Technische Universität Berlin
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Fachgebiet Regelungssysteme
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Vortragsankündigung

Seminar Regelungssysteme LV 0430L654

Mittwoch, 24. Oktober 2012, 10:30 Uhr
Vortragsort: EN 223

Dr. Christopher Freeman
University of Southampton, United Kingdom

"Upper Limb Stroke Rehabilitation using Electrical Stimulation & Robotics: Open problems in control, identification, sensing and motor learning"

Over the last 7 years Dr Freeman and colleagues at the University of Southampton have pioneered the use of advanced control strategies to increase the effectiveness and scope of novel upper limb stroke rehabilitation technologies involving electrical stimulation and robotics. This addresses an urgent need for assistive and therapeutic technology for people with long term conditions that are the biggest users of the UK's National Health Service. The team has shown these technologies have significant clinical effectiveness and the stage in which they can be transferred into patients' own homes is rapidly approaching. This seminar provides an overview of current research into electrical stimulation and robotics, and discusses open control, identification, sensing and motor learning problems that must be solved to maximise its effectiveness and allow it to reach the end user.