

# PRESS RELEASE

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## Massive Open Online Course for optimized patient care

**At OTWorld, the largest international trade fair with a specialist congress for manufacturers, retailers and service providers in the modern supply of prosthetics an orthotics, researchers are presenting an online course for interdisciplinary patient care. An international pilot project has shone a light on how rehab support for leg amputees can be improved.**

“Amputation is a traumatic experience that places the patient under huge mental and physical strain. How well they cope with this situation depends to a great extent on how long it takes before they are able to start socializing and working again,” comments Dr. med. Urs Schneider, Head of Biomechatronic Systems at Fraunhofer IPA. “If everything goes well, the patient can get used to walking again with the help of an interim prosthesis just a few days after the amputation and can get back to something approaching normality after just a few months. However, for this to happen, doctors, physiotherapists and ergotherapists, orthopedic technicians, medical technology engineers and health insurance administrators all need to work closely together. Unfortunately, this is rarely the case.”

Schneider is speaking from experience. The doctor and orthopedic rehabilitation specialist has been working in the field of amputation research for 20 years. His conclusion: “In most cases, valuable time is lost due to the lack of coordination between the attending doctor and service providers.” To ensure that patients can get back on their feet quickly again (in the truest sense of the word), Schneider and an international team of researchers and teachers have now developed an online course in which the professional groups involved are able to learn from each other.

### **Cooperation: that's the ticket**

“Successful cooperation requires that you think of the big picture: You have to know which people bring which skills to the table, how individuals like to work and what tasks they have to complete,” Schneider explains. “Only when you have this information can you work together as equals.” So far, however, this knowledge has not been imparted in the various medical, technical and therapeutic professional training courses.

Schneider's free online course should now fill this gap in the market. The pilot project will be presented at the congress of the international trade fair OTWorld (Trade Fair Leipzig, May 10–13, 2022).

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In the English-language course videos, which will be accessible via the trade fair website from mid-May onwards, experts from all professional groups involved at leading amputation centers in Germany, El Salvador, Thailand and the USA have their say. In addition, there are keynote speeches that, for example, highlight the role of peers in hospitals: Amputees who have recovered from a procedure themselves pay a visit to newly operated patients and support them in communicating with the attending doctors and treatment professionals. The course program will be available online for a period of two years. Anyone that watches all the contributions will receive a certificate of participation at the end of the process.

“We deliberately chose the Massive Open Online Course format as this allows huge numbers of people to take part and does not implement paywalls or other access limitations. In this way, we are aiming to reach young people in particular who are at the beginning of their careers and have little money, but are highly motivated to do their best for their patients,” explains Schneider, who is not only the initiator of the project, but also a member of the planning committee for OTWorld.

The pilot project is to be evaluated in time for the next OTWorld in 2024. “If we come to the conclusion that this new learning tool has proven its worth, we will look to expand the course offering”, Schneider assures. “There are still a great deal of opportunities to take advantage of through interdisciplinary collaborations that could improve patient care – for example in the treatment of strokes or paraplegia.”

Further information:

<https://www.ot-world.com/kongressprogramm/otworld/8585>



**Chairman of the Massive Open Online Course (MOOC):  
Dr. med. Urs Schneider from the Fraunhofer Institute for  
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With nearly 1200 employees, the **Fraunhofer Institute for Manufacturing Engineering and Automation**, Fraunhofer IPA, is one of the largest institutes in the Fraunhofer-Gesellschaft. The total budget amounts to € 82 million. The institute's research focus is on organizational and technological aspects of production. We develop, test and implement not only components, devices and methods, but also entire machines and manufacturing plants. Our 19 departments are coordinated via six business units, which together conduct interdisciplinary work with the following industries: automotive, machinery and equipment industry, electronics and microsystems, energy, medical engineering and biotechnology as well as process industry. The research activities of Fraunhofer IPA aim at the economic production of sustainable and personalized products.

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