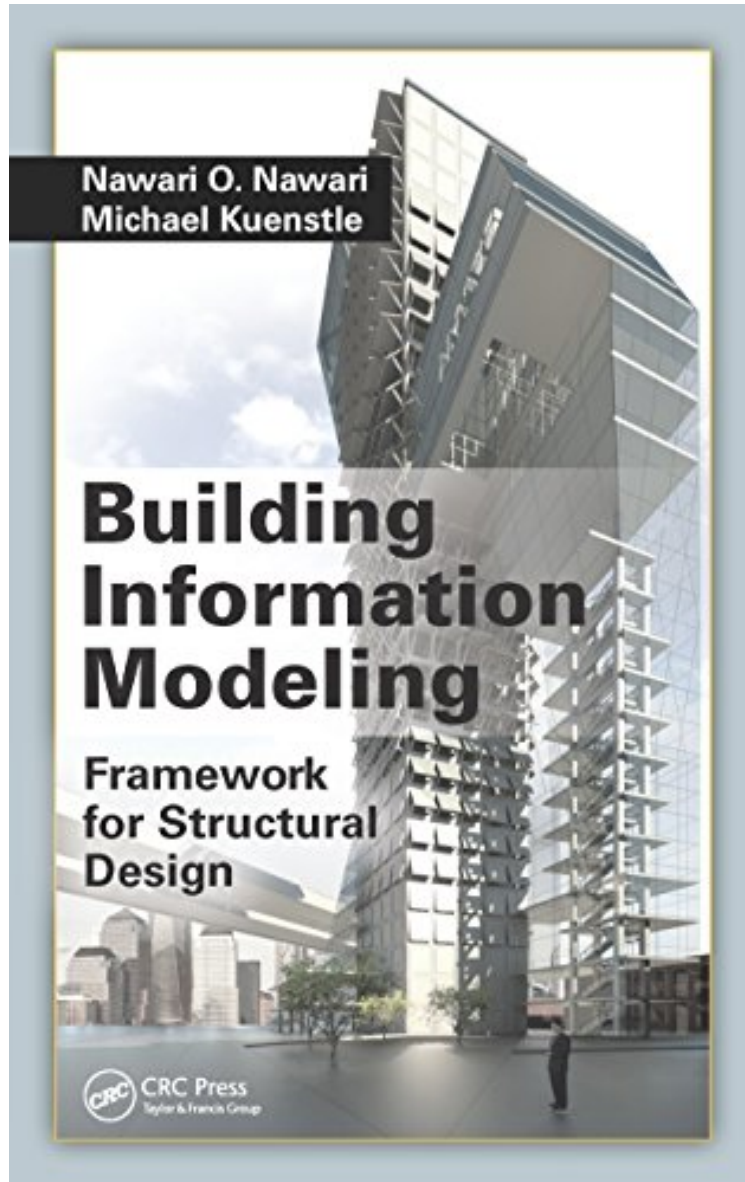


Building Information Modeling: Framework for Structural Design

Nawari O. Nawari, Michael Kuenstle

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Nawari O. Nawari, Michael Kuenstle : Building Information Modeling: Framework for Structural Design before purchasing it in order to gage whether or not it would be worth my time, and all praised Building Information Modeling: Framework for Structural Design:

0 of 0 people found the following review helpful. Five StarsBy Cubic.ChenI love it and it delivers a wide range BIM concept and its methodology.

Building Information Modeling: Framework for Structural Design outlines one of the most promising new developments in architecture, engineering, and construction (AEC). Building information modeling (BIM) is an information management and analysis technology that is changing the role of computation in the architectural and engineering industries. The innovative process constructs a database assembling all of the objects needed to build a specific structure. Instead of using a computer to produce a series of drawings that together describe the building, BIM creates a single illustration representing the building as a whole. This book highlights the BIM technology and explains how it is redefining the structural analysis and design of building structures.

BIM as a Framework Enabler This book introduces a new framework—the structure and architecture synergy framework (SAS framework)—that helps develop and enhance the understanding of the fundamental principles of architectural analysis using BIM tools. Based upon three main components: the structural melody, structural poetry, and structural analysis, along with the BIM tools as the frame enabler, this new framework allows users to explore structural design as an art while also factoring in the principles of engineering. The framework stresses the influence structure can play in form generation and in defining spatial order and composition. By highlighting the interplay between architecture and structure, the book emphasizes the conceptual behaviors of structural systems and their aesthetic implications and enables readers to thoroughly understand the art and science of whole structural system concepts.

Presents the use of BIM technology as part of a design process or framework that can lead to a more comprehensive, intelligent, and integrated building design

Places special emphasis on the application of BIM technology for exploring the intimate relationship between structural engineering and architectural design

Includes a discussion of current and emerging trends in structural engineering practice and the role of the structural engineer in building design using new BIM technologies

Building Information Modeling: Framework for Structural Design provides a thorough understanding of architectural structures and introduces a new framework that revolutionizes the way building structures are designed and constructed.

"The main strength of this book lies in its focus on applications of BIM on structural engineering, coupling the structural design task with architectural design."—Gian A. Rassati, University of Cincinnati

The detailed description of the steps in using a BIM tool for various aspects of structural design, together with aspects of interoperability with FEM and other tools, is the main strength of the material. Such detailed description is particularly useful for students to understand how to integrate BIM efficiently in the structural engineering. The descriptions followed by related exercises should foster learning through examples and learning by doing; and such content is currently missing in BIM textbooks."—Vishal Singh, Aalto University

About the Author Dr. Nawari, (Ph.D., P.E., M.ASCE) has over 20 years of experience in design, teaching, and research specializing in building structures and building information modeling. Currently, he teaches graduate and undergraduate courses at the University of Florida. He has written and co-authored over 70 publications and three books. He is an active member of the U.S. National Building Information Modeling Standard Committee (NBIMS), BIM Committee of the Structural Engineering Institute (SEI), and co-chair of the subcommittee on BIM in education and many other professional societies. Dr. Nawari is also a board certified professional engineer in the states of Florida and Ohio. Michael W. Kuenstle, AIA, received his graduate architecture degree from Columbia University in New York City. He holds a bachelor of architecture degree from the University of Houston. Kuenstle served as adjunct associate professor at the New York Institute of Technology from 1990 to 1993. He has been a professor in the School of Architecture at the University of Florida since 1993 where he teaches architecture design studio and advanced graduate structures courses. His building design projects have received several AIA design awards and have been published and exhibited throughout North America. A licensed architect, he serves as a member of the Board of Trustees to the Florida Foundation for Architecture.