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# SIGMOBILE Annual Reports

## SIGMOBILE FY'07 Annual Report

July 2006 - June 2007

Submitted by: David B. Johnson, SIGMOBILE Chair

### I. Introduction

SIGMOBILE is the ACM Special Interest Group on Mobility of Systems, Users, Data, and Computing. The group provides a forum for researchers, practitioners, users, educators, and students interested in all areas of mobility; SIGMOBILE focuses on areas ranging from mobile computing and wireless and mobile networking, to emerging applications of new mobile and wireless technologies. SIGMOBILE promotes research and development in these areas and fosters community in this rapidly growing field. SIGMOBILE's technical scope reflects the convergence of mobility, computing, and information organization -- its access, services, management, and applications. SIGMOBILE was founded in 1996.

The year 2006-2007 has been another very good year for SIGMOBILE, with strong attendance at and stable or growing submissions to SIGMOBILE conferences and workshops, stable SIGMOBILE membership and very high membership retention rates, and healthy, solid SIGMOBILE finances. This report highlights SIGMOBILE's status and some of our activities and accomplishments over the past year.

### II. SIGMOBILE Officers

The current elected officers in SIGMOBILE's Executive Committee are *Prof. David B. Johnson* (Rice University, USA), Chair; *Dr. Jason K. Redi* (BBN Technologies, USA), Vice Chair; *Prof. Tracy Camp* (Colorado School of Mines, USA), Treasurer; and *Prof. Chiara Petrioli* (University of Rome "La Sapienza," Italy), Secretary. These Executive Committee members comprise a good balance of industry and academia, United States and other countries, and gender representation in SIGMOBILE's elected leadership, representing a great asset for SIGMOBILE. These officers were elected in 2005 for a two-year term and this year agreed to the option to serve a second two-year term in their current positions, as allowed by SIGMOBILE's Bylaws and approved by ACM's SIG Governing Board Executive Committee.

SIGMOBILE's Executive Committee also currently includes four appointed positions: the Editor-in-Chief of SIGMOBILE's journal/newsletter for our members, *Mobile Computing and Communications Review* (MC<sup>2</sup>R), is *Prof. Mani Srivastava* (University of California, Los Angeles, USA); SIGMOBILE's Information Director is *Dr. Robert Steele* (University of Technology, Sydney, Australia); SIGMOBILE's Workshop Coordinator is *Prof. Ahmed Helmy* (University of Florida, Gainesville, USA); and SIGMOBILE's Digital Library Coordinator is *Dr. Guanling Chen* (University of Massachusetts, Lowell, USA). Also a member of SIGMOBILE's Executive Committee is the SIGMOBILE Past Chair, *Dr. Victor Bahl* (Microsoft Research, USA).

### III. Conferences and Workshops

A major activity of SIGMOBILE is the organization and sponsorship of international conferences and workshops related to SIGMOBILE's areas of interest. We strive to create and promote venues for our members and the community to publish their latest research results and to hear about the work of their colleagues and others, to meet new friends and visit with old friends working in the field, and to explore new areas of emerging importance.

SIGMOBILE currently sponsors or co-sponsors four annual conferences, all recognized as the premier conferences in the field.

- *MobiCom*, the Annual International Conference on Mobile Computing and Networking, covers all areas of mobile computing and mobile and wireless networking at the link layer and above. *MobiCom* has been held every year since 1995.
- *MobiHoc*, the ACM International Symposium on Mobile Ad Hoc Networking and Computing, addresses the challenges emerging from wireless ad hoc networking and computing, with the focus being on issues at and above the MAC layer. *MobiHoc* has been held every year since 2000.
- *MobiSys*, the International Conference on Mobile Systems, Applications, and Services, addresses broad systems research issues in mobile computing and mobile networking,

particularly valuing the practical experience gained from designing, building, and using mobile systems, applications, and services. MobiSys has been held every year since 2003.

- *SenSys*, the ACM Conference on Embedded Networked Sensor Systems, focuses on systems issues in the emerging area of embedded, networked sensors, spanning multiple disciplines, including wireless communication, networking, operating systems, architecture, low-power circuits, distributed algorithms, data processing, scheduling, sensors, energy harvesting, and signal processing. *SenSys* has been held every year since 2003.

