

Distributed Camera Networks for Monitoring People: Data Fusion through Assessment



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Advantages made in wireless communications and image sensor technologies improve the feasibility and benefit of observational systems consisting of multiple visual sensors. Current application areas for visual networks include road safety and surveillance of public spaces such as shopping malls, number of private smart environments such as homes increasing.

Observations from multiple viewpoints provide rich data capable of significantly boosting system performance. Performance improvement is achieved by data fusion mechanisms, mechanisms that handle multi-view data in visual analysis of the scene. These mechanisms are created by assessing the vision tools available, the observed environment and the intelligent service provided.

Tommi Määttä received his MSc degree in 2008 from Tampere University of Technology in Finland, studying multi-view capture of human shape and activity. His PhD studies in the Department of Electrical Engineering in Eindhoven University of Technology Netherlands on multi-camera systems for observing people began the same year. Working with Dr. Hamid Aghajan, his studies as a Media X Distinguished Visiting Researcher focus on understanding the benefits and challenges of multi-view systems over single-view systems, as well as the creation of generic fusion mechanisms.