

ESPRIT: Workshop on Pervasive Sensing in Sports and Extreme Environments

In conjunction with the BSN2013 conference, the ESPRIT programme organised a workshop on Pervasive Sensing in Sports and Extreme Environments on May 6 at the MIT Media Lab, Cambridge MA, USA. The aim of the workshop was to provide an overview of the latest developments of pervasive sensing technologies in sports and extreme environment, and provide a forum for discussion on potential applications and research direction in the field.

To give the participants insights into the state of the art in sensing technologies and the challenges and opportunities in sports applications, an interesting programme was designed with speakers from very different fields, from sensing hardware, computer vision, to machine learning, and sports training.

The workshop was started off with a talk by Edmond Mitchell from Dublin City University. He gave an overview of the innovative works at DCU on sports sensing technologies, from computer vision approaches for team sport player tracking to wearable inertial sensing for posture and activity tracking. It then followed by a talk by Prof. Lei Wang from the Chinese Academy of Science. In addition to applications, Lei showed the state of the art sensing hardware development of his group at the SIAT (Shenzhen Institute of Advanced Technology). After Lei's talk, Bobak Mortazavi from UCLA gave a talk about their latest development on exergaming and highlighted its potential for both gaming and sports training.

After a short break, the workshop was restarted with a talk by Dr. Surapa Thiemjarus from NECTC Thailand. In her talk, Surapa gave a detailed view on how machine learning techniques could be applied to enable fault tolerance sensing in extreme environments. Then, Prof. Sara Brown from Boston University gave a very different and lively talk on the challenges currently faced by sports training and potential applications of sensing technologies. It then followed by a talk by Dr. James Thompson of Evoke Neuroscience Inc. In his talk, James outlined the issues of concussion in sports and showed how technologies could assess the injury and facilitate rehabilitation.

Organised at the top floor of the new Media Lab building with a panoramic view of Boston city centre, the workshop had attracted more than 40 participants with interests in sensing for sports and extreme environment applications. The diversified and interesting talks at workshop gave the participants an overview of the different aspects of sensing in sports and extreme environment, and initiated fruitful discussions during the Q&A and breaks.

Article by Benny Lo,

The Hamlyn Centre

