Record Nr. UNINA9910337595003321 Žegarac Leskovar Vesna Autore Integrative Approach to Comprehensive Building Renovations / / by Titolo Vesna Žegarac Leskovar, Miroslav Premrov Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2019 **ISBN** 3-030-11476-7 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (164 pages): illustrations (some color) Collana Green Energy and Technology, , 1865-3529 720.47 Disciplina Soggetti Sustainable architecture Buildings—Design and construction Buildina Construction Engineering, Architectural **Energy consumption Building materials** Regional planning City planning Sustainable Architecture/Green Buildings **Building Construction and Design Energy Efficiency** Structural Materials Landscape/Regional and Urban Planning Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Nota di contenuto Introduction -- Basic Refurbishment Approaches -- Refurbishment Process Methodology -- Scientific Research related to Building Refurbishment -- Case Study Analyses. Sommario/riassunto This book presents a new approach to building renovation, combining aspects of various professional disciplines, integrating green building design, structural stability, and energy efficiency. It draws attention to several often-overlooked qualities of buildings that should be

comprehensively integrated into the context of building renovation.

The book presents an overview of the most important renovation approaches according to their scope, intensity, and priorities. Combining basic theoretical knowledge and the authors' scientific research it emphasizes the importance of simultaneous consideration of energy efficiency and structural stability in building renovation processes. It simultaneously analyses the effects of various renovation steps related to the required level of energy efficiency, while it also proposes the options of building extension with timber-glass upgrade modules as the solution to a shortage of usable floor areas occurring in large cities. This book offers building designers and decision makers a tool for predicting energy savings in building renovation processes and provides useful guidelines for architects, city developers and students studying architecture and civil engineering. Additionally, it demonstrates how specific innovations, e.g., building extensions with timber-glass modules, can assist building industry companies in the planning and development of their future production. The main aim of the current book is to expose various approaches to the renovation of existing buildings and to combine practical experience with existing research, in order to disseminate knowledge and raise awareness on the importance of integrative and interdisciplinary solutions.