CONTENTS

Number Systems and Codes

- Digital System Organization 1
 - Number Systems 3 1.2.1 Binary System
- Octal System
- 1.2.3 Hexadecimal System
 - Conversion 1.3
- 1.3.1 Radix Divide Technique
 1.3.2 Radix Multiply Technique
 - Base 2k Conversion
 - Arithmetic 1.4
- Binary Arithmetic Octal Arithmetic
- Hexadecimal Arithmetic
- Representation of Negative Numbers 1.5.1 Sign-Magnitude System 24 1.5.2 Complement Number System

1.5

- 1.5.4 Comparison of Complement Systems Shifting Revisited

8

- Floating-Point Numbers
 - Binary Codes
 - Weighted Codes 39
 - Nonweighted Codes
- 1.7.3 Error Detection Codes
- Data Storage and Register Transfer 1.7.4 Alphanumeric Codes 8: <u>1</u>:9
 - 84 Summary Problems

Boolean Algebra 8

- Logic Circuits 51 2.1.1 Signals and Gates
- Boolean Algebra 56
- Two-Valued Boolean Algebra
- Properties of Boolean Algebra 2.4.1 Operator Hierarchy 2.2 2.3 2.4
- * Topics marked with an asterisk can be skipped without loss of continuity.