

Kolloquium

Biomedizinische Technik und verwandte Gebiete

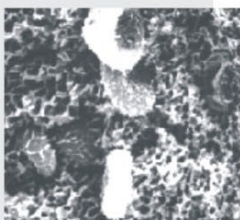
Wintersemester 2023/2024

Tag, 23.01.2024, 14:00- 15:00 Uhr

Prof. Dr. Robert Riener

Sensomotorische Systeme, Departement für Gesundheitswissenschaften
und Technologie (D-HEST), ETH Zürich

(Moderation: **Univ.-Prof. Dr.-Ing. Heike Vallery**, Institut Regelungstechnik
(IRT) der RWTH Aachen)



„Evolution of Robot-Patient-Therapist Interaction in Rehabilitation“

Abstract:

Robots can restore movement abilities of upper and lower limbs. As training devices, they can promote neurorehabilitation after neurological injuries such as spinal cord injury (SCI), traumatic brain injury or stroke. As assistive devices, they can support patients or elders with gait impairments in daily life situations. This talk will present the first rehabilitation devices that were controlled by human operators before the first open-loop and closed-loop devices were developed. Then, the talk will highlight new intention detection strategies, patient-cooperative controllers, and controllers that even include the mechanical interactions of the therapist. It concludes with a visionary outlook of future rehabilitation technologies.

Veranstalter: Direktorium des Helmholtz-Instituts für
Biomedizinische Technik der RWTH Aachen

Ort: Institut für Regelungstechnik
der RWTH Aachen (Bauteil 3B, 1 OG, Raum 052)
Boulevard 30, 52074 Aachen

Koordination: Univ.- Prof. Dr.-Ing. Klaus Radermacher
Lehrstuhl für Medizintechnik, RWTH Aachen

Kontakt: meditec@hia.rwth-aachen.de; Tel.: +49-(0)241-80 23870