Modelling in Medicine and Biology VII

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Preface

This Volume contains copies of most of the papers presented at the 7th International Conference on Modelling in Medicine and Biology (BIOMED/07), which took place at the Wessex Institute of Technology Campus in the New Forest, UK. Participants in BIOMED/07 were able to appreciate the facilities of WIT and the type of work carried out by the Institute.

The Conference has now become a well-established forum for the dissemination of the latest research and applications in this important field. It started in Southampton in 1991 and has since been held in various locations, including Ljubljana, in 2003 and Bologna in 2005.

The success of the conference is the result of focusing on the interaction and collaboration between mechanical scientists and engineering scientists. The advances born of that cooperation have produced substantial progress in health care and in the quality of life of the population. Computer models in particular have been increasingly successful in simulating biological phenomena. Another important contribution due to the wide availability of computational facilities is the ability to process massive amounts of data.

These topics are covered in this book, with the papers divided into the following sections:

- Cardiovascular systems
- Biomechanics
- Computational fluid dynamics
- Intracranial pressure dynamics
- Exposure to electromagnetic fields
- Skin and membranes
- Data acquisition and analysis
- Computer simulation
- Orthopaedics and bone mechanics

The Editor is grateful to all delegates for their participation in the Meeting and in particular to those members of the International Scientific Advisory Committee who helped to review the papers published in this book.

The Editor
New Forest, 2007

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