Record Nr. UNINA9910254205603321 Autore Lin Shaopei Titolo Comparative Design of Structures: Concepts and Methodologies / / by Shaopei Lin, Zhen Huang Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, , 2016 **ISBN** 3-662-48044-1 Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (411 p.) Disciplina 620 Soggetti Buildings—Design and construction Building Construction Engineering, Architectural **Buildings** Engineering design Computational intelligence **Building Construction and Design Building Types and Functions Engineering Design** Computational Intelligence Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references. Nota di contenuto Introduction of Design Philosophy -- Introduction to Structural Design -- Global Design of Structures -- Systematic Analyses of Substructures -- Comparative Design and Analyses of High-rise Buildings -- Comparative Design and Analyses of Long-span Crossings Structures -- Comparative Design and Analyses of Spatial Structures --Intelligent Design Based on Knowledge Engineering. This book presents comparative design as an approach to the Sommario/riassunto conceptual design of structures. Primarily focusing on reasonable

structural performance, sustainable development and architectural aesthetics, it features detailed studies of structural performance through the composition and de-composition of these elements for a

variety of structures, such as high-rise buildings, long-span crossings and spatial structures. The latter part of the book addresses the theoretical basis and practical implementation of knowledge engineering in structural design, and a case-based fuzzy reasoning method is introduced to illustrate the concept and method of intelligent design. The book is intended for civil engineers, structural designers and architects, as well as senior undergraduate and graduate students in civil engineering and architecture. Shaopei Lin and Zhen Huang are both Professors at the Department of Civil Engineering, Shanghai Jiao Tong University, China.