2004 Annual Report
IEEE CAS Visual Signal Processing and Communications (VSPC) Technical Committee

Past Chair: Dr. Joern Ostermann, Hanover University
Chair: Dr. Huifang Sun, Mitsubishi Electric Labs
Elected Chair: Dr. Tihao Chiang, National Chiao-Tung University

1. May 24, 2004: IEEE CAS Visual Signal Processing and Communications (VSPC) Technical Committee annual meeting was held in Vancouver, Canada. Dr. Huifang Sun from Mitsubishi chaired the meeting.

    The attendees are: Oscar Au, Lap-Pui Chau, Tihao Chiang, Jie Chen, Liang-Gee Chen, Yun He, Alex Kot, Gwo Giun Lee, Shipeng Li, Chia-Wen Lin, King N. Ngan, Nam Ling, Susanto Rahardja**,** Peter Pirch**,** Yun Q. Shi, Tsung-Han Tsai, Xiaokang Yang Qian Zhang and Wenwu Zhu

2. The committee has elected two new members who received 17 votes in the TC meeting in ISCAS03.

    Yap-Peng Tan (EYPTan@ntu.edu.sg) (Nominated by Tihao Chiang)
    Dr. Yap-Peng Tan received his B.S. degree from National Taiwan University, Taiwan, ROC in 1993, and his M.A. and Ph.D. degrees from Princeton University, New Jersey, USA in 1995 and 1997, respectively. He was with IBM T.J. Watson Research Center as a summer research intern in 1995 and1996, and was employed by Intel Corporation and Sharp Labs of America from 1997 to 1999. While with Intel, he was the Intel representative to the International Color Consortium (ICC). In November 1999, he joined the School of Electrical and Electronic Engineering, Nanyang Technological University (NTU), Singapore, where he is now Associate Professor. He has served as a technical program committee member or track chair for several international conferences, including the IEEE International Conference on Multimedia & Expo (ICME) 2004, IEEE International Conference on Image Processing (ICIP) 2004, International Conference on Communications, Circuits and Systems (ICCCAS) 2004, International Conference on Information Technology: Coding and Computing (ITCC) 2001, International Conference on Information, Communications, and Signal Processing (ICICS) 2001, and ICICS-PCM (Pacific-Rim Conference on Multimedia) 2003. He has also been invited to serve as a reviewer for international journals and conferences including three IEEE Transactions and a number of IEEE international conferences. He was the secretary of the Singapore IEEE Signal Processing Chapter in years 2001 and 2002. He is currently the leader of content-based analysis research group of the Centre for Signal Processing at NTU, the Treasurer of the Singapore IEEE Signal Processing Chapter, the Finance Chair of the 2004 IEEE International Conference on Image Processing, and a Senior Member of IEEE. His research interests include content-based video analysis, image/video processing and coding, multimedia computing, computer vision/pattern recognition, and information technology in general. He has authored or co-authored over 60 research articles, and is named as the principal inventor on 10 U.S. patents and co-inventor on another in the fields of image and video processing. He is coediting a book titled "Intelligent Multimedia Processing with Soft Computing" to be published by Springer-Verlag Heidelberg in 2004.

    Gwo Giun Lee (clee@mail.ncku.edu.tw) (Nominated by Tihao Chiang)
    Gwo Giun (Chris) Lee was born in Taichung, Taiwan. He received his B.S. degree in electrical engineering from National Taiwan University and both his M.S. and Ph.D. degrees in electrical engineering from University of Massachusetts.
    Upon completion of graduate school in 1997, Dr. Lee served as Member of Technical Staff in former Stream Machine Corporation (now acquired by Cirrus Logic) and designed state-of-the-art motion estimator for an MPEG2 Codec. He joined Philips Semiconductor as an IC Architect in 1999 and was involved in the development of a de-interlacing and scan-rate-conversion IC/IP. During this time, he was also involved in the architectural work and design of one of Philips' first SoC chip. Dr. Lee was also the Architect of Philips TriMedia's

first SoC chip. Since 2001, he has been a DSP Architect in Micrel Semiconductors and was responsible for the development of Ethernet IC's such as broadband gigabit PHY. He was also the Director of Quanta Research Center of Taiwan. Since 2003, Dr. Lee has joined the faculty member of Department of Electrical Engineering in National Cheng Kung University in Tainan, Taiwan.

