

Title: Human Re-identification with Mobile Service Robots

Abstract:

People perception is an essential topic in computer vision and robotics. It has plenty of robotic applications such as navigation and interaction. In general, it consists of detection, tracking and re-identification of humans around the robot. In particular, for service robotics, a robust human re-identification system is needed in order for the robot to distinguish between two or more users and provide personalised services (e.g. medication reminders).

Many existing work focus on using RGB images to recognise people across a network of cameras. However, for long-term applications of service robots, appearance-based approaches are not applicable as people change often their clothes. In addition, for poorly illuminated or dark environments (at night), which are typical in domestic environments, RGB images provide very little information. In this talk, I will present two different re-identification approaches that exploit depth and thermal information.

Bio:

Serhan Coşar is a post-doctoral research fellow at Lincoln Centre for Autonomous Systems Research (L-CAS), University of Lincoln, United Kingdom. He received his M.Sc. and Ph.D. degrees of Electronics Engineering and Computer Science from Sabancı University, Istanbul, Turkey in 2008 and 2013, respectively. He is author of 3 book chapters, 7 international journal papers (CVIU, IMAVIS) and 15 international conference papers (ACPR, ICCV, AVSS) and he has participated in a number of European and National projects. His research interest includes robot perception, human tracking, activity recognition, sparse representation, and distributed estimation.