

# Preface

The aim of this book is to provide readers with a fundamental understanding of digital system concepts such as logic gates for combinatorial logic circuit design and higher level logic elements such as counters and multiplexers.

First year undergraduates taking a course in computer science or engineering (and related disciplines like information technology) are the main target audience. Foundation year students and those taking pre-university courses (like 'A' levels) will also benefit from the text.

I have tried to follow a simple approach in writing the text. Mathematics is used only where necessary. There are plenty of illustrations to aid the reader in understanding the concepts.

I hope I have done justice in discussing all the necessary fundamentals related to digital systems in this one volume. But by doing so, I had to skip advanced concepts such as computer hardware and programming and the interested reader can refer to advanced texts after mastering the basic concepts presented in this book.

For over a decade, I have greatly benefited from discussions with students and fellow colleagues who are too many to name here but have all helped in one way or another towards the contents of this book and I must thank them. I must also thank my wife for helping me prepare some of the contents. Many a time, she and my daughter had to put up with my absence to complete this book, so I dedicate this work to them. I am also indebted to Dr. Cota Navin Gupta for his useful comments in the early parts of the book. Finally, I trust that my proofreading is not perfect and some errors would remain in the text and I welcome any feedback or questions from the reader.

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