FACULDADE DE CIÊNCIAS E TECNOLOGIA
UNIVERSIDADE NOVA DE LISBOA

Physics

Collaborative signal visualization and processing for continuous health monitoring

Biomedical Engineering

Ricardo Gomes

Advisor: Prof. Hugo Gamboa

2006-2011: MSc in Biomedical Engineering at FCT/UNL

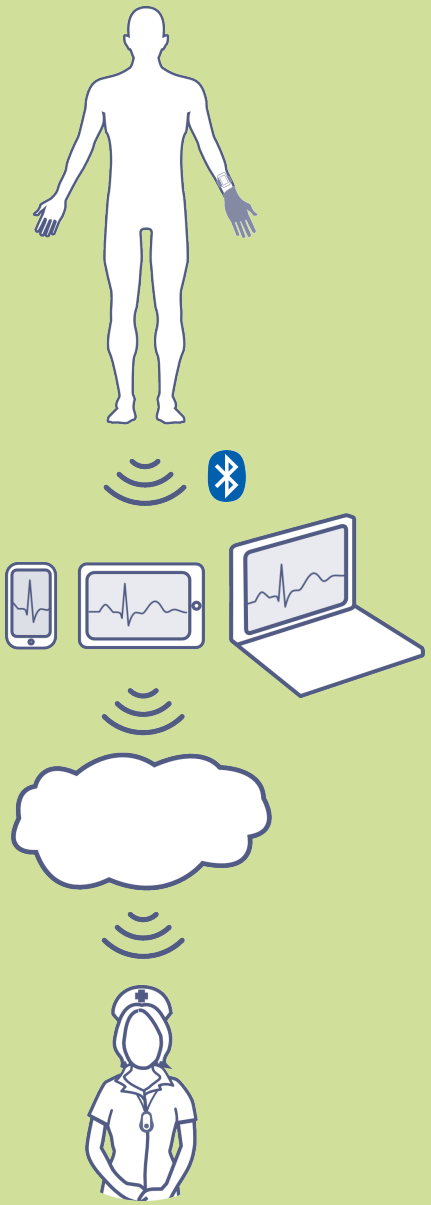
2012 – Present: Research Scholarship – Invisible Network at FCT/ UNL

Objectives

The main objective of the proposed research is to study and implement a biosignal cloud processing architecture to acquire, store, share, visualize and process physiological data in real time.

Methodology

A biosignal cloud architecture that will make possible to acquire, process, store and share physiological data remotely and in real time will be developed. The proposed biosignal framework will feature acquisition tools that will send the acquired data to the cloud. A sharing platform will enable the health care specialists to monitor the patients' condition in real time, and cloud processing tools will also be developed, allowing large amounts of data to be efficiently processed and analyzed. Biosignal parameters extraction tools will be developed using supervised and unsupervised learning systems.



Expected Results

The proposed work aims to the generation of new tools for clinical applications and biomedical research and to promote the independent living of the patients and of the elderly who require constant surveillance.

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Publications: Gomes, R.; Nunes, N., Sousa, J.; Gamboa, H. Long term biosignals visualization and processing. Proceedings of Biosignals - 5th International Conference on Bio-Inspired and Signal Processing (BIOSIGNALS 2012), Vilamoura, Portugal, 2012.