

Project: CAST – Cardiac measuring shirt for telemedicine

Konsortium:

1. Insitut für Textiltechnik der RWTH Aachen University (ITA); GER
2. IncreaseTime SA; PRT
3. University of Porto (UniC); PRT
4. Inova DE GmbH; GER

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Authors:

Tim Bolle, Jaime Lopes, Adelino Leite Moreira, Vitor Vieira, Thomas Gries, Stefan Jockenhoewel

Description:

Heart diseases are the leading cause of death for both man and women of all ages. In particular chronic auricular fibrillation in the current aging population is an evident problem which will become a crisis in the next 5 to 10 years. Furthermore, patients are more demanding about care that they receive, and prefer both personalized healthcare and independent self-monitoring. Wearables become more and more popular and common. Undetected cardiac issues due to the lack of post-hospitalization monitoring demands relevant innovations in healthcare.

We want to develop a shirt to analyse cardiac signals and other body-vital-signs for continuous real time monitoring of patients that positively impacts risk assessment and hospitalization. The shirt covers the upper body and it is made of a sensing fabric with embedded state-of-the-art ECG textile sensors and a device to collect, pre-process, save and send data to a smartphone or web-platform for intelligible visualization of body signals, cardiac information, telemedicine and assistance options.

Our valuation plan includes selling the complete system to chronic cardiac patients and healthcare institutions. Patients with suspicion of cardiac maladies can then use this system to monitor their vital functions and coordinate care with a cardiologist. A vast and growing end-user market with cardiac diseases is available, for which we intend to present a unique product and solution to match their needs.

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Contact ITA:

Dipl.-Ing. Tim Bolle (tim.bolle@ita.rwth-aachen.de)