SIGMOBILE is an international organization, not only in its leadership and membership, but also in the locations we select for our conferences and workshops. For example, *MobiCom 1997* was held in Budapest, Hungary; *MobiCom 2001* was held in Rome, Italy, and *MobiCom 2005* was held in Cologne, Germany; *MobiHoc 2002* was held in Lausanne, Switzerland, *MobiHoc 2004* was held in Tokyo, Japan, and *MobiHoc 2006* was held in Florence, Italy; and *MobiSys 2006* was held in Uppsala, Sweden.

SIGMOBILE's conferences also have excellent reputations for their impact. For example, *MobiCom*, our flagship conference, is currently ranked by CiteSeer as the computer science publication venue with the fifth highest impact, based on the average citation rate of all articles published in each venue. CiteSeer is a widely used scientific literature digital library and search engine that focuses primarily on the literature in computer and information science.

This year, as an experiment, *MobiCom 2007* and *MobiHoc 2007* (the Thirteenth Annual International Conference on Mobile Computing and Networking, and the Eighth ACM International Symposium on Mobile Ad Hoc Networking and Computing) are being held together during the same week, September 9-14, 2007, in Montréal, Quebec, Canada. The two conferences will be co-located, with some shared events such as the two keynote addresses, breaks, and meals, but with each conference having its own Program Committee and separate paper presentation sessions (in parallel between the two conferences); a single registration fee includes admission to both conferences and a copy of both conference proceedings. This experiment with co-location was motivated largely by the increasing fragmentation of our community into different conferences (including SIGMOBILE's conference and others), resulting in more competition in travel schedules for everyone and decreasing the feeling of "community," where you can see everyone working in fields related to SIGMOBILE at one event. We will evaluate the results of this experiment, including the reaction of attendees, and will determine how to incorporate this into planning future conferences at that time.

*MobiCom 2006, the Twelfth Annual International Conference on Mobile Computing and Networking*, was held September 24-29, 2006, in Los Angeles, California, USA. *Prof. Mario Gerla* (University of California, Los Angeles, USA) served as General Chair, and *Prof. Chiara Petrioli* (University of Rome "La Sapienza," Italy) and *Dr. Ram Ramjee* (Bell Labs, USA) served as Program Co-Chairs. *MobiCom 2006* received 298 research paper submissions and accepted 35 of these papers for presentation as part of the technical program, for an acceptance rate of 11.7%. The *MobiCom 2006* technical program featured a keynote talk by *Dr. Andrew Viterbi* (President of the Viterbi Group, LLC, and Presidential Chair Professor of Electrical Engineering, University of Southern California, USA). In addition, the conference included one day of tutorials on September 24:

- Random Trip Mobility Models (half-day): *Prof. Jean-Yves Le Boudec* (EPFL, Switzerland) and *Dr. Milan Vojnovic* (Microsoft Research, UK).
- Routing in Delay Tolerant Mobile Ad Hoc Networks: Overview and Challenges (half-day): *Dr. Zhensheng Zhang* (San Diego Research Center, USA).
- RFID: Addressing, Event Management and Network Services (full-day): *Dr. Sastry Drury* (IBM, USA) and *Prof. George Roussos* (University of London, UK).

*MobiCom 2006* also included four full-day workshops on September 25 and another four full-day workshops on September 29:

- CRAWDAD 2006: A Community Resource for Archiving Wireless Data At Dartmouth.
- DIWANS 2006: The 2006 Workshop on Dependability Issues in Wireless Ad Hoc Networks and Sensor Networks.
- *MobiShare 2006*: The First International Workshop on Decentralized Resource Sharing in Mobile Computing and Networking.
- WUWNet 2006: The First ACM International Workshop on UnderWater Networks.
- VANET 2006: The Third ACM International Workshop on Vehicular Ad Hoc Networks.
- WiNTECH 2006: The First ACM International Workshop on Wireless Network Testbeds, Experimental evaluation and CHaracterization.
- WiSe 2006: The 2006 ACM Workshop on Wireless Security.
- WMASH 2006: The Fourth ACM International Workshop on Wireless Mobile Applications and Services on WLAN Hotspots.

Continuing a tradition started last year at *MobiCom 2005*, again for 2006, *MobiCom* also hosted the ACM Student Research Competition (SRC). We had great participation and were able to expand to include competition in the undergraduate category as well as the graduate category; we had 11 students entered in the graduate category and 3 students in the undergraduate category.

