Vorlesungsverzeichnis

Sonderveranstaltungen

SoSe 2023

Stand 23.03.2023

Sonderveranstaltungen

Summerschool P3: Use of Polymer-Modified Concretes (PCC) for Innovative Refurbishment Solutions

A. Flohr

Integrierte Vorlesung

Mo, Einzel, 13:30 - 15:00, Project introduction, 21.08.2023 - 21.08.2023
Di, Einzel, 13:30 - 17:00, PCC: Basics / Load deformation behavior, 22.08.2023 - 22.08.2023
Mi, Einzel, 09:00 - 12:30, Particle interactions / PCC for innovative refurbishment solutions, 23.08.2023 - 23.08.2023
Do, Einzel, 11:00 - 12:30, PCC: Modelling of PCC load deformation behavior, 24.08.2023 - 24.08.2023
Do, Einzel, 13:30 - 17:00, MATHLAB-Übung, 24.08.2023 - 24.08.2023
Mo, Einzel, 13:30 - 17:00, 28.08.2023 - 28.08.2023
Di, Einzel, 13:30 - 17:00, PCC: fresh concrete properties, 29.08.2023 - 29.08.2023
Do, Einzel, 09:00 - 12:30, PCC: hardened concrete properties, 31.08.2023 - 31.08.2023

Beschreibung

Concretes are modified by the addition of polymers in order to improve the durability and the adhesive strength and due to that measure they suit optimal for refurbishment applications. The microstructural changes in the binder matrix, which consists of both cementitious and polymer components, will be studied. Afterwards it will be analyzed how they influence the macroscopic properties. The students will perform and analyze laboratory tests on different pure polymer specimens and selected concrete specimens in order to better understand the microscopic origin of the macroscopic behavior. The link between the micromechanical and macroscopic properties is briefly established using a continuum micromechanics approach. Different innovative restoration applications are addressed, in addition some examples will be shown for the use of PCC for constructional purposes.