

Speech Title: **Object detection and long-term tracking in multi-camera surveillance**

Abstract: Multi-object tracking is an important research content in the field of machine vision. How to achieve continuous relay tracking of multiple objects in the field of view of multiple cameras is a key scientific problem that needs to be solved urgently. In response to this issue, our team has studied the related technologies of target detection and continuous long-term tracking in scenarios such as intelligent security and construction sites. This report introduces some related research progress. For targets such as personnel and vehicles, multi-target tracking in a single camera and target re-identification among multiple cameras are achieved. The target detection technology based on attention mechanism is proposed. We study the two-stage multi-target tracking method based on the spatio-temporal feature fusion algorithm. The multi-camera pedestrian re-identification method based on semi-difficult sample mining is presented. This method can complete the continuous tracking task of multiple targets in the field of view of multiple cameras.