Master Thesis

ALPEN-ADRIA UNIVERSITÄT
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Akkaladevi Sharath Chandra: Distributed Object Tracking in Smart Camera Networks

Description

Tracking people (objects) among multiple smart cameras with non-overlapping fields of view is a challenging problem. In multi-camera networks with non-overlapping views, observations are often separated in time and space. The appearance of an object in one camera view is different from its appearance in another camera due to change in illumination, pose and camera parameters. In order to handle these changes appearance cues are used to map the extracted features between multiple cameras. Tracking in distributed camera networks typically uses a space-time model and an appearance model. Distributed tracking of objects using a local tracking method together with an appearance model is presented in this work. Implementation is carried out in C++/OpenCV. The multi-camera tracking method presented deals with extracting interesting features using a local tracking method. Once the features are extracted the next step is to distribute the extracted features in the camera network and then map the features between multiple cameras using an appropriate transfer function. Finally the implemented prototype will be evaluated in the laboratory using different test scenarios.

Advisor

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