

A review of surface EMG in clinical rehabilitation care systems design

ABSTRACT

Surface electromyography in clinical rehabilitation care systems are widely used in the rehabilitation center. Basically, it is used to record the electrical activity generated from the motor units. sEMG has not yet been fully successfully implemented in clinical practice due to several issues. The reliability of clinical signal extraction is still being discussed among researchers. In this review article, the electromyography, electrodes, features of the signal, noises and artifacts, classification, and the designs were deliberated. The enhancement of EMG signal analysis is essential to contribute a further description of the signal. There are many useful clinical applications related to sEMG that has been developed. However, the sEMG amplitudes still lack of study. Therefore, emphasis on sEMG amplitudes and related study can help improve the quality of the clinical applications and quality of life.