

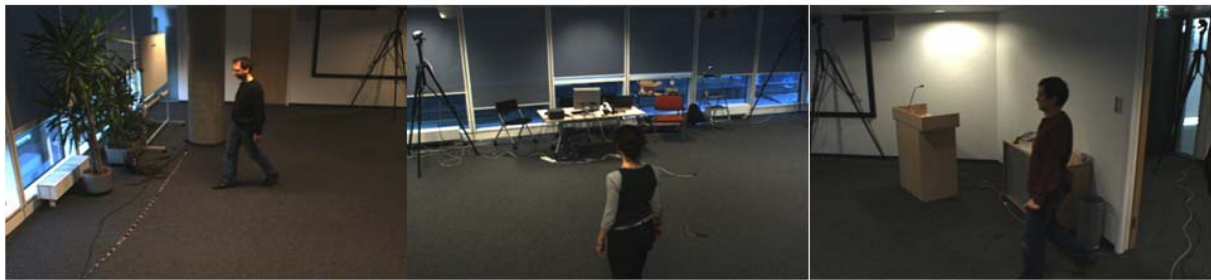
ICPR The 21st International Conference on Pattern Recognition 2012

21st International Conference on Pattern Recognition

November 11-15, 2012
Tsukuba International Congress Center
Tsukuba Science City, JAPAN

People tracking in wide baseline camera networks contest

Call for participation



The “People tracking in wide baseline camera networks” contest is hosted by the 21st International Conference on Pattern Recognition (ICPR), which will be held during November 11-15, 2012 at the Tsukuba International Congress Centre, Tsukuba, Japan.

Motivation

With the increase of security level at public infrastructures, surveillance camera networks having wide baseline setting (including the case of non overlapping fields of view) have received more attention. Driven by cost, surveillance cameras are in most cases distributed and placed in such a way that an observed area is maximised resulting in a very tiny or no overlap of camera fields of view. In some cases, the fields of view overlap but the camera viewpoints are such that the people are seen from totally different views. Many efforts have been done on the Computer Vision area to develop algorithms to track people, mainly using a single camera. However, aforementioned camera systems using Computer Vision algorithms still remain a challenge. We are interested in going a step further and evaluate the performance of possible solutions for tracking people in such camera systems.

Contest summary

The contest consists of two:

- The first one consists of tracking people across the cameras having wide baselines and non-overlapping fields of view. In such configurations people are often seen from different points of view and different illumination conditions.
- The second challenge consists of discovering the camera network topology.

A particular object starts moving through the whole scenario in some of the available cameras. This object has to be accurately tracked in one camera and also when the object leaves the field of view of one camera entering in the field of view of another one. No severe restrictions on the approach are applied by the contest to solve the challenges; this means solutions using any approach (e.g. geometry-based, appearance-based, motion-based, biometric feature-based, etc.) are possible. Solutions based on learning on-line the visual representation of the object are encouraged.

Participating teams are encouraged to send a paper describing their methods and results to the ICPR Conference, where it is hoped that if there is a sufficient number of accepted papers, a special session will be organised.

Keywords: *Wide baseline cameras, non-overlapping cameras, object tracking, multi-camera system, camera network topology, computer vision, on-line learning.*

Datasets

Different video datasets, capturing various real-world scenarios, will be provided. Each dataset was generated using either 3 or 4 cameras of a camera system with wide baseline camera setting.

Organizers

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Important dates

2011/11/01: Contest description
2012/07/31: Results submission (Extended Deadline)
2012/08/31: Evaluation process
2012/10/01: Notification to participants
2012/11/11: Results @ the conference