As noted above, MobiCom 2007, *the Thirteenth Annual International Conference on Mobile Computing and Networking*, will be held co-located together with MobiHoc 2007, *the Eighth ACM International Symposium on Mobile Ad Hoc Networking and Computing*, September 9-14, 2007, in Montréal, Quebec, Canada. Also, due to this co-location, the date for MobiHoc 2007 was shifted from its typical dates in May of each year to instead coincide with the date for MobiCom in September. Thus, no edition of the MobiHoc conference was held during the period of this annual report of July 2006 to June 2007.

MobiSys 2007, *the Fifth International Conference on Mobile Systems, Applications, and Services*, was held June 11-14, 2007, in San Juan, Puerto Rico. Prof. Edward Knightly (Rice University, USA) served as General Chair, and Prof. Gaetano Borriello (University of Washington, USA) and Dr. Ramón Cáceres (IBM T.J. Watson Research Center, USA) served as Program Co-Chairs. MobiSys 2007 received 105 research paper submissions and accepted 22 of these papers for presentation as part of the technical program, for an acceptance rate of 20.9%. The MobiSys 2007 technical program featured A keynote talk by Prof. Willy Zwaenepoel (EPFL, Switzerland). The conference also included three full-day workshop on June 11:

- MobiOpp 2007: The First International Workshop on Mobile Opportunistic Networking.
- MobiEval 2007: The First International Workshop on System Evaluation for Mobile Platforms: Metrics, Methods, and Tools.
- HealthNet 2007: The First International Workshop on Systems and Networking Support for Health Care and Assisted Living Environments.

SenSys 2006, *the Fourth ACM Conference on Embedded Networked Sensor Systems*, was held October 31-November 3, 2006, in Boulder, Colorado, USA. Prof. Andrew Campbell (Dartmouth College, USA) served as General Chair, and Prof. Philippe Bonnet (University of Copenhagen, Denmark) and Dr. John Heidemann (University of Southern California, Information Sciences Institute, USA) served as Program Co-Chairs. SenSys is co-sponsored by SIGMOBILE together with SIGCOMM (30% each), and SIGARCH, SIGOPS, SIGMETRICS, and SIGBED (10% each). SenSys 2006 received 122 research paper submissions and accepted 24 of these papers for presentation as part of the technical program, for an acceptance rate of 19.7%. The SenSys 2006 technical program featured a keynote talk by Dr. David Carlson (Director of the International Polar Year Program Office, USA). The conference program also included two full-day workshop on October 31:

- WSW 2006: The First Workshop on World-Sensor-Web: Mobile Device Centric Sensory Networks and Applications.
- DSC 2006: The Workshop on Distributed Smart Cameras.

SenSys 2007 will be held November 6-9, 2007, in Sydney, Australia.

Also this year, we agreed to sponsor HotMobile 2008, *the Ninth Workshop on Mobile Computing Systems and Applications*, which will be held February 25-26, 2008, in Napa Valley, California, USA. The HotMobile workshop series (formerly known as WMCSA) focuses on mobile applications, systems, and environments, as well as their underlying state-of-the-art technologies, in a small workshop format that makes it ideal for presenting and discussing new directions or controversial approaches. This workshop has previously been sponsored each year by the IEEE Computer Society and has been "in-cooperation with" SIGMOBILE in most previous years. This year, however, the organizers decided to change to SIGMOBILE sponsorship, and we are excited about the opportunity to be more closely associated with this excellent workshop series. This will also be the first time that SIGMOBILE has sponsored a workshop separate from those co-located with our conferences.

Due to the large number of workshops sponsored by SIGMOBILE each year, particularly those co-located with our conferences as described above, we have appointed a new position within the SIGMOBILE Executive Committee this year to help coordinate them. Our new Workshop Coordinator, Prof. Ahmed Helmy (University of Florida, Gainesville, USA) has been doing an excellent job in managing the large number of workshop proposals we receive and in helping to coordinate the logistics for these workshops.

Support for SIGMOBILE's conferences and workshops remains very high among leading companies and other organizations around the world. Over the past year, we have been able to attract generous donations from many organizations including Boeing, Cisco Systems, Crossbow, DARPA, DaimlerChrysler, FreeNet International, Google, HP, IBM, IIT CNR, the Institute for Security and Technology Studies (ISTS) at Dartmouth College, Intel, KELYAN LAB, Microsoft Research, Moteiv, the U.S. National Center for Atmospheric Research (NCAR), the U.S. National Science Foundation (NSF), Nokia, RSA Security, Sea Grant, Telecom Italia, Toyota, Verizon Wireless, and WIND. We would like to thank each of these organizations for their help in making these conference and workshops a success by partially offsetting the financial costs of these events.

