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Sensor-Embedded Textiles for the Reinforcement, Dynamic Characterisation, and Structural Health Monitoring of Masonry Structures

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This paper reports progress on the design, manufacturing, application, modeling, and performance of sensor embedded technical textiles for the reinforcement of masonry structures. Two types of textiles are investigated, uniaxial and multi-axial. Two types of structures are tested, single story and multi-story. Fiber optic sensors are employed within the textiles using static and dynamic interrogation techniques. Preliminary finite element models are developed. The decision making process, assumptions, limitations, performance, and consequences of applying such textiles are discussed. This work is part of the EU funded research project POLYTECT (www.polytect.net).

Ключевые слова:

Содержание.

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