CIRCUITS AND SYSTEMS SOCIETY Cellular Neural Networks and Array Computing Technical Committee



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Minute from the Annual General Meeting 2006 of the Cellular Neural Network and Array Computing Technical Committee

(Kos, 23rd May 2006)

Attendance

Paolo Arena, Victor M. Brea, Piotr Dudek, Marco Gilli, Mika Laiho, George Moschytz, Ari Paasio, Bertram Shi, Csaba Rekeczky, Lambert Spaneenburg, Peter Szolgay, Mamoru Tanaka, Vedat Tavsanoglu, Ronald Tetzlaff, David Lopez Vilarino.

Matters arising from minutes of 2005 AGM at ISCAS 2005

The minutes of the 2005 AGM were endorsed unanimously by the Committee.

Review of Technical Activities in 2005

Ronald Tetzlaff reviewed the technical activities of the committee over 2005. They are briefly synthesized as follows.

JOURNAL SPECIAL ISSUES: Special issue on "CNN Technology: Wave algorithms, Bio-relevance and Applications" in the International Journal on Circuit Theory and Application (last issue of 2005 or first issue of 2006). Guest Editor: Tamás Roska, Guest Co-editors: Paolo Arena, Csaba Rekeczky. Special issue on "Cellular Neural Networks: Theory and Applications" in the International Journal of Functional Differential Equations. Guest Editor: Angela Slavova.

ISCAS-2005: The technical committee members organized two CNN oriented special sessions at ISCAS in Kobe in May 2005. The sessions are entitled "Bionics and biomedical applications" (organized by Ronald Tetzlaff, Johann Wolfgang) and "Design and application of topographic sensory microprocessors" (organized by Gustavo Linan Cembrano). Leon Chua, who was the recipient of the IEEE Gustav Robert Kirchhoff Award, gave a plenary invited Lecture, entitled "Local activity and emergent computation" on the 24th of May, 2005. The chairman of the CNNAC technical committee, Bertram Shi, served as chair for the CNNAC track at ISCAS. Technical committee members Paolo Arena, Marco Gilli and Ronald Tetzlaff served as review committee members.

ECCTD-2005: The technical program included some regular sessions on CNNs, but no special sessions.

CNNA 2005: The 9th IEEE International Workshop on Cellular Neural Networks and their Applications was held in Hsinchu, Taiwan, from the 28th to the 30th of May 2005. This workshop was organized by Chin-Teng Lin, and took place the week after ISCAS05. Conference Chair was Zen Chen, Conference co-chairs were Tamas Roska and Bertram Shi. The final program encouraged multidisciplinary interaction, and included 60 papers presented in lecture format.

MICROTECHNOLOGIES FOR THE NEW MILLENNIUM 2005 (Bioengineered and Bioinspired Systems) The conference, that was held in Seville (Spain) from the 9th to the 11th of May, included one regular session devoted to CNNs. Conference Chairs were Riccardo Carmona and Gustavo Linan Cembrano.

MMACTEE 2005: Workshop on "Cellular Neural Networks: Theory and Applications," organized by V. Mladenov and A. Slavova, in the framework of the 7th WSEAS International Conference on Mathematical Methods and Computational Techniques in Electrical Engineering (MMACTEE), Sofia, Bulgaria, October 27-29,2005. Keynote speaker: Prof. Chua (University of California at Berkeley, USA).

CSCC 2005: Workshop on "Cellular Neural Networks: Theory and Applications," organized by V. Mladenov and A. Slavova in the framework of the 9th WSEAS International Conference on Systems (part of the 9th International Conference on Circuits, Systems, Communications and Computers, CSCC Multiconference), Vouliagmeni, Athens, Greece, July 11-13, 2005.

Keynote speaker: Prof. Irwin W. Sandberg (University of Texas at Austin, USA).

Review of Technical Activities in 2006 and Upcoming Conferences

CNNA06: The conference will be held in Istanbul from the 28th to the 30th of August, 2007 and Vedat Tavsanoglu will be the Chair. Vedat Tavsanoglu reports that so far the number of submissions is relatively low and encourages TC members to solicit new submissions, especially from students. The morning of the first day of the Conference will be dedicated to three keynote Lectures. The afternoon will be devoted to a demo-session, organized by Csaba Rekeczky and Paolo Arena and in parallel to a Tutorial organized by Csaba Rekeczky, Bertram Shi and Marco Gilli. The Conference Chair also gives some information about accommodations in Istanbul.

CNNA08: The Conference will be held in Santiago de Compostela (Spain). David Lopez Vilarino provides a short description of the city that will host the Conference.

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ISCAS 2006: The committee organized the review of 32 submitted papers finally leading to 4 sessions for the track *Cellular Neural Networks and Array Computing.* Ronald Tetzlaff and Marco Gilli served as the track chairs and the review committee consists of Paolo Arena, Mauro Forti, Marco Gilli, Maciej Ogorzalek, Ari Paasio, Csaba Rekeczky, Peter Szolgay, and Ronald Tetzlaff. Chin-Teng Lin was chair of the track *Nano-Giga Technology* and a technical program committee member. Especially, the committee was involved in the organization of special sessions and of a tutorial. While Lambert Spaanenburg and Ulrich Rueckert organized the session entitled *Bio-Inspired Digital Systems-on-Chip,* the session *Bio-Inspired Networks & Biomedical Applications* was organized by Ronald Tetzlaff and Marco Gilli. Furthermore, Marco Gilli, Csaba Rekeczky, and Bert Shi organized a CNN Tutorial but unfortunately it was cancelled due to lack of registration.

Initiative in "Advances in Circuits and Systems"

As the member already know from the previous AGM, this initiative will lead to a quarterly, in the IEEE Circuit and Systems Society, distributed newsletter giving developments of general interests. The committee approved by the previous AGM, for handling TC contributions is composed by Ronald Tetzlaff (Theory), Csaba Rekeczky (Applications) and Ricardo Carmona (Implementation).

Expert Meeting

Ronald Tetzlaff proposes to organize a day in Frankfurt, devoted to the dissemination of CNN Technologies to Industries. TC members are invited to send him information about potential interested companies.

New officers

Ronald Tetzlaff nominates Marco Gilli as Chair Elect and Csaba Rekeczky as Secretary. They were unanimously elected by the Committee.

AOB

Since there was no further business, the meeting was adjourned.