Open House at the Workshop of Digital Medicine

To celebrate the opening of the institute’s new building, Fraunhofer MEVIS is hosting a virtual event on June 18.

It took more than six years to plan and build, but now the new building of the Fraunhofer Institute for Digital Medicine MEVIS on the campus of the University of Bremen is completed. To celebrate the inauguration, the institute opens its doors, albeit only virtually due to the current pandemic. After the welcome addresses by Dr. Claudia Schilling, Bremen Senator for Science and Ports, by Alexander Kurz, Executive Vice President Human Resources, Legal Affairs, and IP Management of the Fraunhofer-Gesellschaft, as well as by Prof. Dr. Bernd Scholz-Reiter, President of the University of Bremen, Fraunhofer MEVIS will present a sample of its current research activities. The online event will take place on Friday, June 18, from 2 to 5 pm. The event will be held in German, although the plenary session will be simultaneously interpreted into English, and some presentations will be given in English. Anna Stankiewicz (violin) and Elena Tomarchio (violoncello) from the Konsonanz chamber ensemble provide musical contributions.

Fraunhofer MEVIS is dedicated to what is most likely the biggest challenge in healthcare - the digital transformation in medicine. The flood of image and lab data and the increasing number of therapy options provide numerous new opportunities, but simultaneously increase the complexity of the everyday routines at clinics and medical practices. To manage this complexity successfully, the institute is developing novel computer methods, such as those using artificial intelligence and decision support. They are designed to combine all relevant information, make diagnosis and therapy more efficient, and decrease side effects. The target is precision medicine that offers customized patient-specific solutions.

The new institute building on Max-von-Laue-Str. provides an ideal setting for such research. It is designed as a workshop for digital medicine, where innovative software tools are developed, and where a broad range of people can imagine the future of medicine - from experts, scientists, and clinicians to children, young adults, and school teachers. The new building offers space for 210 employees spread across four floors. The building’s architecture is based on a cellular structure of three interlocking, organically shaped volumes. Transparency is ensured through glass walls, and communication zones invite for spontaneous meetings. The new location moves Fraunhofer MEVIS even closer to the University of Bremen, with which it has been associated since 2016 as part of the U Bremen Research Alliance. The building also serves as a forum for joint workshops, teaching and lectures, and other events.

During the “Online Open House” on June 18, Fraunhofer MEVIS will present an overview of its current work and research topics. For instance, the MEVIS team is developing a software platform that integrates all essential AI programming steps and thus facilitates collaboration between AI experts, computer engineers, and medical professionals. Adaptive algorithms promise valuable use cases in clinics and medical practices. For example, digital diagnostic assistants can execute time-consuming routine tasks or provide valuable prognoses about therapeutic success. A further example is a new method supported by AI to perform follow-up checks on tumor treatments at higher speed and accuracy. By comparing prior-to-current CT or MRI images, the algorithm can accurately measure how much a tumor has shrunk in the course of chemotherapy. MEVIS researchers will also show a method that compensates
breathing motion during minimally invasive liver cancer therapy with focused ultrasound. Only this can ensure that pulses of focused ultrasound correctly hit the ulcer and avoid the healthy tissue that surrounds it.

Details on the agenda and online access can be found at https://www.mevis.fraunhofer.de/en/events/2021/online-open-house.html. Parallel to the technical presentations, members of the MEVIS team will answer questions in our virtual lobby, which is also reached via our website.

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