UNIVERSITÄT HEIDELBERG ZUKUNFT SEIT 1386

INNOVATION LAB thinking works

Master Research Project

2-HORISONS

Investigation of High Precision Multifunctional Stretchable Strain Sensor for Wearable Electronics

To support the 2-HORISONS project within the Universität Heidelberg, we are currently looking for a highly motivated master student with a strong interest in novel sensorics, printed electronics, and research and development.

Start date: Immediately, Workplace: Innovationlab – Heidelberg

Research project: 2HORISONS within Universität Heidelberg, Supervisor: Prof. Dr.-Ing. habil. Wolfgang Kowalsky

Your Profile:

- Successfully completed technical bachelor's degree in Physics, Physical Chemistry, Chemistry, Electrical Engineering, Material Science, Mechatronics, or a comparable subject
- Knowledge and interest in sensorics and thin film technology
- Enthusiastic to work in an interdisciplinary topic at the intersection of science and application.
- Motivation for experimental work in the lab
- High degree of responsibility and reliability
- Independent, innovative, proactive, structured, and analytical

Your Research Project Description:

- Investigate the fundamental correlations between the micro-structure of the given material and the observed properties.
- Expand the current understanding of the electro-mechanical properties of the developed strain sensor.
- Analyze the device performance.
- Independent experiment planning, implementation, and documentation.
- Organized report preparation and presentation.
- Design/construct required test hardware and software.

To apply for this project and receive more information, contact us via: pariya.nazari@uni-heidelberg.edu

The 2-HORISONS project (2-wards Hybrid and Organic Electronics: International Development of Sensor Nodes) is a cluster project funded by the Federal Ministry of Education and Research (BMBF) for the internationalization of clusters and networks. Together with international partner organizations, the leading cluster partners of 2HORISONS are working on a standardized technology platform for printed sensor fields. Spatially resolving, printed multi-sensor technology is applied to light, thin and mechanically flexible substrates using additive printing processes and combined with classic electronics integrated on the substrate. The resulting high-performance, resource-saving, and cost-effective technology can thus be used in promising application areas such as wearable electronics, and Internet of Things. InnovationLab GmbH (iL) is the joint platform for research and knowledge transfer at the interface of academia and industry in Heidelberg bridging the gap between Science and Business. iL is a one-stop shop for printed electronics, providing state-of-the-art infrastructure along with comprehensive expertise in materials, processes, and printing technologies to develop novel products. iL also supports numerous research and industrial partners at its lab and fabrication facility, an interdisciplinary environment featuring 6200m^2, including 700m^2 state-of-the-art cleanroom. For further information please visit: https://www.innovationlab.de/en/research/research-projects/

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