

CNNA 2006

The 10th IEEE International Workshop on
Cellular Neural Networks and their Applications

The Marmara Istanbul Hotel

August 28 – 30, 2006 • Istanbul, Turkey



Call For Papers

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BACKGROUND

The 10th IEEE International Workshop on Cellular Neural Networks, CNNA 2006, will be held in Istanbul from 28-30 August 2006. The series of the CNNA conferences was initiated with the first one held in Budapest in 1990 which was followed by those in Munich (1992), Rome (1994) and Seville (1996), London (1998), Catania (2000), Frankfurt (2002), Budapest (2004) and Taiwan (2005).

GENERAL SCOPE

CNNA 2006 will provide a forum for the presentation of latest results and exploration of future directions in Cellular Neural/Nonlinear Networks (CNN) and their Applications. CNN is a paradigm for nonlinear spatial-temporal dynamics and the core of the Cellular Active Wave Computer. CNN Technology is based on the CNN Universal Machine, an analog super computer, mainly for spatio-temporal problems, allowing trillion operations per second in a single chip. Topics of interest include, but not restricted to:

- ❖ Basic theory, cellular nonlinear spatiotemporal phenomena;
- ❖ Applications including computing, communications and multimedia;
- ❖ Learning;
- ❖ Physical implementations (VLSI, Optical, Nanotechnology);
- ❖ CNN Development Systems, Software implementations and Simulators;
- ❖ CNN Chip sets and CNN Computers;
- ❖ Cellular and sparsely connected dynamic processor systems;
- ❖ Biologically relevant models and neuromorphic implementations.
- ❖ Integrated sensing and processing

Paper submissions on all aspects of Cellular Neural Networks are welcome. However, in order to meet new challenges, CNNA 2006 particularly welcomes papers exploring the areas of significant interest, especially providing innovative directions for the development of next generation CNN applications.

HIGHLIGHTS OF THE CONFERENCE

- ❖ The new Visual Microprocessors and their mission critical applications.
- ❖ Multimodal sensing processing, including tactile and auditory scene analysis
- ❖ Computational Complexity Theory
- ❖ CNN Universal Chips embedded in Chipsets and Analogic CNN Engine Boards.
- ❖ Biologically faithful neuromorphic CNN models for predicting/explaining/using new discoveries in neuroscience.
- ❖ Analogic CNN algorithms for dynamic spatiotemporal phenomena and innovative real-time life, mission critical applications.
- ❖ Live demos, Hands-on-experience
- ❖ Student contest

This Conference will also provide the forum for inaugural and keynote lectures exploring new directions and new application areas of CNN Technology.

CORRESPONDENCE

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CALL FOR PAPERS

Authors are invited to submit a full 6-page paper according to posted guidelines. Only electronic submissions will be accepted via the web at: <http://www.cnna06.yildiz.edu.tr/>

At least one author of each paper MUST register for the Conference by **July 28, 2006** for papers to be included in the program. Each presenter is allowed to present maximum of two papers.

AUTHORS' SCHEDULE

Live demos proposals:	June 15, 2006
Notification of acceptance:	June 30, 2006
Paper submission:	June 15, 2006
Notification of acceptance:	July 12, 2006
Camera ready copies:	July 28, 2006
Conference:	August 28-30, 2006