CAISR Health Technology

A project in Research for Innovation
– the overarching strategic research programme of Halmstad University, supported by The Knowledge Foundation

Partners:
Tappa AB, Neat Electronics, Swedish Adrenaline, Daralabs AB

At CAISR Health Technology, we aim to support healthy and active lifestyles, safe and independent aging, as well as effective care services by developing intelligent systems that are aware of a person's situation, health, and well-being. We develop technologies that support the acquisition and analysis of health-related data for monitoring and decision-support. Our research topics include movement analysis, deviation detection, personalization, behavior recognition and assistive robots.

Projects:

• Situation Awareness for Ambient Assisted Living (SA3L).
  Developing methods and tools for detection and interpretation of potential dangerous situations in the home of elderly people.

• Human Motion Classification and Characterization (HMC2).
  Wearable instruments and tools that can characterize and classify human motion.

• A movement analysis application for the Mobile Health Platform (MoveApp).
  Mobile tools that can monitor motor symptoms and provide adequate information to support self-management and positive change.

• A Database-Centric Architecture for Home-Based Health Monitoring.
  Combining data storage, analysis and actuation in an active database

• Impulse Radar in Health Applications.
  UWB radar for monitoring vital signs

• Emotion-based automation of intelligent environments.
  Combining biosignals and environmental sensors to increase quality of life.

Student projects:

• Tracking multiple persons in a smart environment
• Mobile social robots in an intelligent home
• Fall detection and recognition for first aid by a robot
• Helpful person detection in an emergency by a drone
• Facilitating use of robots by self-repair

Recent Selected Publications (2015):


Recent/Upcoming Activities:

• Sep. 11 Intelligent Environment new premises open
• Nov. 4 SCAI Halmstad Workshop on Intelligent Environments Supporting Health and Wellbeing (part of Scandinavian Conference on Artificial Intelligence)

Some Group Members:

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