

# **International Workshop on Cellular Nonlinear Networks**

(IWCNN, September 3-6, 2006 in Hangzhou, China)

## **FIRST ANNOUNCEMENT**

Cellular Nonlinear Networks or Cellular Neural Networks (abbrev. as CNN) is one of the focusing subjects in the fields of Mathematics, Information Science, Computer Science and Electronic Engineering. Ever since the 90's of the last century, the study on theories and applications of CNN has been considered as very important in the international academic community. The IEEE (International Electrical and Electronics Engineers Society) has so far held 9 international conferences on CNN.

In order to promote the development and research of CNN in China, and to boost the independent innovation in related hi-tech fields of research, after consulted with the founder of CNN, Prof. L.O. Chua and one of the inventors of the CNN CMOS Chip, Prof. T. Roska, Zhejiang Normal University, City University of Hong Kong and Zhejiang University will jointly hold this International Workshop on CNN. All interested scholars and PhD students, home and abroad, are warmly welcomed to participate in the workshop.

### **A. Workshop Time**

September 3-6, 2006 (Registration on Sept. 3; Sept. 6 for your returning journey)

### **B. Workshop Location**

Center of Mathematical Sciences, Zhejiang University, Hangzhou, China

### **C. Organizing Committee**

- Fangyue Chen (Chairman, Professor and Dean of the School of Mathematics and Physics, Zhejiang Normal University)
- Guanrong Chen (Co-Chairman, Chair Professor and Director of the Center for Chaos Control and Synchronization, City University of Hong Kong)
- Jibin Li (Co-Chairman, Professor and Director of the Center for Dynamical Systems and Nonlinear Science, Zhejiang Normal University)
- Hongwei Xu (Co-Chairman, Professor, Deputy Director of Center of Mathematical Sciences, Zhejiang University)
- Lequan Min (Professor, Applied Science School, University of Science and Technology Beijing)
- Xiaohua Zhao (Professor, Center for Dynamical Systems and Nonlinear Science, Zhejiang Normal University)
- Xinchu Fu (Professor, Center for Dynamical Systems and Nonlinear Science, Zhejiang Normal University)
- Guolong He (Head of Mathematics Department, Zhejiang Normal University)
- Xiubin Xu (Head of Information and Computing Science Department, Zhejiang Normal University)

### D. Invited Plenary Speakers (to be confirmed)

- Prof. L. O. Chua, University of California, Berkley, CA, USA. IEEE Fellow
- Prof. T. Roska, Hungary National Academy of Sciences, Budapest, Hungary. IEEE Fellow
- Prof. Guanrong Chen, Director of the Center for Chaos Control and Synchronization, City University of Hong Kong, Hong Kong SAR, China. IEEE Fellow
- Prof. Bert Shi, Hong Kong University of Science and Technology, Hong Kong SAR, China. IEEE Fellow

### E. Registration and Fees

Seats are limited to about 60 participants. Registration fee for each participant is RMB 500. If you are interested in participating in the workshop, please fill in the Registration Form attached, and send it back to Prof. Xiaohua Zhao (E-mai: xzhao@zjnu.cn; Tel: 0579-2298937) or Mr. Yijun Lou (E-mail: louyijun@zjnu.cn; Tel: 0579-2298861) at the following address before the end of April:

**Center for Dynamical Systems and Nonlinear Studies**  
**College of Mathematics and Physics**  
**Zhejiang Normal University**  
**JINHUA 321004**  
**Zhejiang Province**  
**P. R. CHINA**

**F. Web-Site:**    <http://nonlsci.zjnu.net.cn>

**Local Organizing Committee**  
**College of Mathematics and Physics**  
**Zhejiang Normal University**

**February 15, 2006**

### Registration Form

Name	Sex	Affiliation	Telephone No.and E-mail Address	Title of Presentation

## **Appendix: Brief Introduction of some invited plenary speakers**

**Dr. Leon Chua** is widely recognized as the foremost pioneer in nonlinear-circuit theory, and the inventor of Chua's Circuit and Cellular Neural Networks, each spawning a new research area. Leon Chua has given many keynote lectures at ISCAS, ECCTD, CNNA, NOLTA, etc. His works and lectures have inspired and stimulated a new generation of enthusiastic young researchers on nonlinear dynamics and information theory.

