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Diploma / Masters Thesis

Continuous core body temperature measurement in mobile conditions

Research Area

Core body temperature refers to the exact inner temperature of the body, which is more precise than that measured by a thermometer. We would like to measure core body temperature in the outer auditory canal. The temperature here however is subject to temperature fluctuations through the pinna. The aim of this thesis project would be to test whether further temperatures sensors on both the pinna and on the outermost part of the auditory canal could provide a compensatory correction of the temperature measured within the auditory canal.

Tasks

- Development of a new type of mobile temperature sensor
- Embedded System Design
- Mixed analog/digital circuitry design
- Circuit board layout and System assembly and implementation
- Carrying out tests
- Evaluation of data

Candidate requirements

- Proficiency in electronics
- Proficiency in C, Microcontroller Programming
- Interest in medical electronics, interdisciplinary approaches and independent work.

Salary/Hours

- Salary according to qualifications
- 39 Hours per week

Contact

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