Advances in Applied Digital Human Modeling

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Preface

This book, Advances in Applied Digital Human Modeling, is concerned with human modeling, biomechanics and Simulation. The benefit of this area of research is to aid in the design of systems. Human modeling and simulation can reduce the need for physical prototyping and incorporate ergonomics and human factors earlier in design processes. These models provide a representation of some human aspects that can be inserted into simulations or virtual environments and facilitate prediction of safety, satisfaction, usability, performance and sustainability. These may consider the physiological, cognitive, behavioral, emotional and environmental aspects. The math and science provides a foundation for visualizations that can facilitate decision making by technical experts, management or those responsible for public policy.

Explicitly, the book contains the following subject areas:

I. Digital Human Modeling and Work Design
II. Digital Human Modeling and Human Factors
III. Digital Human Modeling Applications
IV. Ergonomics in Fashion Industry

Each of the chapters of the book were either reviewed by the members of Scientific Advisory and Editorial Board or germinated by them. Our sincere thanks and appreciation goes to the Board members listed below for their contribution to the highest scientific standards maintained in developing this book:

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