

Call for Participation

Using GPUs for Vision

One Day BMVA technical meeting in London, UK, on 18th May 2011

Chair: Toby Breckon & Stuart Barnes (Cranfield University)

The increasing use of Graphical Processing Unit (GPU) processing approaches for the realization of computer vision algorithms has led to a recent surge in both real-time capabilities and low-footprint optimization within the domain in addition to a number of other important advances. Whilst the use of such specialist hardware appears to be having a renaissance, the experiences and approaches of many practitioners differ. To some the use of such specialist hardware may be seen as a short-cut, whilst to others a pragmatic means to an end.

This development has been driven by the ability of many computer vision algorithms to use standard computer graphics techniques for algorithmic benefit, the high performance gains of GPUs in recent years and in addition their increasing ability to support general purpose computing.

The aim of this meeting is to bring together researchers and practitioners, from both industry and academia, interested in all aspects of GPU use in computer vision to provide a generalised overview of both current utilisation and potential within the field. Submissions are invited for vision approaches using aspects of GPU processing within in the general following areas:

- 3D stereo approaches or alternative novel sensing
- Person, face and gesture tracking
- Motion, flow and tracking
- Segmentation and feature extraction
- Model-based vision
- Image processing techniques and methods
- Texture, shape and colour
- Video analysis
- Document processing and recognition
- Vision for quality assurance, medical diagnosis, etc.
- Vision for visualization and graphics

Other topics within any area of GPU application to computer vision, image processing or image analysis will also be considered for inclusion.

Please submit an extended summary of about one A4-sized page length (no longer than 2 pages) in length (PDF preferred). Send contributions by email attachment (1Mb max please) to Toby Breckon (toby.breckon@cranfield.ac.uk) and/or Stuart Barnes (s.e.barnes@cranfield.ac.uk) by 16th March 2010.

Event poster: http://www.cranfield.ac.uk/~toby.breckon/events/bmva_symp_gpu11.pdf