**OTWorld**

**International Trade Show and World Congress**

**(14 to 17 May 2024)**

Leipzig, 06 October 2023

**International Expert on Artificial Intelligence and Robotics To Hold a Keynote Speech at OTWorld 2024**

**Every two years, OTWorld brings together a who's who of technical orthopaedics and offers a platform for cutting-edge innovations and visionary ideas. Highlights of the World Congress include four keynote speeches by renowned experts. The first keynote speaker at OTWorld 2024 has now been confirmed. Prof Claudio Castellini is a professor of assistive robotics at the Universität Erlangen-Nürnberg and will be sharing his research findings on artificial intelligence and assistive robotics.**

In his keynote address entitled "Co-adaptation: the key to a new generation of assistive robots", Prof Claudio Castellini will shed light on the challenges and opportunities that assistive robotics present to patients with motor disorders. His talk will illustrate how co-adaptation ‒ the process by which users and robots adapt to each other ‒ is the key to improving the acceptance and efficacy of assistive robots. He will take an in-depth look at the significance of intention recognition, somatosensory feedback and structured human-robot interaction.

**Research on Human-Machine Interface Technology for Advanced Arm Prostheses**

Prof Castellini, who heads the Assistive Intelligent Robotics Lab at the Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), is an expert in the field of human-machine interaction and applied machine learning. His vision is to couple artificial intelligence more closely with human intelligence in order to improve human quality of life. "Artificial intelligence is incredibly popular right now. It can solve problems that were unsolvable in the past. However, it sometimes produces spectacular failures. At the same time, there's still something about it that feels very alien. My vision is that AI will become closely aligned with human intelligence ‒ an AI needs to learn from humans as they go about their daily tasks and then adapt to human needs and desires", Prof Castellini explains.

A focus of his research is on improving arm prostheses and developing interfaces that give amputees precise control over their prostheses. "The main problem in a functional arm/hand prosthesis is always the control system or in other words, the human-machine interface", Prof Castellini points out. "The prosthesis must be user-friendly and easy to operate. For this, it has to learn what it needs to do, day in and day out. This is the essence of human-machine interaction which has to be carefully studied, planned and designed in order to provide the best possible user experience and ultimately deliver a device that users can control perfectly".

**About the Speaker**

Claudio Castellini conducts research in the field of medical robotics with a focus on rehabilitation and assistive robotics, human-machine interfaces and interaction as well as applied machine learning. He is currently a professor of assistive robotics at the Universität Erlangen-Nürnberg and a senior researcher at the Institute of Robotics and Mechatronics of the German Aerospace Center (DLR). Claudio Castellini has (co)authored nearly 150 scientific papers and is involved in numerous research projects and committees.

**About OTWorld**

OTWorld is the largest leading international industry platform for all manufacturers, distributors and service providers in the field of modern orthopaedic treatment and care. The OTWorld International Trade Show and World Congress offers a unique range of products and services aimed at technicians in orthopaedics, orthopaedic footwear and rehabilitation as well as therapists, doctors, engineers, medical retail professionals and employees from health insurance companies. The German Association of Orthopaedic Technology (BIV-OT) is OTWorld's conceptual partner. The holder of the OTWorld brand and organiser of the Congress is Confairmed GmbH. Leipziger Messe GmbH is responsible for the industry trade show. The next OTWorld will take place from 14 to 17 May 2024 in Leipzig.

**About Leipziger Messe**

Leipziger Messe is one of the ten leading German trade fair companies and one of the top 50 worldwide. It organises events in Leipzig and at various locations all over Germany and abroad. With its five subsidiaries and the Congress Center Leipzig (CCL), Leipziger Messe is a comprehensive service provider covering the entire chain of the events business. It is due to this level of professionalism, that customers and visitors in 2022 voted the Leipziger Messe the service champion of the trade fair industry in Germany's largest service ranking for the ninth time in a row. The Leipzig fairgrounds comprise an exhibition area of 111,900 m² and an open-air exhibition area of 70,000 m². Every year, over 270 events take place – from trade fairs, exhibitions and congresses to events. Leipzig was the first German trade fair company to be certified according to the Green Globe standards. Sustainability is a recurring theme in the Leipziger Messe's corporate activities.

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