

# Project Assignment: Predicting possible infections of a patient with mobile thermal imaging technology

## Context:

Do you want to be part of an innovation project and have a direct and tangible positive impact on people and society?

In collaboration with a startup in the medical field and as a small sub-project, we would like to monitor patient body temperature and predict possible infections or diseases by means of mobile thermal imaging technology.

## About us:

We are an innovative startup in the Medical field supported by an international team of scientists and engineers on a mission to help and protect very fragile groups like premature babies and elderly people in the society.

Our investment is our knowledge, expertise and over 18 years of experience in the healthcare at national and international level.

We are independent in building and using state-of-the-art technology in a seamlessly integrated platform that includes remote sensing, multimedia, data monitoring and analytics.

Over time, we have built strong relationship and collaborate with different working groups and disciplines at TU-Delft, HHS-Delft, companies and hospitals to help us make this innovative dream reality.

## Assignment:

The students will create a system that monitors patient's body temperature by means of thermal imaging technology.

The real-time images are transferred via the internet/intranet to the backend of our system and the live streaming of the camera must be available on a multiplatform front-end application.

You will be advising the best mobile thermal camera for this solution supporting specific requirements. You are being challenged to detect whether the patient is going to have infections or a certain disease and send his/her predicted status to the doctors or caretakers via an alert system.

The data transfer (thermal images) must be secured and compressed. The data storage and post-processing of the thermal images will be done partially at the backend of our system. The images and their results must be accessible per patient based on their time stamps stored in the database.

The final code needs also to be portable to another embedded Linux with less/limited amount of time/effort.

