

SIGACCESS FY'14 Annual Report
July 2013 – June 2014
Submitted by: Andrew Sears

SIGACCESS continues to refine its activities to meet member needs. This report highlights SIGACCESS Awards as well as the SIG's conference, publication, and other activities.

Awards

SIGACCESS Best Paper Award

Kotaro Hara, Shiri Azenkot, Megan Campbell, Cynthia L. Bennett, Vicki Le, Sean Pannella, Robert Moore, Kelly Minckler, Rochelle H. Ng, and Jon E. Froehlich. 2013. Improving public transit accessibility for blind riders by crowdsourcing bus stop landmark locations with Google street view. In *Proceedings of the 15th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '13)*. ACM, New York, NY, USA, , Article 16 , 8 pages. DOI=10.1145/2513383.2513448 <http://doi.acm.org/10.1145/2513383.2513448>

SIGACCESS Best Student Paper Award

Kathrin M. Gerling, Regan L. Mandryk, and Michael R. Kalyn. 2013. Wheelchair-based game design for older adults. In *Proceedings of the 15th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '13)*. ACM, New York, NY, USA, , Article 27 , 8 pages. DOI=10.1145/2513383.2513436 <http://doi.acm.org/10.1145/2513383.2513436>

SIGACCESS Paper Impact Award

This award is to be presented every other year (in odd-numbered years) to the authors of an ASSETS conference paper that has had a significant impact on computing and information technology that addresses the needs of persons with disabilities. Technical papers presented 10 or more years prior to the award year are eligible. The award will recognize work that presents a significant innovation or contribution to knowledge that has proved influential.

For 2013, the award was presented to Chieko Asakawa and Takashi Itoh for their paper "User Interface of a Home Page Reader" which was published in the *Proceedings of ASSETS 1998 The Third International ACM SIGACCESS Conference on Assistive Technologies*.

SIGACCESS Scholarship in Computers and Accessibility

The SIGACCESS Scholarship Award aims to provide support for participation in the ASSETS conference for individuals who would not otherwise be able to attend. Practitioners, researchers, members of advocacy groups, or individuals with disabilities are eligible to apply. Applicants must have a demonstrated interest in accessible computing. Awardees will have the opportunity to actively participate in the ASSETS conference and gain experience and knowledge from interacting with experts in the field. The scholarship award is in the amount of \$2,000. SIGACCESS awards up to five scholarships per year, pending availability of funds. The 2013 scholarships were awarded to Sylvia Grant, Reuben Kirkham, Donna Pettick, DeKita Moon, and João Guerreiro to attend ASSETS 2013. In addition, consistent with the mission of SIGACCESS, we provided travel support for an assistant that needed to travel with one of the recipients.

Supporting ACM-W Scholarships

Beginning with ASSETS 2010, SIGACCESS has supported the ACM-W Scholarship program by providing a complimentary registration to ACM-W Scholarship recipients. There was no ACM-W scholarship recipient for ASSETS 2013.

Significant Programs

ASSETS Conference

ASSETS 2013 was held in Bellevue, Washington. The number of submissions was the highest in history at 98 with submissions from numerous countries spanning a variety of topics. The acceptance rate, just below 30%, was consistent with recent history. Attendance was solid, and the conference was profitable.

As has become the norm, the conference featured an NSF sponsored Doctoral Consortium (see the January 2014 issue of the SIGACCESS Accessible Computing Newsletter). This consortium allowed doctoral students to present their dissertation topics and receive feedback during formative stages of their work. The conference also hosted a Microsoft Student Research Competition (SRC) event (see information about the winners of the competition above). New to the ASSETS conference in 2013 was a captioning competition. Since captioning is an active area of research for a number of groups in the ASSETS community, we invited participants for a

competition that was held at ASSETS 2013 in which teams used their technology to caption one or more of the sessions. Our aim was to promote research that will make it possible for ASSETS, and other organizations, to create captions of good quality at very low cost.

ASSETS 2013 also introduced a user experience panel and new submission venue for 'experience reports'. These consist of direct reports from people with disabilities on their use of technology. The panel was very well received at the conference.

The SIGACCESS Business Meeting, held at ASSETS, updated attendees on SIG activities and discussed ideas for new activities. We continued discussions regarding supporting workshops or other smaller events that were more focused with regard to topic or geographical location.

ASSETS offers a mentoring program to authors who are new to the conference as well as authors who are new to presenting research or are submitting work to a new category. Authors who are not familiar with preparing papers in English can also seek assistance. Mentors are experienced ASSETS authors, providing advice to the prospective authors about how their work may fit with the conference and how to effectively present their ideas. Normally, mentoring does not include detailed copyediting. This year, the mentoring program received 15 requests with two resulting in full papers being accepted for presentation at ASSETS 2013 and one leading to participation in the Doctoral Consortium. To provide some context, the conference normally receives approximately 100 full paper submissions.

ACM Transactions on Accessible Computing The inaugural issue of the *ACM Transactions on Accessible Computing (TACCESS)* appeared in May 2008. Volume one included three issues, with volumes two and three both including the full set of four issues. The number of submissions continues to grow. TACCESS is a quarterly journal that publishes refereed articles addressing issues of computing as it impacts the lives of people with disabilities. It provides a technical forum for disseminating innovative research related to computing technologies and their use by people with disabilities.

The SIGACCESS newsletter continues with its regular online publications: see <http://www.sigaccess.org/community/newsletter/>. Jinjuan Feng (Towson University) has served as the Newsletter Editor since June 2010, with Hugo Nicolau scheduled to assume the role in September 2014.

SIGACCESS Website

The SIGACCESS webmaster is Joshua Halpern (HP Labs). He recently redesigned the SIGACCESS web site for easier maintenance. The SIGACCESS web site provides information about the SIG's activities including awards and conferences as well as a repository of dissertations and theses, our newsletter, writing guidelines, and other resources, which may be of value to the community.

Innovative programs

SIGACCESS has developed several resources, which are made available to the community at large via the SIGACCESS web site. The first is a set of writing guidelines, which reflect current thinking on language for writing in the academic accessibility community. Certain words or phrases can (intentionally or unintentionally) reflect bias or negative, disparaging, or patronizing attitudes toward people with disabilities and in fact any identifiable group of people. Choosing language that is neutral, accurate, and represents the preference of the groups to which it refers can convey respect and integrity. The second resource is a guide for planning accessible conferences. This document contains information for organizers of academic conferences who wish to make their events as accessible as possible, so that people with disabilities can participate fully. SIGACCESS is updating a third community resource on creating accessible PDF documents, in both video and document form. The current version will be pilot tested by ASSETS 2014 authors preparing their camera-ready papers.

SIGACCESS was pleased to support a workshop held in conjunction with the ECRC event in May 2013 in Paris. The workshop, titled [Towards an Inclusive Europe: Reflections on the Digital Agenda for eAccessibility](http://www.inclusive-europe.eu/) (<http://www.inclusive-europe.eu/>), attracted participants from numerous countries and featured a presentation by ACM President Vint Cerf. The purpose of the workshop was to consider what progress has been made towards the eAccessibility aspirations in Europe and propose ways in which European stakeholders can push the digital agenda for eAccessibility further forward.

Key Issues

Moving forward, there are a number of issues that SIGACCESS must address including developing future leaders for the community and continuing our efforts to reach new audiences. The SIG is actively engaged in

developing leaders, recruiting new members of the community to participate both in the conference organizing committee and in other SIG activities. To reach new audiences, and become a more international organization, the SIG arranges for ASSETS to be periodically held in Europe. At this time, we are finalizing plans for ASSETS 2015 to be held in Lisbon. We were pleased that ASSETS continues to receive numerous submissions and has very strong attendance. We will be considering the possibility of holding ASSETS outside of the US more frequently.

SIGACT FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Paul Beame

1. Awards

- 2014 Gödel Prize: This was awarded to Ronald Fagin, Amnon Lotem, and Moni Naor for their paper “Optimal aggregation algorithms for middleware”. *Journal of Computer and System Sciences* 66 (4): 614–656 (2003). The prize is awarded jointly with the EATCS and this year was awarded at the ICALP conference.
- 2014 Knuth Prize (not yet publicly announced): Richard Lipton for his wide-ranging work. The Knuth Prize is given jointly by SIGACT and IEEE CS TCMF and the Knuth Prize and Lecture will be given this year at the FOCS conference.
- Paris Kanellakis Theory and Practice Award: Robert D. Blumofe and Charles E. Leiserson, for their work on work-stealing parallel algorithms and the development of the CILK primitives for parallel algorithms. This award is an ACM award sponsored in part by SIGACT.
- 2014 Edsger W. Dijkstra Prize in Distributed Computing:
 - Kaniathra Mani Chandy and Leslie Lamport “Distributed Snapshots: Determining Global States of Distributed Systems”, published in *ACM Transactions on Computer Systems*, Vol. 3, No. 1, p. 63–75, 1985. The Dijkstra Prize is given jointly by SIGACT and SIGOPS.
- SIGACT Distinguished Service Award: Lance Fortnow
- STOC 2014 Best Paper Award: “The matching polytope has exponential extension complexity” by Thomas Rothvoss
- Danny Lewin Best Student Paper Award (STOC 2014): “Online learning of local structure via semidefinite programming” by Paul F. Christiano
- SIGACT made approximately 41 student travel awards to allow students to attend the 2014 STOC conference.
- Though the Turing Award is not directly sponsored by SIGACT, the winner of this year’s award, Leslie Lamport is a prominent member of the SIGACT community.

2. Significant papers on new areas published in proceedings

STOC 2014

The ACM Symposium on Theory of Computing (STOC 2014) covers much of computer science theory.

Thomas Rothvoss, in his paper “The matching polytope has exponential extension complexity” which won the Best Paper Award, solved a long-standing problem of the efficiency of linear programming for combinatorial optimization by proving that there is no efficient way to represent the matching problem using a linear program even when extra variables are used. Though such limitations were previously known for NP-complete problems, this is the first problem that is polynomial-time solvable for which linear programming has been shown to be inherently inefficient even when extra variables are allowed.

Paul F. Christiano, in his paper “Online learning of local structure via semidefinite programming”, which won and the Danny Lewin Best Student Paper Award, showed how in an online learning setting to predict local label information, such as whether or not two items are in the same cluster, rather than the intractable problem of actually producing a cluster assignment. Each prediction, which is called a labelling, has a (possibly adversarial) payoff. The learner’s goal is to receive a payoff nearly as good as the best fixed labeling of the items. The paper showed that a simple algorithm based on semidefinite programming can obtain asymptotically optimal results in the case when the number of possible labels is constant.

SODA 2014

SODA is a major conference that focuses on algorithms and combinatorics.

Michel X. Goemans and Thomas Rothvoss' Best Paper at SODA 2014, "Polynomiality for Bin Packing with a Constant Number of Item Types" provided the first polynomial-time algorithm for an important subcase of the NP-complete bin packing problem in which there are a constant number of different item types but both the sizes and multiplicities of each type are encoded in binary. This problem, which is also known as the 1-dimensional cutting stock problem, was previously open even when there were only 3 item types. The algorithm also solves the following problem in polynomial time: given two d-dimensional polytopes P and Q, find the smallest number of integer points in P whose sum lies in Q. The approach also applies to yield polynomial-time algorithms for a broad class of high multiplicity scheduling problems in which there are only a constant number of job types but the number of copies of each job type is given in binary and each type comes with certain parameters such as release dates, processing times and deadlines.

Jonathan Kelner, Yin Tat Lee, Lorenzo Orecchia and Aaron Sidford's Best Paper at SODA 2014, "An Almost-Linear-Time Algorithm for Approximate Max Flow in Undirected Graphs, and its Multicommodity Generalizations" introduced a new framework for approximately solving flow problems in weighted, undirected graphs and applied it to provide nearly linear time algorithms for the maximum s-t flow and maximum concurrent multicommodity flow problems.

Gregory T. Minton and Eric Price's Best Student Paper at SODA 2014, "Improved Concentration Bounds for Count-Sketch" presents a refined analysis of the classic Count-Sketch streaming algorithm for finding heavy hitters in a data stream. These results give improved results when the input is drawn from a distribution with suitable decay, such as a power law or lognormal distribution. The paper provides empirical evidence indicating that the theoretical bounds give a precise characterization of the algorithm's performance.

SPAA 2014

SPAA is a major conference that focuses on the theory of parallel algorithms and architecture for parallel computation

Justin Thaler, Michael Mitzenmacher, and Jiayang Jiang's Best Paper at SPAA 2014, "Parallel Peeling Algorithms" analyzed a class of parallel algorithms and data structures that can be framed as peeling processes on a random hypergraph: vertices with degree less than k are removed until there are no vertices of degree less than k left. The remaining hypergraph is known as the k-core. In each round, all vertices of degree less than k are removed. It was previously known that below a specific edge density threshold the k-core is empty with high probability. This paper showed that, with high probability, below this threshold, only $O(\log \log n)$ rounds of peeling are needed to obtain the empty k-core for typical hypergraph distributions. Above this threshold, many more ($\Omega(\log n)$) rounds of peeling would have been required to find the non-empty k-core but fortunately that case is not the usual target of peeling algorithms. The paper also describes an implementation using graphics processing units (GPUs) and provides insights into how to structure parallel peeling algorithms for efficiency in practice.

PODC 2014

PODC is a major conference that focuses on the theory of distributed computing.

Achour Mostéfaoui, Hamouma Moumen, and Michel Raynal's Best Paper at PODC 2014 "Signature-Free Asynchronous Byzantine Consensus with $t < n/3$ and $O(n^2)$ Messages" used the assumption of a common random coin to produce a very simple and efficient method to achieve consensus in only 4 rounds (on average) in an asynchronous setting with the maximum number of malicious processors that can be tolerated (less than 1/3 of all processors) without assuming cryptographic signatures. Like all asynchronous consensus algorithms this requires randomization. This is much simpler than all previous approaches to this kind of consensus problem.

Keren Censor-Hillel, Mohsen Ghaffari, and Fabian Kuhn's Best Student Paper at PODC 2014 "Distributed Connectivity Decomposition" presented time efficient distributed algorithms for decomposing graphs with large edge or vertex connectivity into multiple spanning or dominating trees, respectively. Implications of these results include: a near-linear time centralized approximation of vertex connectivity, the first distributed approximation of vertex connectivity, and distributed algorithms with near-optimal competitiveness for oblivious broadcast routing.

3. Significant programs that provided a springboard for further technical efforts

SIGACT sponsored or co-sponsored a number of important conferences including the Symposium on Theory of Computation (STOC), Symposium on Principles of Distributed Computing (PODC), Symposium on

Computational Geometry (SoCG), Symposium on Parallel Algorithms and Architectures (SPAA), Innovations in Theoretical Computer Science (ITCS), Logic in Computer Science (LICS), and Symposium on Discrete Algorithms (SODA).

SIGACT also supports several conferences in-cooperation including Symposium on Principles of Database Systems (PODS), Symposium on Foundations of Computer Science (FOCS), Symposium on Principles of Programming Languages (POPL).

SIGACT helped support the creation of SIGLOG within ACM which will be the future home of LICS.

4. Innovative programs which provide service to our technical community

The Committee for the Advancement of Theoretical Computer Science (CATCS) sponsored by SIGACT continues to be very active. The committee meets by conference call every month and has developed and executed action plans to increase the visibility of theoretical computer science and to increase the funding base for theory of computation at the NSF. The Committee has helped advise the NSF CCF Director and other NSF officers on several matters including recruiting for positions within. The committee has also been working to obtain a more detailed and complete picture of the state of academic employment in theoretical computer science within the broad range of US research universities.

SIGACT continues to support student attendance at SODA and STOC by funding Student Best Paper Awards, travel, lunches, and reduced registration fees. SIGACT has also provided additional student support for all of its other sponsored and co-sponsored conferences this year. This helps ensure that the maximum number of students can attend these conferences.

This year SIGACT co-sponsored a three-day workshop, Women in Theory (WIT), together with NSF, Princeton, Google and IBM, which was held in New York City immediately prior to STOC, SIGACT's flagship conference. This brought together 60 women graduate and undergraduate students interested in theoretical computer science. The proximity of the workshop to STOC also allowed many women students to attend STOC who would otherwise not have been able to do so. The workshop featured technical talks and tutorials by senior and junior women in the field, as well as social events and activities. The motivation for the workshop was twofold: to deliver an invigorating educational program and to bring together theory women students from different departments and foster a sense of kinship and camaraderie.

5. Summary of key issues that the membership of the SIGACT will have to deal with in the next 2-3 years

Funding and articulating the importance of theoretical computer science are perennial issues that are being addressed by the Committee for the Advancement of Theoretical Computer Science (CATCS) in conjunction with SIGACT. One issue that CATCS is currently documenting is an apparent relative concentration of researchers in theoretical computer science at highly ranked institutions versus a relative lack of such researchers at lower ranked institutions. Spreading theoretical computer science more broadly to these institutions could have significant impact on academic employment in theoretical computer science. Some of this may involve educating those institutions that theoretical computer science researchers are indeed able to obtain research funding.

In June and July of 2014, after an earlier referendum in 2012, the Symposium on Computational Geometry (SoCG), a conference co-sponsored by SIGACT, ran a referendum on whether or not to stay with ACM. Despite considerable work by SIGACT leadership and the ACM staff over the last two years to smooth over earlier problems and provide financial benefits to SoCG, members of the SoCG community voted roughly 2 to 1 to abandon ACM and found a separate independent conference. More than half of those voting to leave ACM cited open access to proceedings as the prime reason for wanting to leave ACM.

While the SIGACT leadership does not in any way support the departure of the SoCG community from ACM, the issue of open access to proceedings is of major concern to large segments of the broader theoretical computer science community and the following paragraph from last year's annual report takes on even greater significance:

"In 2012, there was dissatisfaction within a large segment of the SIGACT community over ACM's publication policies. This resulted in a resolution at the STOC 2012 conference in favor of trading reduced returns for more open access. While the proposed changes in the Fall of 2012 improved the situation in some ways,

there is still considerable opposition to those policies within the SIGACT community. The promise of ACM's reassessment of these policies in the Summer of 2013 has left members of the SIGACT community expectant. Following through on these changes will be critical to the community. With well-funded free and open services for dissemination of research like the Arxiv, and profit-oriented publishers that make their older issues available for free, ACM needs to decide its appropriate publication role and how it can best benefit the community."

