SIGMM FY'06 ANNUAL REPORT
July 2005-June 2006
Submitted by: Ramesh Jain, SIGMM Chair

Conference/Workshop Program Highlights

ACM Multimedia 2005 was held at the Hilton Hotel in Singapore from November 6-11, 2005. This is the first time that the conference was held in Asia and we were naturally anxious about quality of and attendance to this conference. We were happy to have a record number of paper submissions, good quality and variety of program, and one of the best organized conferences.

Prof. Tat-Seng Chua of National University of Singapore and Dr. Hong-Jiang Zhang of Microsoft Research Asia were the general chair persons for the conference. They assembled and supervised an excellent team of people. The team is listed in Appendix A with their responsibilities.

The conference was attended by 321 paid attendees, 57 complimentary participants (20 student fellowships, 2 complimentary attendees, and 35 volunteers), 160 Workshop attendees, and 131 Tutorial attendees. These numbers are slightly below the last year's conference in New York, NY. It is not easy to duplicate New York and given that this was the first conference in Asia, we are very pleased by the attendance. Net income was about $43,573.71, which was distributed to the supporting SIGs according to their participation:

SIGGRAPH (15%)

SIGMM (85%)

Tutorials

The conference included 4 tutorials as follows:

- <u>T1</u> (Full day): Multimedia Collaboration and Human-Centered Multimedia Information Systems. *Yong Rui, Nicu Seb and Alejandro (Alex) Jaimes*
- <u>T3</u> (Full day): Peer-to-peer Multimedia. *Ralf Steinmetz*
- <u>T4</u> (Full day): Media Semantics and the Statistical Foundations for Understanding It. (*AM): Marc Davis, Chitra Dorai and Frank Nack; (PM): Edward Chang*
- <u>T5</u> (Half day, AM): Session Initiation Protocol (SIP): A Protocol for Supporting Multimedia in Next Generation Networks. *Arup Acharya, Archan Mishra and Avshalom Houri*

Most tutorials were well attended, each with more than 20 participants.

Workshops

Workshops have always been an important part of the conference. This year the following Workshops were organized as part of the conference:

1. Multimedia Information Retrieval (MIR 2005)
    Hongjiang Zhang, John Smith and Qi Tian
2. Video Surveillance and Sensor Networks (VSSN 2005)
    Edward Chang, Jake Aggarwal, Rita Cucchiara and Yuan-Fang Wang
3. Multimedia Service Composition (MSC 2005)
    Wolf-Tilo Balke and Klara Nahrstedt
4. Continuous Archival and Retrieval of Personal Experiences (CARPE 2005)
    Jim Gemmell and Hari Sundaram

5. Multimedia for Human Communication - From Capture to Convey (MHC 05)
   Frank Nack
6. Advances in Peer-to-Peer Multimedia Streaming (P2MS 2005)
   S.-H. Gary Chan, Shiqiang Yang, Qian Zhang and Jin Li

The list included one standing workshop that has been running for many years (MIR), two repeated workshops (VSSN and CARPE) and three new workshops. MIR pulled in the largest crowd of over 60, while VSSN and P2MS have 30 and 21 participants respectively. MHC, being a more specialized workshop in a targeted area, has a small participating group of 12. The workshops were well-attended with the smaller workshops being highly interactive.

Technical Program

The conference had a rich 3 day of program for the main conference. All activities started at 0830 and ended at around 1730 or 1800.

Over the past 10 years, the concept of multimedia has evolved, from research in separate "non-textual" media such as image, video and audio, into truly "multimedia" approaches of integrating information of multiple medium types, including text and metadata. Today, the conference covers a wide range of topics on the foundations of multimedia, as well as multimedia applications, content, systems, videos and arts. This was reflected in a full range of technical program covering keynote address, long papers, short papers, brave-new emerging topics, panels, doctoral symposium, technical demonstrations, open source competition, video demonstrations, as well as interactive arts which includes an exhibition of multimedia art.