Dr. Lee authored several technical papers and serves as a reviewer for IEEE Transactions and SPIE articles. He is the inventor of two US and European patents in VLSI design of multimedia related fields and has two patents pending. His interests include the research and development of algorithm, architecture and VLSI design for Digital Visual and Signal Processing in the low power domain.

Qian Zhang (qianz@microsoft.com) (Nominated by Wenwu Zhu)

Qian Zhang (M'00) received the B.S., M.S., and Ph.D. degrees from Wuhan University, Wuhan, China, in 1994, 1996, and 1999, respectively, all in computer science. She joined Microsoft Research, Asia, Beijing, China, in July 1999, as an Associate Researcher in the Internet Media Group and now is a Researcher with the Wireless and Networking Group. She has published about 40 refereed papers and is the inventor of several pending patents. Her current research interest includes multimedia delivery over wireless Internet, next-generation wireless networks, P2P network/ad hoc network. Currently, she is participating in TCP/IP header compression in ROHC WG with the Internet Engineering Task Force (IETF). She is the principal contributor of the IETF ROHC-TCP WG draft.

Susanto Rahardja (rsusanto@i2r.a-star.edu.sg) (Nominated by Tihao Chiang)

Susanto Rahardja received B.Eng. in electrical engineering in 1991 from the National University of Singapore (NUS), M.Eng. in digital communication and microwave circuits, and Ph.D. in the area of logic synthesis and signal processing from the Nanyang Technological University (NTU), Singapore, in 1993 and 1997, respectively. He joint Centre for Signal Processing (NTU) as a research engineer in 1996. In 2001, he joined NTU as an academic professor and was appointed the Assistant Director of the Centre for Signal Processing. In 2002, he joint Agency for Science, Technology and Research and was appointed as the Program Director to lead the Signal Processing program. He was the recipient of the prestigious IEE Hartree Premium Award in 2002 and the Tan Kah Kee Young Inventors' GOLD Award (Open Category) in 2003. He is the cofounder of AMIK Raharja Informatika and STMIK Raharja, an institute of higher learning in Tangerang, Indonesia.

Dr Rahardja is a Senior Member of the IEEE. He is currently the director of Media Division in the Institute for Infocomm Research. He has more than 100 articles in international journals and conferences. He is currently an Associate Professor at the School of Electrical and Electronic Engineering in the Nanyang Technological University. His research interests include binary and multiple-valued logic synthesis, digital communication systems and digital signal processing.

Tsung-Han Tsai (han@ee.ncu.edu.tw) (Nominated by Tihao Chiang)

Tsung-Han Tsai was born in Chunghua, Taiwan, R.O.C., in 1967. He received the B.S., M.S., and Ph.D. degrees in electrical engineering from National Taiwan University, Taipei, Taiwan, in 1990, 1994, and 1998 respectively. Dr. Tsai was an Instructor (1994-1998) and an Associate Professor (1998-1999) of the department of electrical engineering at Hwa Hsia College of Technology and Commerce. From 1999 to 2000, he was an Associate Professor of electronic engineering at Fu Jen University. Currently, he is an Assistant Professor in the department of electrical engineering at National Central University. He is also a member of IEEE and Audio Engineering Society (AES). His research interests include VLSI signal processing, video/audio coding algorithms, DSP architecture design, wireless communication and System-On-Chip design.

3. New officers

Dr. Wenwu Zhu from Microsoft Research Asia was elected unanimously as new TC secretary. His campaign statement is enclosed below.

Statement for Secretary of VSP-TC

- Conference Support
  - Help chairman and TC to support the conferences that our Society and our TC involves, such as ISCAS, ICME, etc.
  - Help organize Special Sections in the new technological areas and edge areas to our TC in aforementioned conferences
- Journal Support
  - Promote supporting IEEE Transactions on Circuits and System for Video Technology, as well as other IEEE Journals related our society such as IEEE Transaction on Multimedia, etc.
  - Help TC organize special issues in aforementioned journals, and select good papers from good conferences' sessions such as Special Session to the aforementioned journals
- New memberships
  - Help Chairman and this TC to bring in new TC members and Circuits and System Society's members.
  - Help Chairman and this TC coordinate, if any, with sister's TC(s) in our society and other societies such as Communication and Signal Processing

