

ANNUAL REPORT 2006 DSP TC, IEEE CAS SOCIETY

Chairman: Prof. H. K. Kwan
Secretary: Prof. Y. Miyanaga
Secretary-Elect: Prof. B. Nowrouzian
Past Chairman: Prof. T. Saramäki

- 1 TC Meeting: The last TC Annual Meeting was held on May 26, 2005, Thursday, 12:45 to 14:15 at Portopia Hotel, Kobe, Japan, during the IEEE International Symposium on Circuits and Systems, Kobe, Japan, May 23-26, 2005.

- 2 Conferences or Workshops where the DSP TC or Members of the TC were actively involved in 2005-2006 include the followings:
 - 2.1 2005 IEEE International Symposium on Circuits and Systems (ISCAS 2005), Kobe International Convention Center, Kobe, Japan, May 23-26, 2005.
 - DSP Track Chair: Prof. H. K. Kwan, Co-Chair: Prof. Tapio Saramäki.
 - Review Committee Members:
Drs. Lian Yong, U. B. Desai, Mohammed Y. Niamat, Ravi Prakas Ramachandran, P. P. Vaidyanathan, S. C. Chan, Behrouz Nowrouzian, Dominic Ho, Yuan-Pei Lin, Lina Karam, Yong Ching Lim, See-May Phoong, Wei Xing Zheng, Zhiping Lin, Truong Nguyent, Xinping Huang, Mohsin Jamali, Soontorn Oraintara, Gwee Bah Hwee, Håkan Johansson, Andreas Spanias, Yoshikazu Miyanaga and I. Pitas.
 - Tutorial Co-Chair: Prof. Y. Miyanaga.
 - Lecturer of Tutorial Session:
 - Digital Filters on Silicon: Design and Implementation, Prof. Y. C. Lim (Sponsored by DSP TC).
 - Co-Organizers and Co-Chairs of Invited Sessions:
 - “Low Complexity Digital Filter Design Technologies and Their Applications”, Prof. Yong Lian (Sponsored by DSP TC).
 - “Multidimensional Systems and Signal Processing”, Prof. Zhiping Lin, Prof. Li Xu (Sponsored by DSP TC).
 - “Advances in Low Power Sensor Networks”, Prof. Andreas Spanias (Sponsored by DSP TC).
 - Technical Session Chairs (without their title):
 - "FIR Digital Filters": Masayuki Kawamata, Y. C. Lim,
 - "IIR Digital Filters": H. K. Kwan.
 - "Digital Filters I": Takao Hinamoto, Tapio Saramäki.
 - "Digital Filter Banks I": Soontorn Oraintara.
 - "Digital Signal Processing I": S. C. Chan.
 - "Multidimensional Signal Processing": M. N. S. Swamy, Li Xu.
 - "Discrete Transforms and Wavelets": W. C. Siu.

- "Detection and Estimation": Yih-Fang Huang.
 - "Adaptive Signal Processing I": Paulo Diniz.
 - "Adaptive Signal Processing II": Dominic K. C. Ho.
 - "Audio and Speech Processing I": Ravi Prakas Ramachandran.
 - "Audio and Speech Enhancement I": Say Wei Foo.
 - "Digital Signal Processing for Communications I": Yoshikazu Miyanaga.
 - "Digital Signal Processing for Communications II": See-May Phoong.
 - "Digital Filters II": Yong Lian.
 - "Digital Signal Processing II": Zhiping Lin.
 - "Adaptive Signal Processing III": Wei Xing Zheng.
 - "Digital Signal Processing Applications III": Yuan-Pei Lin.
 - "Digital Signal Processing Algorithm Implementation II": U. B. Desai.
- 2.2 The 1st International Symposium on Video Processing and Quality Metrics for Consumer Electronics (VPQM 2005), Scottsdale, AZ, Jan. 2005 (sponsored by Intel). Main organizer and Technical Program Chair: Prof. Lina Karam.
 - 2.3 The 7th International Conference and Exhibition on Digital Signal Processing and its Applications (DSPA 2005), Moscow, Russia, March 16–18, 2005. International Technical Program Committee Member: Prof. Tapio Saramäki.
 - 2.4 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2005), Philadelphia, U.S.A., March 18-23 2005. Technical Program Committee Member: Prof. D. Tay, Prof. Lina Karam. Session Chair Prof. Lina Karam.
 - 2.5 2005 IEEE International Conference on Networking, Sensing and Control (ICNSC 2005), Tucson, Arizona, USA, March 19-22, 2005. International Program Committee Member: Prof. Wei Xing Zheng.
 - 2.6 International Workshop Audio—Visual Content and Information Visualization in Digital Libraries (AVIVDiLib 2005), Cortona, May 4-6, 2005. Program Committee Member: Prof. Ioannis Pitas.
 - 2.7 2005 IEEE – EURASIP Workshop on Nonlinear Signal and Image Processing (NSIP 2005), Sapporo, Japan, May 18-20, 2005. General Co-Chair: Prof. Y. Miyanaga.
 - 2.8 International Conference on Communications, Circuits and Systems (ICCCS 2005), Hong Kong, May 27-30 2005. Technical Program Committee Member: Prof. Wei Xing Zheng. Best Paper Competition Chair & Technical Session Chair: Prof. H. K. Kwan.
 - 2.9 2005 International Workshop on VLSI Design and Video Technology (IWVDVT 2005), Suzhou, China, May 28-31 2005. Technical Committee Member: Prof. Yong Lian, General Co-Chair: Prof. W. C. Siu.
 - 2.10 International Symposium on Neural Networks (ISNN 2005), May 30 - June 1, 2005, Chongqing, China. Program Committee Member: Prof. H. K. Kwan.
 - 2.11 The 2005 International TICSP Workshop on Spectral Methods and Multirate Signal Processing (SMMSP 2005), June 20–22, 2005, Riga, Latvia. The main purpose of the workshop was to bring together some of the leading experts working on transforms, filter banks, and multirate filtering in general and to create a friendly and relaxed atmosphere to talk about the most important issues in these fields. We managed very well and ended up with the proceedings of 29