Keynote Address

As the conference was held in Asia for the first time, it was felt appropriate to invite a researcher to speak about the multimedia research done in Asia. The speaker was Dr Kazumasa Enami, the Director-General of Science and Technical Research Laboratories of NHK (Japan Broadcasting Corporation), Japan. The talk focused on future of multimedia in the home, which has received much attention in recent years. Unfortunately, Dr Enami was unable to attend at the conference in the last minute, and the Keynote Address was presented by his Deputy.

Long Papers

This year, we received 312 full (long) papers. This was a slight drop from last year's 331. The final program had 49 papers: 24 in the Content track (out of 150), 15 papers in the Applications track (out of 98) and 10 papers in the Systems track (out of 64). In addition, 11 papers were recommended for the short paper Section, 3 for the Demo Section, and 1 for the video Section. The acceptance ratio for the long papers is 15.7%.

Short Papers (Poster Session)

We received 202 papers, and accepted 59 papers, with 33 papers from the Content track (out of 113), 18 papers from the Applications track (out of 61) and 8 papers from the Systems track (out of 28). The acceptance ratio was 29%. Together with 11 papers recommended from the long paper tracks, a total of 70 short papers were selected for presentation at the conference.

Brave New Topics (BNTs)

Based on the criteria that topics selected as BNT must be new, brave, and likely to be of high level of interests and impact, the BNT committee selected 3 topics from over 5 proposals. The three BNT sessions selected were:

- Multimedia Challenges for Planetary Scale Applications (4 papers)
- Affective Multimodal Human-Computer Interaction (4 papers)
- Advanced Methods for Medical Image Retrieval and Applications (3 papers)

The facilitators of each selected BNT topic were responsible for: (a) inviting the potential authors as listed in the proposal to submit the papers in appropriate subjects; (b) overseeing the review of papers, each with 2-3 reviewers; (c) selecting the papers in consultation with the BNT chairs; and (d) ensuring the authors submit the camera-ready papers on time. The BNT sessions were scheduled in parallel with the main paper sessions. As with previous year, the BNT sessions were well attended and received. It is expected that the BNT sessions should be a regular feature of this conference.

Panels

This year, the Panel Chairs proposed two panel sessions after intense consultations with various senior researchers. The selected panel sessions were:
- What is the State of our Community?
- Foundations of Multimedia Computing, Communication and Interaction

Both panel topics covered areas of concerns to many, especially the young researchers. The panel chairs and members were carefully selected to have diverging views on the topics. The resulting panel sessions were very well attended, lively, illuminating and interactive. Many attendees commented that the panels were well conducted, informative and appropriate. Future panel sessions should be solicited along these criteria.

Doctoral Symposium

The doctoral symposium received 12 submissions, out of which the chairs selected 9 for presentation at the conference. The papers were well distributed geographically, with 5 from Asia, 1 from Australia and 3 from Europe.

The Symposium took place in the afternoon of the last day of the main conference in conjunction with MIR Workshop. The symposium was well attended as compared to previous years when symposium was the only activity in the afternoon. The good attendance was partly because of the parallel activity in the MIR Workshop that helped to retain the crowd.

Technical Demonstrations

As with past conferences, most people looked forward to technical demonstration sessions as one of the highlights of the conference. This year was no exception, as we accepted 20 high quality demos covering a wide variety of topics arranged in two broad themes of:
- Media Understanding and Browsing
- Media Authoring and Processing

Demo sessions were very popular.

Open-Source Competition

We followed the initiative in ACM Multimedia 2004 and organized the Open Source Competition for the second year running. This time round, we received 7 entries, and the committee selected one as the winner. The winner gave a presentation and demonstration of their software during the conference. We sensed that there were considerable interests in this activity from the community and we should keep it as a permanent activity of this conference.

Video Demonstrations and Visions

The video program received 9 videos this year of which 7 were accepted. The videos were reviewed by the Video Demo co-chairs and other reviewers. Most of those rejected were not of sufficient visual quality or the topic was not suitable.

