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Press Release

munich_i Hightech Summit

Megatrends in robotics and AI

- **Featuring international visionaries from research and industry**
- **In focus: interaction between human and artificial intelligence**
- **Knowledge transfer, exchange of experience, and networking**

How can robots take AI-based decisions and how do they communicate with each other as they do so? What is the role of 6G in this? What's in the pipeline of globally leading companies such as Google DeepMind, Meta, Microsoft, or Nvidia in terms of generative AI in robotics and big data? And how will this combination of robotics and AI impact medical technology?

These questions will be answered at the munich_i Hightech Summit, a top-level AI and robotics event, on Tuesday, June 24, 2025 in Hall B4. Under the theme of 'Intelligence empowering tomorrow', 15 world-renowned research and industry experts will shed light on visionary developments and emerging technology.

Session 1: Autonomy and Interaction in Robotics

The first session at the Hightech Summit will, among other things, take a closer look at human-robot interaction. Prof. Seth Hutchinson, Northeastern University (USA), provides an overview of safety requirements for robotic systems working closely with humans – such as in nursing and geriatric care – and presents results on how to safely control such manipulators.

Prof. Antonio Bicchi, IIT & University of Pisa (Italy), focuses on transforming human-robot interaction to human-robot integration: In this context, a robot can be thought of as a type of physical 'prosthetic device' fitted with extensive sensor technology. It is smart enough to 'guess' what humans want and acts accordingly.

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The Honda Research Institute Europe presents ‘decisive’ robots that, apart from being capable of completely independent orientation, can also take action autonomously and even justify their decisions thanks to agent-based AI.

Session 2: Connectivity in Cooperative Robotics

How do robots communicate as they cooperate and take AI-based decisions together? The experts of the second session will answer this question. Dr. Corina Apachiţe heads the Artificial Intelligence department at Continental Automotive Technologies (Germany) and will outline the expected contributions of AI to achieving the grand goal of ‘Vision Zero’ – road traffic without casualties.

Prof. Frank Fitzek, TU Dresden (Germany), sheds light on the opportunities of a 6G-based network architecture that future robots will use to communicate. Such robots will have situational awareness and take smart autonomous actions.

Session 3: Generative AI in Robotics and Big Data

Session 3 is a deep dive into the opportunities of generative AI in advancing robotics as well as analysis and utilization of Big Data. First up is Dr. Francesco Nori, Head of Google DeepMind Robotics (UK). He will present Google’s activities relating to the implementation of general AI in robots, which will enable robots to take on extremely complex handling and transport tasks.

The combination of robotics with machine learning is the main field of research for Dr. Franziska Meier, scientist at Facebook Artificial Intelligent Research (FAIR@Meta, USA). Her team develops methods providing robots with true autonomy and general skills to cover a wide spectrum of applications. Dr. Katja Hofmann heads the ‘Game Intelligence Team’ at Microsoft Research (UK) in her capacity as Senior Principal Research Manager. She presents the latest findings in the development of machine learning architectures capable of effectively modelling complex 3D structures and human gameplay data.

About cutting-edge advancements in robotics through simulation speaks Dr. Yashraj Narang, Robotics Research Manager at NVIDIA Research. Leading the Simulation and Behavior Generation team within the Seattle Robotics Lab, he focuses on learned simulators, automated data generation, reinforcement learning, and sim-to-real transfer.

Session 4: Future Medical Robotics

This session provides information on how new generations of smart robots will impact on the work environment in healthcare and optimize therapy options. The research conducted by Prof. Pietro Valdastri, University of Leeds (UK), includes the development of minimally invasive surgical methods using miniaturized robots and surgical tools controlled via magnetic fields. He will share his knowledge in his lecture on ‘Livesaving soft magnetic surgical robots’.

Dr. Chiheb Dahmani, Head of Technology & Innovation for mechatronic products at Siemens Healthineers (Germany), provides an overview of current and future fields of application for robots and robotic exoskeletons in healthcare. He will also address the limits of this technology in direct contact with patients.

Reliable orientation for participants

This outlook on megatrends and their potential helps company leaders and managers with responsibilities in production, research & development, technology, and digital transformation make early arrangements for the adoption of technology that will be relevant in the future.

In addition to the Hightech-Summit, the globally unique munich_i high-tech platform has two more components: Robothon®, a collaborative challenge for developers, and the AI.Society exhibition and dialog platform. Here, visitors get to experience future uses of robotics and AI in the fields of health, mobility, work, and environment live and up close – and learn how this will impact humans. Bavarian Minister President Dr. Markus Söder takes the role of patron.

The organizers: a wealth of robotics intelligence

The Hightech-Summit is curated and organized by the Munich Institute of Robotics and Machine Intelligence (MIRMI). The institute combines under one roof the expertise of 80 chairs for various disciplines at the Technical University of Munich (TUM) and maintains cooperations with other universities and institutions.

Prof. Lorenzo Masia, Executive Director at MIRMI and Professor for Intelligent Bio-Robotic Systems at TU Munich, comments: “We have compiled a program that sheds light on central areas of AI and robotics research and provides insights into developments across promising markets such as healthcare.”

Prof. Dr. Angela Schoellig, Member of the MIRMI Board of Directors and coordinator of the Robotics Institute Germany (RIG), highlights the major software players’ striking interest in the Hightech-Summit: “We are especially pleased that, in addition to leading scientific contributions, global industry leaders will share their approaches to generative AI and engage in networking with the robotics community at munich_i.”

Tickets for munich_i are available at: munich-i.com/ticket. Benefit from the special early bird discount by May 29, 2025. A discounted afternoon ticket for the 2025 event is also available – valid from 13:00.

About automatica

automatica is the world's leading marketplace for automated smart production. It is the trend setting event for companies from all industry sectors, providing access to innovations, knowledge, and trends with a high degree of business relevance. automatica focuses and shapes the transformation of industrial production – from automated to autonomous facilities. Messe München GmbH and VDMA Robotics + Automation, conceptual sponsor of the trade fair, are behind the industry-driven concept of automatica.

Messe München

As one of the world’s leading trade fair organizers, Messe München presents the world of tomorrow at about 90 trade fairs worldwide. These include twelve of the world’s leading trade fairs such as bauma, BAU, IFAT, electronica, and ISPO. Messe München’s portfolio comprises trade fairs for capital and consumer goods, as well as for new technologies. Together with its subsidiaries, the company organizes trade fairs in China, India, Brazil, South Africa, Turkey, Singapore, Vietnam, Hong Kong, Thailand, and the U.S. With a network of more than 15 affiliated companies and almost 70 representations worldwide, Messe München is active in more than 130 countries. Each year, more than 150 events attract around 50,000 exhibitors and three million visitors in Germany and abroad.