This book is written for students and teachers engaged in electrical and computer engineering design projects, primarily in the senior year. It guides students and faculty through the steps necessary for the successful execution of design projects. The objective is to provide a treatment of the design process with a sound academic basis that is integrated with practical application. The foundation of the book is a strong vision—that a solid understanding of the Design Process, Design Tools, and the right mix of Professional Skills are critical for project and career success. This text is unique in providing a comprehensive design treatment for electrical and computer engineering.

**Features**

* *Numerous Examples*. Many examples demonstrating application of the material are contained throughout the text.
* *Project Application Sections.* These sections describe how to apply the material to design projects.
* *Checklists.* The checklists help students assess their progress in different phases of their project.
* *Guidance Sections.* Provide practical advice on how to apply the material to design projects.
* *End of Chapter Problems*. They demonstrate both comprehension and application of the material. In addition, there are problems that are directly applicable to capstone design projects.
* *Professional Issues.* Provides examples of how to address *constraints* and *standards* that are an important part of engineering design. Furthermore, it addresses professional skills, such as teamwork, ethics, and oral presentation ability. All of these are also important in meeting the ABET accreditation criteria.
* *Summary and Further Reading Sections*. Included at the conclusion of each chapter, they provide guidance for those who would like to delve further into the material.
* *Instructor’s Manual.* An instructor’s manual is available. It contains not only solutions, but guidance for instructors on teaching the material and managing student design teams.
* *PowerPointTM presentations*. Available for instructors using the book.
* *Case Studies.* Student projects examples, developed using the processes in this book, are available for download by instructors and students.