- articles. See <http://sigwww.dmi.tut.fi/TICSP/>. Co-Chairmen: Profs. Karen Egiazarian and Tapio Saramäki.
- 2.12 The 4th Workshop on Content-Based Multimedia Indexing (CBMI 2005), Reval Hotel Latvija, Riga, Latvia, June 22-24, 2005. The workshop is about content-based multimedia indexing and retrieval and has been co-sponsored by the DSP TC. General Chair: Prof. Moncef Gabbouj. Technical Program Committee Member: Prof. Ioannis Pitas.
 - 2.13 The 20th IEEE International Symposium on Intelligent Control (ISIC 2005), Limassol, Cyprus, June 27-29, 2005. International Program Committee Member: Prof. Wei Xing Zheng.
 - 2.14 IEEE International Conference on Multimedia & Expo. (ICME 2005), July 6-8, 2005, Amsterdam, The Netherlands. Program Committee Member: Prof. Ioannis Pitas.
 - 2.15 International Conference on Robotics, Vision, Information and Signal Processing (ROVISP 2005), Penang, Malaysia, 20-22 July 2005. Organizing Committee Member: Prof. Mohsin M. Jamali.
 - 2.16 The 2nd International Workshop on Pattern Recognition with Support Vector Machines (SVM 2005), Seoul, Korea, August 27-28, 2005. Program Committee Member: Prof. Ioannis Pitas.
 - 2.17 European Signal Processing Conference (EUSIPCO), Antalya, Turkey, 4-8 September 2005. Co- Chair of the Technical Program Committee: Prof. A. E. Cetin.
 - 2.18 The 8th International Symposium on Signal Processing and Its Applications (ISSPA 2005), Sydney, Australia, August 29-September 1, 2005. Program Committee Members: Prof. Ioannis Pitas, Prof. Wei Xing Zheng. Special Session Organizer and Chair: "Blind System Identification": Prof. Wei Xing Zheng.
 - 2.19 European Conference on Circuits Theory and Design (ECCTD 2005), Cork, Ireland, 29 August–1 September 2005. Scientific Committee Member: Prof. Tapio Saramäki.
 - 2.20 The 9th European Conference on Speech Communication and Technology, (InterSpeech 2005), September 4-8, 2005, Lisbon, Portugal. Scientific Review Committee Member: Prof. H. K. Kwan.
 - 2.21 The 11th International Conference on Computer Analysis of Images and Patterns (CAIP2005), Paris, France, Sept. 5-9, 2005. Program Committee Member: Prof. Ioannis Pitas.
 - 2.22 2005 IEEE International Conference on Image Processing (ICIP 2005), Genova, Italy, September 11 -14, 2005. Technical Committee Member: Prof. Ioannis Pitas, Prof. Lina Karam, Prof. D.Tay. Publicity Chair Prof. M. Gabbouj.
 - 2.23 2005 International Workshop on Intelligent Information Hiding and Multimedia Signal Processing (IIH-MSP 2005), Hilton Hotel, Melbourne, Australia, September 14 – 16, 2005. Organizing Committee Member: Prof. W. C. Siu. Technical Program Committee Member: Prof. H. K. Kwan.
 - 2.24 The Fourth International Symposium on Image and Signal Processing and Analysis (ISPA 2005), Zagreb, Croatia, September 15-17, 2005. Program Committee Member: Prof. Tapio Saramäki. Special Session Organizers of two sessions on "Spectral Methods and Multirate Signal Processing": Prof. Karen

