

Student competition COSIMA makes a stop in Kyoto: Danger warning for people with visual impairment convinces

- **Winners of the VDE COSIMA competition in 2021 and 2022 travel to iCAN in Kyoto, Japan**
- **At the international iCAN competition, young inventors from all over the world present their ideas for practical applications of microelectronics**
- **German representatives with top placements on the podium**

(Frankfurt a. M., 13.07.2023) Germany traditionally sends the winners of the COSIMA competition to the international iCAN event. This year, it was off to Kyoto in Japan, where the German teams once again performed excellently and took several top places. The students had their brilliant ideas and projects from the field of microsystems technology in their luggage: from T-shirts against back pain, aids for visually impaired people to safety systems for cyclists. In total, 23 teams with over 100 participants from all over the world took part in iCAN this year. The quality of the competition was very high, as some of the Chinese teams are already established startups with significant sales and have extensive experience.

Prototypes show practical use of microsystem sensors and actuators for everyday applications

But the COSIMA group from Germany did not need to hide: Team VFeel-System from the Technical University of Munich, which develops small aids for people with visual impairments, won one first place. Two German teams were also among the runners-up: Team T-S.H.I.R.T from the Technical University of Ilmenau, which developed a sensor-based T-shirt for orthopedic posture correction, and Team CitySenses (RADar) from the University of Applied Sciences Aachen, which developed a safety system for bicycles to detect potential dangers in road traffic. Team upGRADE from the Karlsruhe Institute of Technology, which uses a compact upgrade kit to transform a conventional stove into a temperature-controlled all-rounder, took one of the third places.

The achievements of the Orbio team from the Karlsruhe Institute of Technology and Cozy-Wash from the Albert Ludwig University in Freiburg also deserve much recognition. The Karlsruhe team presented a low-cost setup of a PCR tester. COZY-Wash presented an intelligent control system for a mixer tap to set the temperature at the tap without touching it.

First national, now international: idea for iCAN came from China

Participation in the iCAN competition also enables cultural exchange and the development of international relationships. In Kyoto, the German teams had the opportunity to visit two Japanese universities and experience everyday student life in Japan. The Japanese students are involved in practical projects at an early stage and have their own workplace at the university, where they often work up to 12 hours a day.

Since 2009, Germany has been inspiring students with its national competition COSIMA. The originally national, Chinese competition iCAN was held internationally for the first time in 2011. Right away, iCAN attracted participants from all over the world to Beijing - from the USA, Europe, Asia and New Zealand. From there, the competition was passed on to another country to host each year. In Germany, iCAN took place in 2019.

About COSIMA

The COSIMA (Competition of Students in Microsystems Applications) student competition was launched in 2009 and is organized by the VDE as a project funded by the German Federal Ministry of Education and Research BMBF. To enter the competition, student teams must demonstrate the practical utility of microsystems technology sensors and actuators for everyday applications with a working prototype. The three winning teams from COSIMA simultaneously qualify for the international iCAN competition. This was held in Kyoto in June 2023. The iCAN competition, a Chinese initiative, has been hosted for more than ten years.

"Every year, the German teams clean up and take the top places, which shows that education in microsystems technology in Germany is among the best in the world," said a pleased Dr. Ronald Schnabel, managing director of VDE/VDI-GMM and organizer of COSIMA. This year, there will also be the opportunity to participate in COSIMA and thus qualify for iCAN 2024.

Project descriptions of the individual teams (German): www.cosima-mems.de/ican-2023

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