The authors of each accepted video entry were asked to give a short presentation, follow by screening up to 8 minutes of video, and the usual question and answering. The session has gone well with active participation by the conference attendees.

Arts Track

The arts track was run as a mini-conference within the conference with its own array of long paper track, short paper track, and exhibition. The reviews of the papers followed more or less the same guideline of the main conference but with about 1-2 reviewers for each paper. At the end of the review process, we accepted 9 long papers (out of 20), 12 short papers (with 5 from the long paper track and 7 out of 20 from the short track), and 16 exhibits.

The long papers were divided into 3 sessions under the themes of: (1) interfaces for audio and music creation; (2) performance, play and apperception; and (3) interactions in social and virtual environments. Each session started with the presentation of 3 research papers followed by a Jamming session to discuss future directions. The arts sessions focused on the artistic and user aspects of media technologies and were drawing large crowds of artists as well as technical specialists. In this sense the program had been a resounding successful.

The 12 short papers were presented together with the other short papers during the conference reception.

All the above took place in the main conference venue. Although our initial plan was to have the arts exhibition taking place in the same venue, however, we soon realized that this was not possible for several reasons: (1) the lack of large open exhibition space in the main conference site; (b) the specialist skills needed to setup the arts exhibits; and (c) the exhibition needs to be run for about a week and open to general public in order to make it worthwhile to setup the exhibits. To achieve these, we partnered with the Lasalle-SIA College of the Arts to jointly organize, operate and publicize the arts exhibition in the College with their own permanent exhibition space. As Lasalle-SIA College of the Arts is about 5 Km away form the main conference site, we organized regular shuttle bus services to transport the conference participants to and from the exhibition venue. Though it was less convenient, it worked out well as many participants have visited the exhibition site.

The integration of arts program into the main conference has been instrumental in bringing the two groups of people together - the arts people on one hand and the technical people on the other. The synergy should be built up slowly over the years. We should actively support interactive arts as an integral part of the ACM Multimedia conference.

Awards

The conference continued with a strong awards program for best paper, best student paper, best demo, and best video. This year we increased this program. The following awards were presented during the conference under various categories using sponsored or self-generated conference funds.

1) Best paper Award -- SIN $1,600 (US$1,000) sponsored by IBM
2) Best Student Paper Award -- SIN $1,300 (US$800) sponsored by Microsoft
3) Best Video Award -- SIN $1,000 (US$600) sponsored by FXPAL

4) Best Open Source Software Competition - SIN $500 provided from conference fund.
5) Best Technical Demonstration -- SIN$500 provided from conference fund.
6) Best Arts Paper   SIN$500 provided from conference fund.

We included the presentation at the conference as well as a technical paper evaluation in the Best Student Paper competition. Three nominees for best paper were selected. Each student gave his or her presentation during a special highlighted session of the conference. An awards committee made up of senior researchers in the field met afterwards to select the winner.

The award winners this year were:

1. IBM Best paper Award
   SEVA: Sensor-Enhanced Video Annotation
   X. Liu, M. Corner & P. Shenoy (Univ. of Massachusetts, Amherst)

2. Microsoft Research Best Student Paper Award
   Physics-Motivated Features for Distinguishing Photographic Images
   and Computer Graphics
   T.-T. Ng, S.-F. Chang, J. Hsu, L. Xie & M.-P. Tsui
   (Columbia Univ., University of Toledo)

3. FXPAL Best Vision Video Award
   Post-Bit: Embodied Video Contents on Tiny Stickies
   T. Matsumoto, T. Dunnigan & M. Back
   (KEIO Univ./FX Palo Alto Laboratory

4. FXPAL Best Demo Video Award
   MMM2: Mobile Media Metadata for Media Sharing
   M. Davis, J. Canny, N. van House, N. Good, S. King, R. Nair,
   C. Burgener, B. Rinehart, R. Strickland, G. Campbell, S. Fisher &
   N. Reid (Univ. of California, Berkeley, Yahoo! Research Berkeley)