- Egiazarian, Prof. Tapio Saramäki. Chairman of these two sessions: Prof. Tapio Saramäki. A Member of the ISPA Steering Committee organizing the future ISPA conferences: Prof. Tapio Saramäki.
- 2.25 IEEE Advanced Video and Signal Based Surveillance (AVSS 2005), Como, Italy, September 15-19, 2005. Program Committee Member: Prof. Ioannis Pitas.
 - 2.26 Power and Timing Modeling, Optimization and Simulation (PATMOS), Belgium, September 20-23, 2005, Technical Program Committee Member: Dr. T. Stouraitis.
 - 2.27 The 11th Asia-Pacific Conference on Communications (APCC 2005), Perth, Australia, October 3-5, 2005. Program Committee Member: Prof. Håkan Johansson.
 - 2.28 International Symposium on Communications and Information Technologies 2005 (ISCIT 2005), International Convention Center, Beijing, China, October 12-14, 2005. General Co-Chair: Prof. Yoshikazu Miyanaga.
 - 2.29 International Conference on Technology and Automation 2005 (ICTA2005), Thessaloniki, Greece, October 15-16, 2005. Program Committee Member: Prof. Ioannis Pitas.
 - 2.30 The 6th International Conference on ASIC (ICASIC 2005), October 24-27, 2005, Shanghai, China, Technical Program Committee Member: Prof. Yong Lian.
 - 2.31 The IEEE 2005 Workshop on Signal Processing Systems (SiPS 2005), Athens, Greece, November 2-4, 2005. General Chair: Prof. T. Stouraitis.
 - 2.32 The 10th Panhellenic Conference on Informatics (PCI 2005), Volos, Greece, November 11-13, 2005. Session Organizer: Prof. Ioannis Pitas.
 - 2.33 The International Conference on “Computer as a tool” (EUROCON 2005), November 21–24, 2005, Sava Center, Belgrade, Serbia & Montenegro. Scientific Committee Member: Prof. Håkan Johansson, Prof. Tapio Saramäki.
 - 2.34 The joint 44th IEEE Conference on Decision and Control and European Control Conference (CDC-ECC 2005), Seville, Spain, December 6-9, 2005. Program Committee Member: Prof. Wei Xing Zheng.
 - 2.35 The 5th International Conference on Information, Communications and Signal Processing (ICICS 2005), Bangkok, Thailand, December 6-9 2005. International Program Committee Member: Prof. W. C. Siu.
 - 2.36 The IEEE 2005 Conference on Field Programmable Technology (FTP), Dec 11-14, 2005, Singapore, Finance Chair: Prof. Yong Lian.
 - 2.37 The 12th International Conference on Electronics, Circuits and Systems (ICECS2005), Gammarth, Tunisia, December 11-14, 2005, Technical Program Committee Member: T. Stouraitis. Steering Committee Member: T. Stouraitis.
 - 2.38 2005 International Symposium on Intelligent Signal Processing and Communications Systems (ISPACS 2005), Hong Kong, December 14-17, 2005. General Co-Chair: Prof. W.C. Siu; Technical Committee Member: Prof. H. K. Kwan, Prof. Ioannis Pitas; Session Chair (Filter Design I): Prof. H. K. Kwan.
 - 2.39 International Conference on Biometrics Authentication (ICBA 2006), Hong Kong, January 5-7, 2006. Program Committee Member: Prof. Ioannis Pitas.
 - 2.40 International Conference on Computer Vision Theory and Applications (VISAPP 2006), Portugal, February 25-28, 2006, Program Committee Member: Prof. I. Pitas.

- 2.41 The 2nd International Symposium on. Communications, Control and Signal Processing (ISCCSP 2006), Marrakech, Morocco, March 13-15, 2006. Technical Program Chair: Prof. Moncef Gabbouj.
- 2.42 The 14th IFAC Symposium on System Identification (SYSID'2006), Newcastle, Australia, 29-31 March 2006. National Organizing Committee Member: Prof. Wei Xing Zheng. Registration Chair: Prof. Wei Xing Zheng
- 2.43 2006 IEEE International Conference on Networking, Sensing and Control (ICNSC'2006), Miami, Florida, USA, 23-25 April 2006. International Program Committee Member: Prof. Wei Xing Zheng.
- 2.44 The 8th International Conference and Exhibition on Digital Signal Processing and its Applications (DSPA 2006), Moscow, Russia, March 29–31, 2006. International Technical Program Committee Member: Prof. Tapio Saramäki
- 3 On going Conferences or Workshops where the DSP TC or Members of the TC are actively involved include the followings:
- 3.1 2006 IEEE International Symposium on Circuits and Systems (ISCAS 2006), Kos, Greece, May 2006.
- General Chair: Prof. T. Stouraitis.
 - DSP Track Chair: Prof. H. K. Kwan, Co-Chairs: Prof. B. Nowrouzian, Prof. Y. Miyanaga.
 - Review Committee Members:
Drs. Yong Lian, Wei Xing Zheng, H. K. Kwan, Dominic Ho, Yoshikazu Miyanaga, Xinping Huang, Hiroshi Ochi, Takao Onoe, Uday Desai
 - Co-Organizers and Co-Chairs of Invited Sessions:
 - Digital Signal Processing Techniques for Biomedical Circuits and Systems, Prof. Yong Lian (Sponsored by DSP TC).
 - Technical Session Chairs (without their title):
 - Adaptive Signal Processing I: Wei Xing Zheng
 - FIR Digital Filter Implementation: Tapio Saramäki
 - Discrete-Time Transforms & Wavelets: M. Omair Ahmad, David Tay
 - Digital Signal Processing for Communications I: Li Xu
 - Digital Signal Processing for Communications II: Xinping Huang
 - Speech Enhancement: H. K. Kwan
 - Digital Filterbank I: Soontorn Orintara
 - FIR Digital Filter Design: Y. C. Lim
 - Digital Signal Processing I: S. C. Chan
 - Adaptive Signal Processing IV: Zhiping Lin
 - Digital Signal Processing for Communications III: Chi-Wah Kok
 - IIR Digital Filter Design: H. K. Kwan
 - M-D Digital Signal Processing: Wu-Sheng Lu
 - Multirate Signal Processing: Robert Bregovic, Håkan Johansson
 - Detection & Estimation: Dominic K. C. Ho
 - Image & Video Processing I: Behrouz Nowrouzian
 - Image & Video Processing II: Behrouz Nowrouzian
 - Audio & Speech Processing II: Andreas Spanias

