International Workshop on Interactive Multimodal Pattern Recognition in Embedded SystemS - IMPRESS 2010

Message from the Organizers

The field of pattern recognition (PR) provides many successful examples of systems that have converted from theoretical studies to practical solutions in real-life applications. Since implementations of PR tend to be special-purpose, PR is often realized as some kind of embedded system. The spectrum of PR is vast. Recognized objects or events can be artificial or natural. Deployed methods can be deductive or inductive, analytical or statistical, programmed or hardwired, digital or analogue, supervised or unsupervised, etc. User interaction with such systems can be optical, phonetic, tactile, or based on other kinds of sensors. PR systems often provide multiple modes of interaction and input data processing. IMPRESS 2010 focuses on aspects of embedding, interaction and multimodality of PR systems. The workshop provides a forum for presenting and discussing the state of the art, ongoing research and development, innovative system features, and forward-looking ideas in the field.

The IMPRESS 2010 program committee has selected 9 of the submitted papers to be presented at the workshop and to be published in these pages. The selection process has been preceded by an extensive reviewing phase. Each paper has received between 3 and 7 reviews. Abundant feedback for the authors by program committee members and external reviewers has helped to arrive at significantly improved final versions.

The selected papers are grouped into several sessions, each of which has a common denominator. The first, entitled FPGA Embeddings, emphasises, among others, hardware aspects of the implementation of PR systems. The second is on Multiview Systems that are being developed by the same research group. Another session focuses on Acoustic Event Detection, in conjunction with visual features. The common theme of the last session is Identification, of such diverse items as journeys and fingerprints.

In parallel with the presentation and discussion of technical papers, IMPRESS 2010 also features selected implementations of PR systems and prototypes in a separate demo showroom. Each demo is accompanied by a technical paper that describes aspects associated to the demo. The demo sessions of the workshop are sandwiched between sessions 1 and 2 on FPGA Embeddings and Multiview Systems in the morning, and sessions 4 and 5 on Acoustic Event Detection and Identification in the afternoon. Also the printed versions of the papers describing the demos are sandwiched between the papers of the regular sessions in the proceedings.

The IMPRESS 2010 organizers would like to sincerely thank all who have contributed to a successful outcome of the workshop as authors, demo providers, program committee members and reviewers.

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