SIGAda FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: David A. Cook

AWARDS

Started in 1994, the ACM SIGAda Awards recognize individuals and organizations that have made outstanding contributions to the Ada community and to SIGAda. The Outstanding Ada Community Contribution Award is given for broad, lasting contributions to Ada technology and usage. The Distinguished Service Award is given for exceptional contributions to SIGAda activities and products.

This year instead of presenting a Distinguished Service Award and a Outstanding Ada Community Contribution Award, it was decided to present two Outstanding Ada Community Contribution Awards.

This year the Outstanding Ada Community Contribution Awards were awarded to Mordechai "Moti" Ben Ari and Jorge Real

Mordechai "Moti" Ben Ari – n 2004, he was honored with the ACM/SIGCSE Award for Outstanding Contribution to Computer Science Education, as "textbook author, mentor and pedagogical researcher at both the university and pre-college levels, in concurrency, formal methods, and programming languages". Dr. Ben Ari is a well Published Author, and those publications that influenced the Ada community were Understanding Programming Languages, Principles of Concurrent and Distributed Programming, Ada for Software Engineers, and Ada for Software Engineers Second Edition with Ada 2005. Prof. Ben Ari has taught Ada for 15 years to university students and professional programmers. He systematically promotes and publishes research work that uses Ada and that contributes to the advancement of the real-time system annex facilities. He was one of the principal architects and proposers of the dynamic ceiling priority support which was integrated in Ada 2005. His most notable works concern supporting mode changes in real-time systems scheduling, using Ada concurrency mechanisms as the enabling technology. More recently, he worked on extending Burns and Welling's Ada tasking framework to multicore processing. In addition to his research work, he teaches courses on real-time and embedded systems, with Ada being a major topic. He served the Ada community very well as the principal organizer of the splendid Ada Europe 2010 conference in Valencia. Multiple times he served as a tutorial chair in other Ada Europe conferences (AE 2006 in Porto, AE 2008 in Venice).

In addition, we also awarded the Outstanding Ada Community Contribution Award to Jorge Real. Jorge is a Professor at the Polytechnic University of Valencia in Spain. His Ada-related activities in numerous fields (education, community service, and help in promoting Ada as a language for critical real-time systems) for over a decade make him a most valid candidate to consider for the award.

CONFERENCES

HILT (High Integrity Language Technology) 2013

Our conference, HILT 2013, was held in Pittsburgh, PA 10 -14 November 2013. The conference was a success technically, and also produced a small surplus (approximately \$500). We had multiple invited speakers, and several excellent technical papers, workshops, and tutorials. Our final program is attached.

HILT (High Integrity Language Technology) 2014

The conference for next year, HILT 2014, is being co-located with SPLASH 2014, which is being conducted by SIGPLAN. We hope to both increase revenue and exposure by co-locating with another ACM conference. The conference will be held 18 – 21 October, in Portland, Oregon.

PROGRAMS

Significant Programs that provided a springboard for further technical efforts

A formal liaison exists between SIGAda and ISO WG9. ISO/IEC JTC1/SC22 WG9 is that body of international representatives responsible for the maintenance and evolution of the Ada International Standard. The National Bodies represented on WG9 are Belgium, Canada, France, Germany, Italy, Japan, Switzerland, the United Kingdom, and the United States.

In March 2007 the ISO (the International Organization for Standardization) in Geneva, Switzerland announced the formal completion of the process to revise the Ada 95 language, with the publication of the Ada 2005 standard — officially named ISO/IEC 8652:1995/Amd 1:2007. This announcement culminates a collaborative international effort under ISO's Ada Working Group (WG9) to enhance the 1995 version of the Ada language.

In November 2012, ISO (the International Organization for Standardization) in Geneva, Switzerland, announced the successful 14-0 ballot on the final draft of the Ada 2012 Standard, the document arising from the collaborative international process under ISO's Ada Working Group (WG9) to revise the Ada 2005 standard. The official publication of Ada 2012 occurred in December 2012 -- officially named ISO/IEC 8652:2012.

At least one SIGAda Officer participates and represents the membership at the WG9 meetings held twice each year. This year the meetings were in Pittsburgh, PA (at the SIGAda HILT conference) and via teleconference at the 2014 Ada Europe conference in Paris, France.

Innovative Programs which provide service to some part of our technical community

Since 1994 SIGAda has conducted an "Ada Awareness Initiative". Its centerpiece has been our SIGAda professional booth display unit in exhibition halls at important software engineering conferences. This lets folks know that Ada is very much alive and a sound part of any software engineering effort having real-time, high integrity, high-assurance, and highly distributed requirements. We brought the booth to the SIGCSE conference this year providing good visibility for SIGAda to the Computer Science educational community. We decided not to take the booth to the Software and Systems Technology Conference (SSTC) due to declining attendance at the conference.

Via this exhibiting, SIGAda sustains Ada visibility ("name recognition"), provides various Ada-advocacy materials and makes available Ada experts (our booth staff volunteers) who can intelligently answer questions, provide pointers and help, and debunk the misinformation about Ada that many attendees at these shows have. This program continues to be extremely successful and viewed as a highly important thrust by the SIGAda membership.

FUTURE ISSUES

Summary of key issues to deal with in the next 2-3 years

The key issue SIGAda will deal with over the next 2-3 years is the financial stability of the organization. Prior to HILT 2013, the conferences have not produced a profit with the exception of the SIGAda 2011 conference in Denver. The HILT 2013 conference produced a small surplus (approximately \$500). The annual conference is the main source of revenue for the SIGAda organization; so continued losses on the conferences will eventually make SIGAda not viable in the eyes of ACM. SIGAda had a viability review in March 2014, and received a two-year status. We will be working to show our viability for the next two years.

In 2012, we decided to rename the SIGAda annual conference in order to focus on a niche in the safety critical, high integrity area of Computer Science. The SIGAda 2012 annual conference was called the High Integrity Language and Technology (HILT) conference. This conference was well attended and included outstanding keynote speeches and paper presentations. The conference suffered a loss in revenue around \$5K. The committee for the HILT 2013 conference is made changes to registration policies that will avoid this situation (and we showed a \$500 surplus, which, while small, is better than a deficit.) We are also working to show a surplus during HILT 2014, which will be co-located with SIGPLAN's SPLASH conference in Portland, Oregon during October 2014.

We will continue to publish three issues of the Ada Letters journal and seek participation in the form of contributing articles and papers.

SIGAda conference viability

As mentioned above, SIGAda had its viability review in March, and received a two-year status. Our major issue is the declining revenue of our conference, which is our major source of income. While the 2013 conference produced a minor surplus (approximately \$500), it was not a major financial success. This year, we admit we are taking a chance by co-locating with SPLASH in Portland, Oregon. We hope to gain visibility (and revenue)

by co-locating, but the location (Portland, OR) is not a major travel destination, and will probably reduce the number of attendees from the European community, due to its west coast location.

In terms of conference “competition”, SIGAda maintains a relationship with Ada-Europe, when has its own yearly (summer) conference – this year, their conference, the “19th International Conference on Reliable Software Technologies (Ada-Europe)”, was held in Paris, France. SIGAda and Ada-Europe are the two major Ada conferences worldwide.

As SIGAda Chair, I attended the Ada-Europe conference, as did Tucker Taft, SIGAda Vice Chair. While there, Tucker and I met with Ada-Europe conference organizers, and discussed the issues with holding a yearly conference in the current economic climate, where attendees and industry support is shrinking. One idea brought up was that SIGAda and Ada-Europe could, in the future, each hold conferences in alternating years, with each organization being a “significant part” of the other organizations’ conference. This would allow attendees to attend a yearly Ada conference, rather than being forced to choose which conference they would attend. For many academicians and industry participants, one yearly conference is all they can hope to receive funding for. While these conversations were only a preliminary idea – it might be worth pursuing. We will certainly be discussing this at the SIGAda Executive Board meeting at our conference in October.

SIGAI FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Yolanda Gil

The scope of SIGAI consists of the study of intelligence and its realization in computer systems. This includes areas such as autonomous agents, intelligent user interfaces, knowledge discovery, human language technologies, cognitive modeling, knowledge representation, planning, robotics, problem solving, machine learning, and computer vision.

Activities during 2013/2014:

1. NAME CHANGE

In consultation with ACM and after a vote of the membership of SIGART following the SIGART bylaws, the SIG changed its name to SIGAI. This new name reflects best the community that the SIG represents.

2. NEW SIGAI APPOINTED OFFICERS

We appointed the following new officers to expand SIGAI's activities:

Allen Lavoie, SIGAI Information Officer
Kiri Wagstaff, Newsletter Editor
Doug Lange, News Officer
Gabor Melli, Publications Officer
Sven Koenig, Conference Coordination Officer
Henry Kautz, Awards Officer
Smiljana Petrovic, Membership and Outreach Officer
Tom Dietterich, Public Policy Officer

The elected SIGAI officers starting July 1, 2013 are:

Yolanda Gil, USC/Information Sciences Institute (Chair)
Sanmay Das, Washington University in St. Louis (Vice-Chair)
Susan Epstein, City University of New York (Secretary/Treasurer)

SIGAI has an Advisory Board whose members are:

Tom Dietterich, Oregon State University
Jim Hendler, Rensselaer Polytechnic Institute
Haym Hirsh, Rutgers University
Eric Horvitz, Microsoft Research
Craig Knoblock, USC/Information Sciences Institute

3. AWARDS

The ACM SIGAI Autonomous Agents Research Award is an annual award for excellence in research in the area of autonomous agents.

The 2014 ACM SIGAI Autonomous Agents Research Award recipient is Professor Michael Wellman of the University of Michigan. Prof. Wellman has had a profound and broad impact across an array of research challenges in autonomous agents and multiagent systems. Prof. Wellman's contributions range from his pioneering work that helped introduce economic paradigms in multiagent systems, to significant contributions to computational game theory and electronic commerce, including mechanism design and market-based systems. Additionally, Prof. Wellman played an instrumental role in launching the annual Trading Agent Competition (TAC), one of the oldest and most well-known research competitions in multi-agent systems. Dr. Wellman gave a plenary address at the 2014 International Conference on Autonomous Agents.

4. CONFERENCES

SIGAI co-sponsored the following conferences:

- * ACM International Conference on Intelligent User Interfaces (IUI), February 24-27, 2014, Haifa Israel.
- * 9th ACM/IEEE International Conference on Human-Robot Interaction (HRI), March 3-6, 2014, Bielefeld Germany.
- * 29th IEEE/ACM International Conference on Automated Software Engineering (ASE), September 15-19, 2014, Vasteras Sweden.
- * IEEE/WIC/ACM International Conference on Web Intelligence (WI-IAT), August 11-14, 2014, Warsaw Poland.

In addition, SIGAI granted in-cooperation status to many international conferences.

SIGAI has an agreement with the International Foundation for Autonomous Agents and Multiagent Systems (IFAAMAS) to continue a special cooperation status regarding the AAMAS conference and the ACM SIGAI Autonomous Agents Research Award indefinitely. The recipient of the award is invited to give a talk at the conference.

5. EDUCATIONAL ACTIVITIES

SIGAI awarded a number of scholarships to students to attend the conferences co-sponsored by SIGAI. The amounts of scholarships varied from \$1,000 to \$10,000 per conference, depending on the conference size. Funding students is a good way to ensure long term growth and vitality in the AI community and a good investment for the future.

SIGAI co-sponsored with AAAI the 2014 SIGAI/AAAI Doctoral Consortium. The Doctoral Consortium is held each year during the AAAI conference, and provides an opportunity for Ph.D. students to discuss in depth their research interests and career objectives with the other participants and a group of established AI researchers that act as individual mentors. Presentations and discussions take place over two days of intense meetings prior to the AAAI conference.

6. LAUNCH OF A QUARTERLY NEWSLETTER

SIGAI launched a new quarterly newsletter, "AI Matters", will feature ideas and announcements of interest to the AI community. The first issue is planned for August 2014.

7. LAUNCH OF A NEW CONFERENCE FOR EARLY CAREER RESEARCHERS

SIGAI launched the SIGAI Career Network Conference (SIGAI CNC), a conference that will showcase the work of early career researchers to their potential mentors and employers. In 2015, we plan to hold CNC in Austin, Texas, collocated with AAAI. In parallel with the conference, the Career Network website will provide a virtual community for AI researchers in the early stages of their careers.

8. PLANS FOR THE FUTURE

SIGAI plans to continue to support communities related to AI in a broad sense. SIGAI will continue expanding the areas covered by co-sponsored and in-cooperation conferences to ensure that communities that work in AI or find inspiration with AI topics maintain ties with AI. This will increase the visibility of SIGAI and help the growth of new communities.

SIGAPP FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Sung Shin

The SIGAPP mission is to further the interests of the computing professionals engaged in the development of new computing applications and applications areas and the transfer of computing technology to new problem domains.

SIGAPP Officers

Chair - Sung Shin, South Dakota State University, USA
Vice Chair – Jiman Albert Hong, Soongsil University, Seoul, Korea
Secretary – Michael Schumacher, University of Applied Sciences Western Switzerland Institute of Business Information Systems, Sierre, Switzerland
Treasurer – Tei-Wei Kuo, National Taiwan University, USA
Web Master - Hisham Haddad, Kennesaw State University, USA
ACM Program Coordinator, Irene Frawley, ACM HQ

Status of SIGAPP

The main event that took place within SIGAPP for this year was the Symposium on Applied Computing (SAC) in Gyeongju, Korea after taking place in Coimbra, Portugal in 2013. This year's SAC was very successful. More details about SAC will follow in the next section. We also supported several additional conferences with in-cooperation status. We have 10% co-sponsorship for two conferences. The first one, 2014 International Conference on Ubiquitous Information Management and Communication (IMCOM) was held in Siem Reap, Cambodia in January, 2014, and the 2014 Reliable and Convergent Systems (RACs) will be held in Baltimore, MD in October 2014. IMCOM 2014 conference was successful, and it has been beneficial for SIGAPP. We will continue supporting those conferences in the coming year.

We have introduced ACR semi-annually in an electronic version only in FY 2011. It is now stabilized, and we have begun publishing quarterly electronically since spring of 2012. Ultimately, we would like to have ACR appear in the SCI (Science Citation Index). ACR contains invited papers from world-renowned researchers and selected papers presented by prominent researchers and professionals who attended the Symposium on Applied Computing 2014 in Gyeongju Korea. The selected papers have been expanded, revised, and peer-reviewed again for publishing in ACR. The next issue will be published in fall of 2014. We selected good quality papers from two SIGAPP partially sponsored conferences, ICUIMC (IMCOM) and RACs as well. We hope that ACR will serve as a platform for many new and promising ideas in the many fields of applied computing. It is strongly related to nearly every area of computer science, and we feel an obligation to serve the community as best we can. The papers in ACR represent the current applied computing research trends. These authors truly contribute to the state of the art in applied computing.

The Student Travel Award Program continues to be successful in assisting SIGAPP student members in attending conferences sponsored by or in-cooperation with SIGAPP. 44 students were granted awards to attend SAC 2014, representing 13 countries. Allocated budget (\$46,000) of these awards was significantly increased compared to the last year. We also implemented a Developing Countries Travel Award for researchers from developing countries who would otherwise have difficulty attending the SAC conference. For 2014, this award was suited exclusively for students from developing countries but in 2015 and beyond, we also hope to support faculty-level researchers from such countries.

SIGAPP continues to have a stable membership. SIGAPP's and SAC's strength and uniqueness among ACM SIGs continues to be the opportunity for scientific diversity and crosscutting multiple disciplines within the ACM community. The officers look forward to continue working with the ACM SGB to further develop the SIG by increasing membership and converting SIGAPP ACR, Applied Computing Review to a new journal on applied computing.

Status of SAC

The 29th Annual edition of SAC has marked another successful event for the Symposium on Applied Computing. This international gathering attracted over 411 attendees from over 50 countries. It was hosted and held on the campus of Dongguk University, Gyeongju, Korea, in March 2014. There was an open Call for Track

Proposals and after prescreening the proposals, 43 Tracks were finally accepted for SAC 2014. The prescreening and selections were made based on the success of those Tracks in the previous SACs as well as targeting new and emerging areas. The Call for Papers for these Tracks attracted 939 final paper submissions from 50 different countries. The submitted papers underwent the blind review process and 218 papers were finally accepted as full papers for inclusion in the Conference Proceedings and presentation during the Symposium. The final acceptance rate for SAC 2014 is 23.2% for the overall track. In addition to the accepted full papers, 89 papers that received high enough review scores were accepted as short papers for the Poster Program. The Monday Tutorials program offered 45 tutorials and attracted over 50 attendees. It included coffee breaks and a social luncheon that took place on campus. The Student Research Competition (SRC) program, sponsored by Microsoft Research, is designed to provide graduate students the opportunity to meet and exchange ideas with researchers and practitioners in their areas of interest. 41 submissions were received and finally 12 papers were accepted for the SRC as winners of the SCR program.

SAC 2015 will be held in and will be hosted by University of Salamanca, Salamanca, Spain from April 13 – 17, 2015. The web site <http://www.acm.org/conferences/sac/sac2015/> has further details such as symposium committee, technical tracks, and track chairs.

SAC 2016 is being considered for Italy. A decision by the SAC steering will be made soon. To date, 2016 SAC local host proposals have been submitted from University of Pisa, Italy.

Summary

1. Awards that were given out
Student Travel Awards - 44 awards granted, totaling \$41,573
2. SIGAPP Distinguished Service Award was given to Prof. Chih-Cheng Hung, Southern Polytechnic State University.
3. Minor SIGAPP bylaw change,
"Article 4. The Executive Committee, a. The SIGAPP Executive Committee comprises the officers and the Information Director." has been changed to "Article 4. The Executive Committee, a. The SIGAPP Executive Committee comprises the officers, the immediate Past Chair, and the Information Director. No person may hold two positions on the SIGAPP Executive Committee."
4. Significant programs that provided a springboard for further technical efforts - SAC continues to have tracks that represent application and convergent areas which are not covered by other SIGs. SAC has always been open to new tracks in applied computing.
5. Innovative programs which provide service to some part of your technical community - expansion of Student Travel Award Program for SIGAPP student members, initiation of Developing Countries Travel Award Program for students and faculty.
6. The Student Research Competition (SRC) program, sponsored by Microsoft Research. The program is designed to provide graduate students the opportunity to meet and exchange ideas with researchers and practitioners in their areas of interest. 41 submissions received and finally 12 papers were accepted for the SRC as winner of the SCR program. Increase participation of SRC in the future SACs.
7. A very brief summary for the key issues:
 - To increase SIGAPP membership
 - To continue the awards including STAP
 - To achieve SCI index for ACR (SIGAPP Newsletter)

SIGARCH FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: David Wood and Doug Burger

Overview

The primary mission of SIGARCH continues to be the forum where researchers and practitioners of computer architecture can exchange ideas. SIGARCH sponsors or co-sponsors the premier conferences in the field as well as a number of workshops. It publishes a quarterly newsletter and the proceedings of several conferences. It is financially strong with a fund balance of over a million dollars. The SIGARCH bylaws are available online at http://www.acm.org/sigs/bylaws/arch_bylaws.html.

