1. Record Nr. UNINA9911006938303321

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Titolo	COMSOL5 for Engineers
Pubbl/distr/stampa	[Place of publication not identified], : Mercury Learning & Information, 2015
ISBN	9781942270447 1942270445 9781680159707 1680159704
Edizione	[1st ed.]
Descrizione fisica	1 online resource (312 pages)
Collana	Multiphysics Modeling Series
Soggetti	Engineering - Data processing Engineering - Mathematical models
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Sommario/riassunto	COMSOL5 Multiphysics(R) is one of the most valuable software modeling tools for engineers and scientists. This book, an updated edition of the previously published, COMSOL for Engineers , covers COMSOL5 which now includes a revolutionary tool, the Application Builder. This component enables users to build apps based on COMSOL models that can be run on almost any operating system (Windows, MAC, mobile/iOS, etc.). Designed for engineers from various disciplines, the book introduces multiphysics modeling techniques and examples accompanied by practical applications using COMSOL5.x. The main objective is to introduce readers to use COMSOL as an engineering tool for modeling, by solving examples that could become a guide for modeling similar or more complicated problems. The book provides a collection of examples and modeling guidelines through which readers can build their own models. The mathematical fundamentals, engineering principles, and design criteria are presented as integral parts of the examples. At the end of chapters are references that contain more in-depth physics, technical information, and data; these are referred to throughout the book and used in the examples.

COMSOL5 for Engineers could be used to complement another text that provides background training in engineering computations and methods. Exercises are provided at the end of the text for use in adoption situations. Features: -Expands the Finite Element Method (FEM) theory and adds more examples from the original edition -Outlines the new features in COMSOL5, the graphical user interface (GUI), and how to build a COMSOL app for models -Includes apps for selected model examples-with parameterization of these models -Features new and modified, solved model examples, in addition to the models provided in the original edition -Companion disc with executable copies of each model and their related animations eBook Customers: Companion files are available for downloading with order number/proof of purchase by writing to the publisher at info@merclearning.com.