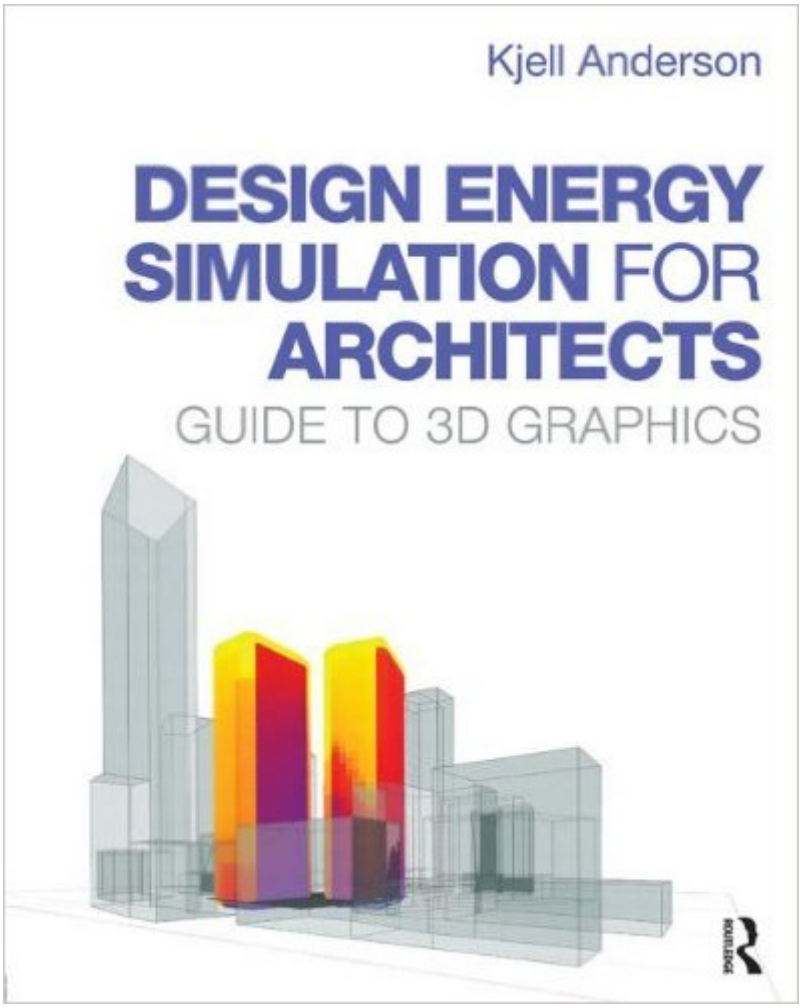
Design Energy Simulation For Architects: Guide To 3D Graphics



Synopsis

Leading architectural firms are now using in-house design simulation to help make more sustainable design decisions. Taking advantage of these new tools requires understanding of what can be done with simulation, how to do it, and how to interpret the results. This software-agnostic book, which is intended for you to use as a professional architect, shows you how to reduce the energy use of all buildings using simulation for shading, daylighting, airflow, and energy modeling. Written by a practicing architect who specializes in design simulation, the book includes 30 case studies of net-zero buildings, as well as of projects with less lofty goals, to demonstrate how energy simulation has helped designers make early decisions. Within each case study, author Kjell Anderson mentions the software used, how the simulation was set up, and how the project team used the simulation to make design decisions. Chapters and case studies are written so that you learn general concepts without being tied to particular software. Each chapter builds on the theory from previous chapters, includes a summary of concept-level hand calculations (if applicable), and gives comprehensive explanations with graphic examples. Additional topics include simulation basics, comfort, climate analysis, a discussion on how simulation is integrated into some firms, and an overview of some popular design simulation software.

Book Information

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Customer Reviews

I like this book as it lays out practical uses for energy modeling for daily architectural use. Designed not for mechanical engineers or professional energy modelers but architects who can often have the

largest impact on design from building orientation to glazing percentage. How to analyze data, ways of integrating the process into our practice, and get useful results is what .we were looking for in the publication. Great overall.

It is a fact that there is a lack of useful books in the area of building performance simulation especially for architects. So, any new book can bring something to the practitioners and that's why I bought this book as soon as I came across it. However, in my opinion, it does not offer too much to the readers. To me, as a simulation lecturer, it is more like a catalog, with some figures (many of them screenshots to just give an impression) and very short descriptions of a number of simulation-related studies that specific companies have done in their projects (with no detail on the simulation models, results, etc.). But, trying to be fair about the book, I would say it expands the horizon of beginners in Energy Simulation.

Great reference book! I really like how it covers so many different subjects as compared to other most all other books that are limited in scope.

I can't really rate this because I got this for the company I work for, but I heard that it is a really great book. I just can't say it from my point of view.

Design Manual The Pocket Universal Principles of Design: 150 Essential Tools for Architects, Artists, Designers, Developers, Engineers, Inventors, and Makers IMAGINE DESIGN CREATE: How Designers, Architects, and Engineers Are Changing Our World Design-Tech: Building Science for Architects Structural Elements for Architects and Builders: Design of Columns, Beams, and Tension Elements in Wood, Steel, and Reinforced Concrete, 2nd Edition Motion Simulation and Mechanism Design with SolidWorks Motion 2013 Motion Simulation and Mechanism Design with SOLIDWORKS Motion 2016 Circuit Design and Simulation with VHDL (MIT Press)