SIGMOBILE strongly supports students at these conferences and workshops. For example, we offer reduced registration fees for students, and offer student travel awards for some conferences and workshops (with NSF and industry support). Many conferences include student poster sessions, and the MobiCom conference has always supported students through the MobiCom Best Student Paper Award. Also, as noted above, we we have recently begun

hosting the ACM Student Research Competition (SRC) at MobiCom.

In addition, beyond SIGMOBILE's own conferences and workshops, SIGMOBILE was in-cooperation with 13 other conferences and workshops during this past year (July 2006 through June 2007):

- Mobiquitous 2006: The Third Annual International Conference on Mobile and Ubiquitous Systems: Networks and Services, San Jose, California, USA, July 17-21, 2006.
- QShine 2006: The Third International Conference on Quality of Service in Heterogeneous Wired/Wireless Networks, Waterloo, Ontario, Canada, August 7-9, 2006.
- MobileHCI 2006: The Eighth International Conference on Human Computer Interaction with Mobile Devices and Services, Espoo, Finland, September 12-15, 2006.
- UbiComp 2006: The Eighth International Conference on Ubiquitous Computing, Orange County, California, USA, September 17-21, 2006.
- ChinaCom 2006: The First International Conference on Communications and Networking in China, Beijing, China, October 25-27, 2006.
- Mobility 2006: The International Conference on Mobile Technology, Systems and Applications, Bangkok, Thailand, October 25-27, 2006.
- The First ACM/IEEE International Workshop on Mobility in the Evolving Internet Architecture, San Francisco, California, USA, December 1, 2006.
- COMSWARE 2007: The Second International Conference on Communication System softWAre and MiddlewaRE, Bangalore, India, January 7-12, 2007.
- HotMobile 2007: The Eighth IEEE Workshop on Mobile Computing Systems and Applications, Tucson, Arizona, USA, February 26-27, 2007.
- WiOpt 2007: The Fifth International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks, Limassol, Cyprus, April 16-20, 2007.
- DySPAN 2007: The IEEE Symposium on New Frontiers in Dynamic Spectrum Access Networks, Dublin, Ireland, April 17-20, 2007.
- WTS 2007: The Sixth Annual Wireless Telecommunications Symposium, Pomona, California, USA, April 26-28, 2007.
- EmNets 2007: The Fourth Workshop on Embedded Networked Sensors, Cork, Ireland, June 25-26, 2007.

Events offered "in-cooperation with" SIGMOBILE allow SIGMOBILE members to register at the same rate as for members of other sponsoring organizations for the event, providing a significant savings to SIGMOBILE members.

#### IV. Publications

SIGMOBILE members receive a subscription to our flagship quarterly journal/newsletter, *Mobile Computing and Communications Review* (MC2R). MC2R publishes articles that provide a healthy balance between state-of-the-art research and practice, with a thorough pre-publication reviews of every article by experts in the field. Beyond papers reporting the latest research results in all areas related to SIGMOBILE's scope, MC2R keeps the SIGMOBILE community apprised of relevant happenings in the area, by providing regular features on the status of major international mobile computing and communications standards, such as those from IETF, ITU, ISO, and IEEE. The journal also provides a variety of additional resources, such as bibliographies of recent publications in other journals, paper and book reviews, workshop and conference reports, calls for papers, information on research groups from throughout the world, bibliographies and locations of technical reports, and other general news in the field.

MC2R places a strong emphasis on quick publication of interesting completed or work-in-progress technical work; the average turnaround time for papers published in MC2R is about 6 months. Papers in MC2R are selected mainly from an ongoing open call for papers, plus special sections based on conferences and workshops, occasional special topic issues, and some invited papers. The acceptance rate for papers submitted through the open call for papers is currently about 19%. All aspects of the journal's operation are run entirely by volunteers, including assembly of final issue.

The Editor-In-Chief for MC2R is *Prof. Mani Srivastava* (University of California, Los Angeles, USA), with Associate Editor *Prof. Srikanth Krishnamurthy* (University of California, Riverside, USA). In addition, MC2R's editorial staff includes Feature Editors *Dr. Ian Chakeres* (The Boeing Company, USA), reporting on activities in the IETF MANET Working Group, and *Prof. James C. Lin* (The University of Illinois at Chicago, USA), reporting on health aspects of wireless communication, plus 16 Area Editors who are all experts in the field.

