

Technical University of Munich (TUM)

MIRMI Newsletter 2022 - April

Community

07. April 2022

Industry Advisory Board meeting was a great success!

On April 7, 2022, the biannual meeting of the Industry Advisory Board (IAB) with the Science Board took place in the interim premises of MIRMI at Georg-Brauchle-Ring. One of the highlights this time were the breakout sessions on 3 different focus topics, which for the first time also included PhD students: "Physics Informed Machine Learning", "Safe and Trustworthy Human Robot Systems" and "Collective Mobile Systems, Mobile Robot Intelligence". Stimulated by demos and short impulses, the small groups got into crisp and intense bilateral exchanges. Another new feature this time was that Industry Advisory Board members were also invited to address the audience. SAP (Franz Hero) and Continental (Gilles Mabire and Corina Apachite) presented their challenges in the area of Future of Work and Future of Mobility. The clear message: Against the backdrop of disturbed supply chains in the pandemics and megatrends such as Sustainable Development and Digitization, there are a number of technological challenges and diverse use cases that MIRMI can and should help solve with its versatile expertise.

06. April 2022

"Beautiful new man"

In its April 06, 2022 issue, the renowned Süddeutsche Zeitung tells the story and projects of Rafael Hostettler, founder of the robotics company Devanthro and external researcher at the TUM Chair of Robotics, Artificial Intelligence and Real-Time Systems. Hostettler adopted Roboy, a humanoid robot with ten fingers and ten toes that can be controlled via telepresence with virtual reality goggles. Roboy aims to solve the nursing shortage and enable the researcher to live after death. Devanthro recently moved into the Munich Urban Colab.

31. March 2022

Digital twins help improve the treatment of Acute Respiratory Distress Syndrome (ARDS)

Following many years of research at the Technical University of Munich, the start-up Ebenbuild GmbH aims to fundamentally improve the mechanical ventilation of ICU patients with ARDS and drive significant, long-term improvements in treatment outcomes. The company develops personalized simulation models of patients' lungs using patient data, such as medical images. These Digital Twins allow doctors to make sound treatment decisions by accurately picturing how mechanical ventilation will affect individual patients. The company was founded in April 2019 by Dr. Kei Müller, Dr. Jonas Biehler, Prof. Wolfgang Wall, and Dr. Karl-Robert Wichmann. Now the team secured seven-figure funding as part of a seed financing round.

25. March 2022

MIRMI's first Science Advisory Board (SAB) is complete

We are pleased to announce that the external Science Advisory Board (SAB) of MIRMI is now complete. The SAB is composed of leading experts in robotics and related disciplines who are independent of MIRMI and not directly affiliated with TUM. The SAB advises MIRMI on strategic matters, the scientific research agenda, and a mission-driven roadmap. It fosters exchange within the global research communities and supports research and innovation initiatives through strong collaboration with world-leading researchers. It is also the independent review body for applications to MIRMI Seed Funds. The SAB consists of eleven members and is chaired by Prof. Seth Hutchinson (Georgia Tech).

Events, Calls, and More

23. March 2022

Survey: Can service robots support us in our everyday lives and what should they look like?

This is the question addressed by the Robot Design and Sympathy study. Whether you have direct experience with service robots or not, you are invited to rate a colorful selection of robot models.

24. April 2022

Call for proposals – Joint Academy of Doctoral Studies with Imperial College London – cohort 2022 on Circular Economy

Technical University of Munich and Imperial College London have joined forces in a strategic partnership in education, research and innovation. As part of the partnership, TUM and Imperial have launched a “Joint Academy of Doctoral Studies” with the aim of co-developing cross-disciplinary clusters of doctoral researchers who will have access to world-leading academic supervisors and state-of-the art facilities at both institutions. The doctoral candidates will work across fields where both Imperial and TUM have taken a global lead in research, innovation and breaking down disciplinary boundaries. The cohort starting in October 2022 will focus on the theme of “Circular Economy”. Up to six collaborative research projects, with each individual project led by both an Imperial and a TUM supervisor and underpinned by two doctoral candidates (again, one from TUM and one from Imperial) will be supported. We are now calling for project proposals for this cohort.

4.-6. Juli 2022

A Nature conference on “Bioengineering Solutions for Biology and Medicine”

Together with Prof. Stephen Quake at Stanford University, Profs. Vasilis Ntziachristos and Fabian Theis at TUM and Helmholtz Munich are organizing the in-person Nature conference “Bioengineering Solutions for Biology and Medicine 2022 (BIOENG22)”, hosted by Helmholtz Munich and held from July 4-6, 2022 at the Haus der Bayerischen Wirtschaft in Munich. BIOENG22 will highlight the latest impactful innovations in bioengineering and artificial intelligence, with a focus on technologies that promise tangible solutions for urgent medical needs. In addition, the conference plans to broadcast online.

Recommended Readings

[Algorithms for Ethical Decision-Making in the Clinic: A Proof of Concept](#)

By Lukas J. Meier, Alice Hein, Klaus Diepold, Alena Buyx

[How "Garmi" is supposed to fill the gap in the shortage of skilled workers](#)

By Steffen Fründt / Welt am Sonntag

Give us feedback

Your feedback is important to us. Let us know if you have comments or recommendations at community@mirmi.tum.de

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Technical University of Munich - TUM
Munich Institute of Robotics and Machine Intelligence - MIRMI
Georg-Brauchle-Ring 60/62, 80992 Munich, Germany
www.mirmi.tum.de

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