

# Preface

'System' is a word in constant use. We talk of the solar system and the monetary system of Europe, the public address system of a football stadium and the air traffic control system over Spain, the education system of our district and the computer system of the local high street bank, the criminal justice system of the UK and the digestive system of a baby, the weather systems over the North Atlantic and a health care system for the children of Africa. The term 'system' is a notion applicable to things natural and man-made, tangible and abstract. Some systems are simple but most are complicated, giving rise to complex problems whose solution calls for large teams of experts drawn from many different specialist disciplines.

This book is for all those who want to understand systems.

To meet the challenge of today's problems, specialists frequently have to collaborate with members of other professions and manage multidisciplinary teams. This book is an introductory text for practitioners in business, management, computing, science and engineering who wish to widen their horizon beyond their own field of specialization, seeking understanding of systems to become professional problem solvers.

The book also serves as an introduction for students on business, computing, science and engineering courses who, during their working life, will be called upon to deal with systems problems and aspire to become the professional problem solvers of the future.

The contents of the book are distilled from commercial, industrial, research, management and consultancy practice, but examples in the text are simple, drawn from everyday life. They seek to illustrate basic principles and concepts rather than presenting solutions to real problems; detailed understanding of the problem areas themselves is not required.