Officers and Directors

During the past fiscal year David Wood served as SIGARCH Chair, Sarita Adve served as Vice Chair, and Partha Ranganathan served as Secretary/Treasurer. Jouppi, Kai Li, Scott Mahlke, and Per Stenstrom served on the Board of Directors, and Doug Burger also served as Past Chair. 2015 will be an election year for SIGARCH; the current slate of elected officers is serving their second two-year term in accordance with SGB bylaws. In addition to these elected positions, there are three appointed positions. Doug DeGroot continues to serve as the Editor of the SIGARCH newsletter Computer Architecture News. Kevin Lim continues to serve as the SIGARCH Information Director, providing SIGARCH information online. Mattan Erez continues to serve as SIGARCH's liaison on the SC conference steering committee.

Awards

The Eckert-Mauchly Award, cosponsored by the IEEE Computer Society, is the most prestigious award in computer architecture. SIGARCH endows its half of the award, which is presented annually at the Awards Banquet of ISCA. Trevor Mudge, University of Michigan, received the award in 2014, for pioneering contributions to low-power computer architecture and its interaction with technology. In 2009, SIGARCH petitioned ACM to increase the ACM share of the award to \$10,000, using an endowment taken from the SIGARCH fund balance, which ACM has approved. The increase will happen when IEEE approves a matching increase, which will increase the amount of the award to \$20,000.

SIGARCH has endowed the Maurice Wilkes Award, an award established to recognize computer architects early in their careers, named after one of the pioneers of computer architecture who began making significant contributions early in his career. The award is selected by a vote of the Executive Committee and Board of SIGARCH, from a list of nominees supplied by a three person nominating committee. The 2014 award went to Ravi Rajwar of Intel, for contributions to the design and commercialization of hardware transactional memory.

SIGARCH also cosponsors, along with the IEEE-CS TCCA, the Influential ISCA Paper Award which is presented annually at the ISCA conference. This award recognizes the paper, presented at the ISCA conference 15 years previously, which has had the most impact on computer architecture. The tenth Influential ISCA Paper Award was presented to Seth Copen Goldstein, Herman Schmit, Matthew Moe, Mihai Budiu, Srihari Cadambi, R. Reed Taylor, and Ronald Laufer, PipeRench: A Coprocessor for Streaming Multimedia Acceleration, which appeared in the proceedings of the 25th ISCA (1999).

In 2009, SIGARCH and the ASPLOS co-sponsors (SIGPLAN and SIGOPS) approved the creation of an ASPLOS Best Paper Award, the first one of which was awarded in 2009. The Award is determined by a vote of the Program Committee, and announced at the conference. In 2014, two papers were selected as best papers: DianNao: A Small-Footprint High-Throughput Accelerator for Ubiquitous Machine-Learning, by Tianshi Chen (ICT) ; Zidong Du (ICT); Ninghui Sun (ICT); Jia Wang; Chengyong Wu (ICT); Yunji Chen (ICT); Olivier Temam (INRIA) and K2: A Mobile Operating System for Heterogeneous Coherence Domains, by Felix Xiaozhu Lin (Rice University); Zhen Wang (Rice University); Lin Zhong (Rice University).

Starting in 2011, ASPLOS began awarding an Influential Paper Award, modeled after the award presented at ISCA. The ASPLOS Influential Paper Award is awarded to any paper published in ASPLOS conferences ten or more conferences prior to the conference in which the award is being made. In 2014, the award was given to Secure program execution via dynamic information flow tracking, by Gookwon Edward Suh, Jae W. Lee, David Zhang, and Srinivas Devadas, which was published at ASPLOS 2004.

In 2007 the ACM Awards Committee approved the establishment of the SIGARCH Distinguished Service Award, for important service to the Computer Architecture community. Nominations are due each year by February 15th, and can be sent to the SIGARCH Secretary/Treasurer at any time. In 2014, the award was given to Doug DeGroot, for dedicated service to SIGARCH spanning four decades.

SIGARCH is a co-sponsor of the Ken Kennedy Award, founded in 2009. The ACM-IEEE CS Ken Kennedy Award is awarded annually and recognizes substantial contributions to programmability and productivity in computing and substantial community service or mentoring contributions. The award includes a \$5,000 honorarium and the award recipient will be announced at the SC Conference. The recipient will give a presentation, normally technical, at the SC conference at which it is announced, or at an ACM or IEEE conference of the winner's choosing during the year following the announcement. The 2013 recipient of the Ken Kennedy Award was Jack Dongarra, for influential contributions to mathematical software, performance measurement, and parallel programming, and significant leadership and service within the HPC community.

Three of the above awards, the Eckert-Mauchly Award, the Maurice Wilkes Award, and the Influential ISCA Paper Award were presented at ISCA 2014 in Minneapolis, MN.

New Areas and Programs

SIGARCH continues to broaden its definition of Computer Architecture to encompass both new technology challenges and new application areas. On the technology front, as Moore's Law draws to a close, decreasing transistor reliability is driving a resurgence in novel ideas to build dependable systems from unreliable components. Similarly, the end of Dennard Scaling, which enabled power to largely scale with transistor counts, has resulted in a plethora of novel solutions using heterogeneity and/or new instruction set architectures to achieve fundamental increases in energy efficiency. And new non-volatile memory technologies have spurred the development of novel memory and storage architectures, which have great promise for transforming solutions for Big Data applications. On the application front, new architectures have been proposed to fundamentally revisit how to provide software security and increase programmer productivity. Finally, the importance of energy efficiency at all levels is driving an increasing recognition of the commonalities between the mobile space and the data center.

To address these emerging areas, SIGARCH has sponsored tutorials and workshops in these emerging areas. ISCA 2014 included tutorials on accelerating Big Data computations, emerging memory technologies, and heterogeneous systems, as well as workshops on architectures for Big Data, Neuromorphic architectures, architectural support for security and privacy, energy efficiency, energy security, and mobile platforms.

Innovative Programs

SIGARCH supports child care and companion support travel programs to conferences, although participation since approval of these programs has been low. Reimbursement for child care is capped at \$1000 per conference. SIGARCH has also formalized funding levels for its student travel grant program, and now provides a level of support to all conferences that SIGARCH sponsors at a 33% level or higher, which previously was only provided to the ISCA and ASPLOS conferences.

SIGARCH, with the encouragement of ACM, has begun exploring the creation of a European SIGARCH, implemented through the SIG Chapter mechanism. Goals of a European SIGARCH Chapter include:

- promote student research and education activities to make the computer architecture community grow long term
- promote networking events; conferences, workshops and summer schools
- promote collaboration with other SIGs (e.g. SIGPLAN, SIGOPS, SIGBED) within Europe as well as globally

This effort is still in its early stages, but we have high hopes that it will be successful and emulated in other regions, especially India, China, and South Korea. A group in South Korea is exploring establishing a chapter there.

Travel Grants

SIGARCH has regularly supported student travel grants to its flagship conferences, ISCA and ASPLOS, but starting from 2011, SIGARCH broadened this program to other SIGARCH-sponsored conferences. The allocation to each conference is based on SIGARCH revenues and the percentage sponsorship of the

conference and is set by dividing the travel grant budget by number of attendees, giving an extra 33% allocation to international conferences, and a small additional budget (~10%) to ISCA as the flagship conference. The grants are restricted to student members of SIGARCH, following several votes of the SIGARCH membership. (But the travel grant administrators are encouraged to highlight the cheap SIGARCH online membership option available for students.) For FY2014, SIGARCH budgeted \$80,000 for travel grants.

For ISCA 2014, SIGARCH funding for student travel was also supplemented by sponsorship from IEEE, Google, Unisys, and NSF (SIGARCH funds accounted for half the total student travel funds). 145 students were funded by the ISCA student travel. SIGARCH plans to continue to emphasize and support student participation in SIGARCH-sponsored conferences going forward as well. SIGARCH also supports a companion travel grant program for SIGARCH members who are either (1) a person with a physical disability necessitating a companion, or (2) a parent of an infant less than one year old who cannot travel without the infant and a care-provider for the infant. This program was utilized once in 2014.

SIGBED FY14 Annual Report
July 1, 2013-June 30, 2014
Submitted by: Xenofon Koutsoukos and Chris Gill

Awards

The Paul Caspi Memorial Dissertation Award is a new SIGBED award established in 2013. The award recognizes outstanding doctoral dissertations that significantly advance the state of the art in the science of embedded systems, in the spirit and legacy of Dr. Paul Caspi's work. Details about the selection and nomination process can be found on SIGBED's awards page.

The 2013 Paul Caspi Memorial Dissertation Award recipient is Bernard Blackham from the University of New South Wales for his thesis "Towards Verified Microkernels for Real-Time Mixed-Criticality Systems." The winner was chosen from a total of 11 nominations. The selection committee found the winning thesis to be an outstanding contribution at the intersection of operating systems, worst-case execution time analysis, and model checking.

SIGBED also offers the SIGBED-EMSOFT Best Paper Award. The annual award is presented to the individual(s) judged by an award committee to have written the best paper appearing in the EMSOFT (Embedded Software) conference proceedings. The selection criteria are the scientific quality of the paper and the exposition of the ideas. The 2013 SIGBED-EMSOFT Best Paper is titled "Safety Verification for Linear Systems" by Parasara Duggirala and Ashish Tiwari.

Student Travel Grants

To promote excellence in embedded systems education and research, SIGBED offers travel grants for students to attend ESWEEK, the premier forum in the embedded system design area. The travel grants are given at a preset amount, which may vary from year to year (but no greater than \$500), and can be used to partially cover conference registration and/or hotel accommodation. In 2013, 18 students received travel grants to attend ESWEEK 2013 in Montreal, Canada. Starting in 2015, SIGBED will offer travel grants for students to attend CPSWEEK, the premier forum in the cyber-physical systems area.

Events highlighting new areas of interests at conferences

ESWEEK 2013 featured three keynotes on new directions and challenges:

- "Cyber Physical Systems: Systems Engineering of Industrial Embedded Systems - Barriers, Enablers and Opportunities." Speaker: Clas A. Jacobson, Chief Scientist, United Technologies Systems & Controls Engineering.
- "High-Performance, Scalable, General-Purpose Processors to Accelerate High-Throughput Networking and Security Applications." Speaker: Richard Schooler, Vice President Software Engineering, Tilera Corp.
- "Low-Power High-Performance Asynchronous Processors." Speaker: Michel Laurence, CEO and Co-Founder, Octasic Inc.

CPSWEEK 2014 also included three keynotes discussing new CPS applications and significant challenges:

- "A Cyber-Enabled Grid of the Future." Speaker: Ian A. Hiskens, Vennema Professor of Engineering, Department of Electrical Engineering and Computer Science, University of Michigan.
- "Towards a Theory of Resilient Cyber-Physical Systems." Speaker: S. Shankar Sastry, Electrical Engineering and Computer Sciences, University of California, Berkeley.
- "The challenges for mechanisms and applications of cyber-physical systems." Speaker: P.R. Kumar, Professor and College of Engineering Chair in Computer Engineering, Texas A&M University.

Proposal to launch a new ACM journal on Cyber-Physical Systems

ACM SIGBED is pleased to support the proposed launch (currently under review) of a new ACM journal on Cyber-Physical Systems (CPS). We have seen significant growth in a global research community on CPS in recent years, thanks to CPS Week, the ACM/IEEE International Conference on Cyber-Physical Systems (ICCPs), a large CPS program at NSF, sister programs at other federal agencies including NIST and USDOT < multiple CPS centers/projects around the world including in S. Korea, India, China and Japan, as well as

greater emphasis on CPS in the EU research program. Given the above, this journal is very timely, and will help to grow the global CPS community.

The equal roles played by the cyber-components of computing and communications and the physical components within a CPS distinguishes it from other more cyber-centric domains like embedded systems. As such, there is no direct equivalent to the journal in the current list of ACM journals.

Innovative programs which provide service to some part of our technical community

SIGBED continues to sponsor two major federated conferences, CPSWEEK in the spring [HiCoNS, HSCC, ICCPS, IPSN, RTAS] and ESWEEK [CASES, CODES+ISSS, EMSOFT] in the fall.

SIGBED started in-cooperation status with ASPLOS continuing the trend of major events moving into the embedded space (DAC since 2011).

SIGBED also established in-cooperation status with the 20th International Conference on Reliable Software Technologies - Ada-Europe 2015.

SIGBED continues to operate a blog for announcements and other information at sigbed.org and the @sigbed Twitter account.

The SIGBED review, edited by Oleg Sokolsky of University of Pennsylvania, provides a forum for technical contributions by members as well as lists of upcoming events.

SIGBED continues to offer low membership rates at \$15 for a regular membership and \$5 for a student membership.

Issues

SIGBED will need to form a selection committee for the Paul Caspi Award and call for nominations for 2014. Other items are the organization of student travel grants for ESWEEK 2013/4 and for CPSWEEK 2015 and the call for applications for the Frank Anger Award. SIGBED may also use the blog and twitter account for real-time postings during CPSWEEK and ESWEEK.

SIGBio FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Aidong Zhang

ACM Special Interest Group in Bioinformatics, Computational Biology, Biomedical Informatics

The ACM Special Interest Group on Bioinformatics, Computational Biology, and Biomedical Informatics (SIGBIO) has been instituted in January 2011 with the aim of focusing on research on bioinformatics data management topics, roughly covered by the so-called biological and biomedical data, knowledge, and information management. The focus of SIGBIO is to bridge computer science, mathematics, statistics with biology and biomedicine sharing research interests in the management of data related to life sciences. The mission of ACM SIGBio is to support advanced research, training, and outreach in Bioinformatics, Computational Biology, and Biomedical Informatics by stimulating interactions among researchers, educators and practitioners from related multi-disciplinary fields. The original name of this group was SIGBioinformatics, and in 2012, the name was shortened as SIGBio and currently has 486 members.

SIGBIO Website

The SIGBIO website was created and is maintained by Dr. Mohammed Zaki of Rensselaer Polytechnic Institute (see <http://www.sigbioinformatics.org/>). The new SIGBio logo is shown there.

SIGBIO Conference (ACMBCB):

The 2013 ACM International Conference on Bioinformatics, Computational Biology, and Biomedical Informatics (ACM BCB 2012) (Washington DC, September 22-25, 2013) was the fourth ACM conference in the areas of bioinformatics, computational biology, and biomedical informatics (276 attendees, 148 paper submissions, 43 regular papers and 28 short papers accepted). The conference was preceded by 7 international workshops on emerging topics of bioinformatics, systems biology, and biomedical informatics, and by 5 tutorials.

ACMBCB2013 Best Paper Award:

Improving discrimination of essential genes by modeling local insertion frequencies in transposon mutagenesis data, Michael Dejesus and Thomas loerger

ACMBCB2013 Best Student Paper Award:

MRfy: Remote Homology Detection for Beta-Structural Proteins Using Markov Random Fields and Stochastic Search, Noah Daniels, Andrew Gallant, Norman Ramsey and Lenore Cowen

ACMBCB2013 Best Poster Award:

Modularity and Community Detection in Semantic Similarity Networks through Spectral Based Transformation and Markov Clustering, Pietro Hiram Guzzi, Pieangelo Veltri, and Mario Cannataro

The 2014 ACM International Conference on Bioinformatics, Computational Biology, and Biomedical Informatics (ACM BCB 2014) will be held in Newport Beach, CA, September 20-23, 2013.

SIG Bio Community meeting was held on September 23, 2013 during the ACM BCB 2013 conference. In Cooperation Conferences

SIGBio was in cooperation with the following conferences:

- BIOSTEC'14: International Joint Conference on Biomedical Engineering Systems and Technologies, Angers, Loire Valley, France, March 3-6, 2014.

NSF Awards

SIGBIO was awarded one National Science Foundation grants to support ACMBCB conference:

1. 'Student Travel Sponsorship for Fourth ACM BCB Conference, 2013'
(period:9/1/13-8/31/14, amount:\$20000, PI: Sridhar Hannenhalli)

Special Program 1 – Women in Bioinformatics

In 2011, we started a special program, called Women in Bioinformatics, sponsored by the National Science Foundation during the BCB2011 conference. The purpose of this program is to encourage female students to get involved in the bioinformatics research. We continued this program in BCB2013 meeting. A keynote speech was delivered by Ruth Nussinov and a "Women in Bioinformatics" Forum was held on September 24, 2013, which featured a set of presentations of both female faculty members and PhD students. There was a large audience.

Special Program 2 – PhD Students Forum

A PhD students Forum was held in BCB2013 which featured the poster presentations of 30 PhD students from various universities. This forum provided a platform for PhD students to network, practice presentation skills and exchange their ideas and research experiences.

Special Program 3 – Knowledge Repository

As part of our knowledge repository, we have started our PhD Dissertation Abstract Repository. An initiative to create a PhD dissertation abstract repository has been proposed and implemented by Dr. Armin Mikler. This repository hosts PhD dissertation abstracts collected from PhD students and will be available for public access.

Special Program 4 – Health Informatics Symposium

A Health Informatics Symposium has been added to BCB2013 as a step to include topics in health informatics in the BCB conference. The goal of this symposium is to bring computational scientists together with researchers and professionals to discuss the problems in healthcare, public health, and everyday wellness. The symposium highlights the most novel technical contributions in computing oriented toward health informatics and the related social and ethical implications.

SIG Bio Awards

The SIG Bio award committee established the following new SIGBio awards:

- Best Paper and Best Student Paper Awards – through our annual BCB conference, which is the flagship conference of our SIG, we give two awards: Best Paper and Best Student Paper. The award selection process will follow the formal review process of the conference. The PC Chair(s) of the conference, in consultation with their Vice Chairs, will create a short list of papers based the peer reviews of the papers. Awards committee will review these short lists and make a selection. Selection will be announced during the BCB conference. The first awards were given during BCB 2013.
- Best PhD Dissertation Award – Starting from 2014, by leveraging the "Special Program 3 – PhD Dissertation Abstract Repository" mentioned above, awards committee plans review the PhD dissertations submitted to repository throughout the year, and will select best dissertation.
- Starting from 2015 we plan to start two new awards 1) Outstanding Service Award, that will awarded to an individual for their service to SIGBio community, 2) Research Achievement Award to an individual for a body of work presented at the conference 5 years (or more) earlier and had the most impact, measured by using quantifiable metrics like citations, software usage etc.

