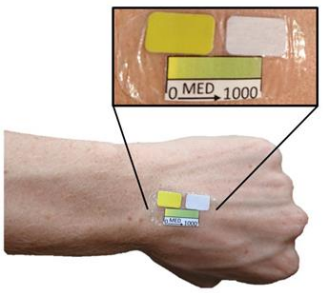
Technische Universität München | Theresienstrasse 90 | 80333 München
Lehrstuhl für Messsystem- und Sensortechnik

München, 17. November 2019

BA or MA Thesis or Project Work

„Wearable Optical Sensors“

Background. Wearables as medical devices are becoming an integral part of personal analytics, measuring individual’s physical status, recording physiological parameters, and informing schedule for medication. These new technology platforms promise to help people pursue a healthier life style, but also provide continual medical data for actively tracking metabolic status, diagnosis, and treatment.



Project scope. The aim of this project will be to develop wearable devices for continuous monitoring of pH, glucose, electrolytes, and proteins in human sweat. Optical materials and methods including chromogenic dyes, fluorescence, and diffraction will be used to create sensitive and selective sensors that can be reversibly detect biomarkers. A smartphone camera interface will be developed to read the sensors quantitatively. This project will take place in TranslaTUM in collaboration with Prof. Oliver Hayden.

If you are interested, please send an email to:

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