

BACHEROL THESIS ABSTRACT

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Oponent:

Title of bachelor thesis: *Motion monitoring of paretic upper extremity using an accelerometer in terms of physiotherapy – search work*

Abstract:

The theme of the bachelor's work is Movement Monitoring of Paretic Upper Limb Using the Accelerometer in Terms of Physiotherapy. This work is a theoretical work.

The theoretical part briefly deals with problems related to stroke, disorder of muscle tone, spasticity and its impact on the function of the upper limb. Further, the motion sensor - accelerometer is described, whereby monitoring of the paretic upper limb was carried out, and its use in clinical and non-clinical practice. The work also deals with other types of sensors that detect physical activity.

The next part of the bachelor's work includes project methodology of motion sensor WMS4 development, which is in progress at the Clinic of Rehabilitation Medicine (KRL), 1st Medical Faculty of the Charles University in Prague in cooperation with the company Princip a. s. and General Health Insurance Company (VZP). The patients for this project were chosen on the basis of preliminary criteria. During the rehabilitation in the daily stay hospital of the Clinic of Rehabilitation Medicine (KRL), they were monitored using a three-axis accelerometer.

The aim of the work is to summarize and elaborate the problems, and to provide the acquired information for the current and forthcoming Master's work of the occupational therapy student.

Key words: accelerometer, stroke, spasticity, upper limb, central paresis