- Frequency Masking Digital Filters: Yong Lian.
- 3.2 The International Conference on Computer and Communication Engineering (ICCCE), Malaysia, May 9-11, 2006, Member of International Advisory Committee: Prof. Yong Lian.
- 3.3 Workshop on Multimodal User Authentication (MMUA), Toulouse, France, May 11-12, 2006, Program Committee Member: Prof. I. Pitas.
- 3.4 IEEE International Conference on Acoustics, Speech, and Signal processing, (ICASSP 2006), Toulouse, France, May 14-19, 2006. Publicity Chair: Prof. Moncef Gabbouj.
- 3.5 The 4th Hellenic Conference on Artificial Intelligence (SETN'06), Heraklion, May 18-20, 2006, Program Committee Member: Prof. I. Pitas.
- 3.6 2006 International Symposium on Neural Networks (ISNN), Chengdu, China, May 29-31, 2006. Program Committee Member: Prof. H. K. Kwan.
- 3.7 The 7th Nordic Signal Processing Symposium (NORSIG 2006), Reykjavik, Iceland, June 7-9, 2006. Tutorial Chair: Prof. Tapio Saramäki. Tutorial Session: "Efficient Techniques for Image Re-Sampling": Prof. Tapio Saramäki together with his colleague. Technical Committee Member: Prof. Tapio Saramäki.
- 3.8 The 6th World Congress on Intelligent Control and Automation (WCICA'2006), Dalian, China, 21-23 June 2006. International Program Committee Member: Prof. Wei Xing Zheng.
- 3.9 International Conference on Communications, Circuits and Systems (ICCCAS 2006), Gui Lin, China, June 25-28 2006, Track Chair (Theory and Methods of Signal Processing): Prof. H. K. Kwan; Technical Program Committee Member: Prof. H. K. Kwan; Special Session Organizer and Chair (Recent Advances in Digital Filters and Filterbanks): Prof. H. K. Kwan.
- 3.10 The 2006 International Joint Conference on Neural Networks (IJCNN'2006), Vancouver, British Columbia, Canada, 16-21 July 2006. International Program Committee Member: Prof. Wei Xing Zheng.
- 3.11 IEEE Mid-West Symposium on Circuits and Systems (MWSCAS), San Juan, Puerto Rico, August 6-9 2006, Steering Committee Member: Prof. B. Nowrouzian, Track Chair: Prof. H. K. Kwan, Review Committee Member: Prof. H. K. Kwan, Session Chair: Prof. B. Nowrouzian.
- 3.12 International Conference on Signal Processing and Multimedia Applications (SIGMAP2006), Setubal, Portugal, August 7-10, 2006, Program Committee Member: Prof. I. Pitas.
- 3.13 International Conference on Pattern Recognition (ICPR 2006), Hong Kong, August 20-24, Program Committee Member: Prof. W. C. Siu.
- 3.14 The 14th European Signal Processing Conference (EUSIPCO 2006), Florence, Italy, September 4-8 2006, Technical Committee Member: Prof. W.C. Siu.
- 3.15 International Conference on Artificial Neural Networks (ICANN-06), Athens, Greece, September 10-14, 2006, Program Committee Member: Prof. I. Pitas.
- 3.16 IEE Conf on Visual Information Engineering (VIE2006), Bangalore, India, September 26-28, 2006, Program Committee Member: Prof. I. Pitas.
- 3.17 The 21st IEEE International Symposium on Intelligent Control (ISIC'2006), Munich, Germany, 4-6 October 2006. International Program Committee Member: Prof. Wei Xing Zheng.

