Preface

There is a tremendous interest among researchers for the development of virtual, augmented reality and games technologies due to their widespread applications in medicine and healthcare. To date the major applications of these technologies include medical simulation, telemedicine, medical and healthcare training, pain control, visualisation aid for surgery, rehabilitation in cases such as stroke, phobia, trauma therapies and addictive behaviours. Many recent studies have identified the benefits of using Virtual Reality, Augmented Reality or serious games in a variety of medical applications.

This research volume on *Virtual, Augmented Reality and Serious Games for Healthcare* offers an insightful introduction to the development and applications of virtual and augmented reality and digital games technologies in medical and clinical settings and healthcare in general. It is divided into six parts. Part I presents a selection of applications in medical education and management using virtual, augmented reality and visualisation techniques. Part II relates to nursing training, health literacy and healthy behaviour. Part III presents the applications of Virtual Reality in neuropsychology. Part IV includes a selection of applications in motor rehabilitation. Part V is aimed at therapeutic games for various diseases. The final part presents the applications of Virtual Reality in healing and restoration.

This book is directed to healthcare professionals, scientists, researchers, professors and undergraduate/postgraduate students who wish to explore the applications of virtual, augmented reality and serious games in healthcare further.

We thank the authors and reviewers for their contributions. The assistance provided by the editorial team of Springer-Verlag is acknowledged.

Minhua Ma
Lakhmi C. Jain
Paul Anderson