In addition to MC2R, SIGMOBILE produces a large number of other publications, including proceedings for the large number of conferences and workshops sponsored by SIGMOBILE each year. As such, SIGMOBILE is a major contributor of content to the ACM Digital Library. We also strive to include in the ACM Digital Library the proceedings for each of the other conferences or workshops offered "in-cooperation with" SIGMOBILE each year.

A new project we started this year was to "audit" all of SIGMOBILE's content in the ACM Digital Library, checking it for errors such as incorrect paper titles or author names, or even papers missing entirely from the Digital Library. SIGMOBILE's new Digital Library Coordinator, *Prof. Guanling Chen* (University of Massachusetts, Lowell, USA), has done an excellent job in this effort, finding and helping ACM correct many such errors.

Another publication effort of SIGMOBILE that we have continued this year is our monthly *E-Mail Newsletter* for SIGMOBILE members. This electronic newsletter was started two years ago and is edited by SIGMOBILE's Information Director *Dr. Robert Steele* (University of Technology, Sydney, Australia). The newsletter includes SIGMOBILE announcements, pointers to relevant mainstream news articles of interest to SIGMOBILE members, a calendar of upcoming events of interest to our members, and pointers to developer news for active developers in the area of mobile computing and wireless networking.

Finally, SIGMOBILE maintains an extensive web site at <http://www.sigmobile.org>, including information about SIGMOBILE and its activities, information about our journal/newsletter MC2R, and information about membership in SIGMOBILE. One area of our web site is a listing of Ph.D. theses in areas related to SIGMOBILE, provided as a resource for Ph.D. candidates, researchers, scientists, and engineers who are actively pursuing advanced research in mobile computing and communications; many of these entries include a copy of the full thesis itself. Although begun in 1997 and initially growing rapidly, growth in this listing had slowed due to maintenance and submission problems, such as errors in the scripts used for submitting new entries. This year, we started a major effort to address these problems and to reactivate submissions to the SIGMOBILE Ph.D. thesis listing. Submissions are now working correctly again, and we encourage Ph.D. graduates and their advisors to submit to this listing, showcasing their efforts. This Ph.D. thesis listing, together with a form for submission, is located at <http://www.sigmobile.org/phd/>.

#### V. Local Chapters

SIGMOBILE currently has two Local Chapters, which provide a local focus to activities related to mobile computing and wireless and mobile networking and continue the work of SIGMOBILE within their local regions. We currently have one Student Chapter and one Professional Chapter:

- *Nanyang Technological University Student Chapter*: This is a Student Chapter of SIGMOBILE, organized within the Nanyang Technological University (NTU) ACM club in Singapore.
- *Sydney Professional Chapter*: This is a Professional Chapter of SIGMOBILE, organized in Sydney, Australia.

We encourage interested groups around the world to form a SIGMOBILE chapter in their local community, school, city, or region. For details about the benefits and procedures for forming a Local SIGMOBILE Chapter, see <http://www.sigmobile.org/chapters/>.

#### VI. Membership

Total membership in SIGMOBILE is currently stable, at a time when most SIGs have been losing membership. Furthermore, our retention rates among SIGMOBILE members remain very high, indicating solid satisfaction among our current members. Our total retention rate is now 68.7%, having remained between 63.7% and 71.4% since 2000; our 1-year retention rate is now 44.2% and rising, and our 2+-year retention rate is now 80.3%. We believe that part of our membership success has been an effort over the past few years to better define the benefits of SIGMOBILE membership and to make those in our community more aware of SIGMOBILE.

SIGMOBILE provides substantial benefits to our members, including:

- Our quarterly journal and newsletter *Mobile Computing and Communications Review* (MC2R), serving both as a newsletter keeping SIGMOBILE members informed, and as a scientific journal publishing high-quality peer-reviewed research papers on mobile computing and wireless and mobile networking.
- Our monthly e-mail SIGMOBILE newsletter, which includes SIGMOBILE announcements, pointers to relevant mainstream news articles of interest to SIGMOBILE members, a calendar of upcoming events of interest to our members, and pointers to developer news for active developers in the area of mobile computing and wireless networking.
- Qualification for the lowest registration rates at conferences and workshops sponsored by SIGMOBILE, and for the many events that are "in cooperation" with SIGMOBILE.
- Opportunities to share ideas, learn of new results and practices, network with colleagues, and be active in a vibrant community of colleagues in all areas of mobility of systems, users, data, and computing.
- Through the Member Value Plus program, automatically receive a CDROM after each of SIGMOBILE's four conferences, containing the full conference Proceedings.

