Special Issue

Human Biomechanics and EMG Signal Processing

Message from the Guest Editors

Human biomechanics represent a well-established research field, in which medical and engineering expertise join forces to reach an enhanced comprehension of the human movement genesis. In this field, muscle activity plays a crucial role. On the one hand, the coordinated activation of muscles is the basis for human motion generation; on the other hand, impaired muscle activation leads to poor movement performance and disability. Thus, this Special Issue aims to bring together cutting-edge research at the intersection of human biomechanics and EMG signal processing for enhancing the understanding of how muscles interact to generate movement, and how biomechanical and EMG data can be utilized to improve health, rehabilitation, and human–machine interactions. We invite researchers to submit manuscripts concerning the following topics:

- Musculoskeletal modeling and simulation;
- Gait analysis and rehabilitation;
- Neuromuscular control of movement;
- Advanced EMG signal processing technique;
- Biomechanical applications in ergonomics;
- Integration of biomechanics and EMG for human–machine interfaces.

Guest Editors

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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