Best paper and best student paper awards will be continuous and there will be at least one recipient each year. However, we envision that Best PhD Dissertation Award, Outstanding Service Award and Research Achievement Award may not be awarded every year.

SIGCAS FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Andrew Adams

1. General Report

The 2013 publication schedule of SIGCAS Newsletter, was a severe problem. An issue was put out in May, but after that the editor, who had moved to a new job, was unable to give the role the attention it needed and although a further issue was mostly ready by October 2013, it was not issued until March 2014. Following the final production of that issue, one of the two new deputy editors recruited in 2013 was promoted to editor. The editorial team now consists of Dr Vaibhav Garg as editor and Dee Weikle as Deputy Editor. A second issue of Vol. 44 (2014) was completed in late July 2014 and calls for papers for special issues for a further two issues in 2014 have been distributed, with guest editors also working on them). Calls for papers in both special issues and regular issues are now on the website and being pursued by the permanent and guest editors.

Renewal of the website onto a new platform has still not yet happened and is a priority for the coming year. A new underlying platform based on the ACM web services site has been obtained.

SIGCAS has been supporting the movement to promote "The Pledge of the Computing Professional" though has been careful to allow that movement's leaders to drive the process forward, but highlighting its existence and our support of the idea to other parts of the ACM and to SIGCAS members. Our support for "The Pledge" has been welcomed by the leaders of the pledge committee as a key element of its steady growth and initial success both within ACM and in universities around the US.

Primarily due to problems with the Newsletter, in March the SGB only gave SIGCAS limited approval to continue operating, with a one year time frame to bring the newsletter back into proper shape and to increase our visibility online. A new twitter account ACMSIGCAS was created and has 26 followers (mostly SIGCAS members). The VC of the incoming Executive Committee has taken over ownership of the account as of July. A LinkedIn group was also created, as a subgroup of the ACM Members group, which has 50 members.

1. Awards

SIGCAS gives two awards: the general "Making a Difference Award" and the more focussed "Outstanding Service Award". The 2013 Outstanding Service Award has been decided and was awarded to Netiva Caftori for her work as Vice Chair from 2011-2014 and in particular for her continued efforts at making the SIGCAS presence at SIGCSE's annual conference a strong success. The 2013 Making a Difference Award recipient has not yet been decided. Edward Snowden and Glenn Greenwald were nominated but the EC felt that this was too controversial a decision to be made without broad consultation with the membership. Following a discussion on the SIGCAS-Talk members' mailing list, the outgoing EC felt that this was too controversial a decision to take and then pass the consequences on to a new EC. Accordingly, the outgoing decision passed a recommendation to the incoming EC that there was insufficient support amongst the membership for making such an award, although there were strong views expressed both in support and opposition to the idea by members, including previous Making a Difference Award recipients on both sides. The new EC is considering processes and possible award recipients as of writing.

2. Significant papers on new areas that were published in proceedings

N/A

3. Significant programs that provided a springboard for further technical efforts

N/A

4. Innovative programs which provide service to some part of your technical community

Our ongoing cooperation with SIGCSE continued with another successful half-day pre-event at the SIGCSE Technical Symposium on Computer Science Education.

We agreed "In Cooperation Status" with the following conferences:

- HILT 2013
- IEEE Ethics in Science and Engineering 2014 (incorporating ISTAS 2014)

- Computer Ethics, Philosophical Enquiry 2014 (also sponsoring the CEPE/Ethicomp joint workshop on Women in Computing)
- ICTD 2015

Initial negotiations to become an “In Cooperation” sponsor of the long-running Ethicomp series of conferences are also taking place.

5. *Brief summary of key issues that the SIG membership will have to deal with in the next 2-3 years*

The focus of the incoming EC is first on meeting the criteria for continued viability at the March 2015 SGB meeting, ensuring that the necessary steps, particularly the newsletter, from the plan are carried through. Many of these are already well under way (Twitter account, LinkedIn group, second issue of newsletter for 2014 uploaded). In addition the slowly declining membership is a serious consideration and increased visibility of SIGCAS at the conferences it co-sponsors (leaflets in program packs for participants, ensuring that SIGCAS is mentioned during welcome remarks by conference organisers, links to the SIGCAS website from conference webpages, etc.) is one approach that is already under way to try to recruit more members. Discussions are continuing about other ways to recruit new members and then retain them (although our 3+ year member retention is good already – we just haven't been recruiting sufficient new members).

Some initial discussions have been started with sister organisations including IEEE SSIT, INSEIT and IACAP about the possibility of some kind of joint federated membership or common membership discount scheme. Similar discussions about greater SIGCAS involvement in their conferences (CEPE for INSEIT, IACAP conference for IACAP) and other related ones (Ethicomp) have also begun.

SIGCHI FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Gerrit van der Veer

1. Awards

1.1 SIGCHI made the following awards in 2013-2014:

- Social Impact Award: **Richard E. Ladner**
- Lifetime Service Award: [Wendy Mackay](#), [Tom Hewett](#)
- Lifetime Research Award: [Steve Whittaker](#)
- Lifetime Practice Award ; [Gillian Crampton Smith](#)
- Special Recognition Award: [Ted Nelson](#)
- CHI ACADEMY: **John C. Tang**, [Jeff A. Johnson](#), [Susan Dray](#), **Jodi L. Forlizzi**, **Keith Edwards**, **Ken Hinckley**, **Richard H. R. Harper**, **Gary Marsden**

1.2 SIGCHI Conference awards:

- CHI 2014 Best Papers:

[Vulture: A Mid-Air Word-Gesture Keyboard](#)

Anders Markussen, Mikkel R. Jakobsen, Kasper Hornbaek

[Duet: Exploring Joint Interactions on a Smart Phone and a Smart Watch](#)

Xiang 'Anthony' Chen, Tovi Grossman, Daniel J Wigdor, George Fitzmaurice

[Effects of Display Size and Navigation Type on a Classification Task](#)

Can Liu, Olivier Chapuis, Michel Beaudouin-Lafon, Eric Lecolinet, Wendy E. Mackay

[Type-Hover-Swipe in 96 Bytes: A Motion Sensing Mechanical Keyboard](#)

Stuart A Taylor, Cem Keskin, Otmar Hilliges, Shahram Izadi, John Helmes

[Panopticon as an eLearning Support Search Tool](#)

James Nicholson, Mark Huber, Daniel Jackson, Patrick Olivier

[MixFab: a Mixed-Reality Environment for Personal Fabrication](#)

Christian Weichel, Manfred Lau, David Kim, Nicolas Villar, Hans W Gellersen

[Exploring the Acceptability of Google Glass as an Everyday Assistive Device for People with Parkinson's](#)

Roisin C McNaney, John Vines, Daniel Roggen, Madeline Balaam, Pengfei Zhang, Ivan Poliakov, Patrick Olivier

[Growing Closer on Facebook: Changes in Tie Strength Through Social Network Site Use](#)

Maira Burke, Robert E Kraut

[Emerging Sites of HCI Innovation: Hackerspaces, Hardware Startups & Incubators \(schedule\)](#)

Silvia Lindtner, Garnet D Hertz, Paul Dourish

[Designing for Slowness, Anticipation and Re-visitation: A Long Term Field Study of the Photobox](#)

William T Odom, Abigail J Sellen, Richard Banks, David S Kirk, Tim Regan, Mark Selby, Jodi L Forlizzi, John Zimmerman

[Estimating the Social Costs of Friendsourcing](#)

Jeffrey M Rzeszotarski, Meredith Ringel Morris

[Human Values in Curating a Human Rights Media Archive](#)

Abigail C Durrant, David S Kirk, Stuart Reeves

["Narco" Emotions: Affect and Desensitization in Social Media during the Mexican Drug War](#)

Munmun De Choudhury, Andres Monroy-Hernandez, Gloria Mark

[Real-time Feedback for Improving Medication Taking](#)

Matthew L. Lee, Anind K. Dey

Structured Labeling for Facilitating Concept Evolution in Machine Learning Todd Kulesza, Saleema Amershi, Rich Caruana, Danyel Fisher, Denis Charles

B#: Chord-based Correction for Multitouch Braille Input
Hugo Nicolau, Kyle Montague, Tiago Guerreiro, João Guerreiro, Vicki L. Hanson

Towards Accurate and Practical Predictive Models of Active-Vision-Based Visual Search
David E. Kieras, Anthony J. Hornof

RetroDepth: 3D Silhouette Sensing for High-Precision Input On and Above Physical Surfaces David Kim, Shahram Izadi, Jakub Dostal, Christoph Rhemann, Cem Keskin, Christopher Zach, Jamie Shotton, Timothy Large, Steven Bathiche, Matthias Niessner, D. Alex Butler, Sean Ryan Fanello, Vivek Pradeep

Understanding Multitasking Through Parallelized Strategy Exploration and Individualized Cognitive Modeling Yunfeng Zhang, Anthony J. Hornof

Beyond Ethnography: Engagement and Reciprocity as Foundations for Design Research Out Here
Margot Brereton, Paul Roe, Ronald Schroeter, Anita Lee Hong

Making Sustainability Sustainable: Challenges in the Design of Eco-Interaction Technologies
Rayoung Yang, Mark W. Newman, Jodi L Forlizzi

- CHI 2014 People's Choice Best Talk Awards:

Dan Morris.
RecoFit: Using a Wearable Sensor to Find, Recognize, and Count Repetitive Exercises

Jishuo Yang.
Panelrama: Enabling Easy Specification of Cross-Device Web Applications

Matthew Aylett.
None of a CHInd: Relationship Counselling for HCI and Speech Technology

Rong-Hao Liang.
GaussBricks: Magnetic Building Blocks for Constructive Tangible Interactions on Portable Displays

Rubaiat Habib Kazi.
Draco: Bringing Life to Illustrations with Kinetic Textures

Scott Hudson.
Printing Teddy Bears: A Technique for 3D Printing of Soft Interactive Objects

Vassilis Kostakos.
CHI 1994-2013: Mapping Two Decades of Intellectual Progress through Co-word Analysis

Xiang 'Anthony' Chen.
Duet: Exploring Joint Interactions on a Smart Phone and a Smart Watch

- CHI 2014 Student Design Competition Winners

First Place:
Beam: A Mobile Application to Improve Happiness and Mental Health
Joyce Sakata, Mengdi Zhang, Shi Pu, Jianqi Xing, Kritika Versha

Second Place:
Sisyphorest: Maintenance Goal Support by Responding to Trends
William Saunders, Filip Krynicki, Valerie Sugarman

Third Place: (tied)
InnoMotion: A Web-based Rehabilitation System Helping Patients Recover and Gain Self-Awareness of Their Body Away from the Clinic
Luxi Chen, Miranda Kiang, Kruthi Sabnis Krishna, Ni Yan, Anna S. Muth

Third Place: (tied)
NeckGraffe: A Postural Awareness System
Rushil Khurana, Elena Marinelli, Tulika Saraf, Shan Li

- CHI 2014 Video Showcase Award.

Draco: Living Illustrations
Rubaiat Habib Kazi, Fanny Chevalier, Tovi Grossman, Shengdong Zhao, George Fitzmaurice

2. Significant Papers on new areas that were published in proceedings

See 1.2

3. Significant programs that provided a springboard for further technical efforts

3.1. SIGCHI Sponsored Regional Workshops and following up activities for HCI Community in Asia (2011), HCI Community in Latin America (2012), and HCI Community in Africa (2013)

In order to help HCI communities in Asia, Latin America, and Africa to grow up and become better involved in SIGCHI community, we have systematically created a series of regional workshops involving members of the SIGCHI EEC and representatives of the local communities focused on mutual learning between SIGCHI community and local communities and between local communities. Capturing an understanding of HCI knowledge and practice that exists in the developing world has already proven useful in formulating strategies for using SIGCHI resources with clear targets to help developing world HCI communities mature and in building/strengthening ties with them. In each workshop we have developed a better understanding of shared community interests, and have been taken up on offers to support continued professional growth in the area through sponsoring selected local events including speaker exchanges, professional development, student competitions, community connecting activities and various mentoring efforts, and local meetings aimed at growing the community.

Each of the regions offers different opportunities. For example, we will hold the annual flagship CHI conference in Korea in 2015 and expect to continue to build the relationship between ACM SIGCHI and HCI researchers and practitioners in Asia Pacific through this event. As a campaign in better preparing local communities for CHI2015, we sponsored various activities in 2014 in China, Indonesia-Malaysia and India. In Latin America, we have particularly aided the Brazilian community by responding to requests to support a series of workshops to connect academia and industry and local student competitions as a follow-up to the 2012 event. In Africa, our efforts just started and are smaller, reflecting the maturity of HCI in the region, but are viewed as highly valuable to the developing community.

3.2 CHI Communities

We currently have 17 communities ranging in size from 7 (European Association for Cognitive Ergonomics) to 291 (CSCW) members. We continue to refine this so as to provide support to the various kinds of members that make up CHI. Most of these communities have formed a suite of officers for their own governance and held elections. This provides a self-renewing mechanism for these members to work with each other. The largest communities form the governing mechanism for some of our conferences.

Current Communities with nr of members (full members, affiliates):

[Accessibility](#) 17 (13, 4)
[CCaA](#) 48 (25,23)
[CSCW](#) 291 (154, 137)
[EICS](#) 47 (28, 18)
[European Association for Cognitive Ergonomics](#) 7 (5, 2)
[FoodCHI](#) 22 (11, 11)
[HCI and Sustainability](#) 65 (35, 30)
[HCI Education](#) 39 (28,11)
[HCI4D](#) 70 (27,43)
[Heritage Matters](#) 26 (17, 9)
[Intelligent User Interfaces](#) 105 (81 (sigart & sigchi), 24)
[Interactive Experiences for Television and Online Video](#) 11 (7, 4)

[Latin American HCI Community](#) 62 (23, 39)

[Pattern Languages and HCI](#) 18 (11, 7)

[Research-Practice Interaction](#) 57 (30, 27)

[UbiComp](#) 156 (78, 78)

[UIST](#) 229 (100, 129)

4. Innovative programs which provide service to some part of our technical community

4.1. Public Policy

In the 2013-2014 year, the membership of the SIGCHI International Public Policy Committee grew to 27 members. A face-to-face meeting of the group was held at the CHI 2014 conference in Toronto. Since the CHI 2013 conference in Paris, where a day-long workshop on public policy was held, Jonathan Lazar has been leading the effort to edit a multi-author framework report, to serve as a foundation for the topic of HCI and public policy. The group hopes to complete the report and have it officially approved by the end of 2014. The group is also beginning a project to interview policymakers, to determine what would be most useful to them, from the SIGCHI community. Interactions Magazine also continues to have an "Interacting with Public Policy" forum, edited by Jonathan Lazar.

Related to SIGCHI accessibility efforts, both the individual conference committees (CHI 2014 and CHI 2015), as well as the CMC, have increased their focus on inclusion and accessibility for people with disabilities. At the August 2013 EC meeting, 5 members of the EC met with the AccessComputing directors at the U of Washington, to learn more about how to be more inclusive of computer scientists with disabilities. The CMC continues to use the ASSETS checklist for doing conference facility walkthroughs. The CHI 2014 committee had digital and infrastructure accessibility chairs, as does the CHI 2015 committee. For CHI 2014, for the first time, the paper template had information about accessibility, and the web site for CHI 2014 included information on how to make your paper more accessible. A post-conference analysis found that the percentage of CHI 2014 papers that had accessibility features had indeed increased from the previous year.

4.2. Education

Our 2014 work focuses on three inter-related activities: continuing to gather respondents for our HCI survey from across the globe, targeting to date under-represented areas and language groups; interviewing hiring managers interested in HCI to see where they perceive engaging opportunities to be arising that could impact curriculum development; and building an active community of scholars, students and practitioners interested in HCI Education. 2013-2014 and current activities in more detail:

- We worked to get broader coverage of the survey outreach by getting the survey translated into Spanish and French. To date, we have 450 participants from our English-language sample; 52 participants from our Chinese Sample; 156 from our Brazilian Sample; 48 from our Chilean Sample, and 5 from our French sample.
- Based on previous work we did outreach to the 7 broad populations we targeted (The United Kingdom, Scandinavia, Spain and Spanish-speaking countries in South America, France and Belgium, Austria and Germany, India, and Australia and New Zealand) to invite to a third SIGCHI Education workshop. The SigCHI Education workshop was held at CHI 2014. Eighteen students, practitioners, and academics working in HCI from countries including the United States, Canada, the UK, Brazil, Spain, Germany, the Netherlands, and Namibia attended. This led to the formation of an active group of members for an HCI education task-force to help build the community. One participant, Andrea Peer, wrote a paper on HCI Education inspired in part this event. Others contributed documents such as Syllabi to the SIG CHI Education resources, or contributed position papers to the HCI Education Workshop hosted at CHI 2014. We are actively working with this task-force to take further steps to develop the HCI Education community and create the planned "Living Curriculum". Reviewed papers from the workshop are available on the SIGCHI website, as is the workshop agenda. A full report is in preparation.
- We augmented the SIG CHI collection of educational materials, adding 49 Syllabi from HCI courses around the globe. These syllabi include foundational courses, courses in research methods, courses covering technology design, capstone courses, and electives. All materials have been made available on our SIGCHI website.
- We dovetailed our efforts in the Education project with the CHI 2014 program. Elizabeth Churchill acted as Courses Co-Chair for the 2014 conference, completely revamping the course selection process with the help of the CHI General and Technical Program Co-Chairs. Courses were divided into four types: Foundational; Specialist and Emerging Areas; Practicum; and Fireside Chats with luminaries from the field of HCI conducted as hosted Q&A sessions. The review process was replaced with an invited and

curated approach to course selection and management. Working with the conference co-chairs and conference operations (Scooter Morris), key courses were selected for recording. Future plans include making some recordings available in an online channel.