Wenwu Zhu received the B.E. and M.E. degrees from the National University of Science and Technology, Hefei, China, in 1985 and 1988, respectively, the M.S. degree from Illinois Institute of Technology, Chicago, in 1993, and the Ph.D. degree from Polytechnic University, Brooklyn, NY, in 1996, all in electrical engineering. From August 1988 to December 1990, he was with the Graduate School, University of Science and Technology of China (USTC), and the Institute of Electronics, Chinese Academy of Sciences, Beijing, China. He joined Microsoft Research, Beijing, China, in 1999 as a Researcher in the Internet Media Group. He is currently a Research Manager of the Wireless and Networking Group. Prior to his current post, he was with Bell Laboratories, Lucent Technologies, Murray Hill, NJ, as a Member of Technical Staff during 1996–1999. While he was with Bell Laboratories, he performed research and development in the areas of Internet video, video conferencing, and video streaming over IP networks. He has published over 100 refereed papers in international leading journals and key conferences in the areas of wireless/Internet video transport, wireless/Internet multimedia communications and networking, and multimedia signal processing, and has contributed to the IETF ROHC WG draft on robust TCP/IP header compression over wireless links. He is the inventor of more than 12 pending patents. His current research interest is in the area of wireless/Internet multimedia delivery and delivery networks. Dr. Zhu has served and is serving as Guest Editor for Special Issues on Streaming Video and Wireless Video in the IEEE Transactions on Circuits and Systems for Video Technology. He is a Member of Eta Kappa Nu, the Visual Signal Processing and Communication Technical Committee, and the Multimedia System and Application Technical Committee of the IEEE Circuits and Systems Society. He is also a Member of the Multimedia Communication Technical Committee of the IEEE Communications Society. He received the Best Paper Award in the IEEE Transactions on Circuits and Systems for Video Technology in 2001.

4. Conference Support

The committee would like to thank the following committee members for their kind support in paper review process and session chairs for the ISCAS 2004 conferences.

Oscar Au, Lap-Pui Chau, Jie Chen, Liang-Gee Chen, Zhihai He, Yun He, C.-C. Jay Kuo, Alex Kot, Gwo Giun Lee, Shipeng Li, Vinicius Licks, David Lin, Chia-Wen Lin, Ching-Yung Lin, Nam Ling, Peter Pirch, Yun Q. Shi, Xiaokang Yang, Chung-Neng Wang, Wenwu Zhu

The committee members have supported and/or will support the following international conferences.

- ISCAS 2004 (May 23-26, Vancouver 2004)
- ISCAS 2005 (May 23-26, Kobe 2005)
- ICME 2004 (June 27-30Taipei, 2004)
- ICME 2005 (2005)
- ICIP 2004 (Singapore, October 24-27, 2004)
- ICIP 2005 (Geneva, September 11-14, 2005)
- PCM 2004 (Kobe, Nov. 30 – Dec. 3, 2004)
- PCM 2005 (2005)

Dr. Huifang will attend the coming ISCAS 2005 paper selection meeting in Kobe. All the TC members were encouraged to submit tutorial and invited session proposals for ISCAS 2005.

5. Other business

Dr. Wenwu Zhu from Microsoft Research Asia reported a very successful special issue for the IEEE Proceedings to be published in December 2004. This special issue is organized and supported by the members of the VSPC. The special issue is entitled "Advances in Video Coding and Delivery" in the Proceedings of the IEEE, expected December 2004. The guest editors are "Ming-Ting Sun, Liang-Gee Lee, Thomas Sikora, and Wenwu Zhu.

Prof. Liang-Gee Chen has reported that there will be an increase of page budget to 120 pages in the coming IEEE Transactions on Circuit and Systems for Video Technology. There are new IEEE guidelines for duplicated publications to be announced by the IEEE society.

Prof. Nam Ling has raised the issue that some paper submitted to the IEEE Transactions on Circuit and Systems for Video Technology has experienced delay of 15 months for the first round of review. The committee recommended that such feedback will be forwarded to the Editor in Chief.

Prof. Liang-Gee Chen indicated that there will be new electronic submission system for future paper submissions.

Prof. Jie Chen would like to express his appreciations for the committee's support in his nomination as the distinguished lecturers (DL) for the coming year.

6. Next TC meeting will be held in Kobe during ISCAS2005, the proposed agenda is as follows:
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   1. Approval of the agenda
   2. BOD report
   3. Review the activities during the past year
   4. Conference Support
   5. New members
   6. Elect a new officers
   7. Other business
   8. Adjourn