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Titolo	Building Engineering Facing the Challenges of the 21st Century [[electronic resource] ] : Holistic Study from the Perspectives of Materials, Construction, Energy and Sustainability // edited by David Bienvenido-Huertas, Joaquín Durán-Álvarez
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ISBN	981-9927-14-5
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (729 pages)
Collana	Lecture Notes in Civil Engineering, , 2366-2565 ; ; 345
Disciplina	690
Soggetti	Buildings - Design and construction Sustainability Sustainable architecture Construction industry - Management Building materials Buildings - Environmental engineering Building Construction and Design Sustainable Architecture/Green Buildings Construction Management Building Materials Building Physics, HVAC
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Bivalve shells as a building material. A real case application -- Assessment of industrial large-volume wastes with high potential to be used as emerging alkali-activated precursors: A Review -- The use of Sierra Elvira' stone according to the Spanish Technical Code -- Macrocell significance in reinforced concrete slabs exposed to a marine environment -- Lime concretes with ad hoc performances -- Gypsum materials and products to design circular and regenerative buildings -- Characterization of gypsum mortars dosed with Electric Arc Furnace Slags EAFS.
Sommario/riassunto	Building engineering is a complex and constantly evolving branch. The

needs of the XXI century society cause a constant change in construction industry due to the need to achieve sustainable and ecological buildings. This affects all levels and phases of this engineering. Given this circumstance, numerous researchers turn their efforts to find optimal solutions for building engineering. For this reason, in this book a holistic analysis of building engineering is carried out from the perspectives that have a greater weight for sustainability objectives. The book is divided into 6 sections: (i) Building materials, which deals with research related to the most innovative and sustainable building materials; (ii) Design and construction, which deals with existing methodologies and advances in design and construction in construction sector; (iii) Building repair and maintenance, which deals with building repair, maintenance and upkeep techniques; (iv) Energy efficiency, which analyses the latest research on the energy efficiency of buildings and their behaviour in the face of climate change; (v) Sustainability, which analyses the establishment of measures to achieve a more sustainable built environment; and (vi) construction management, which compiles the latest studies in the field of Project manager. The 38 chapters of the book together constitute an advance for the topic of building engineering. The aspects covered in the book are of great interest to various sectors, such as researchers, engineers, architects, legislators and interested parties.

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