

analog circuit simulation. Spice applications are covered and augmented by complete examples that start with circuits, proceed with Spice modeling, and end with Spice simulation result analysis. The chapter closes with a brief overview of common test equipment that is beneficial in debugging and characterizing digital systems.

Following the main text is Appendix A, a brief list of recommended resources for further reading and self-education. Modern resources range from books to trade journals and magazines to web sites.

Many specific vendors and products are mentioned throughout this book to serve as examples and as starting points for your exploration. However, there are many more companies and products than can be practically listed in a single text. Do not hesitate to search out and consider manufacturers not mentioned here, because the ideal component for your application might otherwise lie undiscovered. When specific components are described in this book, they are described in the context of the discussion at hand. References to component specifications cannot substitute for a vendor's data sheet, because there is not enough room to exhaustively list all of a component's attributes, and such specifications are always subject to revision by the manufacturer. Be sure to contact the manufacturer of a desired component to get the latest information on that product. Component manufacturers have a vested interest in providing you with the necessary information to use their products in a safe and effective manner. It is wise to take advantage of the resources that they offer. The widespread use of the Internet has greatly simplified this task.

True proficiency in a trade comes with time and practice. There is no substitute for experience or mentoring from more senior engineers. However, help in acquiring this experience by being pointed in the right direction can not only speed up the learning process, it can make it more enjoyable as well. With the right guide, a motivated beginner's efforts can be more effectively channeled through the early adoption of sound design practices and knowing where to look for necessary information. I sincerely hope that this book can be your guide, and I wish you the best of luck in your endeavors.

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