5. Best Open Source Software Competition
   OpenVIDIA: A Parallel GPU Computer
   J. Fung, S. Mann and C. Aimone (Univ. of Toronto)

6. Best Technical Demonstration
   Mediamill: Exploring News Video Archives based on Learned Semantics
   C. Snoek, M. Worring, J. Gemert, J-M Geusebroek, D. Koelma,
   G.P. Nguyen, O. Rooij and F. Seinstra (Univ. of Amsterdam)

7. Best Arts Paper
   MobiLenin: Combining A Multi-Track Music Video, Personal Mobile Phones and A Public
Display into Multi-User Interface Entertainment
   J. Scheible and T. Ojala (University of Art and Design Helsinki /
   Univ. of Oulu)

General Impressions and Feedback

Feedback about the conference was very positive with no special concerns for future conferences. People like the venue and the organization of the conference. Positive comments were heard about having the conference a t a location where one could easily go from one session to the other.   The entire organizing committee is to be commended. This was considered to be one of the most successful and enjoyable conferences.

Sponsors

We had great support from the following sponsors: FXPAL, IBM, Microsoft, Lasalle-SIA College of the Arts and National University of Singapore.

1) IBM sponsored US$5,000 towards the best paper award (US$1,000), and student conference support of about US500 for 8 students.

2) Microsoft sponsored US$3,000 towards the best student paper award (US600), student conference support at US500 for 2 students, and partial support for conference bags.

3) FXPAL donated US$600 towards the price for the best video award.

4) Lasalle-SIA College of the Arts generously provided gallery space for the Arts Exhibition, offered technical and materials supports in setting up the arts exhibits, and sponsored the Arts Reception help on the 7 November 2005 (Mon) from 1900-2130.

5) NUS consented to the use of administrative and technical support staff, various audio-visual equipments, computers, accessories, and various computing and administrative resources.

ACM Multimedia 2006 will be held in Santa Barbara, October 23-27, 2006. The General Co-chairs are Prof. Klara Nahrstedt (University of Illinois, Urbana Chamaign) and Prof. Matthew Turk (University of California, Santa Barbara). Planning for future ACM Multimedia conferences is also in progress. The General Co-chair for MM07 is Prof. Rainier Lienhart of University of Augsburg, Germany. The conference will be held in Augsburg, Germany sometime in October or November 2007.

Co-Sponsorships and In-Cooperations

During the past year we have co-sponsored five conferences:

1. CVMP 2005: 2nd European Conference on Visual Media Production, 11/30/2005 through 12/1/2005, London, UK.
2. AVI 2006: The International Conference on Advanced Visual Interfaces, 5/23/2006 through 5/26/2006, Venice, Italy.
3. Multimedia and Security 2005: Workshop on Multimedia and Security was held, August 1-2, 2005, New York, NY.
4. MMCN 2006: Multimedia Computing and Networking, San Jose, California, Jan 18-19, 2006.
5. NOSSDAV 2005: 16th International Workshop on Network and Operating Systems Support for Digital Audio and Video (May 2006), Newport, Rhode Island, USA.

SIGMM was financially responsible for NOSSDAV and Multimedia & Security Workshop. We provided in-cooperation support for the other conferences. Multimedia continues to be a popular topic. The ACM Multimedia Conference continues to be viewed as high quality and popular with the research community.

SIGMM Leadership

SIGMM was started as a conference-only SIG with a Steering Committee. Financial support was provided by SIGGRAPH and SIGCOMM, amongst other SIGs. Over the past several years, SIGMM has matured into a group that supports itself. Discussions continue with SIGGRAPH to reduce their financial responsibility for the Multimedia conference. SIGMM will continue to offer our conferences and workshops in cooperation with other SIGs and professional societies.