In addition, SIGMOBILE provides additional benefits to the broader community served by SIGMOBILE:

- SIGMOBILE's organization and sponsorship of our four annual conferences (MobiCom, MobiHoc, MobiSys, and SenSys), and promotion of emerging new areas through sponsorship of numerous workshops each year.
- A range of full-day and half-day tutorials at many SIGMOBILE conferences, offering attendees an easy way to broaden their knowledge.
- Announcements via a moderated email distribution list about events of interest to those

in the mobile computing and wireless networking community, such as conference Calls for Papers and Calls for Participation.

- The SIGMOBILE Outstanding Contribution Award, given to recognize an individual who has made a significant and lasting contribution to the research on mobile computing and communications and wireless networking.
- The SIGMOBILE Distinguished Service Award, given to recognize an individual who has made exceptional contributions to ACM SIGMOBILE, its conferences, publications, or its local activities, or to the SIGMOBILE community.
- Other awards including the MobiCom Best Student Paper Award, MobiCom Best Presentation Award, and MobiSys Best Paper Award presented each year.
- Support for students at SIGMOBILE conferences and workshops, through reduced registration fees, student travel awards for some conferences, student poster sessions, hosting the ACM Student Research Competition at some conferences, and the MobiCom Best Student Paper Award.
- The SIGMOBILE web site, including a wealth of information for the community such as complete information on SIGMOBILE conferences and workshops, a Ph.D. thesis collection, paper formatting instructions for authors, reviewer guidelines, and a feedback questionnaire.

There are, however, a large number of students, researchers, practitioners, and others in our field that are not yet SIGMOBILE members, including a high fraction of those who attend our conferences. We will continue to look for ways to increase the benefits of SIGMOBILE membership and to better advertise the advantages of joining SIGMOBILE in order to better attract more SIGMOBILE members.

#### VII. Awards

This year, at the ACM Student Research Competition (SRC) hosted at MobiCom 2006 in Los Angeles, California, USA, September 24-29, 2006, we had competition in both the undergraduate category and the graduate category, expanding over the SRC competition held at MobiCom 2005, where we had competition only in the graduate category; a total of 3 undergraduate students and 11 graduate students participated. In the undergraduate category, the winner was:

- *Michael Ford* (University of Illinois at Urbana-Champaign, USA): "Opportunistic Bandwidth Allocation with SDR."

In the graduate category, the winners were:

- First Place: *Vivek Shrivastava* (University of Wisconsin Madison, USA): "On the (In) Feasibility of Fine Grained Transmit Power Control."
- Second Place: *Robin Snader* (University of Illinois at Urbana-Champaign, USA): "Energy-Efficient Frame Dropping Policies for Multimedia."
- Third Place: *Vishnu Navda* (Stony Brook University, USA): "Deflect: Interference-aware Fast Path Adaptation in Wireless Mesh Networks."

Also at MobiCom 2006, the MobiCom Best Student Paper Award was presented to *Vladimir Bychkovsky*, *Bret Hull*, *Allen K. Miu*, *Hari Balakrishnan*, and *Samuel Madden* (Massachusetts Institute of Technology, USA) for their paper "A Measurement Study of Vehicular Internet Access Using In Situ Wi-Fi Networks." The MobiCom Best Student Paper Award is presented each year to the best paper with a student as the primary author from among all papers submitted to the conference that year; the winner of the award is selected by the MobiCom Technical Program Committee.

At MobiSys 2007, held June 11-14, 2007, in San Juan, Puerto Rico, two awards were presented this year:

- The MobiSys Best Paper Award was presented to *Vishnu Navda*, *Anand Prabhu Subramanian*, and *Kannan Dhanasekaran* (Stony Brook University, USA); *Andreas Timm-Giel* (University of Bremen Mobile Research Center, Germany); and *Samir Das* (Stony Brook University, USA) for their paper "MobiSteer: Using Directional Antenna Beam Steering to Improve Performance of Vehicular Internet Access." The MobiSys Best Paper Award is presented each year to the best paper from among all papers submitted to the conference that year; the winner of the award is selected by the MobiSys Technical Program Committee.
- The MobiSys Best Demo Award was presented to *Guobin Shen* (Microsoft Research Asia, China); *Yanlin Li* (Tianjin University, China); and *Chunyi Peng* and *Yongguang Zhang* (Microsoft Research Asia, China) for their demonstration "MobiUS: A Together-Viewing Mobile Video Experience."

