1. Record Nr. UNINA9910716786103321

Autore	Strobel Michael L.
Titolo	Spatial variation in saturated hydraulic conductivity of sediments at a crude-oil spill site near Bemidji, Minnesota / / by Michael L. Strobel, Geoffrey N. Delin, and Carissa J. Munson
Pubbl/distr/stampa	Mounds View, Minnesota : , : U.S. Department of the Interior, U.S. Geological Survey, , 1998
Descrizione fisica	1 online resource (iv, 13 pages) : illustrations
Collana	Water-resources investigations report ; ; 98-4053
Soggetti	Oil pollution of soils - Minnesota - Bemidji Soil permeability - Minnesota - Bemidji Groundwater flow - Minnesota - Bemidji Groundwater flow Oil pollution of soils Soil permeability Minnesota Bemidji
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Autore	Ilki Alper
Titolo	Building for the Future: Durable, Sustainable, Resilient : Proceedings of the fib Symposium 2023 - Volume 1 / / edited by Alper Ilki, Derya Çavunt, Yavuz Selim Çavunt
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2023
ISBN	9783031325199 3031325192
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Altri autori (Persone)	ÇavuntDerya ÇavuntYavuz Selim
Disciplina	624.1834
Soggetti	Concrete Building materials Buildings - Design and construction Geotechnical engineering Structural Materials Building Construction and Design Geotechnical Engineering and Applied Earth Sciences
Lingua di pubblicazione	Inglese
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Nota di contenuto	Intro -- Preface -- Organization -- Keynote Lecturers -- Invited-Theme Lecturers -- Contents -- Keynote Lecturers -- Recent Canadian Developments Related to FRP Reinforcement for Sustainable and Resilient Concrete Structures, Design Codes, and Field Applications in Infrastructures and Buildings -- 1 Introduction -- 2 Latest Updates of Canadian Standards -- 2.1 Canadian Standard on Material Specifications -- 2.2 Canadian Standard on Highway Bridge Design -- 2.3 Canadian Standard on Structural Design of Wastewater Treatment Plants -- 2.4 Canadian Standard on Parking Garages -- 3 Recent Field Applications -- 3.1 Highway Bridges -- 3.2 Parking and Building Structures -- 3.3 Secant Piles -- 3.4 Soft-Eyes -- 4 Conclusions -- References -- The Beauty of Simplicity and Recyclability -- 1 Where Are We Currently? -- 2 Circular Economy -- 3 BIM-Based Approach for Demolition and Dismantling -- 4 Less is More - Recyclability

and the Use of Tunnel Excavation Material -- 5 Beauty Depends on Simplicity - A Sustainable Approach -- 6 Conclusion -- References -- 1915 Çanakkale Bridge - Dream to Reality -- 1 Introduction -- 2 Project Information -- 2.1 Location of the Project -- 2.2 Parties of the Project -- 2.3 1915 Çanakkale Bridge Within the World Bridge Inventory -- 3 Characteristics of 1915 Çanakkale Bridge -- 3.1 Design -- 3.2 Aesthetics -- 3.3 General Arrangement -- 3.4 Steel Towers -- 3.5 Tower Foundations - Caissons -- 3.6 Suspension Cables and Hangers -- 3.7 Steel Deck -- 3.8 Anchor Blocks -- 4 Durability -- 4.1 High-Performance Concrete -- 4.2 Dehumidification System -- 4.3 Structural Health Monitoring System (SHMS) -- 5 Conclusions -- References -- Invited-Theme Lecturers -- Development of a QA/QC Methodology for the Construction of Critical Infrastructure Projects Designed Based on Service Life Considerations -- 1 Introduction. 2 Requirements and Quality System for Concrete -- 3 Design of Concrete Mixtures -- 4 Constituent Materials -- 5 Fresh and Hardened Concrete Properties -- 6 Hardening Concrete Properties -- 7 Full Scale Trial Casting -- 8 Simulation for Temperature Development -- 9 Conclusion -- References -- Enhancement of the Efficiency of CFRP Composites in Strengthening Flat and Curved Soffit RC Members -- 1 Introduction -- 2 Anchorage Systems -- 2.1 Spike Anchor -- 2.2 U-wrap Anchors -- 2.3 Patch Anchors -- 2.4 Hybrid Anchors -- 3 Curved Soffit RC Members -- 3.1 Experimental Program -- 3.2 Material Properties -- 3.3 Beam Instrumentation and Testing Procedure -- 3.4 Test Results -- 4 Conclusion -- References -- Demountable Reinforced Concrete Structures - A Way Forward to Minimize Energy and Waste in Construction Industry -- 1 Introduction -- 2 Current Practice in Structural Engineering -- 2.1 Semi-dry Connections of Precast RC Structural Elements -- 3 RC Demountable Dry Connections -- 3.1 Composite Steel Beams and Concrete Slab Demountable Connections -- 3.2 Beam/Column Demountable Connections -- 3.3 Wall/Wall and Column/Column Demountable Connections -- 3.4 Slab/Slab Demountable Connections -- 4 Summary and Conclusions -- References -- Fib MC2020 - A Sustainability-Driven Performance-Based Approach to Design, Execution and Life-Cycle Management of Concrete Structures -- 1 Introduction -- 2 Principles of a Sustainability-Driven Performance-Based Approach to Design, Execution and Life-Cycle Management -- 2.1 Sustainability Framework and Life-Cycle Perspective -- 2.2 Performance-Based Approach Supporting Sustainability -- 3 Principles of Structural Performance Verifications -- 3.1 Risk and Reliability Concepts in Structural Performance Evaluation -- 3.2 Levels-Of-Approximation Approach to Structural Verifications. 3.3 Provisions for Assessment of Existing Structures -- 4 Conclusions -- References -- Towards Earthquake Risk Reduction Solutions: Applications of Composite Materials and Future Challenges -- 1 Introduction -- 2 Innovative Interventions for Seismic Upgrade of RC Existing Structures -- 2.1 Beam Column Joint Strengthening -- 2.2 Repair and Retrofit of Columns -- 2.3 Seismic Protection of Non - Structural Elements -- 3 Conclusions -- References -- Re-Evaluation of Reinforced Concrete Design Code Provisions in Adopting High-Strength Reinforcement -- 1 Introduction -- 2 Moment Redistribution -- 3 Shear Behaviors -- 4 Beam-Column Joints -- 5 Conclusions -- References -- Innovative Retrofitting of RC Structures Using Textile-Reinforced Alkali-Activated or Cement-Based Mortar Overlays: Application in Short Columns -- 1 Introduction -- 2 Materials and Specimens -- 3 Experimental Procedure and Setup -- 4 Results and Discussion -- 5 Analytical Modeling -- 5.1 Shear Capacity Model