Officers

Following ACM SIG guidelines, we conducted elections for officers of SIG Multimedia in 2005. Following officers were elected for the two year term and continued their service this year:

Chairperson: Prof. Ramesh Jain (University of California, Irvine)

Vice Chairperson: Prof. Wolfgang Effelsburg (University of Mannheim, Germany)

Conference Chairperson: Dr. Nevenka Dimitrova (Philips Research)

Summary

In summary, we had a very productive year. Our flagship conference continues to be a premier conference and had its first presence in Asia. Health of multimedia community continues to remain strong. Given increasing attention to multimedia on the Web, we expect to see increasing activity in some areas, such as Multimedia Information Retrieval, in the coming year. Overall, we had a great year.

APPENDIX A: Conference Organizing Committee

General Program Co-Chairs:
   Tat-Seng Chua, *National University of Singapore*
   Hongjiang Zhang, *Microsoft Research Asia, China*
Program Co-Chairs:
   Multimedia Content: Mohan Kankanhalli, *National University of Singapore*
   Multimedia Applications: Lynn Wilcox, *FXPAL, USA*

Multimedia Systems: Ralf Steinmetz, *Technische Universität Darmstadt, Germany*
Short Paper Co-Chairs:
    Multimedia Content: Chitra Dorai, *IBM, USA*
    Multimedia Applications: Kiyoharu Aizawa, *University of Tokyo, Japan*
    Multimedia Systems: Roger Zimmermann, *USC, USA*

Workshop Co-Chairs:
    Wei-Ying Ma, *Microsoft Research Asia, China*
    Hari Sundaram, *Arizona State University, US*A
Tutorial Chair:
    Milind R. Naphade, *IBM, USA*
Publicity Co-Chairs:
    Michael Vernick, *Avaya Labs, USA*
    Lloyd Rutledge, *CWI, The Netherlands*
    Mark Liao, *Academia Sinica, Taiwan*
    Masayuki Nakajima, *Tokyo Institute of Technolog*y, *Japan*
    Francis, Bu-Sung Lee, *Nanyang Technological University, Singapore*
Technical Demo Co-Chairs:
    Tian Qi, *I2R, Singapore*
    Michael Lew, *Leiden University, The Netherlands*
Video Program Co-Chairs:
    Frank Nack, *CWI, The Netherlands*
    Svetha Venkatesh, *Curtin University, Australia*
Doctoral Symposium Chair:
    Horace Ip, *City University of Hong Kong, Hong Kong*
Panel Co-Chairs:
    Edward Chang, *UCSB, USA*
    Yong Rui, *Microsoft Research, USA*
Interactive Art Program Co-Chairs:
    Alejandro Jaimes, *FXPAL Japan, Fuji Xerox Co. Ltd., Japan*
    Andrew Senior, *IBM T.J. Watson Research Center, USA*
    Wolfgang Muench, *LASALLE-SIA College of the Arts, Singapore*
Brave New Topics Co-Chairs:
    Dick Bulterman, *CWI, The Netherlands*
    Jonathan Foote, *FXPAL, USA*
Best Open Source Software Co-Chairs:
    Ketan Mayer-Patel, *University of North Carolina, USA*
    Ching-Yung Lin, *IBM, USA*
Proceedings Co-Chairs:
    Susanne Boll, *University of Oldenburg, Germany*
    Lekha Chaisorn, *National University of Singapore*
Exhibition Chair:
    Clement Chia, *Nanyang Technological University, Singapore*
Local Arrangements Co-Chairs:
    Qibin Sun, *I2R, Singapore*
    Terence Sim, *National University of Singapor*e
    Ee-Chien Chang, *National University of Singapore*
Registration Chair:
    Wei-Tsang Ooi, *National University of Singapore*
Web Site Co-Chairs:
    Chee-Kit Leon Leong, *National University of Singapore*
    Sze-Leung Leon Poon, *National University of Singapore*
    Shiyong Neo, *National University of Singapore*
Conference Secretariat:
    Catharine Tan, *National University of Singapore*
ACM SIGMM Chair:

Ramesh Jain, *UC Irvine, USA*