



Bond Behavior of Externally Bonded and Internal Reinforcement

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Message from the Guest Editors

Dear Colleagues,

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.

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Message from the Editor-in-Chief

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