

FRAUNHOFER INSTITUTE FOR INTEGRATED CIRCUITS IIS

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# DEVELOPMENT PARTNER FOR PERSONALIZED MEDICAL ENGINEERING

# Fraunhofer Institute for Integrated Circuits IIS

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# FRAUNHOFER IIS – YOUR PARTNER IN PERSONALIZED MEDICAL ENGINEERING



Digitalization and telemedical care place new demands on medical technology.

Medical sensor systems as well as data analysis must be tailored to the individual needs of physicians and patients. Therefore, it is essential to understand the health care challenges of tomorrow and the requirements of customers and patients.

Fraunhofer IIS combines the multidisciplinary competencies to develop a customized system and to design a successful medical product.

## **Applications**

# Wearables for sports, lifestyle and medicine:

Sensor development, miniaturized electronics, textile integration, on-board signal processing, wireless communication

# **Biosignal algorithms:**

Signal processing, artifact suppression and calculation of secondary parameters

### Point of care devices:

PCB layout, embedded programming, software development and interface design

#### Field and validation studies:

Subject based studies for different applications, validation of wearable technology devices

# Your partner in personalized medical engineering

- Technology and feasibility studies
- Requirement analysis and system specification
- Rapid prototyping
- Sensor integration
- Analysis of biosignals
- Standard-compliant software system development and testing
- Planning, realization and evaluation of field and validation studies

## The advantages at a glance

- With our long-term expertise in medical engineering and standard-compliant software development, we offer a full range of services from a single source.
- Based on our knowledge in AI based analysis and our high performance deep learning cluster, we develop algorithms for reliable biosignal analysis.
- We have a testing and sports lab with comprehensive equipment and reference systems
- Thanks to our extensive network of medical experts, we have special domain knowledge and experience in cardiology, neurology and sports medicine.