



A natural language based



Information Society
Technologies

system for the assessment of the impairments in patients with stroke: the ALLADIN project

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Országos
Orvosi
Rehabilitációs
Intézet



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Problem: Neuro-disability is one of the most important healthcare challenges of the future. Europe is confronted with over 920,000 new stroke cases a year, often resulting in very severe levels of disability. It is difficult for physiotherapists to exchange information on recovery of neurological patients, because no clear standards are in use. A universal coding system that is independent from therapeutic approach is required.

Objective: To develop a user-friendly language based decision support software in neuro-rehabilitation, in particular in stroke.

Methods/steps:

To develop a 48 channel force/torque measuring instrument that samples data about the performance of activity of daily living in 300 stroke patients during 24 weeks at 32 repetitions.

To record natural language assessment of the same patients with the same periodicity made by blind English language physiotherapists or occupational therapists.

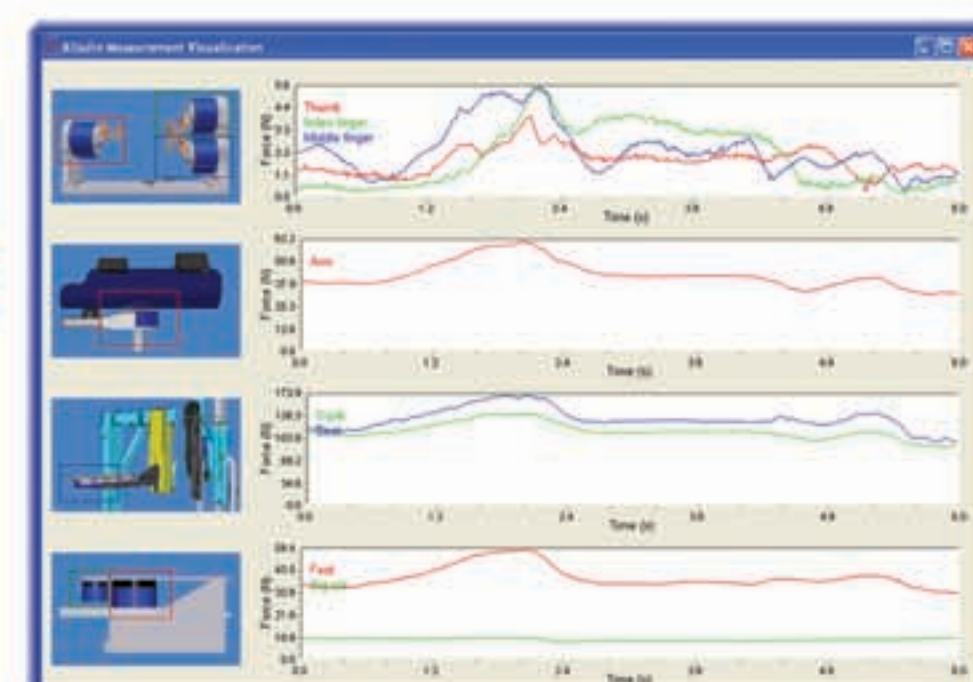
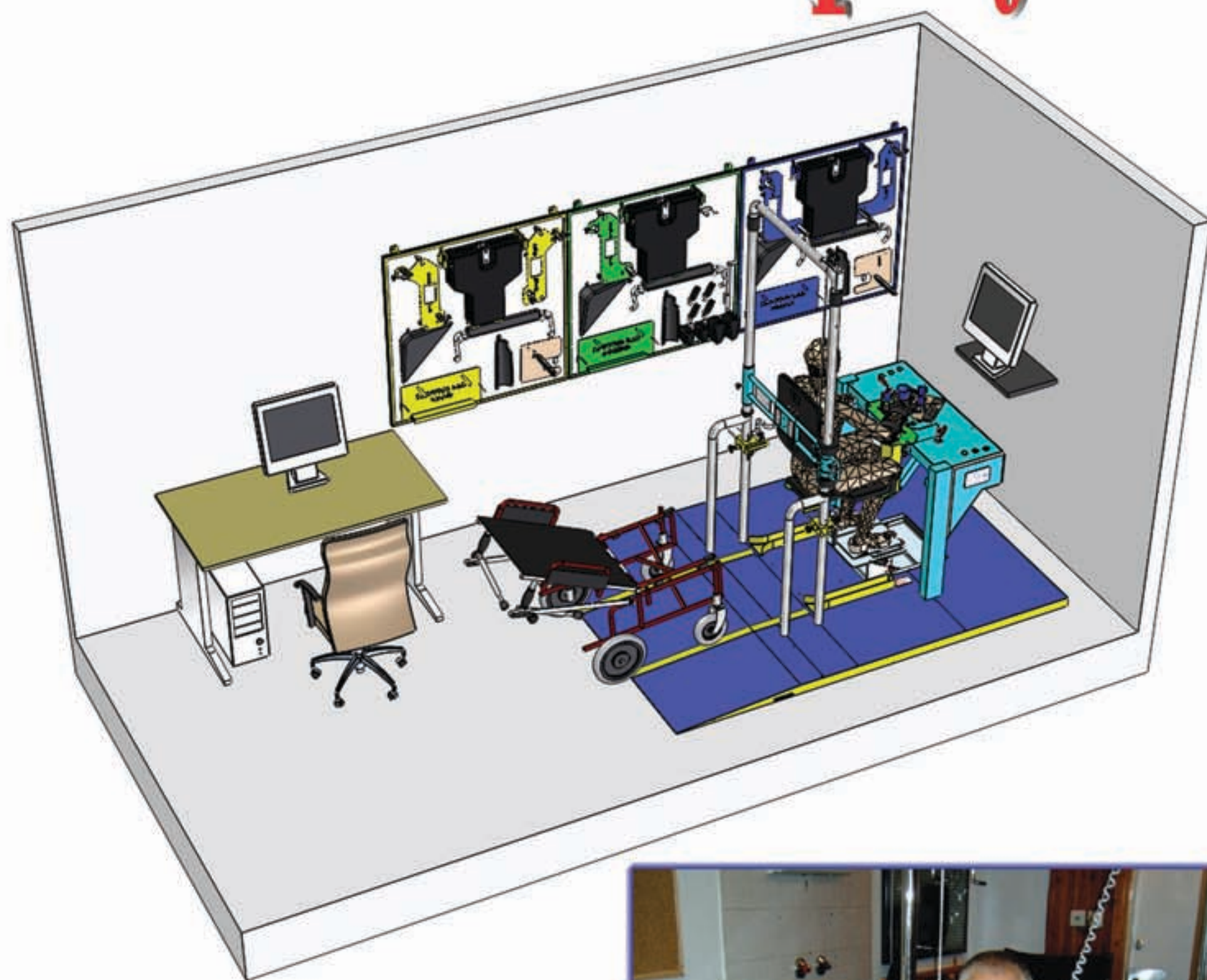
To find evidence based indicators during stroke recovery by using statistical methods and data mining techniques on the sampled data.

To link the rehabilitation specific taxonomy with language based descriptions. This means the development of an ontology-based coding system for the context of stroke rehabilitation.

To integrate the ALLADIN software with a Hospital Information System.

To validate the system for health care management in neuro-rehabilitation.

Expected innovations: As a result ALLADIN means a firm support for rehabilitation specialists and healthcare policy makers because it structures a continuum of services, each time addressing the changing needs of a patient during the difficult process of rehabilitation. It streamlines decision making on the suitable therapy and optimizes cost and resource planning within the healthcare system.



Website:
www.alladin-ehealth.org

This work is sponsored by the European Commission's 6th Framework Programme (IST-507424). The project partners are: Arteveldehogeschool (B), Language and Computing NV (B), Budapest University of Technology and Economics (HU), Faculty of Electrical Engineering, University of Ljubljana (SI), Zenon SA, Robotics and Informatics (EL), University of Wales Cardiff (UK), Multitel ASBL (B), Trinity College Dublin (IRL), National Institute for Medical Rehabilitation (HU), Scuola Superiore Sant'Anna (I).