



## Participants

Team: **Electronic Stethoscope for Enhanced Medical Care  
Progress for medical auscultation**

E-steth is an advanced electronic stethoscope designed to revolutionize medical auscultation. E-steth's superior sound quality allows medical professionals to hear heart, lung and other body sounds with greater clarity and accuracy than conventional acoustic stethoscopes. This enhanced auscultation capability is designed to improve diagnostic accuracy for a variety of conditions, including heart and lung disease. In addition, the E-steth supports remote auscultation, enabling real-time monitoring of patients' heart and lung sounds remotely, which is particularly beneficial for telemedicine and remote patient monitoring applications.

University: Hamburg University of Technology  
Prof. Khiem Trieu  
E-7 Microsystem technology  
Eissendorfer Str. 42  
21073 Hamburg

Team: **Green Facade Solution: Intelligent Flower Boxes**

The project is dedicated to the desire - to enable more green space in cities

University: Würzburg Schweinfurt University of Applied Sciences  
Mr. Fabian Dax  
Ignaz-Schön-Straße 11  
97421 Schweinfurt



# COSIMA '24

Team: **LAMBDA**  
**Lifeline Ambulatory Monitoring Bed & Diagnostic Assessment**

The project introduces a stretcher equipped with radar and piezoelectric sensors to precisely measure vital signs.

University: Albert-Ludwigs-University Freiburg  
Institute of Computer Science  
Intelligent Embedded Systems Lab  
Prof. Oliver Amft  
Georges-Köhler-Allee 302  
79110 Freiburg

Team: **myzelion**

This project offers a simple solution to provide your plants with optimum care. The sensor system records the most important parameters of your plants and gives you personalized care instructions. So you can relax and look after your houseplants, balcony box or even vegetable garden without having to constantly guess what your plants need.

University: University of Ulm  
Prof. Dr. Christian Waldschmidt  
Albert-Einstein-Allee 41  
89081 Ulm

Team: **PillPal**

An intelligent medication distribution system that is able to dispense the desired medication at the right time and monitor the patient's vital signs.

University: Chair of Design Automation  
Prof. Dr.-Ing. Ulf Schlichtmann  
Supervisor: Yushen Zhang  
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Phone: +49 176 72106929  
Technical University of Munich



# COSIMA '24

Arcisstr. 21  
80333 Munich

Team: **SmartBagEco**

Innovative ecosystem for inpatient and outpatient care by measuring the fill level of medical bags.

University: Kaiserslautern  
FB IMST & BW  
Prof. Dr. Antoni Picard  
Amerikastr. 1  
66482 Zweibrücken

Team: **SmartCart**

An AI assistance device that enables visually impaired people to shop independently and safely.

University: Baden-Wuerttemberg Cooperative State University Stuttgart  
Prof. Dr. Mattias Drüppel  
Lerchenstr. 1  
70174 Stuttgart

Team: **SonoVision**

The project is a pair of smart glasses for the hearing-impaired - which can be used to visually locate the source of noise. Information on the direction and danger level is shown on a display in the glasses.

University: Chair of Design Automation  
Prof. Dr.-Ing. Ulf Schlichtmann  
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Arcisstr. 21  
80333 Munich

Team: **TechBowl**



# COSIMA '24

An intelligent feeding bowl for dogs and cats, with intelligently controlled food dispensing and reliable sensors to ensure the water quality so that the animal's well-being is guaranteed at all times.

University:

Ruhr-Universität Bochum  
Chair of Microsystems Technology  
Prof. Dr. Martin Hoffmann  
Universitätsstr. 150  
44801 Bochum