Salerno, Italy; Member of Organizing Committee, Int. Workshop on Multiscale Innovative Materials and Structures" (MIMS16), Cetara (SA), Italy, October 28-30, 2016; Int. Congress and Expo on Materials Science and Nanoscience, June 28-30, Paris, France; 2nd International Conference of Mechanics of Solids (MS2024). 30-31 October 2024 - FEUP, Porto, Portugal; 6th International Conference on Advanced Technology for Humanity (ICATH'2024), Salerno, Italy, July 2024.

In terms of institutional commitments, she participates in the Council of the Department of Civil Engineering (DICIV), the Civil Engineering Teaching Council (CODIC), and serves as a member of the DICIV teaching committee.

Finally, in terms of international collaboration, she has worked with prof. Mosallam A. S., from Dept of Civil & Env. Eng., Univ. California Irvine, CA (USA) in the field of Mechanics of composite materials and structures; with Prof. Lau D. from the Dept of Arch. & Civil Eng., City Univ. of Hong Kong, China, in the field of Mechanics of green structures; and with Prof. Fascetti A. form Swanson School of Eng., Pittsburgh, United States, in the field of Lattice modelling,