Special Issue

Bond Behavior of Externally Bonded and Internal Reinforcement

Message from the Guest Editors

Study of the bond behavior of externally bonded (EB) reinforcements of existing reinforced concrete, masonry, and timber structural members and of internal reinforcement of new reinforced concrete members is of paramount importance in understanding and assessing the performance of structural members. For EB reinforcement, bond mechanisms are responsible for the stress transfer between the reinforcement and the substrate, and strongly affect the mechanical response of the strengthened member. For internal reinforcement, the shear stress transfer at the reinforcement–concrete or reinforcement–masonry interface affects the capacity and deformability of the reinforced member. Various materials, such as steel plates or composite laminates, have been adopted as EB reinforcement of reinforced concrete, steel, masonry, and timber structures using different strengthening solutions. In the last three decades, fiber-reinforced polymer (FRP) composites have been largely used.

Guest Editors

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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