- 3.18 International Symposium on Communications and Information Technologies 2006 (ISCIT 2006), Grand Mercure Fortune Hotel, Bangkok, Thailand, October 18- 20, 2006. General Co-Chair: Prof. Yoshikazu Miyanaga.
- 3.19 2006 International Symposium on Visual Computing (ISVC06), Nevada, USA, November 6-8, 2006, Program Committee Member: Prof. I. Pitas.
- 3.20 International Workshop on Digital Watermarking 2006(IWDW'06) Seoul, Korea. November 8-10, 2006, Program Committee Member: Prof. I. Pitas.
- 3.21 The 11th Iberoamerican Congress on Pattern Recognition (CIARP), Cancun, Mexico, November 14-17, 2006, Program Committee Member: Prof. I. Pitas.
- 3.22 2006 IASTED International Conference on Circuits, Signals, and Systems, California, USA, November 20-22 2006. International Program Committee Member: Prof. H. K. Kwan.
- 3.23 IEEE International Conference on Advanced Video and Signal based Surveillance (AVSS 2006), Sydney, Australia, November 22-24, 2006, Program Committee Member: Prof. I. Pitas.
- 3.24 Asia-Pacific Workshop on Visual Information Processing, Hong Kong, December 2005. Advisory Committee Member: Prof. W. C. Siu.
- 3.25 IEEE International Conference on Biomedical Circuits and Systems (BioCAS 2006), London, UK, November 29- December 1, 2006. Technical Program Co-Chair: Prof. Yong Lian.
- 3.26 The IEEE Asia Pacific Conference on Circuits and Systems (APCCAS) 2006, Singapore, December 4-7, 2006. General Chair: Prof. Yong Ching Lim; Finance Chair: Zhiping Lin; International Liaison Co-Chair: Yoshikazu. Miyanaga; Special Session Co-chair: Prof. Paulo Sergio Ramirez Diniz; Technical Program Co-Chair: Prof. Yong Lian; Tutorial Co-Chair: Prof. Tapio Saramäki; Special Session Organizer: Prof. Tapio Saramäki; Exhibition Chair: Prof. Foo Say Wei; Publication Chair: Prof. Gwee Bah Hwee; International Advisory Committee Chair: Prof. H. K. Kwan; International Advisory Committee Member: Profs. Takao Hinamoto, Masayuki Kawamata, and Behrouz Nowrouzian. Technical Program Committee Member: Prof. Wei Xing Zheng.
- 3.27 The 1st International Conference on Semantic and Digital Media Technologies (SAMT 06), Athens, Greece, December 7-8, 2006, Program Committee Member: Prof. I. Pitas.
- 3.28 The 45th IEEE Conference on Decision and Control (CDC'2006), San Diego, California, USA, 13-15 December 2006. Program Committee Member: Prof. Wei Xing Zheng.
- 3.29 The 8th Hellenic-European Research on Computer Mathematics and its Applications Conference (HERCMA 2007), September 20-22, 2007, Program Committee Member: Prof. I. Pitas.
- 3.30 2008 IEEE International Conference on Acoustics, Speech, and Signal Processing, (ICASSP 08), Las Vegas, NV, 2008. Organizing Committee Member: Prof. Lina Karam. Steering Committee Member: Prof. Lina Karam.
- 3.31 2009 IEEE International Conference on Image Processing (IEEE ICIP) to be held in Cairo, Egypt, in 2009. Technical Program Chair: Prof. Lina Karam.
- 3.32 IEEE International Conference on Image Processing (ICIP2010), Hong Kong, September 2010. General Chair: Prof. Wan-Chi Siu.

- 4 Books and Book Chapters:
 - 4.1 Prof. L.J. Karam, Lossless Coding, in the Handbook of Image and Video Processing, 2nd Edition, Al Bovik Editor, Academic Press, June 2005.
 - 4.2 Profs. U. Rajashekar, AC. Bovik, L.J. Karam, RL. Lagendijk and M. Unser, Image Processing Education, in the Handbook of Image and Video Processing, 2nd Edition, Al Bovik Editor, Academic Press, June 2005.

- 5 Short Courses:
 - 5.1 Prof. Tapio Saramäki has served since 1995 as the main lecturer and organizer of four intensive DSP courses to the industrial people through EDUTECH, the organization of Tampere University of Technology taking care of educating people outside the university.
 - 5.2 Prof. Zhiping Lin gave a short course on array signal processing to the industrial people in Singapore on 18-19 January, 2006.

- 6 Plenary Sessions, Keynote Speakers, Invited Lectures:
 - 6.1 Profs. Karen Egiazarian and Tapio Saramäki gave plenary talks at the 7th International Conference and Exhibition on Digital Signal Processing and its Applications (DSPA-2005), March 16–18, 2005, Moscow, Russia.
 - 6.2 Prof. Ioannis Pitas serves as an invited speaker, 10th Panhellenic Conference on Informatics (PCI 2005), Volos, November 2005.
 - 6.3 Prof. Yong Lian served as a Distinguished Lecturer of the IEEE CAS Society for 2004-2005.
 - 6.4 Prof. Tapio Saramäki was invited to give presentations entitled “Efficient DSP Algorithms and Their Optimization for Signal Processor and VLSI Implementations” and “Design of Digital Filters and Filter Banks by Optimization: Applications”, invited lectures at the University of Zagreb, Croatia, September 19, 2005 and at INAOE, Puebla, Mexico, February 28, 2006.
 - 6.5 Prof. Tapio Saramäki was invited to give presentations entitled “Design of Digital Filters and Filter Banks by Optimization: Applications”, a plenary “Efficient Techniques for Image Re-Sampling”, as a plenary talk at EUROCON 2005 and DSPA 2006 as well as at INAOE, Puebla, Mexico, March 3, 2006.
 - 6.6 Prof. Wan Chi Siu was invited to give presentation entitled “The 11th Annual Youth Conference of Chinese Institute of Electronics” (CIEY 2005), Jinan, Shandong University, 24-26 September 2005, Shandong, China.
 - 6.7 Prof. Wan Chi Siu was invited to give the plenary presentation, IEEE International Workshop on VLSI Design and Video Technology (IWVDVT2005), Suzhou, China, May 28-31.
 - 6.8 Prof. Moncef Gabbouj was invited to give the keynote speech at international events (SPS-DARTS 2006 in Antwerp, Belgium; ISPPA 2003 in Paris, France; DSPA 2004 in Moscow, Russia and ISPACS 2004 in Awaji Island, Japan.).