At SenSys 2006, held October 31-November 3, 2006, in Boulder, Colorado, USA, five awards were presented:

- The SenSys Best Paper Award was presented to *Lin Gu* and *John A. Stankovic* (University of Virginia, USA) for their paper "t-kernel: Providing Reliable OS Support to Wireless Sensor Networks."
- The SenSys Best Talk Award was presented to *Christopher M. Sadler* and *Margaret*

- Martonosi* (Princeton University, USA) for their presentation of their paper "Data Compression Algorithms for Energy-Constrained Devices in Delay Tolerant Networks."
- The SenSys Best Demo Award was presented to *Yang Zhang, Eugene Shih, Allen Miu, Bret Hull, Michel Goraczko, Jakob Eriksson, Kevin Chen, Vladimir Bychkovsky, Samuel Madden, and Hari Balakrishnan* (Massachusetts Institute of Technology, USA) for their demonstration "The CarTel Mobile Sensor Computing System."
  - The SenSys Best Industrial Demo Award was presented to *Arch Rock Corporation* (San Francisco, California, USA) for their demonstration "A New Embedded Web Services Experience for Wireless Sensor Networks."
  - The SenSys Best Student Demo Award was presented to *Michael Colagrosso, Wade Simmons, and Marianne Graham* (Colorado School of Mines, USA) for their demonstration "Simple Sensor Syndication."

SIGMOBILE also offers two additional awards, depending on nominations submitted:

- The *SIGMOBILE Outstanding Contribution Award*, the highest honor that SIGMOBILE bestows on an individual, is given for significant and lasting research contributions in the fields of mobile computing and communications and wireless networking. The award can be given for a single contribution or for a lifetime of achievement.
- The *SIGMOBILE Distinguished Service Award* is given for exceptional contributions to ACM SIGMOBILE, its conferences, publications, or its local activities, or to the SIGMOBILE community. This award is selected on the basis of value and level of services to the mobile computing and wireless communications community.

During the period of this annual report, July 2006 to June 2007, neither award has been presented, although as noted in last year's annual report, the 2006 SIGMOBILE Outstanding Contribution Award was presented at MobiSys 2006 on June 20, 2006 to *Prof. Daniel P. Siewiorek* (Director of the Human-Computer Interaction Institute and Buhl University Professor of Electrical and Computer Engineering and Computer Science, Carnegie Mellon University, USA). We encourage SIGMOBILE members to submit nominations for both of these awards; complete nomination procedures are available at <http://www.sigmobile.org/awards/>.

#### VIII. Future Challenges

One problem that we have been able to alleviate this year is that, in recent years, our fund balance had been below the minimum fund balance that ACM requires for SIGMOBILE. Although our fund balance had been rising, ACM at the same time had also been increasing the fund balance requirements for all SIGs. Now, though, through very careful and conservative budgeting, we have been able to solve this problem and are soundly above our minimum balance requirements. We will, however, need to continue to be careful with budgeting and expenses in order to guard against a recurrence of this problem in future years.

Also, as noted above, after rising steadily for a number of years, total membership in SIGMOBILE is currently stable and did not rise over last year's membership count. Although this is at a time when most SIGs have been losing members, we are looking for ways to return to the increasing membership trend we had been achieving. One strategy we did try in the past, soon after SIGMOBILE began, was in 1996 to give free memberships to conference attendees at MobiCom. We have not done this again since that time, though, because most of these free members did not renew their memberships the following year. We are, however, currently considering this and other membership strategies. In particular, a large fraction of our conference attendees are not SIGMOBILE members; we would like to be able to help them, and others, see the values of SIGMOBILE membership.

#### IX. Summary

SIGMOBILE is the premier international organization devoted to the latest research in the fields of mobile computing and wireless and mobile networking. We sponsor and organize a variety of outstanding conferences, all widely recognized as the top conferences in their fields, together with a spectrum of workshops promoting emerging areas and tutorials allowing attendees to expand their knowledge on new topics. SIGMOBILE members come from academia, industry research and development, government, and other interested individuals; and our members and our activities are truly international. Our SIG is healthy and vibrant, and we look forward to even greater achievements in the future.

