Preface

A wide-range of applications within the purview of ambient intelligence, smart environments, cognitive assistance systems, and pervasive and ubiquitous computing require the ability to represent and reason about dynamic spatial phenomena. Systems concerned with observing, interpreting, and interacting in an environment populated by humans and artefacts require a formal means for representing and reasoning with spatio-temporal, event, and action driven phenomena that occur in the environment. The Space, Time, and Ambient Intelligence workshop addresses basic research questions concerned with operationalizing commonsense situational awareness for assistive technologies within the purview of ambient intelligence and smart environments.

This workshop has a special focus on the topic of spatio-temporal aspects of human activity interpretation, especially welcoming research concerned with monitoring and interpretation of people interactions, real-time commonsense situational awareness involving aspects such as scene perception and understanding, perceptual data analytics, and prediction & explanation-driven high-level control of autonomous systems. In this context, basic topics deemed important include activity and process models; behaviour and intention interpretation; spatial learning; modeling and reasoning about space, events, actions, interaction; spatio-temporal dynamics; and commonsense reasoning about spatio-temporal change.

Research contributions have been encouraged to address use-cases from specific application areas of interest as indicated on the Space, Time, and Ambient Intelligence website. Furthermore, we also invited prototypical demonstrations, and initiatives and perspectives on benchmarking and promoting open-access of algorithms and systems from the viewpoint of cognitive vision, interaction, and control.

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