-- 5.2 Confinement Models -- 5.3 Deformation Capacity Model -- 5.4 Response Prediction of the Experimentally Tested Columns -- 6 Conclusions -- References -- Transfer of Forces Within Repaired/Strengthened RC Elements -- 1 Introduction -- 2 The NTUA Research -- 2.1 Experimental Campaign -- 2.2 Modelling of Interface Behavior -- 3 Key Experimental Findings -- 3.1 Interface Roughness -- 3.2 Long vs. Short Interfaces -- 4 Prediction of Interface Resistance -- 5 Conclusions -- References -- Structural Walls: New Modeling Parameters for Seismic Retrofit -- 1 Introduction -- 2 Failure Mode Classification -- 3 Flexure-Controlled Walls -- 4 Shear-Controlled Walls -- 5 Shear-Friction-Controlled Walls -- 6 Summary -- References -- Concrete and Innovative Materials -- Determination of Prestressing Using Crack Reopening Method -- 1 Introduction -- 2 Experimental Program -- 2.1 Specimens.
2.2 Experimental Program -- 2.3 Prestressing of the Specimens -- 2.4 Material Properties of Concrete -- 3 Numerical Analysis -- 4 Evaluation of Prestressing -- 5 Conclusions -- References -- Floured CaCO3 as Supplementary Cementitious Material in Defined Performance Concrete -- 1 Introduction -- 2 Experimental Procedure -- 3 Results and Discussion -- 3.1 Assessment of the Effect of the Floured Calcite Addition in Concrete Mixtures Without Chemical Admixtures -- 3.2 Assessment of the Effect of the Combined Introduction of CaCO3 and Superplasticizer on the Hardening Kinetics of Concrete at Normal and Elevated Temperatures -- 3.3 Assessment of the Effect of Co-adding of CaCO3 on Concrete Hardening Kinetics at Negative Temperature -- 4 Conclusion -- References -- An Energy Dissipative Double Beam Coupling Beam Equipped with Low Damage Seismic Technology -- 1 Introduction -- 2 Metallic Supplemental Damping -- 2.1 U-Shaped Flexural Plates (UFPs) -- 3 DBCB-M Concept Design -- 4 Design of DBCB-M -- 5 Test Setup and Loading Protocol -- 5.1 Test Setup -- 5.2 Loading Protocol -- 6 DBCB-M Test Results and Comparison with Benchmark Specimen -- 6.1 Shear Force vs Rotation Response -- 6.2 Cracking Pattern -- 6.3 Energy Dissipation -- 7 Discussion -- 8 Conclusion -- References -- Evaluation of Combustion Effect on Biomass Bottom Ash from a Fluidised Bed Power Plant - Sand Substitution on Mortar Application -- 1 Introduction -- 2 Biomass Bottom Ash Characterisation -- 3 Valorisation of Biomass Bottom Ash in Mortars -- 3.1 Mortars Mix Design -- 3.2 Workability, Compressive Strength and Hydration Kinetics of Mortars -- 3.3 Porous Structure of Mortar -- 4 Conclusion -- References -- A System Development Strategy of a Digital Construction for Building Frames -- 1 Introduction -- 2 Target Building Frame -- 3 Reference Case -- 3.1 System Definition -- 3.2 System Goals.
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the Shear Strength of the Glue Line in Adhesive Bonded Timber-Concrete-Composite Elements -- 1 Introduction -- 2 Experimental Investigation Parameters -- 2.1 Test-Setups -- 2.2 Materials and Methods -- 3 Experimental Investigation Outcome -- 3.1 Results -- 3.2 Discussion -- 4 Conclusion -- References -- Development of a Simplified Strategy for Topology Optimisation of Reinforced Concrete Beams Using Regular Geometric Shapes -- 1 Introduction -- 2 Methodology -- 2.1 Benchmark Beam Design and Standards -- 3 Optimisation Approach -- 3.1 Abaqus Modelling Strategy -- 3.2 Material Models -- 4 Results and Discussion -- 5 Conclusion -- References -- Assessment of the Bending Behaviour of RC Beams Under Impact Loads with DIC -- 1 Introduction -- 2 Methodology of the Research -- 2.1 Experimental Setup -- 2.2 Beams Material Characterization.
2.3 Numerical Beam Model Definition.

Sommario/riassunto

This book presents the proceedings of the fib Symposium “Building for the future: Durable, Sustainable, Resilient”, held in Istanbul, Turkey, on 5–7 June 2023. The book covers topics such as concrete and innovative materials, structural performance and design, construction methods and management, and outstanding structures. fib (The International Federation for Structural Concrete) is a not-for-profit association whose mission is to develop at an international level the study of scientific and practical matters capable of advancing the technical, economic, aesthetic, and environmental performance of concrete construction.