- 7 Editorial Services:
- 7.1 Prof. Tapio Saramäki serves as an Associate Editor, Circuits, Systems and Signal Processing.
 - 7.2 Prof. Yong Lian serves as an Associate Editor, IEEE Trans. on Circuits and Systems I.
 - 7.3 Prof. Yong Lian serves as an Associate Editor, Circuits, Systems and Signal Processing.
 - 7.4 Prof. Yong Lian serves as one of the Guest Editors for the Special Issue on Biomedical Circuits and Systems: A New Wave of Technologies in the IEEE Trans. on Circuits and Systems Part I.
 - 7.5 Prof. Yong Lian serves as one of the Guest Editors for the Special Issue on Computationally Efficient Digital Filters: Design Techniques and Applications in the journal of Circuits, Systems and Signal Processing.
 - 7.6 Prof. Zhiping Lin serves as an Associate Editor, Circuits, Systems and Signal Processing.
 - 7.7 Prof. Zhiping Lin serves as a Co-Editor, Multidimensional Systems and Signal Processing.
 - 7.8 Prof. Wu-Sheng Lu serves as an Associate Editor, IEEE Trans. on Circuits and Systems, I, starting from Jan. 2004.
 - 7.9 Prof. Truong Nguyen serves as an Associate Editor, IEEE Transactions on Image Processing.
 - 7.10 Prof. Truong Nguyen serves as an Associate Editor, IEEE Signal Processing Letters.
 - 7.11 Prof. Truong Nguyen serves as an Associate Editor, IEEE Transactions on CAS II.
 - 7.12 Prof. See-May Phoong serves as an Associate Editor, IEEE Trans. Circuits and Systems II.
 - 7.13 Prof. See-May Phoong serves as an Associate Editor, IEEE Signal Processing Letters.
 - 7.14 Prof. T. Stouraitis serves as a Regional Editor-Europe, Journal of Circuits, Systems, and Computers.
 - 7.15 Prof. T. Stouraitis serves as an Associate Editor, IEEE Transactions on VLSI.
 - 7.16 Prof. T. Stouraitis serves as an Associate Editor, T-CAS II.
 - 7.17 Prof. J. B. Evans serves as an Associate Editor, IEEE Communications Letters.
 - 7.18 Prof. Y. Miyanaga serves as an Associate Editor, Journal of Signal Processing, Japan.
 - 7.19 Prof. Yuan-Pei Lin serves as an Associate Editor, IEEE Transaction on Signal Processing, 2002-2006.
 - 7.20 Prof. Yuan-Pei Lin serves as an Associate Editor, Multidimensional, Systems and Signal Processing, Academic Press, 1997-
 - 7.21 Prof. Yuan-Pei Lin serves as a member of Editorial Board, EURASIP Journal on Applied Signal Processing, 2004-2006.
 - 7.22 Prof. Yuan-Pei Lin serves as an Associate Editor, IEEE Transaction on Circuits and Systems.
 - 7.23 Prof. Wei Xing Zheng serves as an Associate Editor, IEEE Trans. on Circuits and Systems I.

- 7.24 Prof. Wei Xing Zheng serves as an Associate Editor, IEEE Trans. on Automatic Control.
- 7.25 Prof. K. C. Ho serves as an Associate Editor, IEEE Transactions on Signal Processing.
- 7.26 Prof. K. C. Ho serves as an Associate Editor, IEEE Signal Processing Letters.
- 7.27 Prof. Ravi P. Ramachandran serves as an Associate Editor for the IEEE Circuits and Systems Magazine and the journal Pattern Recognition.
- 7.28 Prof. Lina Karam serves as an Associate Editor, the IEEE Signal Processing Letters (2004-present).
- 7.29 Prof. Sankar Basu served as the Editor-in-Chief for IEEE Trans. on Circuits and Systems II (2004-2005).
- 7.30 Prof. Sankar Basu serves as the Editor-in-Chief for IEEE Trans. on Circuits and Systems I (2006-present).
- 7.31 Prof. Li Xu serves as an Associate Editor, Multidimensional Systems and Signal Processing, (2000-present)
- 7.32 Prof. David Tay serves as an Associate Editor, Multidimensional Systems and Signal Processing, an international journal, Kluwer Academic Press.
- 7.33 Prof. Håkan Johansson serves as an Associate Editor, IEEE Signal Processing Letters.
- 7.34 Prof. Håkan Johansson serves as an Associate Editor, IEEE Signal Processing Letters (2004-2007).
- 7.35 Prof. E. Cetin serves a Member of Editorial Board, Journal of Applied Signal Processing, EURASIP- European Signal Processing Society.
- 7.36 Prof. Wan-Chi Siu serves as an Editor, Journal of VLSI Signal Processing Systems for Signal, Image and Video Technology, Kluwer Academic Publisher, USA, (1996-present)
- 7.37 Prof. Soontorn Orintara serves as an Associate Editor, Circuits, Systems and Signal Processing.

