

PART1 “An introduction to microelectronics”	1
CHAPTER 1 The Electronics (R)evolution	7
CHAPTER 2 What is a chip?	21
CHAPTER 3 Basic concepts and definitions	35
CHAPTER 4 The chip development cycle	53
PART 2 “A deeper dive”	63
CHAPTER 1 Digital circuits and IP	69
CHAPTER 2 Memory circuits and IP	91
CHAPTER 3 Analog IP, Interfaces and Integration	113
CHAPTER 4 Wafers and Transistors	125
CHAPTER 5 Lithography	137
CHAPTER 6 Fabrication	149
CHAPTER 7 Chip performance and power	167
CHAPTER 8 Testing and Yield	179
CHAPTER 9 Failure Analysis	195
CHAPTER 10 Packaging	205
CHAPTER 11 And, what is next?	221
References	241
Index	247