Record Nr. UNINA9910337901803321 Advances and Challenges in Structural Engineering: Proceedings of the **Titolo** 2nd GeoMEast International Congress and Exhibition on Sustainable Civil Infrastructures, Egypt 2018 - The Official International Congress of the Soil-Structure Interaction Group in Egypt (SSIGE) / / edited by Hugo Rodrigues, Amr Elnashai Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2019 3-030-01932-2 **ISBN** Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (410 pages) Sustainable Civil Infrastructures, , 2366-3405 Collana Disciplina 624.151 Soggetti Geotechnical engineering Civil engineering Engineering—Materials Sustainable architecture Computer mathematics Geotechnical Engineering & Applied Earth Sciences Civil Engineering Materials Engineering Sustainable Architecture/Green Buildings Computational Science and Engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Retrofitting gravity load designed r.c frames using frp -- Condition monitoring of overhead line equipment (ohle) structures using groundbourne vibrations from train passages -- Application of nano-silica in

monitoring of overhead line equipment (ohle) structures using ground-bourne vibrations from train passages -- Application of nano-silica in concrete for bridges in vietnam for sustainable development -- Frp tubes filled with reinforced concrete subjected to cyclic axial loading -- Ultimate flexural capacity prediction of rectangular frp tube beams filled with concrete -- Reinforced concrete multi-rib arch bridge strengthened by changing structural system -- The influence of spectral responses on the structures heights -- Effect of steel slag on cold bituminous emulsion mix -- Post-consumer cullet and potential

engineering applications in north America -- Production of building bricks using cement kiln dust ckd waste -- Carbon fiber reinforced polymers (cfrp) for strengthening and seismic retrofitting of historical circular masonry stone columns -- The impact of steel fibers on the properties of self compacting concrete -- Assessing the potential value of a shm deployment on a proposed footbridge -- Estimating seismic demands for displacement-based design of tall buildings --Verification of mechanism on improvement of drying shrinkage or air permeability on concrete using blast furnace slag sand based on pore structure -- Effect of wet-mat curing time on chloride permeability of concrete bridge decks. The effect of underground stories on the dynamic response of high-rise buildings -- Engineering properties of self-compacting concrete containing class c fly ash and processed slag sand -- Across wind load analysis using cfd for sustainable design of tall structures -- Utilization of ground penetrating radar (gpr) in the non-destructive assessment of frp laminate-concrete bond strength --Indirect tensile stiffness and permanent deformation of microwave treated cold bituminous emulsion mixtures (cbems) containing cementitious activated waste fly ash -- Risk assessment of open frame platform structures using analytical fragility curves -- Seismic risk assessment of pipe rack structures using analytical fragility curves --Ductility-based seismic vulnerability assessment of rc bridge piers --Behavior of boxed cold-formed steel as composite beam with rebar as shear connector -- Nonlinear finite element analysis of cfrp shear walls subject to blast loading -- New technology of concrete surface improvement and soil properties -- Probabilistic shear strength of bolted joints in offshore -- Xrdf, sem and compressive strength properties of a new alkali activated fly ash concrete mortar -- Stability of concrete containments in nuclear plants under jet impact loads --Probabilistic thickness of cfrp plates bonded to reinforced concrete bridge decks. .

Sommario/riassunto

This edited volume on challenges in structural and bridge engineering brings together contributions to this important area of engineering research. The volume presents findings and case studies on fundamental and applied aspects of structural engineering, applied to buildings, bridges and infrastructures in general, and heritage patrimony. The scope of the volume focuses on the application of advanced experimental and numerical techniques and new technologies to the built environment. The volume is based on the best contributions to the 2nd GeoMEast International Congress and Exhibition on Sustainable Civil Infrastructures, Egypt 2018 – The official international congress of the Soil-Structure Interaction Group in Egypt (SSIGE).