8 IEEE Services:

- 8.1 Prof. M. N. S. Swamy served on the Steering Committee for the IEEE Transactions on Multimedia.
- 8.2 Prof. M. N. S. Swamy served on the Steering Committee for the IEEE Transactions on Mobile Computing.
- 8.3 Prof. M. N. S. Swamy served on the Steering Committee for the Midwest Symposium on Circuits and Systems.
- 8.4 Prof. H. K. Kwan served as the Past Chair (2004-2005) of Neural Systems and Applications Technical Committee.
- 8.5 Prof. J. B. Evans serves as Chair, IEEE Communications Society Technical Committee on High-Speed Networking.
- 8.6 Prof. J. B. Evans serves as the Secretary, Technical Activities Committee, IEEE Communications Society.
- 8.7 Prof. J. B. Evans serves as the Chair, Distinguished Lecturers Committee, IEEE Communications Society.

- 8.8 Prof. Lina Karam serves as a member of the IEEE Signal Processing Society Conference Board.
 - 8.9 Prof. Lina Karam serves as an elected member of Technical Committee, the IEEE Signal Processing Society's Image and Multidimensional Signal Processing (IMDSP).
 - 8.10 Prof. Yong Lian serves as the Elected Chair of CAS Chapter, Singapore.
 - 8.11 Prof. Y. Miyanaga serves as Chair (2006-present) of International Steering Committee, IEEE International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS).
 - 8.12 Prof. Y. Miyanaga serves as International Steering Committee Member (2000-present) for IEEE International Symposium on Communications and Information Technologies (ISCIT).
 - 8.13 Prof. Y. Miyanaga serves as International Steering Committee Member (2005-present) for IEEE – EURASIP Workshop on Nonlinear Signal and Image Processing (NSIP).
 - 8.14 Prof. T. Stouraitis serves as a member of the CASS Board of Governor (2006).
 - 8.15 Prof. T. Stouraitis serves as a member of the CASS Ad hoc Committee on Conference Policies and Procedures (2006).
 - 8.16 Prof. T. Stouraitis serves as a member of the CASS Long Term Strategy Committee (2005-2006).
 - 8.17 Prof. W. C. Siu served a secretary, Signal Processing Society, IEEE, 2005, USA.
 - 8.18 Prof. W. C. Siu served a member of Multimedia Signal Processing Committee, Signal Processing Society, IEEE, 2001-5, Advisory Board Member since 2006, USA.
 - 8.19 Prof. W. C. Siu served a member of Visual Signal Processing Committee, Circuits and Systems Society, IEEE, since 1997, USA.
 - 8.20 Prof. H. K. Kwan serves an International Steering Committee Member for International Symposium on Intelligent Signal Processing and Communication Systems since 2005.
 - 8.21 Prof. H. K. Kwan serves the International Advisory Chair for IEEE Asia Pacific Conference on Circuits and Systems, Singapore, December 4-7, 2006.
 - 8.22 Prof. Soontorn Oraintara serves as the Chair of Communications Society, Fort Worth.
 - 8.23 Prof. Wei Xing Zheng serves as the Secretary-Elect (2005-2006) of Technical Committee on Neural Systems and Applications, IEEE Circuits and Systems Society.
- 9 DSP TC Technically Co-Sponsored Conferences/Symposia/Workshops:
- 9.1 “2005 IEEE-EURASIP International Workshop on Nonlinear Signal and Image Processing, (NSIP2005), May 17-19, 2005, Sapporo Convention Center, Sapporo, Japan.
 - 9.2 ”2005 IEEE International Symposium on Circuits and Systems (ISCAS 2005), Kobe International Convention Center, Kobe, Japan, May 23-26, 2005”.
 - 9.3 “The 7th International Symposium on Signal, Circuits and Systems (ISSCS 2005), Iasi, Romania, July 14-15 2005”.
 - 9.4 “2005 International Conference on Robotics, Vision, Information and Signal Processing (ROVISIP 2005), Penang, Malaysia, July 20-22, 2005”.

