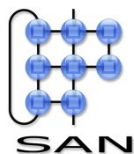


Towards Contact-less Vital Sign Monitoring using a COTS Resource-Constrained Multi-Core System - an experience report -

Michael G. Kruger, Rink P.W. Springer,
Ger M. Kersten, and Reinder J. Brill



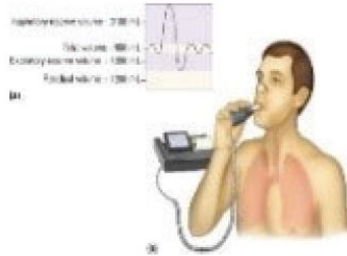
ISORC, Valencia, Spain, May 7th, 2019

TU/e

Technische Universiteit
Eindhoven
University of Technology

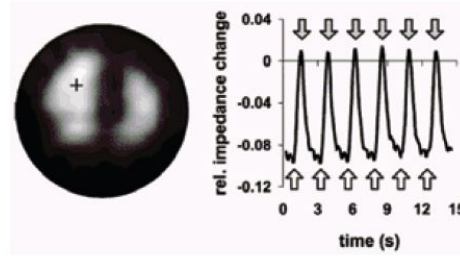
Where innovation starts

Traditional respiration monitoring techniques



(a)

spirometry



(b)

thoracic impedance measurement

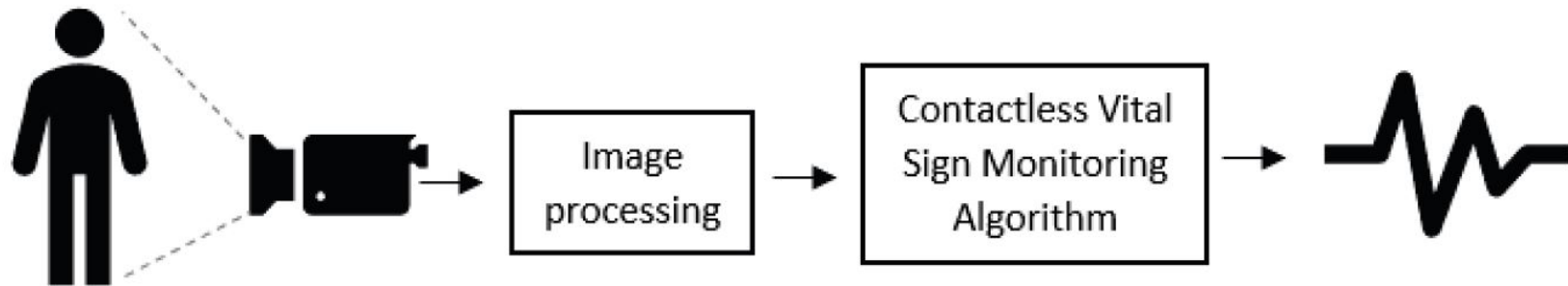


(c)

belt with strain gauge

- **Problem:**
 - Traditional *contact-based* vital-sign monitoring is prohibitive for neonatal and burn care.
- **Approach:**
 - *Contact-less* vital-sign monitoring.

Contact-less vital-sign monitoring



- **Business goal of Philips Healthcare:**
 - Make products available for the consumer market.
- **Challenge:**
 - Cost-effective processing using COTS cameras and resource-constrained multi-core systems.