

Technical University of Munich (TUM)

MIRMI Newsletter 2022 – Oct/Nov

Community

25. October 2022

[Fascinating lectures for young researchers](#)

Raising enthusiasm for science and instilling a passion for research is the declared objective of Munich's KinderUni children's university. The Technical University of Munich (TUM) has five lectures for KinderUni participants at the Technical University of Munich campus in downtown Munich as well as at the TUM Garching campus. The target group comprises children between the ages of seven and 12 years.

25. October 2022

[Angela Schoellig recognized with Arthur B. McDonald Fellowship](#)

Professor Angela Schoellig has earned an Arthur B. McDonald Fellowship from the Natural Sciences and Engineering Research Council (NSERC) of Canada. The award will further accelerate Schoellig's leading-edge research in developing learning and adaptation capabilities for mobile robots.

23. October 2022

[TUM / MIRMI researchers present their research at IROS 2022](#)

+70 researchers from several TUM Chairs will be presenting groundbreaking results on intelligent robots and smart machines at the 2022 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), one of the largest and most impacting robotics research conferences in the world. The conference run from October 23–27, 2022 in Kyoto, Japan. 46 publications written by different TUM Chairs affiliated with MIRMI were accepted at IROS 2022.

11. October 2022

[More than 100 visitors during the Doors Open Day](#)

LongLeif GaPa gGmbH and the Munich Institute of Robotics and Machine Intelligence (MIRMI) of the Technical University of Munich (TUM) opened the doors of the Geriatrics Research Center in Garmisch-Partenkirchen to the public on Saturday 08. October from 10:00 to 16:00. We had more than 100 visitors in six tours during the day. Among them were Garmisch-Partenkirchen Mayoress Elisabeth Koch and MdL Harald Kühn as well as members of the press. This great success is the result of teamwork within the Geriatrics team and with LongLeif and Friends of Geriatrics.

10. October 2022

[A simulation modeling an entire city state](#)

Researchers at the TUMCREATE research platform on the Singapore campus of the Technical University of Munich (TUM) have developed CityMoS – City Mobility Simulator. This concept is now supporting the city-state in southern Asia in the electrification of transportation. It is also helping to calculate the impact of transportation

on the heat generated in the city. CityMoS is already being deployed in Germany, where it is helping with the e transformation of a DHL Freight logistics terminal.

07. October 2022

robo.innovate hackathon kicked off with more than 50 talents

The robo.innovate hackathon is on Fire! More than 50 talents and industry partners joined the kick-off event of our first robo.innovate hackathon in Munich yesterday. Our partners Continental, Siemens, Infineon Technologies, omegga, and HORYZN proposed challenges, for which the teams brainstormed disruptive solutions in just a few hours! It was an incredible day and this is just the beginning. Starting today, the teams have just 4 weeks to refine their concept and prepare for the grand finale, where they will hack live from 4-6 November.

04. October 2022

Climate simulation more realistic with Artificial Intelligence

Accurately modeling extreme precipitation events remains a major challenge for climate models. These models predict how the earth's climate may change for decades and even centuries. To improve them, especially concerning extreme events, researchers now use machine learning methods otherwise applied to image generation.

21. September 2022

Additive manufacturing in-flight

An international team of researchers has created a fleet of bee-inspired flying 3D printers for building and repairing structures in flight. The technology could ultimately be used for manufacturing and building in difficult-to-access or dangerous locations such as tall buildings or help with post-disaster relief construction, say the researchers.

16. September 2022

Logistics research: from hoists to autonomous robots

Prof. Dr. Johannes Fottner, holder of the Chair of Materials Handling, Material Flow, and Logistics at the Technical University of Munich, relies on strong cooperation with industry in technical logistics. He wants to get students excited about the topic of flexible robotics.

13. September 2022

Bird's-eye view improves the safety of autonomous driving

In the Providentia++ project, researchers at the Technical University of Munich (TUM) have worked with industry partners to develop a technology to complement the vehicle perspective based on onboard sensor input with a bird's-eye view of traffic conditions. This improves road safety – also for autonomous driving.

Events, Calls, and More

06. November 2022

Hackathon grand finale on 6 November

More than 50 Robotics enthusiasts are working together on robo.innovate hackathon to solve various robotics challenges in cooperation with renowned partners like Continental, Infineon, Siemens, and start-ups like Horyzn and Omegga. Do you want to be part of when teams present their results and solutions to the jury? Do you want to get to know the growing community of roboticists around Munich? Do you want to hear about creative solutions

in pick-and-place, sensing, detection, and precise drone flying? Then register for robo.innovate hackathon finale. Participation is free of charge. The number of participants is limited. Registration is on a first-come, first-served basis. So you better sign up now! You want to know more about robo.innovate hackathon? Just check: <https://roboinnovate.mirmi.tum.de/hackathon-2022/>

11. November 2022

Digital Health Summit 2022

Health tech experts, clinicians, industry, investors, and start-ups will be there discussing disruptive ideas for the future of health! Among the speakers are MIRMI members Prof. Cristina Piazza, TUM Professor of Healthcare and Rehabilitation Robotics, and Prof. Ali Nasser, Founding director of the Medical Autonomy and Precision Surgery (MAPS) laboratory at the ophthalmology department of Klinikum Rechts der Isar at TUM. Meet them at the panel "Digital assistive technologies" on Friday 11. November at 9:30 - 10:30.

11. November 2022

MIRMI Talk: Software Engineering of Robotic Systems by Mikkel Baun Kjærgaard from SDU

On Friday, Nov 11 at 10:00 am, Prof. Mikkel Baun Kjærgaard, Professor in Software Engineering from the McKinney Møller Institute of SDU, will give examples of ongoing projects researching tactics and software technologies for the design of systems with robotic elements.

22. - 23. November 2022

Smart Living Summit

At the Smart Living Summit 2022, visitors can find out how they can proactively harness the increasing networking of Consumer IoT, Smart Home & Building, and eMobility and adequately meet the challenges of business ecosystems.

Recommended Readings, Videos, and Podcasts

How 5G mmWave is revolutionizing healthcare by bridging distances

By Financial Times (27. October 2022)

Are robots the modern doctors of the future?

By PharmaRelations (11. October 2022)

Intelligent robots for space science and planetary exploration - video

By AI for Good (29. September 2022)

[Dassault Systèmes cooperates with TUM Venture Labs: Support for the foundation of deep tech start-ups](#)

By Dassault Systèmes (28. September 2022)

[Europe's largest data observatory visualizes gene mutations](#)

By ÄrzteZeitung / Matthias Wallenfels (19. September 2022)

[Garmisch-Partenkirchen: Quantum leap in telemedicine for ultrasound diagnosis with robots](#)

By Merkur.de (04. September 2022)

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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