Preface

Special issue on “Bioengineering in Sports”

Various sports activities are drawing attention in Japan since the Tokyo 2020 Olympics and Paralympics will be held. Sports activities are also important for aging societies to maintain healthy life. For the sports activities, there are many problems to be solved by engineering. For example, players use various kinds of tools and equipment, which are designed by using engineering and technology. Players' bodies and motions also can become the research targets of the mechanical engineering. This special issue on “Bioengineering in Sports” aims to compile the state-of-the art research papers related to bioengineering in sports. The research topics of the papers cover wide area, such as, modeling of sports prostheses, sports motion analysis, temperature variation at the interface between snow and ski, and stroke optimization for swimmers with unilateral transradial deficiency.

It should be noted that this special issue was compiled as the first collaborative joint issue for the Bioengineering Division and the Sports Engineering and Human Dynamics Division of the Japan Society of Mechanical Engineers (JSME-BED and JSME-SHD). We believe that this joint issue becomes the auspicious first step of closer collaboration in future for the two Divisions.

Finally, we would like to express our sincere gratitude to all of the authors and reviewers for their excellent contributions and for making this special issue fruitful. We are also thankful for the JBSE editorial office as technical assistances.

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