# The First International Conference on Pervasive Computing, Signal Processing and Applications

## September 17-19, 2010, Harbin, China

**Pervasive Computing, Signal Processing and Applications (PCSPA 2010)** will provide the participants with opportunities to discuss and explore areas related to the theory of pervasive computing, signal processing and its applications. Pervasive computing envisages one world of communicating miniature devices, sensors and actuators to provide ambient services. Together with signal processing, it forms the theoretical foundation for a wide range of applications that are supporting and gradually changing our everyday life. The goal of PCSPA 2010 is to further explore both theoretical and practical issues in pervasive computing, signal processing and its applications. It also provides one platform for both researchers and practitioners to exchange ideas and establish collaboration.

**SCOPE: PCSPA 2010 will focus on the following topics:**

**Track I: Pervasive Computing**

- Advanced concepts and methods for pervasive computing
- Software infrastructure, middleware and frameworks for pervasive computing
- Mobile and wearable computing
- Wireless networks for pervasive computing
- HCI technologies for pervasive computing
- Cross-media for pervasive computing
- General application platform for pervasive computing
- Device interface and standardization for pervasive computing
- Data grid and knowledge management for pervasive computing
- Pervasive sensing, perception and inference
- Security, trust, privacy, and other socio-technical issues in pervasive computing
- Analysis, design, implementation and evaluation of pervasive devices and systems
- Other

**Track II: Signal Processing**

- Parameter estimation and spectral analysis
- Signal representation and transforms
- Statistical signal processing
- Digital filter design
- Array signal processing
- Coding techniques
- Adaptive signal processing
- Signal reconstruction and analysis
- Multi-component sequence analysis
- Multimedia (speech, image, video, etc.) signal processing
- Hardware implementation for SP
- AI & neural networks for SP
- Other

**Track III: Applications**

- Pervasive computing for education (teaching and learning)
- Pervasive computing for ubiquitous healthcare
- Pervasive computing for collaboration
- Pervasive computing for smart space
- Pervasive computing for environmental monitoring and emergency control
- Pervasive computing in hostile environments (astronautics, military, submarine, underground, disaster, etc.)
- Signal Processing for wireless networks
- Signal Processing for sensor networks
- Signal Processing for remote sensing
- Signal Processing for biometrics
- Signal Processing for communications
- Signal Processing for GNC (Guiding, Navigation, and Control)
- Signal Processing for radar/sonar
- Signal Processing for instrument and measurement
- Signal Processing for monitoring of health, environment
- Other

### Paper Submission

All papers must be unpublished and should not be under simultaneous review for any other conferences and workshops. Papers in special sessions are also invited to provide forums for focused discussions on new topics and innovative applications of established approaches. A special session consists of at least four related papers. Papers must be written in English and formatted according to the **double columns IEEE format**. Research papers should be a full paper of at least **4 pages** but no more than **6 pages** including references and illustrations. Position papers and system demos are also welcome. Electronic submissions in PDF format are recommended.

All papers should be submitted electronically via Online Paper Submission System, which is located at "http://www.pcspa2010.com" and "http://bit.kuas.edu.tw/~pcspa10". The format of both the initial submissions and the final accepted papers must be in PDF. All papers will be peer-reviewed by members of the PCSPA 2010 program committee and selected reviewers. Papers are selected based on their originality, significance, relevance, and clarity of presentation. Accepted papers with paid registration will be included in the Proceedings of PCSPA2010, IEEE Xplore digital library and are EI and ISTP indexed. Authors of selected papers will be invited to submit a revised and expanded version of their papers based on referees' comments and suggestions to be considered for publication in special issues of international journals indexed by SCI.

### Session Proposal:

Researchers are also invited to propose special sessions on specific topics of interest and new trends in Pervasive Computing, Signal Processing, and Applications. All proposals should be sent to the Invited Session Chairs.

### Important Dates

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| The deadline for workshop proposal | May 20, 2010 |
| The deadline for paper submission | May 20, 2010 |
| The date for notification | June 5, 2010 |
| The date for camera-ready paper submission | June 25, 2010 |

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