

## **SISOPS research project – contactless interaction in sterile operating theatre areas**

**How can workflows in the operating theatre be optimised? How can devices be networked from the sterile area? How can important information be made clearly visible and easily understandable at all times without unnecessarily distracting the surgeons? How can settings be changed quickly, precisely and reliably? And how can this increase patient safety during operations? These are the questions currently being addressed by the SISOPS research project, funded by the Federal Ministry of Education and Research (BMBF), in which inomed Medizintechnik GmbH is participating (funding code 16SV9238).**

### **Motivation**

In the operating theatre, numerous medical devices provide important information on their own displays. These are also usually controlled via separate input systems outside the sterile area. Reading the data and operating the devices can distract attention from the actual surgical procedure. This can lead to delays in the surgical process and incorrect settings.

### **Goals and approach**

The research team working on the SISOPS project, consisting of Dr. Mach GmbH & Co. KG, the University of Bremen, Carl von Ossietzky University Oldenburg and inomed Medizintechnik GmbH, is therefore designing, researching and testing a contactless interaction and visualisation system. To this end, the researchers are clarifying the technical implementation with experts from the field of medical technology and designing the operation of various devices. They are developing methods for gesture recognition and concepts for their intraoperative use. Specifically, a demonstrator is being created that brings important information into the field of vision of the surgeons and allows the settings of the connected systems to be changed. inomed is developing control concepts and connecting its own systems to this demonstrator. The team is then conducting various studies to determine how the system performs in use and how it can contribute to improving the quality of treatment.

### **Innovations and perspectives**

From a clinical perspective, the use of the system optimises workflows in the operating theatre in the sense of a self-determined workflow. The increased concentration of the team is likely to increase patient safety.

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### **inomed Medizintechnik GmbH**

inomed develops, manufactures and distributes medical technology products in the fields of Intraoperative Neuromonitoring, Functional Neurosurgery and Pain Treatment. For over 30 years, inomed devices have been helping to improve treatments and increase patient safety. The inomed group has over 400 employees, ten subsidiaries and a large network of trained distributors in more than 100 countries.



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