4.3. SIGCHI presence in Social media

4.3.1 Social Networks

Elizabeth Churchill and Patrick Gage Kelley continue to work on a strategy for social media presence for SIGCHI. The "owner" of the LinkedIn page for ACM SIGCHI has been contacted and is willing to allow us to assist in content curation. The various SIGCHI related Twitter accounts have been consolidated, The CHI2015 social media chairs are still actively tweeting from the main account. Discussion continues about whether to engage a student volunteer or an assistant to manage our social media presence and better coordinate CHI conference and specialist conference social media streams.

4.3.2 Social Media Policies

A Social Media content policy and a brief SIGCHI Logo policy have been developed, reviewed, and commented on. These will be made public and official in the near future. In coordination with the logo policy Patrick has been collecting image asset files to compile a full logo archive, including any and all past SIGCHI conferences for internal use as well as external/press use. In tandem with the policies a Social Media best practices guide originally developed for CSCW has been expanded to distribution throughout SIGCHI Social Media chairs.

4.3.3 Online Video

While a YouTube account has been squatted, SIGCHI (Scooter, Jesse, Patrick) are considering alternates to YouTube due to it being censored in China. Multiple options are being considered, however no decision has yet been reached. In the mean time videos are begin prepared for release, with pre-video content/branding screens which have been prototyped and are being completed as logos come in to the logo archive.

4.3.4 Other

The Website redesign has been put on hold until discussions regarding the use of the ACM's content management system, the Plone, have been resolved. Interactions magazine (print edition) has been redesigned with support from SIGCHI and a great deal of effort on the part of the editors-in-chief. The interactions website and blog continues to attract a good readership. The SIGCHI Newsletter which was launched in early 2013 continues to be read by about one third of our membership, and a redesign of the newsletter appearance is proposed. Our online communities platform is actively used, see 3.2.

4.4. SIGCHI Newsletter

Analogous to the ACM Newsletter, the "ACM TechNews SIGCHI Edition" has been launched in April 2013

4.5. Mentoring

4.5.1. HCI/UX mentoring circle

We discussed the possibility of developing an on-line mentoring service and decided to use the existing mechanisms of LinkedIn instead. We started an HCI/UX mentoring circle on LinkedIn which now has 42 members and 10 threads. In addition we are active in many of the other existing LinkedIn groups relevant to the topic of mentoring. These groups include ACM SIG CHI, CHI Management Community, CHI UX Community, IxDA, UX Professionals, UXPro, UX V HCI Research, User Experience, User Experience Group and UX Strategy and Planning. The communities with "UX" in the title generally have many more members than those with "CHI" in the title. Intuitively, this seems like too many communities concerned with largely overlapping memberships and concerns, but it is not clear what, if anything can be done about this. Meanwhile, there is a lot of useful information exchanged, but long term mentoring is not very well supported though it may *arise* from these discussions.

4.5.2. At CHI 2014 in Toronto, another CHI Women's Breakfast was held. This was well attended and seems to be an excellent venue both for sharing experiences at the time and for making contacts and facilitating mentoring.

4.5.3. After the Town Hall Meeting, during CHI 2014 new ideas about mentoring were brought in. We are following up about a proposal for special rates for retired CHI people in return for mentoring.

5. Summary of key issue that the membership of SIGCHI will deal with in the next 2-3 years

5.1. Internationalization

We will continue to advance the internationalization of SIGCHI in the next few years with a continuing focus on Asia. We will also entertain specific proposals for workshops in other areas such as, but not limited to, Africa, the Indian subcontinent, and South America.

5.2. Relations to other societies

We will continue to seek to enhance our relationships to other societies and organizations broadly concerned with human computer interaction.

5.3. SIGCHI distinguished speakers

We will develop a HCI-dedicated list of Distinguished Speakers. So far, we have submitted a list of potential HCI –dedicated speakers residing in Europe to the ACM Europe Board, where we distinguish the speakers’ expertise in different subfields of the complex multidisciplinary domain of HCI.

5.4. Local Chapters

Interest and need for HCI all over the world, especially in the vast developing world, has been growing recently. Local communities affiliated with SIGCHI—the SIGCHI Local Chapters—gather together HCI students, academics, and practitioners from their specific regions. In 2014, SIGCHI has 40 local chapters in 24 countries on 6 continents, reaching over 3,000 chapter members.

In 2013, SIGCHI chapters were started in Chile and Israel. The latest 2014 additions to the charter of SIGCHI chapters are the Rochester Institute of Technology Student Chapter (NY), Wananchi (“citizen/common man” in Swahili) in Kenya, and Indonesia ACM SIGCHI.

The full roster in 2014 is:

SIGCHI Chapter Name	City	State	Country
Professional Chapters			
Atlanta ACM SIGCHI Chapter	Atlanta	GA	USA
Belgian ACM SIGCHI Chapter	Antwerp		Belgium
Brazil ACM SIGCHI Chapter	Sao Paulo		Brazil
Central Chile ACM SIGCHI Chapter	Valparaiso		Chile
Central Russia ACM SIGCHI	Moscow		Russian Federation
China ACM SIGCHI Chapter	Beijing		China
Cyprus ACM SIGCHI Chapter	Lemesos		Cyprus
Czech ACM SIGCHI Chapter	Praha		Czech Republic
Estonian ACM SIGCHI Chapter	Tallinn		Estonia
Finland ACM SIGCHI Chapter	Espoo		Finland
Greater Boston ACM SIGCHI Chapter	Somerville	MA	USA
Greece ACM SIGCHI Chapter - GrCHI	Athens		Greece
Indonesia ACM SIGCHI Chapter	Semarang		Indonesia
Ireland ACM SIGCHI Chapter	Dublin		Ireland

Italian ACM SIGCHI Chapter	Padova		Italy
Korea ACM SIGCHI Chapter	Seoul		Republic of Korea
Mexico ACM SIGCHI	Mexico, D.F.		Mexico
Michigan ACM SIGCHI Chapter	Ann Arbor	MI	USA
New Zealand ACM SIGCHI Chapter	Hamilton		New Zealand
North India ACM SIGCHI Chapter	Allahabad		India
Northern Utah ACM SIGCHI Chapter	Orem	UT	USA
Ottawa ACM SIGCHI Chapter	Kanata	ON	Canada
Paris ACM SIGCHI Chapter	Orsay Cedex		France
Philadelphia ACM SIGCHI Chapter - Philly-CHI	Deptford	NJ	USA
Poland ACM SIGCHI Chapter	Warsaw		Poland
Portland ACM SIGCHI Chapter	Portland	OR	USA
Puget Sound ACM SIGCHI Chapter	Seattle	WA	USA
Romania ACM SIGCHI Chapter	Bucuresti		Romania
San Francisco Bay ACM SIGCHI Chapter Bay-CHI	Belmont	CA	USA
Spain ACM SIGCHI Chapter	San Mateo		Spain
St Louis ACM SIGCHI Chapter	St Louis	MO	USA
Swiss ACM SIGCHI Chapter	Zürich		Switzerland
Tel Aviv ACM SIGCHI Chapter	Tel Aviv		Israel
Toronto Region ACM SIGCHI Chapter	Toronto	ON	Canada
Toulouse/France ACM SIGCHI Chapter	Toulouse		France
Wananchi ACM SIGCHI Chapter	Nairobi		Kenya
Student Chapters			
George Mason University ACM Student SIGCHI	Fairfax	VA	USA
University of Michigan ACM Student SIGCHI	Ann Arbor	MI	USA
Iowa State University Chapter (SIGCHI)	Ames	IA	USA
Rochester Institute of Technology ACM Student SIGCHI	Rochester	NY	USA

We have learned that running a chapter on a fully voluntary basis is not an easy task. In particular, we see problems when the chapter is young and the volunteers feel they have to start and drive the whole enterprise. SIGCHI has also not been highly successful in promoting the benefits of being affiliated with an international network of multidisciplinary and multicultural HCI professionals and peers.

SIGCHI chapters with long histories, such as BostonCHI and BayCHI, have no issues with financial stability and sponsor relationships. At the other end of the spectrum, small chapters just beginning their activities are often trying to survive with volunteer work, without any income from membership fees.

In addition, the membership distributions vary significantly. Some chapters are lacking in academic members, whereas others are lacking in practitioners. Depending on this distribution, the activities of the chapters can be very different—the member benefits valued by practitioners probably differ from those valued by academics. For several years now the SIGCHI EC has tried to develop real benefits for our chapters that make their affiliation with SIGCHI worthwhile. A challenge to this effort is that, as we've learned, universal benefits are hard to find.

Our current approach for supporting chapters is to enable closer interactions between the chapters. We host an annual Chapters Workshop at CHI (the latest in Toronto in April 27th, 2014) and have learned that inter-chapter communications and collaboration could help the chapters overcome their problems. We could organize more workshops, but even better, we should support chapter-initiated interactions, because surely the chapters know best what their needs are. This support could mean, for example, enabling joint events, summer schools, speaker tours, volunteer exchange, common student competitions and job lists, or video sharing from chapter events. Following this idea, the SIGCHI Executive Committee decided in 2013 to offer funding to chapter-networking projects. Excellent examples of this type of events are the Nordic SIGCHI Chapters Event on October 16 at NordiCHI 2014 and the EstCHI - CyprusCHI European Summer School on Research Methods in HCI 2014 held on July 25th – 31st, 2014.

For the developing parts of the world, additional support is offered—an annual award for a design challenge or similar competition, student scholarships, and community-building events. A recent example of such an event was the UX Indonesia-Malaysia 2014 workshop held in Jakarta last April, which already gave birth to a new SIGCHI local chapter in the region.

SIGCOMM FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: S. Keshav

SIGCOMM continues to be a vibrant organization serving the broad community of people interested in all aspects of computer networking. We continue to sponsor several successful, single-track, high-impact conferences, several of these being in co-operation with other SIGs. There are a number of highlights to report from the past year.

New officers

SIG elections were held in April 2013 and the new executive committee took office on July 1, 2013. The new roster of officers is as follows:

Chair: S. Keshav, University of Waterloo, Canada
Vice-Chair: Renata Teixeira, INRIA, France
Secretary-Treasurer: Jörg Ott, Aalto University, Finland
CCR Editor: Dina Papagiannaki, Telefonica I+D, Spain
Information Services Director: Hamed Haddadi, Queen Mary, University of London, UK
SIGCOMM Education Director: Olivier Bonaventure, Université catholique de Louvain, Belgium
Award Committee Chair: Bruce Maggs, Duke University, USA
Coordinator, SIGCOMM Annual Conference, Yashar Ganjali, University of Toronto, Canada

It is worth remarking that only one of our officers is from the USA, reflecting the truly multi-national nature of computer networking research.

Conferences

Our flagship conference, continuing our policy of rotation among regions on a 3-year cycle, was held in Hong Kong (the 'wild-card' location in the rotation) in August 2013. The conference was very successful with a record high attendance of 777 participants, strong fundraising, and an overall surplus of more than \$175,000 that helped the SIG maintain its exceptionally strong financial position.

This year, the SIG agreed to sponsor of the ACM Conference on Information-Centric Networking (ICN), a new conference in this exciting area. The fundamental concept in Information-Centric Networking (ICN) is to provide accessing named data as a principal network service, evolving the Internet from today's host based packet delivery towards directly retrieving information objects by names in a secure, reliable, scalable, and efficient way. These architectural design efforts aim to directly address the challenges that arise from the increasing demands for highly scalable content distribution, from accelerated growths of mobile devices, from wide deployment of Internet-of-things (IoT), and from the need to secure the global Internet. ACM ICN will be a single track conference focusing on current ICN research topics, featuring paper presentations and demonstrations. The first instance will be held 24--26 September 2014 in Paris (France). See: <http://conferences2.sigcomm.org/acm-icn/2014/> for details.

As in previous years, we continued to fund programs to support regional conferences in the networking field. The current set of regional conferences we support financially includes COMSNETS, a major networking conference in India, the Latin American Networking Conference (LANC) and the Asian Internet Engineering Conference (AINTEC). We continue to foster the success of these conferences by means such as invited speaker travel funds and student travel grants. In addition to supporting regional conferences, the SIG provides generous general student travel support to all of its sponsored conferences.

Newsletter

CCR continues to be widely respected as a journal with high quality and timely publication. CCR turnaround time is rapid compared to most journals: for technical papers it is 8 weeks for review and 16 weeks for publication; for editorials it is 1-3 days for review and 6 weeks for publication. We continue to offer both online and print access to the newsletter. Starting in 2012, we offer discounted, online-only SIG membership that does

not include a print copy of the journal. SIG members who still desire a print membership can continue to receive a print copy (at a slightly higher membership rate).

Awards

This year, SIGCOMM recognized Prof. George Varghese, UC San Diego with the SIGCOMM award for lifetime achievement; he will receive the award and present a keynote talk at the annual SIGCOMM conference in August 2014 in Chicago. He was recognized for sustained and diverse contributions to network algorithms, with far reaching impact in both research and industry.

The Doctoral Dissertation Award went to Aaron Schulman (Stanford University) for his thesis entitled "Observing and Improving the Reliability of Internet Last-Mile Links." The dissertation provides the first observations of fundamental factors that limit the reliability of the Internet's critical last-mile infrastructure and presents improvements to mitigate the effects of these factors.

The SIGCOMM Rising Star award was given to 2013 to Sachin Katti (Stanford University). The award is in recognition of outstanding research contributions, early in his career, in wireless communications and networking. His approach to cross-layer wireless design brings together computer networking, signal processing and information theory to solve long-standing problems in wireless networks. Highlights of his research contributions include a practical approach to achieve full-duplex radios (Mobicom'10, MOBICOM'11, SIGCOMM'13) and rateless network design for practical adaptation of sender transmission rate (SIGCOMM'11, MOBICOM'12). To quote from his nomination "Sachin Katti's research has transformed the way we think about wireless communications."

The Test of Time award was shared by "Congestion Control for High Bandwidth-Delay Product Networks," by Dina Katabi, Mark Handley, and Charlie Rohrs and "Measuring ISP Topologies with Rocketfuel," by Neil Spring, Ratul Mahajan, and David Wetherall.

During the year, three SIGCOMM members were recognized as ACM Fellows: Chip Elliot, Dina Katabi, and Ellen Zegura.

Support for the community and new projects

The SIG has been using its strong financial position to initiate and support a number of activities, as discussed next:

- Two years ago, we set a seed fund to support a variety of community projects, for which (academic) institutions can apply to support services for the networking community. One of the most successful of these projects in 2013 was led by the SIGCOMM Education Chair, Olivier Bonaventure and IS director Hamed Haddadi, who produced an e-book on "Recent Advances in Networking." The book consists of contributed chapters on a range of advanced topics, and was released at the time of the annual conference in August 2013. The book is freely accessible at <http://www.sigcomm.org/content/ebook>. Discussions on revising/extending the ebook are ongoing. We have budgeted \$20K to support new such grants in the current year.
- We are providing student travel grants of \$160K to support student attendance at *all* of our sponsored conferences.
- We support fast-tracked journal papers from our sponsored conferences by covering fees for extra pages for the authors.
- We increased our support for educational activities by introducing funding for summer schools in the area of networking. The first one to receive funding was the 4th PhD school on Traffic Monitoring and Analysis (TMA), held 14-16 April 2014 at Queen Mary University London (QMUL), UK.
- We have started to subsidize childcare at our sponsored conferences, for which the SIGCOMM 2014 conference in Chicago serves as initial trial. Here, we are subsidizing full-time child care using a cost sharing model for parents attending the conference.
- This year, we set up an industrial liaison board whose goal is to come up with ideas and suggestions to increase industry participation at SIG-sponsored conferences. A better industry-academic collaboration should help improve the practice of networking, because academics have many ideas that are likely to be of value to industry; and also improve academic research, because industry has many interesting problems that would benefit academic research; and create opportunity for students.

The board members are:

Bruce Davie (VMWare)
Christophe Diot (Technicolor)
Nick McKeown (Stanford)
Lars Eggert (Netapp)
Venkat Padmanabhan (MSR, India)

- In the SIGCOMM 2014 conference, we have initiated industry demos in addition to those accepted via the regular call demos.
- We have established a portal for job opportunities on our web site.
- Finally, we are temporarily removing the SIGCOMM contingency share for our fully sponsored conferences to give the organizers more flexibility and allow them reducing registration fees. To remain fiscally prudent, we will review this every year for every sponsored conference.

Events or programs that broadened participation either geographically, or among under-represented members of your community

The SIGCOMM conference hosts a full day event of Networking Networking Women (N²women) this year (to rotate across our and other ACM events). We also support N²women lunches at all our conferences.

In addition to the student travel grants, we are offering \$40K for geodiversity grants to support faculty and students from under-represented regions in attending our sponsored conferences. This enables graduate students and young faculty from under-represented regions to attend our flagship conference. We have also increased the volumes of individual grants to that awardees can benefit from attending the full event, including workshops.

We are maintaining in-cooperation status and travel support with a number of conference events of particular regional importance (COMSNETS, LANC, AINTEC).

Last but not least, we have implemented mechanisms to enforce the ACM policy countering inappropriate behaviour at our venues.

Key issues facing the SIG

The SIG faces two key issues. First, we have an embarrassingly large reserve fund of more than \$1.6 million. We have tried to spend this down by removing contingency amounts in all our conference budgets (thus reducing registration fees) and by substantially increasing our investment in the community, as documented above. However, our balance has not declined over the past many years, mostly because of our cost-conscious conference organizers and prudent spending (for instance, we do not give out complimentary registration to even the general chairs of our flagship conference). We will continue to increase our outlay on community support this coming year.

The second major issue that faces us is an issue that also faces ACM: the number of potential SIG members is far less than its actual membership. This is because nearly all of our benefits (conference attendance, CCR papers, job portal etc.) are available to non-members. We do not even require membership of our award winners! We are, by nature, inclusive, and do not wish membership to be a pre-requisite for participation in any of our activities, but this also means that our membership numbers are much smaller than they could be. We will continue to investigate means by which we can make SIG membership valuable, so that participants in our SIG activities would, of their own volition, choose to become members.

SIGCSE FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Susan H. Rodger

1. Awards that were given out:

The SIGCSE Award for Outstanding Contribution to Computer Science Education was presented to Robert Panoff from the Shodor Foundation for promoting student enrichment, curriculum development, faculty enhancement, and infusing computational thinking at all levels through Shodor and the National Computational Science Institute.

The SIGCSE Award for Lifetime Service to the Computer Science Education Community was presented to Andrea Lawrence from Spelman College for dedication to the computing education community, serving as a role model and mentor to students and faculty, improving diversity in computing education, making computing education available to everyone, and for helping students and faculty to "Find a way or make one".