Dr. Chua is the first recipient of the IEEE Gustav Robert Kirchhoff Award. He has received the prestigious IEEE Neural Networks Pioneer Award from the Computational Intelligence Society in 2000 in recognition of his impact in neural networks. He has received 7 patents and 9 honorary doctorates. He is a recipient of the top 15 cited authors in Engineering award in 2002, chosen from the Current Contents (ISI) database of all cited papers in engineering disciplines in the citation index over a 10 year period from 1991 to October 2001. He was elected a foreign member of the European Academy of Sciences in 1997. For the record, here is a list of some IEEE and professional activities, as well as major honors and awards of Dr. Chua: Editor, IEEE Transactions of Circuits and System, 1975–1977. President, IEEE Circuits and Systems Society, 1977–1978. Chairman, IEEE CAS Fellow Committee, 1992–2000. Editor, International Journal of Bifurcation and Chaos, 1990-present. Editor, Book Series on Nonlinear Science, World Scientific Publishing Company, 1990. IEEE Neural Networks Pioneer Award, 2000. IEEE Third Millenium Medal, 2000. IEEE Circuits and Systems Society Golden Jubilee Medal, 2000. IEEE Circuits and Systems Society MAC Van Valkenburg Award, 1995 and 1998. IEEE CAS Technical Achievement Award, 1993. IEEE Fellow, 1974. IEEE W. R. G. Baker Prize, 1973. IEEE Browder J. Thompson Prize, 1973. IEEE Frederick Emmons Terman Award, 1974. Alexander von Humboldt Senior Scientist Award, 1982.

**Dr. Tamás Roska** is the Fellow of the IEEE and elected member of four Academies of Sciences in Europe. Since 1964 he has held various research positions, since 1982 he has been with the Computer and Automation Research Institute of the Hungarian Academy of Sciences where he is presently head of the Analogic and Neural Computing Research Laboratory. He is also a Professor and Dean of the Faculty of Information Technology at the Pázmány P. Catholic University, Budapest. In 1974 and since 1989 in each year, he has been Visiting Scholar at the University of California at Berkeley. He has published more than hundred research papers and four books (partly as a co-author). His seminal paper on the CNN Universal Machine, co-authored by L. O. Chua, has received several hundred citations. Dr. Roska is a co-inventor of the CNN Universal Machine (with Leon O. Chua) and the analogic CNN Bionic Eye (with Frank S. Werblin and Leon O.Chua), both are US patents owned by the University of California at Berkeley. In 2002, 2003 he had been serving as Editor-in-Chief of the IEEE Transactions on Circuits and Systems He is a member of the Editorial Board of the International Journal of Circuit Theory and Applications, the Journal of the Franklin Institute, and the Neural Processing Letters. He has been a founding Chair of the Technical Committee on Cellular Neural Networks and Array Computing in the IEEE Circuits and Systems Society. He received the IEEE Third Millenium Medal and the IEEE Circuits and Systems Society's Golden Jubilee Award. He has been awarded a "doctor honoris causa" from the University of

Veszprém. Dr. Roska received in Hungary the Széchenyi Prize, the Szentgyörgyi Prize and the D. Gabor Prize, the Grand Prize of the “Pro Renovanda Cultura Hungariae,” and very recently the 2002 Bolyai Prize. His research interests: cellular neural networks, nonlinear circuit and systems, neural electronic circuits, and analogic spatial-temporal supercomputing and computational complexity.

**Dr. Guanrong Chen** received the M.Sc. degree in Computer Science from the Sun Yatsen (Zhongshan) University, China, in Fall 1981 and the Ph.D. degree in Applied Mathematics from Texas A&M University, USA, in Spring 1987. He worked at University of Houston through tenure track till became Full Professor thereafter, and then at City University of Hong Kong as Chair Professor and founding Director of Centre for Chaos Control and Synchronization since 2000. He is a Fellow of the IEEE, awarded in 1996, for his fundamental contributions to the theory and applications of chaos control and bifurcation analysis. Prof. Chen is the (co)author of about 350 refereed journal papers, 200 some conference proceedings abstracts, and 17 monographs and textbooks, published since 1981. Prof. Chen received the 1993 Junior Faculty Research Excellence Award from the University of Houston, the 1998 Harden-Simons Annual Prize for Outstanding Journal Paper from the American Society of Engineering Education, the 2001 IEEE M. Barry Carlton Best Annual Paper Award from the IEEE Aerospace and Electronic Systems Society, the 2002 Best Paper Award from the Institute of Information Theory and Automation, Academy of Sciences of the Czech Republic, and the 2005 IEEE Guillemin-Cauer Best Annual Paper Award from the IEEE Circuits and Systems Society. He is serving as Deputy Editor-in-Chief for the IEEE Transactions on Circuits and Systems - II and -I, associate Editor for the IEEE Transactions on Automatic Control and the International Journal of Bifurcation and Chaos. He served as chairman and organizer for program committees and technical sessions in many international conferences, and was the Chairman of the Nonlinear Circuits and Systems Technical Committee of the IEEE Circuits and Systems Society (1999-2001). In the past, he was invited to give lecture series and seminars by more than 30 countries. He also is an Honorary Professor of the Central Queensland University, Australia, and Honorary Professor or Honorary Guest-Chair Professor of many Chinese universities such as Beijing University, Tsinghua University, University of Science and Technology of China and Zhejiang University, etc.