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Minutes of the CNNAC Technical Committee Annual General Meeting

27 May 2000 6:00pm
Salon Princessa, Fairmont Princess Resort
ISCAS 2002, Phoenix, Arizona

Attendance:

P. Arena, D. Balya, P. P. Civalleri, A. Csurgay, W. C. Fang, L. Fortuna, H. Kim, M. Laiho, G. Linan, M. Ogorzalek, A. Rodriguez Vazquez, T. Roska, B. Shi, M. Tanaka, V. Tavsanoglu, R. Tetzlaff, A. Ushida, J. Vandewalle, C. Y. Wu, S. Yarman (20 total)

Report from Chairman

L. Fortuna reported that the amount of technical activity relating to cellular neural networks and array computing remains strong. At ISCAS, there were 2 special sessions and 3 regular sessions. At the upcoming CNNA2002 conference in July, there are 74 accepted papers scheduled for presentation, as well as 9 invited talks and several special events scheduled.

Over the past year, there have also been several publications offering a good overview of the field of cellular neural networks including a new book entitled *Cellular Neural Networks and Visual Computing* by L. O. Chua and T. Roska as well as an article in the IEEE CAS Magazine entitled "Cellular Neural Networks: A paradigm for spatio-temporal dynamics" by L. Fortuna, P. Arena, D. Balya, and A. Zangwill. L. Fortuna reported that he had received many requests for reprints of this work, not only from CAS members, but also from researchers outside of engineering, including mathematics and biology.

Prof. L. O. Chua will be a visiting professor for 47 days (June 26 to August 5) at the University of Catania. During his visit, there are many activities related to cellular neural networks and array computing scheduled, including lectures and technical discussions.

At the undergraduate level, there has been a course on CNNs offered every year at the University of Catania, following a tradition started at CNNA2000. Many of these students will be participating in the student competition held in conjunction with CNNA2002 (see www.cnna2002.org).

L. Fortuna also noted that many patents on CNN technology have been granted in the past year, and that it appears that the CNN computing architecture is being adopted by many researchers working in nanotechnology.

Report from Past Chair

T. Roska expressed gratitude to R. Tetzlaff for organizing CNNA2002 in Frankfurt. He asked TC members to encourage their students to take part in the Young Researcher's Contest.

Since May, the new Aladdin system using the ACE4k (64x64 pixel) CNN microprocessor has been accessible over the WWW. The new chip which includes second order dynamics at each cell will also be available through the web shortly. D. Balya distributed some materials relating to this development to TC members at the meeting.

A special issue of the International Journal of Circuit Theory and Applications on CNN and Array Computing edited by T. Roska and A. Rodriguez Vazquez was published recently. T. Roska noted that the revised versions of three papers accepted for the special issue were not received in time for publication and would appear in subsequent issues.

As Editor in Chief of the IEEE Transactions on Circuits and Systems-I: Fundamental Theory and Applications, T. Roska encouraged TC members to send and solicit high quality good papers to the journal.

Finally, T. Roska thanked all TC members for their help in reviewing ISCAS paper submissions.

CNNA2002/2004

R. Tetzlaff thank all TC members for their support in reviewing papers for CNNA2002. The conference will start July 22 and include special events such as the Young Researchers Contest and a Panel discussion. He welcomed all TC members to participate.

T. Roska reported that the International Joint Conference on Neural Networks in 2004 will be organized in Budapest in August. Because this is also the same year the next CNNA conference will be held, he proposed that CNNA2004 be held as satellite conference associated with this conference to promote communication among researchers working in different aspects of neural networks. In addition, there would also be a track in IJCNN dedicated to CNN related activity. L. Fortuna voiced his support for this proposal and after some discussion, it was adopted by the TC members.

V. Tavsanoğlu proposed that the CNNA conference after CNNA2004 be held in Istanbul in 2005. T. Roska reminded the committee that 2005 would also be the year that ECCTD would be held, so if the conference were scheduled for 2005, it would be important that the two conferences not conflict. B. Shi was concerned that since ISCAS, ECCTD and CNNA have traditionally been conference with a large amount of CNN related activity, holding all three in the same year might dilute the impact of this activity by spreading it out over three conferences. In addition, this might leave a void in 2006. After some discussion, the committee agreed that it would be worthwhile to examine the timing of the conference more carefully.

New membership

Angela Slavova from the University of Sophia was accepted as a new member of the technical committee.

AOB

1. L. Fortuna reported that B. Sheu sent an email proposing that a special issue for IEEE TCAS-I on CNN be organized. T. Roska informed the committee that so far, two special issues of TCAS-I are currently being organized, one on nanoelectronic circuits which will be jointly published with the IEEE Transactions on Nanoelectronics, and one on A/D and D/A circuits for communication. C. Y. Wu suggested that L. Fortuna prepare a formal proposal for the special issue and submit it to the TCAS-I editorial board. The committee agreed with this proposal.
2. L. Fortuna suggest the term "synergetics" be added to the name of the technical committee to make it more attractive to new researchers. T. Roska reminded committee that the terminology used in the name of a TC is a critical issue in its approval. Thus, careful consideration of modified name followed by consultation with members of the CAS Technical Activities Board would be prudent. He suggested that the TC should increase the level of publication in journals such as TCAS-I, the International Journal of Circuit Theory and Applications and the International Journal of Bifurcation and Chaos before proposing the name change.
3. B. Shi reported on behalf of G. Cauwenbergs that the conference on Neural Information Processing Systems – Natural and Synthetic (NIPS) launched a new track on "Emerging Technologies" this year. This track is intended to cover various hardware implementations of neural processing systems, including analog/digital VLSI, neuromorphic engineering, optoelectronics, quantum computing, neural prostheses and bioMEMS. The submission deadline for papers would be July 1, 2002. The conference web page is <http://nips.cc>. In addition, proposals for a new demo track would be due by August 9, 2002. While demos would not have a paper associated with them, researchers interesting in submitting a demo proposal were encouraged to also submit a companion paper to the Emerging Technologies track by the July 1 deadline.

4. Wai Chi Fang, chair of CAS Neural Networks TC, announced that he would be chair of Neural Systems and CNN track for ISCAS 2003. At ISCAS 2002, this combined track had only 50 papers. It is important that this activity be increased, so he asked the TC members for their support in submitting more papers to ISCAS 2003. His goal is a 20% increase in submissions for 2003.
5. C. Y.. Wu thanked the committee for their support in his bid for election to the CAS Board of Governors.