2. Significant papers on new areas that were published in proceedings

Best paper awards were given at all three of SIGCSE's conferences.

At ICER 2013, there were two best paper awards. The John Henry paper award was "In-Game Assessments Increase Novice Programmers' Engagement and Level Completion Speed" by Michael Lee, Andrew Ko and Irwin Kwan. The Chairs Award was "Exploring Hypotheses about Media Computation" by Mark Guzdial.

At SIGCSE Symposium 2014, the best paper award was "Student Projects Are Not Throwaways: Teaching Practical Software Maintenance in a Software Engineering Course," by Claudia Szabo from The University of Adelaide in Australia.

At ITiCSE 2014, the best paper award was "Failure Rates in Introductory Programming Revisited," by Christopher Watson and Frederick W.B. Li from the University of Durham in the United Kingdom.

3. Significant programs that provided a springboard for further technical efforts

The SIGCSE Symposium 2014 coordinated efforts with the first Learning at Scale Conference to help springboard that conference. Learning at Scale was held the two days before the SIGCSE Symposium 2014. Registration was coordinated and delegates received a discount to attend both conferences. The Learning at Scale conference was successful, and will be held again in March 2015. To help continue to grow the conference, the second Learning at Scale conference will be co-located with another ACM conference, CSCW 2015.

4. Innovative programs which provide service to some part of your technical community

The SIGCSE Board will restart a workshop for future or present Department Chairs the day before SIGCSE Symposium 2015. This workshop will run every other year.

The SIGCSE Board funded a New Educator's Workshop for ten participants the day before SIGCSE Symposium 2014 and included travel grants for participants. The workshop supported five graduate students close to finishing and four pre-tenure faculty in teaching careers. A fifth faculty member attended without funding. Six speakers presented on both teaching tips and how to succeed in such careers. SIGCSE plans to run this workshop every other year.

SIGCSE Special Projects Fund provides grants up to \$5000 and has calls in November and May. Three awards were given this past year. One award was made in December 2013 to Jandelyn Plane and Elissa Redmiles for Curriculum-in-a-Box materials to assist K-12 educators to improve gender diversity in computing. Two recent awards were announced in July 2014. One award was given to Frances Trees at Rutgers to provide professional development to middle and elementary school teachers in initiate computer clubs. A second award was given to Michael Goldweber at Xavier University to incorporate educational activities that convey and reinforce computing's social relevance for society. He will provide professional development for universities in New Zealand.

The SIGCSE Symposium held thirty-three three-hour workshops for professional development. In addition, the SIGCSE Symposium provided the meeting space for six pre-symposium events for educators that included guided inquiry activities, a new educators workshop, Git and Github, humanitarian free and open source software, a SIGCAS meeting, and integrating ethics into the computer science curriculum.

ITiCSE 2014 had six working groups on the topics of sustainable gamification strategy, methodology education in computing, computational thinking in K-9, methodology and technology for in-flow peer review, increasing accessibility and adoption of smart technologies in computer science education, and benchmarking exam questions for introductory programming courses.

At ICER 2013 a doctoral consortium was held and attended by twelve graduate students in computer science education with travel support from SIGCSE.

In addition to presenting their work and meeting with mentors for a full day before ICER, the students presented their work as short talks and posters during the ICER conference.

5. Events or programs that broadened participation either geographically, or among under-represented members of your community:

Thanks to support from Henry Walker to initiate the Travel Grant Program for faculty who have never attended the SIGCSE Symposium. The first awards were made in 2014 to five faculty to attend the SIGCSE Symposium 2014. Two of the awards were to faculty at institutions outside the United States, in Malaysia and Pakistan. Information about making donations to this program is on the sigcse.org site.

SIGCSE provides grants to non-ACM conferences that are in-cooperation with SIGCSE to bring one or more speakers from a recent SIGCSE Symposium, ITiCSE or ICER conference to repeat their presentation. Four grants have been provided for 2014 conferences including CCSC-Eastern, CCSC-MW, CCSC-CP and CCSC-NE.

6. A very brief summary for the key issues that the membership of that SIG will have to deal with in the next 2-3 years.

Every SIG undergoes a viability study every four years with the ACM SIG Governing Board. SIGCSE was assessed in March 2014 and was assessed as viable until our next review in another four years.

One key issue we are addressing is the cost of our membership. As part of the preparation for the viability study, the SIGCSE Board determined that our membership dues had not been changed in 15 years and were not covering our costs. We created two membership options, one for the paper copy of ACM Inroads (more expensive) and one for electronic version only at the same rate as the old membership fee. ACM Inroads is a SIGCSE member benefit. We plan to evaluate the impact of these membership rate changes over the next two years.

A second key issue is continuing to expand SIGCSE internationally. First the current SIGCSE Board is more international in committee members than the previous board. The previous board had no non-United States members, but the current board has two non-United States members. We are expanding the reach of the ITiCSE conference. ITiCSE has always been held in or near Europe. There are now plans to run the ITiCSE 2016 conference in Peru. We are exploring relations with other members in non-U.S. countries for possible new chapters, conferences or in-cooperation conferences.

Another key issue we are addressing is getting new volunteers involved in SIGCSE. In the past, there was no mechanism to connect members to volunteer activities. To address this, we have created a volunteer coordinator position and an online signup page at SIGCSE.org, where volunteers can more easily see what types of volunteer opportunities are available and indicate their interests.

SIGDA FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Naehyuck Chang

Naehyuck Chang (Chair), R. Iris Bahar (Vice Chair and Award Chair), Frank Liu (Conference Chair), Matthew Guthaus (Finance Chair), Gi-Joon Nam (Educational Activity Chair), Alex Jones (Technical Activity Chair), Patrick Madden (Past Chair)

1. Awards that were given out

SIGDA Outstanding New Faculty Award

The SIGDA Outstanding New Faculty Award (ONFA) recognizes a junior faculty member early in his/her academic career who demonstrates outstanding potential as an educator and/or researcher in the field of electronic design automation. While prior research and/or teaching accomplishments are important, the selection committee especially considers the impact that the candidate has had on his/her department and on the EDA field during the initial years of their academic appointment. The award is presented annually at the Design Automation Conference, and consists of a \$1,000 award to the faculty member, along with a citation. The 2014 ONFA was awarded to Yiran Chen, Yiran Chen, Associate Professor (Assistant Professor when he was under review), Department of Electrical and Computer Engineering, University of Pittsburgh.

SIGDA Outstanding Ph.D. Dissertation Award

The SIGDA Outstanding Ph.D. Dissertation Award (OPDA) is given each year to an individual to an outstanding Ph.D. dissertation that makes the most substantial contribution to the theory and/or application in the field of electronic design automation. To qualify the dissertation must be submitted between July 1, 2012 and June 30, 2013. The award is presented annually at the Design Automation Conference, and consists of a \$1,000 award, along with a citation. The 2014 ONFA was awarded to Wangyang Zhang (advisors: Rob Rutenbar, Xin Li), Carnegie Mellon University.

ACM Transactions on Design Automation of Electronic Systems Best Paper Award

Recipients: Peter Milder, Franz Franchetti, James C. Hoe, Markus Puschel
Article: Computer Generation of Hardware for Linear Digital Signal Processing Transforms
Publication: Volume 17, Issue 2, Article 15, April 2012.

SIGDA Pioneering Achievement Award

The SIGDA Pioneering Achievement Award was created to recognize early work that has played a pivotal role in the design of electronic systems. The award is presented annually at ICCAD at the member meeting banquet dinner. The recipient of the award normally presents a short talk, which is recorded and made available through the ACM Digital Library. The 2013 Pioneering award was given to Donald E. Thomas, Carnegie Mellon University, for his pioneering work in making the Verilog Hardware Description Language more accessible for the design automation community and allowing for faster and easier pathways to simulation, high-level synthesis, and co-design of hardware-software systems.

SIGDA Distinguished Service Award

In recognition of their efforts and contributions to creating or supporting SIGDA sponsored programs, SIGDA gives annually several service awards to our volunteers who tirelessly dedicate their time to running a publication, professional development, or awards programs sponsored by ACM/SIGDA. This year SIGDA Distinguished Service Award was given to Peter Marwedel, Dortmund University, for his excellent service for DATE PhD Forum.

SIGDA Affiliated ACM Fellow

SIGDA recognized 2014 SIGDA Affiliated ACM Fellow, Krishnendu Chakrabarty, Duke University, for contributions to optimization methods for system-on-chip test automation, microfluidic biochips, and sensor network infrastructure, at the General Session of 2014 Design Automation Conference.

ACM/IEEE A. Richard Newton Technical Impact Award

This year ACM/IEEE A. Richard Newton Technical Impact Award was given to Subhasish Mitra, Stanford University and Kee Sup Kim, Synopsys, Inc., for an outstanding technical contribution within the scope of electronic design automation, as evidenced by a paper published at least ten years ago; "X-Compact: An Efficient Response Compaction Technique for Test Cost Reduction," published in IEEE Intl. Test Conf. in 2002.

ACM/IEEE William J. McCall Award (ICCAD Best Paper)

The McCalla Best Paper award is given in memory of William J. McCalla for his contribution to ICCAD and his CAD technical work throughout his career. This year ACM/IEEE William J. McCall Award Front End was given to Stephan Eggersglüß, Robert Wille, and Rolf Drechsler, University of Bremen/DFKI for the paper Session 2B.1, "Improved SAT-based ATPG: More Constraints, Better Compaction." The Back End award was given to Bei Yu, Xiaoqing Xu, Jih-Rong Gao, David Z. Pan, University of Texas at Austin, for the paper Session 5B.2, "Methodology for Standard Cell Compliance and Detailed Placement for Triple Patterning Lithography."

CADathlon Winners

CADathlon is a SIGDA-sponsored programming contest that challenges students in their CAD knowledge, and their problem solving, programming, and teamwork skills. It serves as an innovative initiative to assist in the development of top students in the EDA field. During the competition, students are presented with problems in six areas: circuit design and analysis; physical design; logic and high-level synthesis; system design and analysis; functional verification; and bio-EDA. This year winners are CY. Lai, SY Hsu (NTU, 1st place), S. Popovych, C-M Wang (NCTU, 2nd place).

2. Significant papers on new areas that were published in proceedings

- 2014 ACM TODAES best paper
 - Peter Milder, Franz Franchetti, James C. Hoe and Markus Püschel, "Computer generation of hardware for linear digital signal processing transforms," in ACM Transactions on Design Automation of Electronic Systems (TODAES), Vol. 17, No. 2, 15, 2012.
- 2013 ICCAD best paper Frontend
 - Stephan Eggersglüß, Robert Wille and Rolf Drechsler, "Improved SAT-based ATPG: More constraints, better compaction," in Proceedings of the International Conference on Computer-Aided Design (ICCAD), pp. 85-90, 2013.
- 2013 ICCAD best paper Backend
 - Bei Yu, Xiaoqing Xu, Jih-Rong Gao and David Z. Pan, "Methodology for standard cell compliance and detailed placement for triple patterning lithography," in Proceedings of the International Conference on Computer-Aided Design (ICCAD), pp. 349-356, 2013.
- 2014 DAC best paper
 - Viraj Athavale, Sai Ma, Samuel Hertz and Shobha Vasudevan, "Code Coverage of Assertions Using RTL Source Code Analysis," In Proceedings of the the 51st Design Automation Conference (DAC), pp. 1-6, 2014.
- 2014 DATE best paper
 - Weiwei Chen, Xu Han and Rainer Dömer, "May-happen-in-parallel analysis based on segment graphs for safe ESL models," in Proceedings of the conference on Design, Automation & Test in Europe (DATE), pp. 287-292, 2014.
 - Mudit Bhargava and Ken Mai, "An efficient reliable PUF-based cryptographic key generator in 65nm CMOS," in Proceedings of the conference on Design, Automation & Test in Europe (DATE), pp. 70-75, 2014.
 - Dominik Erb, Karsten Scheibler, Matthias Sauer and Bernd Becker, "Efficient SMT-based ATPG for interconnect open defects," in Proceedings of the conference on Design, Automation & Test in Europe (DATE), pp. 1-6, 2014.
 - Sofiane Lagraa, Alexandre Termier and Frédéric Pétrot, "Scalability bottlenecks discovery in MPSoC platforms using data mining on simulation traces," in Proceedings of the conference on Design, Automation & Test in Europe (DATE), pp. 186-191, 2014.
- 2014 ASP-DAC best paper

- Chris Chu and Wai-Kei Mak, "Flexible packed stencil design with multiple shaping apertures for e-beam lithography," in Proceedings of the 19th Asia and South Pacific Design Automation Conference (ASP-DAC), pp. 137-142, 2014.
- 2013 CODES+ISSS best paper
- Wei Zuo, Peng Li, Deming Chen, Louis-Noël Pouchet, Shunan Zhong and Jason Cong, "Improving polyhedral code generation for high-level synthesis." in Proceedings of the 9th IEEE/ACM/IFIP International Conference on Hardware/Software Codesign and System Synthesis (CODES+ISSS), pp. 15-24, 2013.
- 2013 ISLPED best paper
- XianWei Zhang, Le Jang, Youao Zhang, Chuanjun Zhang and Jun Yang, "WoM-SET: Low power proactive-SET-based PCM write using WoM code," in Proceedings of the 2013 IEEE International Symposium on Low Power Electronics and Design (ISLPED), pp. 217-222, 2013.
- Lawrence T. Clark, Samuel Leshner and George Tien, "SRAM cell optimization for low AV transistors," in Proceedings of the 2013 IEEE International Symposium on Low Power Electronics and Design (ISLPED), pp. 57-63, 2013.
- 2014 GLSVLSI best paper
- Tao Zhang, Ke Chen, Guangyu Sun and Yuan Xie, "3D-SWIFT: A High-Performance 3D-Stacked Wide IO DRAM," in Proceedings of the 2014 ACM GLS Symposium on VLSI (GLSVLSI), 2014.
- 2014 FPGA best paper
- Safeen Huda, Jason Anderson, and Hirotaka Tamura. "Optimizing effective interconnect capacitance for FPGA power reduction." In Proceedings of the 2014 ACM/SIGDA international symposium on Field-programmable gate arrays (FPGA '14). ACM, New York, NY, USA, 11-20.

3. Significant programs that provided a springboard for further technical efforts

SIGDA Local Chapters

ACM SIGDA encouraged EDA community leaders to set up local chapters starting from Asian countries. This year, six SIGDA local chapters are successfully established. The Local Chapter leaders attended 2014 SIGDA Volunteer meeting at Design Automation Conference and shared their first-year experience.

- ACM SIGDA Hong Kong Chapter
 - Chair: Dr. Chun Jason Xue
 - Vice Chair: Dr. Zili Shao
 - Finance Chair: Dr. Minming Li
 - Number of members: 10
 - Homepage (if any): TBD
 - The most significant activity (one): Currently discussing for the first workshop in HK.
- ACM SIGDA Korea Chapter
 - Chair: Youngsoo Shin
 - Vice Chair: Taewhan Kim
 - Finance Chair: Ji-Hoon Kim
 - Number of members: 10
 - Homepage (if any): <https://sites.google.com/site/acmsigdakorea/>
 - The most significant activity (one): major conference review workshop
- ACM SIGDA Northern China Chapter
 - Chair: Huazhong Yang
 - Vice Chair: Xiaodong Yang
 - Finance Chair/Secretary: Yongpan Liu
 - Number of members: 21
 - Homepage(if any): TBD
 - The most significant activity(one): Discussing organize an asia eda conference in Beijing.
- ACM SIGDA Singapore Chapter
 - Chair: Tulika Mitra
 - Vice Chair: Yu Hao

- Finance Chair: Akash Kumar
- Number of members: 15
- Most significant activity: EDA Seminars with International Symposium on Integrated Circuits (ISIC), 9 December 2014

- ACM SIGDA Southern China Chapter

- Chair: Hai Wang
- Vice Chair: Guoyong Shi
- Finance Chair: Weikang Qian
- Number of members: 11
- Homepage (if any):
- The most significant activity (one): invited several active EDA experts for lectures, including Prof. Esteban Tielo-Cuatle from INAOE, Mexico, Dr. Yun Yang from CNRS/CEA/UJF/INAC, France, Prof. David Z. Pan from UT Austin.

- ACM SIGDA Taiwan Chapter

- Chair: Chien-Nan Liu
- Vice Chair: Tsung-Yi Ho
- Finance Chair: Wen-Hao Liu
- Number of members: 17
- Homepage (if any): N/A
- The most significant activity: ACM SIGDA Taiwan Chapter Annual Meeting

Technical Visioning Activities -- CCC/SIGDA Workshops on ESDA (Extreme Scale Design Automation)

Over the past year (March 2013 to February 2014) three SIGDA EC members (Alex Jones, Patrick Madden, and Iris Bahar) along with three former SIGDA EC members (Diana Marculescu, Igor Markov, and Srinivas Katkooari) organized a series of visioning workshops on the topic of “Extreme Scale Design Automation” sponsored by the Computing Community Consortium (CCC), a division of the Computing Research Association (CRA) and co-sponsored by SIGDA. These workshops held in Pittsburgh, Austin (co-located with DAC), and Tampa brought together EDA leaders from academia, industry, and funding agencies to discuss the status of the EDA field, appropriate directions for continued vibrancy of EDA as a technical discipline, and recommendations to funding sources to support EDA research and a continued pipeline of workforce participants. During the next year the organizers will disburse findings of these workshops to the community and work directly with funding sources (NSF in particular) to identify new areas for investment of research dollars in the EDA field. There is also planning to conduct further meetings to concretely address abstractions metrics and benchmarks for emerging technologies and application of EDA into near (e.g., cyber-physical systems) and far fields from electronics (e.g., biological and medical technologies). It is hoped that SIGDA will maintain an active role in the organizational leadership and sponsorship of these follow-on meetings.

4. Innovative programs which provide service to some part of your technical community

Gi-Joon Nam, ACM SIGDA Educational Activity Chair, and Laleh Behjat, SIGDA PhD Forum Chair, contributed to coordinate 2014 PhD Forum with the Design Automation Conference (DAC) organizers and jointly operate this program with DAC (Design Automation Conference) Richard Newton Fellowship Program. The PhD Forum presenters became mentors of the young fellows from DAC Richard Newton Fellowship. The young fellows also present their early research work together with the senior PhD Forum presenters. This year, Cadence Inc. volunteered to be a premier sponsor and donated \$10,000, and also provided unique programs with DAC A. Richard Newton Young Fellowship.

