

Short bio:

Prof. Alessio Cascardi is currently an Associate Professor at the University of Calabria, Department of Civil Engineering. He holds multiple degrees in Building Systems Engineering and Civil Engineering from the Polytechnic University of Bari and the University of Minho in partnership with the Czech Technical University in Prague. He earned a PhD in Materials and Structural Engineering from the University of Salento. His research focuses primarily on structural and energy retrofitting of existing buildings—especially masonry and reinforced concrete structures—through the use of both traditional and innovative composite materials.

One of Prof. Cascardi's major scientific contributions concerns the development and application of composite systems such as Fiber Reinforced Polymer (FRP), Fabric Reinforced Cementitious Matrix (FRCM), Composite Reinforced Mortar (CRM), and Steel Reinforced Grout (SRG), which represent advanced technologies for structural strengthening. He contributed to the preparation of the ACI PRC 549.6 20 guideline Guide to Design and Construction of Externally Bonded Fabric Reinforced Cementitious Matrix (FRCM) and Steel Reinforced Grout (SRG) Systems for Repair and Strengthening Masonry Structures, an international reference document for the design and construction of such systems. He also contributed to fib Bulletin 109 – Existing concrete structures life management, testing and structural health monitoring – State of the art report (151 pages, ISBN 978 2 88394 172 4, October 2023).

In his research activity, Prof. Cascardi integrates experimental, analytical, and numerical approaches, employing both traditional techniques such as linear regressions and advanced methodologies including artificial neural networks and data mining to develop new predictive formulas for strengthening design. He has published more than 90 articles in indexed international scientific journals and has participated in numerous major national and international conferences, establishing himself as one of the leading experts in the field.

He is actively involved in several international scientific committees, including the American Concrete Institute (ACI), the Fédération internationale du béton (fib), RILEM, the International Masonry Society (IMS), and the International Scientific Committee on the Analysis and Restoration of Structures of Architectural Heritage (ISCARSAH), among others. His research has been cited more than 1600 times on Scopus, with an H index of 23, demonstrating the significant impact of his work within the scientific community. He is also the holder of two patents in the field of Structural Engineering.