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Recent Studies of Human Limbs Rehabilitation Using Mechanomyography Signal: A Survey
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Abstract

In rehabilitation and medical offices, mechanomyography (MMG) is a noninvasive, painless technology that can be applied for a number of goals. The goal of this study is to present a thorough overview of recent studies on mechanomyography-based human limb rehabilitation. The present study illuminates the utilization of distinct transducers, including accelerometers, piezoelectric contact sensors, and condenser microphone sensors. Furthermore, it underscores the diverse results that these investigations have yielded. The main findings of this review, which apply to all of these forms of mechanomyography sensors, are that the ratio of sensor mass to muscle mass under observation is the most crucial factor in sensor selection. Therefore, it is believed that accelerometers are the most trustworthy devices for spotting MMG signals during both voluntary and induced muscular contractions. © The Author(s), under exclusive license to Springer Nature Singapore Pte Ltd. 2024.

Author Keywords

Mechanomyography sensor; Muscle spasticity; Rehabilitation

Index Keywords

Muscle; Condenser microphone, Human limbs, Limb rehabilitation, Mechanomyography, Mechanomyography sensor, Microphone sensors, Muscle spasticity, Piezoelectric contact sensor, Sensor mass, Spasticity; Accelerometers

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