

Innovation made in Germany: German students impress with microelectronics at international competition

- **Winners of the VDE student competition COSIMA presented their ideas for practical applications of microelectronics at the international iCANX competition in Davos**
- **The German teams achieved top rankings**
- **Pioneering work for the microelectronics of tomorrow: wearables for a healthy back, smartphone as insect bite healer, energy self-sufficient garden probe and smart shoe insole**

(Frankfurt a. M., 18.07.2024) From Germany to the international stage: every year, students impress at the university competition COSIMA (Competition of Students in Microsystems Applications) with pioneering ideas from the field of microsystems technology. Now four winning teams from Germany have also impressed at the international iCANX. From July 11 to 12, everything revolved around innovation, science, technology, investment, management and entrepreneurship in Davos, Switzerland. With a wearable for improving posture and a smartphone as an insect bite healer, the German teams beat off the competition and secured first place.

The iCANX was organized for the first time this year. A total of 14 teams with 46 students from Germany, China, Japan and Thailand competed against each other. Top-class speakers such as Nobel Prize winner Prof. Jean-Marie Lehn and the President of the Australian Academy of Sciences Prof. Chennupati Jagadish inspired the participants.

The event emerged from the former iCAN competition, which now takes place under the title "Innovation Award" within iCANX. Also new this year: for the first time, the teams were able to demonstrate their innovations in the additional "Startup Award" competition. The aim is to accelerate and promote the transfer of academic results to the global market and industry.

From national to international breakthrough

The four teams from Germany have all previously won the COSIMA competition, which is organized by the VDE as a project funded by the Federal Ministry of Education and Research (BMBF). Now they have also made an impression beyond national borders. Their participation in iCANX was also made possible with the help of sponsors Robert Bosch GmbH, Infineon Technologies AG, Volkswagen AG and Faulhaber GmbH.

The StraightUp team from the Karlsruhe Institute of Technology took first place in the Innovation Award. Jan Bartenbach, Marcus Hamann-Schroer, Erik Vautrin and their supervisor Dr. Dario Mager won with their development of a wearable for posture improvement. A sensor frame evaluates the shoulder position and provides feedback for better posture via an app. The team has already received funding to found a start-up for this innovative product.

Second place in the Startup Award went to Kamedi GmbH with Managing Director Lukas Liedtke. The award went to their product heat-it, a remedy for mosquito bites adapted for smartphones. The small plug, which is connected to the smartphone, emits controlled heat to destroy the protein structure of the mosquito venom. In 2017, the student team at the time presented heat-it for the first time at COSIMA and received the special prize from Pepperl + Fuchs GmbH.

Third place in the Innovation Award went to the SolemSense team from the University of Freiburg. Nicolas Brugger, Maren Kirste and Uwe Benkarth impressed the jury with their solar-powered, energy self-sufficient garden probe. Another third place went to Dominik Materne, Alexander Wölk and Yushen Zhang from the Flexistep team at TU Munich, who developed a measuring system for the early detection of foot misalignments and strains and the associated back damage.

Arousing enthusiasm for microsystems technology

The beginnings of iCAN go back to a Chinese initiative with the aim of organizing a student competition in the field of microsystems technology. German teams have been taking part in the international competition since 2010, competing against teams from many countries around the world. At iCANX, they have to present functional projects as part of an exhibition and give a presentation to an international jury. The jury evaluates the innovation, the proximity to commercialization and the team performance.

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