

# Contents

Advisory Board for the Series .....	vii
Contributors .....	ix
Foreword	
<i>Riccardo Petrella</i> .....	xi
Series Preface	
<i>Bernhard Wilpert</i> .....	xiii
Preface .....	xv
Acknowledgements .....	xvii
Abbreviations .....	xix
 <b>Section 1: Overview and ‘Predicted Trends’ Towards the ‘Flexible Factory’</b>	
Chapter 1. Introduction <i>Werner Wobbe</i> .....	3
Chapter 2. Integrated Technical Concepts: Towards the Fully Automated Factory <i>Hans-Jörg Bullinger</i> .....	15
Chapter 3. Flexibility as Managers See It <i>Nigel Slack</i> .....	33
Chapter 4. Changing Concepts of Work and Qualifications <i>Michael Schumann</i> .....	49
Chapter 5. Qualification and Skill Requirements <i>Alain d’Iribarne</i> ..	61
 <b>Section 2: Conditions Which Make Flexible Production Work</b>	
Chapter 6. Organisation and Integration of Production Systems <i>Bill Haywood and John Bessant</i> .....	75
Chapter 7. Process-related Skills: Future Factory Structures and Training <i>Rainer Schultz-Wild</i> .....	87
Chapter 8. Technocentric–Anthropocentric Approaches: Towards Skill-based Manufacturing <i>Peter Brödner</i> .....	101
Chapter 9. Design for Human–Machine Interfaces <i>J. Martin Corbett</i> .....	113
Chapter 10. Strategic Options for CIM Integration <i>Gunter Lay</i> ....	125

### Section 3: Selected European Perspectives

Chapter 11.	A European Overview of Work and Vocational Training <i>Arndt Sorge</i> .....	147
Chapter 12.	Technical Projects and Organisational Changes: Flexible Specialisation in Denmark <i>Peer Hull Kristensen</i> .....	159
Chapter 13.	Flexible Manufacturing Systems and Cells in the Federal Republic of Germany <i>Jutta Fix-Sterz, Gunter Lay, Rainer Schultz-Wild and Jürgen Wengel</i> .....	191
Chapter 14.	The Diffusion of Programmable Automated Systems and its Work and Training Implications in the Netherlands <i>Rob Bilderbeek</i> .....	213
Chapter 15.	A European View of Advanced Manufacturing in the United States <i>Werner Wobbe</i> .....	227

### Section 4: Strategic Management Applications

Chapter 16.	The Factors behind Successful Technology Innovation <i>Martin Lockett</i> .....	239
Chapter 17.	Managing Advanced Manufacturing Technology <i>Adrian Campbell and Malcolm Warner</i> .....	253
Index .....		265