

Press Release

Rehab Initiative

ETH plans competence centre for holistic rehabilitation

Zurich, 6 November 2019

ETH researchers are planning to partner with clinics, foundations, public authorities and other institutions through a broad-based initiative aimed at improving the quality of life and participation of people with physical disabilities. The initiative focuses on a centre that will be a nexus of ETH expertise with up to eight new professorships and a new Master's programme.

The experience of Cybathlon 2016 – a competition in which people with disabilities solve everyday tasks using state-of-the-art technological assistive systems – changed Robert Riener's perspective on rehabilitation for people with physical disabilities. "I discovered that the actual needs of people with disabilities do not feed into the development of assistive technologies enough, and conversely that major research discoveries aren't finding their way into practical applications," says Riener, Professor for Sensory-Motor Systems at ETH Zurich and Balgrist University Hospital. Yet in-depth knowledge about the effects of prevention, therapy and training is fundamental to improvements in these areas. For this reason, ETH now has plans to make a significant difference in this area through its research and technology transfer.

A broad-based initiative

Riener's vision of integrated, holistic rehabilitation has now taken shape in the broad-based Rehab Initiative. The heart of the initiative is a new competence centre, where researchers from various disciplines can work together with patients, doctors, companies and disability organisations.

"The Rehab Initiative focuses on the person, and disabled people themselves are involved in the research right from the outset. At the same time, the initiative builds on a broad foundation of scientific expertise and also addresses aspects of teaching and knowledge transfer," emphasises ETH President Joël Mesot. ETH is in an excellent position to do just that. Today, a third of the professors in various departments work directly or indirectly in medical research, along with experts in other fields, such

as computer science, robotics, the humanities, health economics and architecture. The task is to better integrate this expertise and make it available to other partners in the field.

Four new professorships already established

In addition to the competence centre, ETH is also planning to boost research in this area through the introduction of its new Rehabilitation Science and Technology Master's programme and up to eight new professorships. Funding has already been secured for four of these; for example, the Wilhelm Schulthess Foundation is contributing 10 million Swiss francs to the planned professorship for data science in personalised health. The Stavros Niarchos Foundation (SNF) will provide a CHF 10 million grant for a professorship in the area of barrier-free and inclusive architecture, named the professorship in Architecture and Care. Both foundations are also partners in Cybathlon, which will take place for the second time on 2 and 3 May 2020. Two additional professorships – for mobile health systems and healthy ageing – will be funded by ETH Zurich. Another four professorships are planned in the following areas: economic evaluation of health programmes and technologies, disability and health technology in society, human wound healing, and personalised health care for spinal cord injury. The ETH Foundation is currently seeking additional partners to provide kick-start funding for these areas.

In the long term, the research results should benefit primarily people with physical impairments, accident patients and the elderly. At the same time, ETH researchers also want to contribute to the discovery of economically feasible solutions in this area.

Further Information

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