To expand the scope of SIGDA PhD Forum program, which has been successful for several years, two new initiatives have started this year.

- Technically/Financially support PhD Forum program for Design, Automation & Test in Europe Conference (DATE) 2014
- Resurrect PhD Forum program for Asia and South Pacific Design Automation Conference (ASP-DAC) 2015

5. Events or programs that broadened participation either geographically, or among under-represented members of your community

The workshop aims to develop and nurture a community of women and minority scholars (undergraduates, graduate students, and junior postdoctoral researchers) in the area of Design Automation for Emerging Computing. This domain explores how novel (e.g. nano materials, bio/chemical materials) and heterogeneous (e.g. RF, optical) technologies can be harnessed to advance computing. Innovative solutions and design flows are required for device/circuit design, logic synthesis, system-level design, nano-communication, algorithmic solutions, design automation flows, defects and fault tolerance, reliability, trust and security. There is a need to address these issues in an interdisciplinary fashion.

The workshop has the following objectives:

- Expose students to major milestones achieved in emerging computing paradigms, and engage participants in critical issues and challenges ahead
- Provide students with networking and mentoring opportunities with researchers, including women and minority experts from academia and industry/research labs
- Foster a sense of community among students and researchers, including creating mailing lists for women and underrepresented minorities in Emerging Computing and related fields that can be shared for use at future events

ACM SIGDA was a co-sponsor of this event.

6. A very brief summary for the key issues that the membership of the SIG will have to deal with in the next 2-3 years

ACM SIGDA continues to expand the activities and members both in numbers and geographical areas in the next two to three years. The primary mission statements are summarized as follows:

- Bring SIGDA local chapter members to SIGDA members.
- Encouraging more professional members in EDA society to be a SIGDA member.
- Encouraging more professional SIGDA members to be promoted to a higher grade membership (more ACM Fellows, Distinguished members and Senior members).
- Developing more SIGDA professional activity programs.

SIGDOC FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Liza Potts

SIGDOC continues to rebuild itself and realign its mission statement to distinguish the SIG in the DOC community. This report highlights SIGDOC activities, awards, publications, and conferences that support this work.

1) Awards Given Out

The Diana Award was not given in 2013 because we are in the process of rethinking our award nomination process. We are currently investigating adding a student award.

For the 2013 conference, our graduate student competition award winner was Ljilja Kascak for her paper "Icon Design for User Interface of Remote Patient Monitoring Mobile Devices." She received a travel reimbursement and a conference fee waiver.

2) Significant Proceedings Papers

Our proceedings papers showed an increase in impact in 2013, and we are starting to see strong numbers for our articles in *Communication Design Quarterly* (CDQ). We are showing higher downloads and trending both for our proceedings papers and our articles from CDQ. Significantly, the current download leader is a paper titled "Big Data, Big Questions" by Ehren Helmut Pflugfelder from CDQ (downloaded over 63 times in the last 6 weeks). We see this trend continuing as CDQ increases its readership.

The top 5 SIGDOC 2013 papers by downloads are as follows:

"Simplifying business complexity with frameworks"

Clare Cotugno, Shannon L. Fitzhugh, Raegen Hoeft 242 DLs, 2 Citations

"Enhancing communication and collaboration through integrated internet and intranet architecture"

Ganapathy Mani, Juman Byun, Patrizia Cocca 181 DLs

"An approach to improve the accessibility and usability of existing web system"

Ana Luiza Dias, Renata Pontin de Mattos Fortes, Paulo Cesar Masiero, Willian Massami Watanabe, Matheus Edson Ramos 159 DLs

"Interfaces as rhetorical constructions: reddit and 4chan during the boston marathon bombings"

Liza Potts, Angela Harrison 153 DLs

"Understanding the process of learning touch-screen mobile applications"

Lucia Tokárová, Melius Weideman 130 DLs

The top downloads from 2013 are as follows:

Fernando Bento, Carlos J. Costa: "ERP measure success model; a new perspective." 414 DLs

Luís Filipe Rodrigues, Carlos J. Costa, Abílio Oliveira: "The adoption of gamification in e-banking." 338 DLs

Abdulmohsen Albeshar, Thamer Alhussain: "Privacy and security issues in social networks: an evaluation of Facebook." 260 DLs

Manuela Aparicio, Fernando Bação: "e-learning concept trends." 242 downloads over 12 months.

Martinha Piteira, Carlos Costa: "Learning computer programming: study of difficulties in learning programming" 126 DLs

Proceedings papers from ISDOC 2013 and ISDOC 2014 are listed in the DBLP (<http://www.informatik.uni-trier.de/~ley/db/conf/isdoc/index.html>)

3) Significant Programs (that provided a springboard for further technical efforts)

EuroSIGDOC

EuroSIGDOC organized the following events:

- Workshop Open Source and Design Of Communication - OSDOC2013 (<http://eurosigdoc.acm.org/osdoc2013/>) July, 11th, 2013.
- International Conference on Information Systems and Design of Communication - ISDOC 2013 (<http://eurosigdoc.acm.org/isdoc2013/>) July, 11th - 12th, 2013.
- International Conference on Information Systems and Design of Communication - ISDOC 2014 (<http://eurosigdoc.acm.org/isdoc2014/>) June, 16th - 17th, 2014.

The chapter also sponsors the Technical Writers @ Lisbon group (<http://eurosigdoc.acm.org/twl/>). In this context, EuroSIGDOC started to have a closer relationship with APCOMTEC - The Portuguese Association of Technical Writers.

Working with Related Organizations

Partnerships with the Council for Programs in Technical and Scientific Communication

In 2013, SIGDOC began working with the Council for Programs in Technical and Scientific Communication (CPTSC) to explore opportunities for the two organizations to forge effective partnerships through each organization's annual conference activities. These initial discussions led to the following collaborations:

- Members of SIGDOC participated in a SIGDOC panel session at CPTSC's 2013 annual conference
- A representative of the SIGDOC publication *Communication Design Quarterly* participated in an Editors' Round Table session at the 2014 CPTSC annual conference
- A representative of the CPTSC publication *Programmatic Perspectives* participated in a parallel editors' session at the 2014 SIGDOC annual conference

Based on the successes of these initial partnerships, the two organizations began to examine other forms of organizational partnerships for 2014-2015.

In 2014, SIGDOC and CPTSC collaborated to co-locate both organizations' annual conferences in Colorado Springs, CO and scheduled the events to facilitate members from the two organizations could easily attend each others' conferences. The program chair for the 2014 CPTSC annual conference is also in the process of coordinating an Editors' Round Table session at that conference and a representative of *Communication Design Quarterly* will participate in this event. The CPTSC conference program chair is also working with the SIGDOC leadership to explore the prospects of having a dedicated SIGDOC session at the 2014 CPTSC annual conference.

Additionally, the president of CPTSC has invited SIGDOC to participate in a CPTSC-sponsored symposium that will take place in Limerick, Ireland in July 2015 (as a concluding event to the IEEE Professional Communication Society's 2015 International Professional Communication Conference), and the presidents of SIGDOC and CPTSC are currently discussing the prospects of proposing a joint SIGDOC-CPTSC session (or sessions) at this conference.

Sponsorship of ATTW and the Women in Technical Communication Event

SIGDOC again sponsored the Women in Technical Communication luncheon at the conference for the Association of Teachers of Technical Writing. The luncheon was held during the ATTW conference in Indianapolis on March 19th with over 52 attendees. This group was formed to provide mentorship and guidance to women in technical and professional communication. Our chair is now one of the leaders in the Women in Technical Communication group. We feel that our participation with this organization is beneficial for growing our membership, increasing our diversity, and improving our connections across organizations.

Participation at the 3rd Annual Symposium on Communicating Complex Information

SIGDOC members participated at the Annual Symposium on Communicating Complex Information held February 24-25 at East Carolina University. The workshop was a gathering of researchers in usability, information design and human-computer interaction for complex information spaces. It featured a highly interactive format with a 20-25 minutes presentation followed by a 20-30 minute discussion. The symposium had a total of 23 attendees. Michael Albers, the editor of our publication *Communication Design Quarterly* (CDQ), is the organizer of this symposium. CDQ published the top peer-reviewed papers from this symposium.

4) Innovative Programs (that Provide Service to Some Part of Our Technical Community)

Communication Design Quarterly

Four issues of *Communication Design Quarterly* (CDQ) were published this year. They have been submitted to ACM for inclusion in the digital library. Each includes peer reviewed articles, columns, and book reviews. We have had two articles per issue, except the issue for the SCCI conference which has four articles. There are currently seven active columnists representing a range of interests with each one tasked with writing a column every other issue.

The current issue is freely available on the SIG website as a means of marketing the SIG and providing outreach to the DOC community. Back issues are available from the digital library. Feedback from both members and non-members has been positive.

In the fall of 2013, a development editor was added to the editorial staff of *Communication Design Quarterly*. As the development editor, Kirk St. Amant's role is to both solicit new manuscripts from prospective authors as well as work with potential authors to develop ideas for prospective CDQ manuscripts. Additionally, the development editor will work with prospective special issue editors to develop future CDQ issues that focus on a specific theme within the field of communication design. At present, the following special issues have been secured for 2015:

- February 2015 -- special issue on Communication Design in Online Health
- August 2015 -- special issue on Mapping the State of Communication Design in Medical and Health Communication

The following future special issues are currently being developed

- February 2016 -- special issue on Examining Communication Design in International Contexts
- August 2016 -- special issue on Examining the Intersection of Communication Design and Risk Communication
- August 2017 -- special issue on Communication Design in the Sciences/in Science Communication

Our long-term goal is to gain full journal status within ACM for CDQ.

Content Strategy (websites and social media)

SIGDOC maintains a presence on Facebook, Twitter, Tumblr, and LinkedIn through the efforts of Communication Co-Managers Michael Trice and Dawn M. Armfield. The SIG has begun the process of a detailed site overhaul with a focus on a streamlined user experience and increased shareable content related to SIGDOC articles. This includes the production of reviews for panels at the upcoming SIGDOC 2014 conference. We are also updating our social media policy as part of an annual review to best evaluate which social networks make the most sense for our outreach efforts. Dawn M. Armfield is leading these efforts. The website overhaul will include a blog and resource center to increase the aforementioned shareable content with a focus on member reflections about research and methodology as well as tutorials for research tools and best practices.

Student Involvement

We are eager to encourage our members to establish student groups. We have found that many of our students are now interested in participating in SIGDOC, and we want to provide a more formal mentorship structure for them that is based on the values and interests of SIGDOC. Each of our academic board members is encouraging their students to participate. For the 2015 conference, Kathie Gossett has mentored a record eight students through the proceedings-writing process, and Liza Potts has mentored several more.

5) Events or Programs that Broaden Participation (geographically or among under representative community members)

This year, SIGDOC has been focused on staking a claim as the premiere group for cutting edge research in the design of communication. Broadening our reach and attendance by increasing participation in poster sessions, working across multiple DOC-friendly organizations, establishing a more diverse Board, and hosting our conference in domestic locations has helped improve our outlook and drawn interest in our SIG from former members and colleagues across the field.

In an effort to increase our participation broadly and think more specifically about how to include underrepresented community members, we are working on a series of new awards. We hope to have more to

report next year at this time. Our current ideas include a dissertation award and an early career award (for scholars and practitioners).

6) Brief Summary of Key Issues for 2014-16

Overall Strategy: Strengthening Connections

We want to continue to strengthen our connections to other DOC-friendly organizations. We see this activity as a central component to our SIG's reboot: generating interest, publishing cutting-edge research, and growing our diverse volunteer pool and membership. A major factor in this strategy is a move towards becoming a more diverse, open, and participatory space in which members can have a much larger say in the direction of the SIG, volunteer to lead activities, and engage more readily with each other within SIGDOC and across other organizations. We have found great success in making these moves over the past year, and we plan to continue these endeavors.

Key Tactic: SIGDOC Duties and Bylaw Revisions

In an effort to improve SIGDOC's sustainability and so that we might increase and diversify participation, a committee made up of board members and other volunteers is in the process of making more transparent the roles and duties of all SIGDOC leadership positions. Our aim is to be able to invite members to become active in ways beyond conference participation. Mindful of members' time constraints, and in accordance with ACM's guidelines, revisions to both SIGDOC's bylaws and duties afford accurate estimations of the kinds of labor involved in electing to be of service to SIGDOC. Revisions to bylaws and duties range from more inclusive language (e.g. "chairman" has become "chair") to more explicit expectations and descriptions for key organizational roles such as SIGDOC secretary or treasurer.

Key Tactic: Increasing SIGDOC Article Traffic

One of our core concerns is increasing SIGDOC article traffic. To help increase article visibility, we have developed a plan to increase shareable content on the site related to our article archive. This includes reflections from board members about how key articles have influenced their research and videos about research tools and methods linked to related articles. These content modules are intended to serve as digestible elements that can be easily shared across our social media platforms on LinkedIn, Facebook, and Twitter. The stand alone value of the content is important to increase its spreadability. The articles we link to this content then have the additional benefit of multiple venues of exposure and increased relatability because the reflections and tutorials demonstrate the practice and theories of the articles in action.

SIGecom FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: David C. Parkes

SIGecom's three primary activities are the annual Conference on Economics and Computation (EC), the electronic newsletter SIGecom Exchanges, and the new journal, ACM Transactions on Economics and Computation (TEAC).

The Fifteenth ACM Conference on Electronic Commerce (EC'14) was held June 8-12, 2014 in Palo Alto, CA. The Program Co-chairs were Vincent Conitzer (Duke) and David Easley (Cornell) and the General Chair was Moshe Babaioff (Microsoft Research.) Over 220 people attended and the conference attracted more than 290 submissions and strong financial backing from Facebook, Microsoft Research, Google, Yahoo! Labs and eBay.

The ACM EC'14 Best Paper award went to "Incentivizing Exploration" by P. Frazier, D. Kempe, J. Kleinberg and R. Kleinberg, and the best Student Paper award was made to "Fair Enough: Guaranteeing Approximate Maximin Shares" by A. Procaccia and J. Wang. Plenary speakers were Kevin Leyton-Brown (UBC) and Matthew Jackson (Stanford).

We had a very strong technical program, and continued the structure from 2013, with three tracks for the purpose of structuring the review process and then some parallel tracks during the conference. The accepted papers covered a range of topics from core theoretical foundations to practical innovations, including those of typical strength, such as social networks, mechanism design, matching and prediction markets, as well as applications to areas such as internet advertising and crowdsourcing.

In order to serve as a hub for the growing number of researchers and venues at the intersection of computer science and economics, a notable feature of this year's conference was collaboration with the NBER Market Design conference and the NSF Decentralization conference. Both are conferences that draw attendees from microeconomic theory and find a lot of synergy with many of the problems studied by the SIGecom community. The conference this year also included three workshops and three tutorials.

The SIG also continues to sustain the community through in-cooperation agreements with the Conference on Web and Internet Economics (WINE'13) and the Symposium on Algorithmic Game Theory (SAGT'14), as well as supporting New York Computer Science and Economics Day 2013.

The new ACM TEAC journal is doing well, and continues to receive high quality submissions. TEAC has now published six issues and is running by-invitation special issues of EC'12, EC'13 and EC'14.

In terms of completed business, the most significant is that we confirmed a change in the name of our main flagship conference, following extensive deliberation. This change from "Electronic Commerce" to "Economics and Computation" was made mainly to reflect the breadth of the research contributions that are published in the EC conference. We also completed the first cycle of the Test of Time and Doctoral Dissertation Award, forming two new committees and soliciting nominations.

The winner of the Doctoral Dissertation Award was Balasubramanian Siva for the development of robust optimization techniques in economic settings. The pool of nominations for the Test of Time award was not viewed as being high enough quality this year and we expect to launch the first award next year (making more effort to solicit high quality nominations.)

Looking forward, we have formed the chairs for EC'15 at FCRC, where it also seems likely that we may need to move to triple tracks from the current structure given the increase in the number of submissions. We have also received a nice proposal to co-locate with the GAMES (international congress on game theory) conference in Maastricht, the Netherlands, in 2016 and this is currently being discussed.

In regard to the EC conference, an ongoing challenge is to maintain our strength in theoretical and foundational research at the intersection of economics and computer science, while at the same time keeping connected to practice and finding paths to encourage more application-related / empirical contributions in the conference program. Maintaining this balance will be a key focus of the conference officials for next year and beyond. But the conference is generally doing very well, as is evidenced by the record number of submissions this year.

A challenge facing the SIG and the broader EC community faces is how to improve our positioning in the academic job market. While we see strong demand for people in our community within industrial research labs, we see few academic positions. We had a meeting to discuss this at EC'14 and will look to make progress on this problem during '14-'15, for example by putting together new web resources to explain the field.

Finally, I expect that we will explore new publishing models this, with a discussion on the moving to a rolling-submission model, coupled with the new TEAC journal. Any move towards this model is at least two years out and wouldn't occur before extensive discussion within the SIGecom community.

SIGEVO FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Wolfgang Banzhaf

LEADERSHIP OF SIG

SIGEVO, the SIG on Genetic and Evolutionary Computation, had an unchanged Executive Committee of 18 members for this year. Next elections are going to be held early next year renewing 1/3 of the board.

This was the third year of activity of the officers Wolfgang Banzhaf (chair), Una-May O'Reilly (vice chair), Franz Rothlauf (treasurer) and Marc Schoenauer (secretary).

A business meeting of the Executive Committee was held in Vancouver, at the occasion of GECCO-2014 on July 15, 2014.

BUSINESS MEETING IN VANCOUVER

GECCO 2014 is formally outside the report period, but very close, so I shall report on the results of the business meeting. Besides the EC, the chair and E-i-C of the 2014 GECCO was invited. The incoming General Chair of GECCO 2015 is member of the executive and was in attendance. The E-i-C of MIT Press's Journal Evolutionary Computation which is closely affiliated with the SIG was also present at the meeting.

