This year the “IT Architectures and Implementations in Healthcare Environments” minitrack has accepted a total of eight papers, which are diverse and coming from a variety of countries.

The Paper Expanding the Coverage of Ambient Assisted Living (AAL) Systems, which comes for Brazil looks at the challenges of expanding the coverage of AAL to outdoor spaces and offer a prototype of a continuous health monitoring system, supporting handover in three simulated environments: a house, a gym and an outdoor space.

The Paper Decision Support for the Service Needs Assessment Process in Elderly Care from Finland illustrates a new solution for the service needs assessment process for elderly care. They introduce a new process for the assessment and a supporting information system and give us their empirical experiences of using it in daily operations.

The paper An Architecture for Pull-based Public Health Interventions form Australia looks at public health interventions as ‘push-based’ to all of or a selected subset of the population. While using smartphone technologies they exploit a platform for a new type of informational public health intervention, where handheld smart device automatically collect data relevant to the individual’s health, which in turn may trigger the ‘request’ for and receipt of the informational public health intervention.

The paper Adaptive Dissemination for Mobile Electronic Health Record Applications with Proactive Situational Awareness form Belgium promotes “Bring Your Own Device (BYOD)” ideas where a mobile electronic health record web application for general practitioners should deliver the right information at the right time under variable connectivity and limited resource availability. They capitalize on situational awareness for proactive and adaptive content delivery to mobile applications.

In the paper Validating Scanned Foot Images and Designing Customized Insoles on the Cloud, which comes from the EU, offers a cloud-based solution, the CloudSME as a one-stop shop simulation platform, which enables remote access to image validation and insole design service. The remote access allows podiatrists to validate scanned image in real time. The simulation platform also supports remote design of customized insoles.

Paper A Business Process Management Approach to Surgical Instrument/Device Reprocessing and Tracking from the US, examines business process management practices applied to monitoring, measuring, and improving reusable surgical instrument/device reprocessing and instrument-to-patient tracking within the hospital environment. Dynamic technological activities of analysis, evaluation, and synthesis applied to internal and external organizational data highlight complex relationships within integrated hospital processes to target opportunities for improvement and ultimately yield improved process capabilities. The case study investigates the impact of integrated information systems to identify, qualify, and quantify perioperative improvement within efficient and effective instrument/device reprocessing and tracking.

Paper BPMN4CP Revised - Extending BPMN for Multi-perspective Modeling of Clinical Pathways comes from Germany and views Clinical Pathways (CPs) as business processes in hospitals or clinical institutions. Therefore they decided to CP using business process modeling languages like BPMN and extend it into BPMN4CP, which was revised in order to integrate resources, documents, objectives and quality indicators. They also outline a procedure for extending BPMN with new perspectives and integrate these results into the BPMN extension method.

Paper Semantic Selection of Healthcare Apps comes from the UK and promotes an idea of using Semantic Web Technology when creating a tool which will select the most suitable medical Apps according to patient’s or medical professional’s requirements. The emphasis is on the understanding the semantic of the environments where the selection happens and perform the reasoning upon the semantics for the best possible App selection.