

Process and feedback oriented platform for home-based rehabilitation based on depth sensor technology

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ABSTRACT

In this paper a game-based rehabilitation platform for home usage, supporting stroke and COPD rehabilitation is presented. The main goal is to make rehabilitation more enjoyable and easily accessible for the patients. The platform provides facilities for creation of individualized plans for each patient with a program of game-exercises planned by the patient's caregiver through a web-based planning service. The games are based on specific motion patterns designed in collaboration with rehabilitation specialists. Motion regulations and guidance functions are implemented specifically for each exercise to provide feedback to the user and to ensure proper execution of the desired motion pattern. The caregiver can follow the progression of the rehabilitation and interact with the patient by video conferencing through the web-based service.

Full papers will be published in the Conference Proceedings and will be freely available to delegates at the conference and online on September 20, 2016.