

The background of the book cover is a close-up photograph of a microelectronics circuit board. The image is heavily stylized with a blue color cast and a high-contrast, almost abstract pattern of circuit traces and components. The text is overlaid on the upper right portion of this image.

OWEN BISHOP

Microelectronics

Systems
and
Devices

Surinaree University of Technology



31051000613261

Contents

Preface	vi
----------------	-----------

Section A – The Hardware

1	Systems in action	1
2	The CPU	18
3	Memory	41
4	Inside the CPU	55
5	Interfacing	70
6	Planning the system	96

Section B – The Software

7	Instructions	107
8	High-level languages	122
9	Mnemonics	133
10	Input and output	145
11	Structured programs	168
12	Programming projects	193

<i>Answers to questions</i>	208
-----------------------------	------------

<i>Index</i>	211
--------------	------------