- 9.5 “International Symposium on Communications and Information Technologies 2005 (ISCIT 2005), Beijing, China, October 12-14 2005”.
 - 9.6 “International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS 2005), the Chinese University of Hong Kong, Hong Kong, Dec. 14-17, 2005”.
 - 9.7 “The Second International Symposium on Communications, Control and Signal Processing (ISCCSP 2006), Kenzi Farah Hotel, Marrakech, Morocco March 13-15, 2006”. < <http://www.fsr.ac.ma/ISCCSP2006/> >
 - 9.8 “International Symposium on Communications and Information Technologies 2006 (ISCIT 2006), Grand Mercure Fortune Hotel, Bangkok, Thailand, October 18-20, 2006”.
 - 9.9 “International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS 2006), Yonago International Convention Center, Yonago, Japan, December 12-15, 2006”.
- 10 Other Activities:
- 10.1 Tampere International Center for Signal Processing (TICSP), Tampere University of Technology: The Center has acquired the status of Center of Excellence given by the Academy of Finland 2000-2005. The Director for TICSP serves as Prof. Jaakko Astola. Three of the DSP TC members, Profs. K. Egiazarian, M. Gabbouj, and T. Saramäki, are heavily involved in arranging the activities of TICSP. Profs. K. Egiazarian, M. Gabbouj, and T. Saramäki are the Team Leaders in SPAG (Signal Processing Algorithm Group). Several TC members (Profs. Pitas, Bellanger, Gabbouj and Nguyen) are members of the Advisory Board of TICSP. TICSP is an institute created to provide a proper environment for a rapid transfer of the latest ideas between first-class researchers in industry and academia. Its purpose is to provide a proper logistic, financial and human resource environment to adequately host exchanges of highly competent researchers. TICSP invites for periods of 2 to 12 months researchers at all levels: visiting professors, post-doctorate, and Ph.D. students, to engage research at the Signal Processing Laboratory in cooperation with the researchers of the neighbouring academic and industrial research institutes. The main purpose is to generate fruitful cooperation between scientists all around the world. Part of the activities of TICSP is organizing workshops. It has also its own publication series to appear twice a year. For more information, visit the homepage at URL: <http://sigwww.cs.tut.fi/TICSP/>.
 - 10.2 Prof. Yong Lian has volunteered to set up and maintain our DSP TC web at <http://www.ieee-cas.org/> which serves to promote the goal of the DSP TC.
 - 10.3 Prof. Ioannis Pitas serves as the Greek National Council Member of Research and Technology.
 - 10.4 Prof. Ioannis Pitas serves as a reviewer, Committee for Research Evaluation (CIVR), Italy.
 - 10.5 Prof. Ioannis Pitas serves as a reviewer, the Centers of Excellence, KU Leuven, 2005
 - 10.6 Prof. Ioannis Pitas serves as a reviewer, the EU funded R&D project.

- 10.7 Prof. Moncef Gabbouj serves as the vice-director of the Signal Processing Center of Excellence nominated by the Academy of Finland (2006-2011).
- 10.8 Prof. Moncef Gabbouj was nominated as Honorary Visiting Professor of Jilin University, Jilin, China for 5 years starting in 2005.
- 10.9 Prof. Moncef Gabbouj served as Tutoring Professor, Nokia Leading Science Program, Nokia Mobile Phones, 1998-2002 and 2005-2006.
- 10.10 Prof. Moncef Gabbouj served as an honorary Guest Professor, Jilin University, Jilin, China (2005-2010).
- 10.11 Prof. Moncef Gabbouj served as a Vice-Director, Academy of Finland, Center of Excellence SPAG (2006-2011).
- 10.12 Prof. Enis Cetin is a member of Scientific Communication of Network of Excellence Multimedia Understanding through Semantics and Computational Learning (MUSCLE), funded by EU-FP-6 Program.
- 10.13 Prof. B. Nowrouzian served the Association of Universities and Colleges of Canada (AUCC) as a member of the Selection Committee for Bell Canada Scholarships. This committee comprised three members to select 10 recipients of a special one-time scholarship offered by Bell Canada to graduate students from all across Canada in honor of their 125th anniversary.

11 Some News from the TC Members are listed below:

- 11.1 Prof. Tapio Saramäki was awarded the Honorary Member (Fellow) of the Russian A. S Popov Society for Radio Engineering, Electronics, and Communications for great contributions to the development of digital signal processing theory and methods and great contributions to the consolidation of relationships between Russian and Finnish organizations. In <http://www.webstationone.com/fecha/popov.htm>, it has been mentioned: "(Russian scientist Alexander Stepanovitch) Popov definitely did become an inventor of radio, even if (Guglielmo) Marconi became known as the inventor of radio, but Popov hasn't been totally ignored in the history." Saramäki became the 80th honorary member of the above-mentioned society since 1945.
- 11.2 Prof. Thanos Stouraitis directs the newly established International Multidisciplinary Graduate Program on "Signal and Image Processing," based at the University of Patras, Greece.
- 11.3 Prof. Joseph B. Evans was appointed as a Program Manager in the Division of Computer and Network Systems, Directorate of Computer & Information Sciences and Engineering at the National Science Foundation, beginning in August 2003. He oversees a \$70 million portfolio of projects in networking systems, with a particular emphasis on wireless networks and network security.
- 11.4 Prof. Moncef Gabbouju received the 2005 Nokia Recognition Award. Award recognizes Gabbouj's progressive work in the development of an international educational network and graduate engineering studies in Finland]. Excerpt from Nokia Press Release: "Nokia Foundation has granted its annual award to Professor Moncef Gabbouj for his merits in the development of an international educational network and graduate engineering studies in Finland. Gabbouj is a world-renowned expert who has progressively broadened international cooperation in the teaching of information technology and signal processing.

With the award, Nokia Foundation wants to emphasize the importance of international education and networking in Finland. The internationalization of research and attracting international experts to Finland is vitally important to maintaining competitiveness."

11.5 Prof. Lina Karam received the Outstanding Technical Contributions Award, Digital Signal Processing, from the IEEE Phoenix Section, January 2005.

12 Acknowledgements:

The Chair (H. K. Kwan) would like to acknowledge Prof. Yoshikazu Miyanaga, Secretary, for assisting the preparation of this annual report; Prof. B. Nowrouzian for serving as the Secretary-Elect; Prof. Tapio Saramäki for serving as the Past Chair; Prof. Yong Lian for maintaining our DSP TC web page; and all the members for their contributions to the DSP TC activities.

Submitted by Prof. H. K. Kwan, DSP TC Chair.

Date: May 5, 2006.