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Nota di contenuto	Analysis of the Crack Behaviour of a GFRP Reinforced Concrete Beam using Computed Tomography -- Evaluation of the First Polish Frp Composite Bridge After Eight years of Service -- Evaluation of Convective Heating and Cooling Approaches with Infrared Thermography to Assess the Bond Between Externally Applied Fiber Reinforced Polymers and Concrete -- Damage Detection in FRP-Strengthened RC Beams via Autoencoder Latent Space -- Damage Detection in GFRP Confined Concrete Cylinders Using Acoustic Emission Techniques.-Advancing Self-Sensing FRP Systems for Sustainable Retrofitting Integration of Distributed Fiber Optic Sensors for Real Time Monitoring -- Long Term Monitoring of Three Steel Bridges Strengthened with Prestressed and Non Prestressed CFRP -- A Sub Laminate Based Efficient Modelling Technique for Wave Propagation Within Composite Beam Containing Delaminations -- Flexural Response of Glass GFRP Composite Sandwich Façade Panels -- Parametric Study

of Flexural Behaviour of Structural Insulated Panels Consist of UHPC CFRP Hybrid Face Sheets and Cfrp Shear Connectors -- Compression Creep Behaviour at Elevated Temperature of Polyethylene Terephthalate Foam Used in Sandwich Panels -- Synthetic Thermal Load Numerical Modelling Approach for Evaluating Temperature Variations in Hybrid FRP Sandwich Panels Under Extreme Service Conditions -- Dynamic Behaviour of Precast Concrete Sandwich Panels Made with FRP Shear Connectors -- Structural Behaviour of GFRP AAC Sandwich Panels Reinforced with Polymeric Pins -- Evaluation of Glass Fiber Reinforced Polymer Shear Connectors in Ultra High Performance Concrete Sandwich Wall Panels -- Design and Testing of a Structural GFRP Sandwich Panel for Canopy Roofs -- Experimental Study and Finite Element Analysis of GFRP Reinforced Concrete Solid and Sandwich Segments -- 3D-Printed Gyroid Core Sandwich Composites.

Sommario/riassunto

This book, composed of two volumes, presents the latest advances, innovations, and applications in fibre-reinforced polymer (FRP) composites and structures, as shared by leading international researchers and engineers at the 12th International Conference on FRP Composites in Civil Engineering (CICE), held in Lisbon, Portugal, on July 14–16, 2025. The volumes cover a broad spectrum of topics, including: all-FRP structures; bond and interfacial behavior; concrete-filled FRP tubular members; FRP-reinforced or pre-stressed concrete structures; confinement; design methodologies and guidelines; durability and long-term performance; fire, impact, and blast resistance; FRP as internal reinforcement; hybrid FRP systems with other materials; new materials and products; seismic retrofitting; structural strengthening of concrete, steel, masonry, and timber; and experimental testing. All contributions underwent an international peer-review process, ensuring both quality and relevance. Together, they provide a rich source of ideas that not only advance current understanding but also inspire new research directions and foster multidisciplinary collaboration across the field.