The following decisions were made at the meeting:

1. The GECCO two-track system has now run for two years in a row. We have received mixed comments on the system. While there are still some difficulties, it is too early to judge whether the system is working fully as intended. So we shall continue to use it for at least another year. As a reminder, this system allows GECCO authors to indicate a primary and secondary track for consideration for their papers. About 50% of the papers had a second track to them.
2. The acceptance rate for GECCO 2014 was 33%, with an additional 18% of papers accepted as posters. It was agreed that this high selection pressure should be somewhat reduced again in future GECCOs.
3. SIGEVO has decided not to aim at 2016 for its first Asia/Pacific venue for a GECCO. Instead, we shall continue to evaluate possibilities and aim at 2017 or 2018. GECCO 2016 will be held in San Francisco. The Business Committee will consist of Juergen Branke, Pier-Luca Lanzi and Frank Neumann.
4. SIGEVO has completed work with ACM for inclusion of keywords in its Classification System for Computer Science (CCS). Keywords are available that reflect that activities of our community, but they are still at a low level in the hierarchy and more work needs to be done to have higher-level keywords for Evolutionary Computation.
5. The wiki collaborative website for SIGEVO experienced some difficulties in the recent year which were related to some security issues. We have decided to move the wiki to a different host site, and also have employed a more technically oriented webmaster, in addition to Gerardo Valencia, who is more interested in graphical aspects of the website design.
6. The SIGEVO Special Group for Women is active in its second year now and has gained some traction. One of the first steps was the implementation of child care at this year's GECCO.
7. The SIGEVO Newsletter editor, Pier Luca Lanzi has received some associate editors to help him to get back to a regular quarterly newsletter edition. These are Sara Silva, James McDermott and, at a later time, Gabriela Ochoa. A number of ideas were discussed, such as how to improve the data flow between the community and newsletter editors. Also, a hiring column and other new ideas will be included in future newsletters.
8. The ad-hoc award committee has now been formed. It consists of Erik Goodman, Kalyanmoy Deb and Martin Pelikan, who will work with the SIGEVO Chair to formulate proposals for awards and procedures. Once the work of this ad-hoc committee is complete, we expect the formation of another committee that carries out the actual work of nomination and vetting of candidates for SIGEVO awards.
9. A process is now in place for the proposal of SIGEVO Summer Schools. This will be handled by a small ad-hoc committee consisting of Una-May O'Reilly and Franz Rothlauf. They will provide a call for proposals for sponsorship of summer schools on SIGEVO-related themes.

GECCO 2013

GECCO 2013 was held in Amsterdam, The Netherlands, in July 2013. In odd years we usually go to a site in Europe. The conference was held at the Free University of Amsterdam outside of the city center. It was very successful. We received almost 570 submissions, and had an attendance of 523 individuals, aided by SIGEVO sponsorship of student travel. Acceptance rates for GECCOs have gone down now for a number of years, 2010 was at 45%, 2011 at 38%, 2012 at 37% and 2013 at 36%. The General Chair of GECCO 2013 was Enrique Alba (Department of Computer Science, University of Malaga, Spain) and the E-i-C was Christian Blum (Department of Computer Science and Artificial Intelligence, University of the Basque Country, Spain). Executive Events was our conference management provider and we have meanwhile extended our contract with them for another 2 years.

FUTURE GECCOS

As mentioned above, GECCO 2014 was recently held in North America, Vancouver, Canada. The venue proved attractive but the number of attendees was smaller than expected, due to a severe acceptance rate cut to 33% only.

GECCO 2015 will take place in Madrid, Spain, in 2015. A hotel has already been chosen, and the General Chair, Anna Esparcia-Alcazar, is already at work in securing invited speakers and other conference highlights.

For 2016, plans have settled on San Francisco, with Frank Neumann as General Chair.

FOGA 2015

The FOGA workshop 2015 will be held in Aberystwyth in Wales in January 2015. An organization team headed by Thomas Jansen is in place, the budget has been approved and we are looking forward to this next installment of the workshop series with sponsorship from SIGEVO.

SIGEVO FINANCES

SIGEVO continues to be in good shape financially, with events usually not producing deficits. Our reserves are healthy, and we are looking at ways (cf. Award ad-hoc Committee) to use surplus for rewarding our membership through higher visibility.

Student support at GECCO has been at \$20-25K per year for most of the time, but has now risen to \$30K due to our financial leeway. We have also started to sponsor students to attend the biannual FOGA workshop.

AWARDS

Again, seven competitions were held at GECCO-2013 with awards and prizes presented at the SIGEVO Annual Meeting. The areas of the competitions were

- Evolutionary Art, Design and Creativity
- GPUs for GEC
- Simulated Car Racing Championship
- Visualizing Evolutionary Computation
- Industrial Challenge
- EvoRoboCode

The most prominent competition is the Humies Award for the best human-competitive application of Evolutionary Computation methods published in the last year (July 2012 - June 2013). Strict criteria are applied for what work becomes eligible in the competition, and a panel of five independent judges is responsible for the selection of winners of \$10,000 in cash prizes donated by Third Millennium Online Products Inc.

The HUMIES Gold Medal Winner for 2013 was given to two contributions in equal measure:

1. An Israeli team with Achiya Elyasaf, Ami Hauptman and Moshe Sipper won for the design of solvers for a very classical AI game, FreeCell, using evolutionary computation techniques.
2. A team from the Netherlands and Hong Kong, under Dario Izzo from ESA won with the Search for a Grand Tour of the Jupiter Galilean Moons, with a solution proposed by evolutionary algorithms.

Both teams received a \$4,000 cash prize accompanying the Gold Medal.

GECCO Best Paper Awards were given in different categories. We have somewhat consolidated the field by lumping smaller program tracks together. The minimum submission numbers for a best paper award are 20, with smaller tracks collaborating to select a best paper among their union set.

For the fourth time, the "SIGEVO Impact Award" was given in 2014 to recognize up to 3 high impact papers that were published in the GECCO conference proceedings 10 years earlier. Criteria for selection are high citation counts and impact deemed to be seminal. Selection is made by the SIGEVO Executive Committee.

This year the Impact Award was given to

Real-Valued Negative Selection Algorithm with Variable-Sized Detectors.

Genetic and Evolutionary Computation Conference, 2004.

By Zhou Ji and Dipankar Dasgupta

More awards will be forthcoming with the conclusion of the work of the ad-hoc committee on awards and nominations which has just started its work.

SIGGRAPH FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Jeff Jortner

1. Awards

ACM SIGGRAPH presented its 2013 awards during the Keynote session at SIGGRAPH in Anaheim, California:

- * Computer Graphics Achievement Award: Holly Rushmeier, Yale University
- * Significant New Researcher Award: Niloy Mitra, University College London
- * Steven Anson Coons Award: Turner Whitted, TWI Research
- * Distinguished Artist Award for Lifetime Achievement in Digital Art: Manfred Mohr
- * Outstanding Service Award: Mary Whitton, University of North Carolina

The SIGGRAPH Computer Animation Festival celebrated its 40th anniversary in 2013; four decades of presenting the work of the world's most innovative and accomplished creators of digital gaming, film, and video. A total of 104 films were shown during the festival, 10 percent more than shown in 2012 -- a result of a huge influx of exceptional submissions. The majority of the festival winners were from outside the United States, a strong indication of the event's international appeal. In addition to film screenings, the festival included behind-the-scenes production sessions and live presentations of cutting-edge, real-time rendering techniques.

SIGGRAPH 2013 Computer Animation Festival Awards:

- * Best in Show Award: À la Française. Directed by Morigane Boyer, Julien Hazebroucq, Ren Hsien Hsu, Emmanuelle Leleu and William Lorton, France
- * Jury Award: Lost Senses. Directed by Marcin Wasilewski, Poland
- * Best Student Project Prize: Rollin' Safari. Directed by Kyra Buschor, Anna Habermehl, Constantin Paepow, Germany
- * Best Student Project Prize Runner-Up: Sleddin'. Directed by John Pettingill, Texas A&M University, United States of America
- * Best Student Project Prize Runner-Up: Harald. Directed by Moritz Schneider, Germany

The SIGGRAPH Asia 2013 Computer Animation Festival received a total of 506 submissions from 51 countries. 103 clips were selected for screening, roughly 15 percent of which were from Asia.

SIGGRAPH Asia 2013 Computer Animation Festival Awards:

- * Best in Show Award: 5 Meters 80'. Directed by Nicolas Deveaux, Cube Creative Productions.
- * Jury Award: Sonata. Directed by Nadia Micault, Autour de Minuit Productions
- * Best Student Project Award: Wedding Cake. Directed by Viola Baier, Filmakademie Baden-Wuerttemberg.

2. Significant papers on new areas that were published in SIGGRAPH proceedings

115 Technical Papers were presented at SIGGRAPH 2013. 66 Technical Papers were presented at SIGGRAPH Asia 2013. The 2013 papers program at both conferences saw participation from many of the world's leading academic research institutes, and revealed cutting-edge advances in numerous areas, including HDR and IBR, computational photography, out-of-core rendering, data-driven animation and image-based reconstruction (among others).

3. Significant programs that provided a springboard for further technical efforts

SIGGRAPH

SIGGRAPH 2013, the world's premier conference on computer graphics and interactive techniques, welcomed 17,162 artists, research scientists, gaming experts and developers, filmmakers, students and academics from 77 countries to Anaheim, California in July 2013. 180 industry organizations exhibited at SIGGRAPH 2013 representing 43,850 sq. ft. of exhibit space. A total of 15 countries were represented on the show floor, 38 percent of which were from outside the United States. In all, more than 1,354 speakers and contributors participated in the conference through a variety of talks, sessions, panels, papers, presentations, tutorials, and screenings.

Among the highlights of SIGGRAPH 2013 was a distinguished speaker panel presented in collaboration with the Academy of Motion Picture Arts and Sciences. The panel was moderated by Randy Haberkamp of AMPAS and included noted directors Ron Clements, Pete Docter, Eric Goldberg, Kevin Lima, Mike Mitchell, Chris Sanders, Henry Selick, David Silverman and Kirk Wise.

In conjunction with the 2013 conference, SIGGRAPH held its third annual Business Symposium. The symposium featured keynote speaker Captain Thomas Chaby, executive officer at the Naval Special Warfare Center who spoke on disruption in the battlefield. The objective of the event was to provide tactics for leaders in the industry to move beyond disruption.

SIGGRAPH Asia

The 6th ACM SIGGRAPH Asia Conference and Exhibition in Hong Kong, China drew more than 6078 attendees from 61 countries, of which 9.5 percent were students from educational institutions across the region. In all, 38 percent of all attendees came from outside Hong Kong. SIGGRAPH Asia's featured speakers were Thad Starner, Professor of Computing at Georgia Institute of Technology and Philip Rosedale, Founder of Second Life and Co-founder of High Fidelity. Vibrant and engaging discussions on the developments, innovations and future trends of computer graphics and interactive techniques were seen by attendees from all around the world.

4. Innovative programs which provide service to some part of the ACM SIGGRAPH technical community

Digital Arts

The Digital Arts Committee's social networking site (<http://siggrapharts.ning.com/>) provides a unique, virtual meeting place where ACM SIGGRAPH members and SIGGRAPH attendees interested in digital art can connect. The website currently boasts 908 members. Of these, 304 report as being official SIGGRAPH members. Last year's figures were 800/261, which represents slow but steady growth.

The Digital Arts Committee's initiatives for 2013 include an online game art exhibition, significant outreach efforts to involve the international art community in ACM SIGGRAPH, and the successful transition of past digital art shows to the newly-launched SIGGRAPH.org.

Education

One of the major objectives of the ACM SIGGRAPH Education Committee is to help establish a worldwide network of computer graphics educators. FY 2014 saw the migration of the Education Committee web site to a simpler, more user-friendly Drupal-based site. In today's modern, always-online culture, a readily accessible and easily navigated website is increasingly important.

The Education Committee was also very involved in SIGGRAPH 2013, providing training seminars, committee-organized "Birds of a Feather" events and committee-sponsored, off-site training.

Small Conferences

In FY2014, the Small Conference Committee approved 7 sponsored, 5 co-sponsored and 5 in-cooperation conferences. In addition, several conferences co-located with SIGGRAPH 2013, including the Symposium on Computer Animation, High-Performance Graphics, the Digital Production Symposium, Expressive, and the Symposium on Spatial User Interaction.

Student Services

In FY2014, the ACM SIGGRAPH Student Services Committee coordinated three programs engineered to provide value to current student members and make membership more enticing to potential student members. The programs; S3 Talks, Résumé Reel Review (S3R3) and S3 Mentor Me, offered year-round student membership benefits beyond the SIGGRAPH Student Volunteers program, which the committee also oversaw.

Communications

A new, responsive-design ACM SIGGRAPH website was launched just prior to SIGGRAPH 2013. The new site's content and news items have been updated weekly by the Content Manager, and traffic to the site is strong:

- * 289,925 unique individuals visited the site between July 1, 2013 and June 30, 2014
- * During FY2014, the site averaged nearly 24,000 visitors per month
- * 37 percent of visitors to the site during FY2014 had never visited before

Near the end of FY2014, the Communications Committee launched a new, responsive version of the ACM SIGGRAPH Interactions newsletter. The updated newsletter was produced by the Content Manager; it's clean, visually appealing, and in alignment with the color scheme and design for the new website.

Social media remains a major priority for the Communications Committee, which has established a process of information exchange with SIGGRAPH and SIGGRAPH Asia marketing, to ensure the conferences are promoted equally and enthusiastically. A streamlined social media management application has been adopted by the committee, which has allowed for advance scheduling of social media, strengthened lines of communication between members and the organization, and provided a deeper understanding of the way ACM SIGGRAPH is represented and discussed in the social media space.

The ACM SIGGRAPH social media accounts, maintained by the Communications Committee, push out five to ten industry-related news items and SIGGRAPH conference promotions each day, through each channel. The following for these accounts is strong, and growing rapidly:

- * Twitter: 21,015 followers; 3,288 gained since SIGGRAPH 2013
- * Facebook (combined SIGGRAPH accounts): 26,445 fans; 7,455 gained since SIGGRAPH 2013
- * LinkedIn: 9,381 group members; 838 fans gained since SIGGRAPH 2013
- * YouTube: 11,965 subscribers; 4,900 gained 4,900 since SIGGRAPH 2013
- * Google +: in 753 circles; gained 254 circles since SIGGRAPH 2013

The ACM SIGGRAPH YouTube channel received a significant amount of traffic in FY2014:

- * The SIGGRAPH 2013 Technical Papers Preview received nearly 1 million views
- * The SIGGRAPH 2013 Computer Animation Festival Preview received more than a quarter of a million views

Chapters

ACM SIGGRAPH Chapters (currently 50 Professional and Student Chapters) host activities for their local communities throughout the year. Some examples of chapter events from FY2014:

- * NYC ACM SIGGRAPH : MetroCAF 2014
- * Bogota ACM SIGGRAPH : Bogota ACM SIGGRAPH 2014
- * Drexel University ACM SIGGRAPH Student Chapter: Student FJORG event Feb 2014
- * Vancouver ACM SIGGRAPH : Vancouver ACM SIGGRAPH Unmasks the Secrets Behind "The Amazing Spider-Man 2" May 2014
- * Toronto ACM SIGGRAPH : 3D Printing Workshop March 2014
- * London ACM SIGGRAPH : Opening meeting April 2014
- * Silicon Valley ACM SIGGRAPH : "Industrial Light & Magic's Computer Vision Pipeline for Movie Making" Feb 2014
- * Paris ACM SIGGRAPH : Making of "Feast" June 2014

The Chapters Committee also hosted a number of events and activities at SIGGRAPH 2013, including the following:

- * Chapters Development Workshop-- Roughly 20 different chapters (40 people) attended the annual training workshop in Los Angeles
- * ACM SIGGRAPH Student Volunteer and Chapter Leaders joint luncheon -- Approx 300 people SVs, Chapter Leaders and Pioneers attended the luncheon.

* Chapters Start-Up Meeting - Over 20 students and professionals attended this meeting on how to start an ACM SIGGRAPH Professional or Student Chapter

* Chapters Business Meeting

5. Events or programs that broadened participation either geographically, or among under-represented members of ACM SIGGRAPH

Digital Arts Committee

Analytics show that visitors to the DAC social website come from 118 different countries, so the committee has begun to focus efforts on international outreach, working closely with the SIGGRAPH Conferences International Committee. In FY2014, for the first time, a DAC representative attended SIGGRAPH Asia, and distributed basic instructions for joining the DAC social site in Chinese, Japanese, and Korean.

The 2013 DAC online exhibition, The Aesthetics of Gameplay, was launched as a means to reach out to the games community, a somewhat under-represented segment of the ACM SIGGRAPH community.

For 2014, the DAC is developing a new online exhibition of innovative applications of digital video (not including animation) to serve and attract another under-represented part of the larger ACM SIGGRAPH community.

Education Committee

In FY2014, the international ACM SIGGRAPH Education Committee members have played active roles in the planning and organization of education-related computer graphics events in several countries, taking advantage of an excellent opportunity to exchange information and promote ACM SIGGRAPH educational activities worldwide.

Student Services Committee

In 2013, the Student Services Committee supported the SIGGRAPH Asia Student Volunteer Program, providing a panel of special sessions along with reel and resume reviews. Their effort lent further value to the SIGGRAPH Asia student volunteer experience, and helped strengthen the ties between SIGGRAPH and SIGGRAPH Asia.

Chapters Committee

In FY2014, the Chapters Committee developed a strategy for building an Asia Chapters sub-committee to help expand the chapters network in Asia.

6. Key issues that the membership of ACM SIGGRAPH will have to deal with in the next 2-3 years

ACM SIGGRAPH is looking to better position the organization for the future given the trends impacting the industry, membership organizations and our community members' lives. Two continuing major issues that leadership will be looking at are decreasing conference attendance and shrinking conference revenues. We have long had a reputation for excellent and exciting content at our conferences, and want to expand this to provide year-round content and networking for our community. The ACM SIGGRAPH newly designed web site is the first step toward this. Additionally, a strategic task force has been put into place to facilitate discussions about our future.

SIGHPC FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Cheri M. Pancake

1. Awards that were given out

Travel grants to attend SC13 were given to 3 undergraduate and 3 graduate students from universities in the US, Sri Lanka, and Colombia.

2. Significant papers on new areas that were published in proceedings

ACM Gordon Bell Prize winner: D. Ressimelli et al., "11 PFLOP/s Simulations of Cloud Cavitation Collapse"

SC13 Best Paper winner: R. Gerstenberger et al., "Enabling Highly-Scalable Remote Memory Access Programming with MPI-3 One-Sided"

Other SC13 finalists:

I. Paul et al., "Coordinated Energy Management in Heterogeneous Processors"

M. Warren et al., "2HOT: An Improved Parallel Hashed Oct-Tree N-body Algorithm for Cosmological Simulation"

A. Breslow et al., "Enabling Fair Pricing on HPC Systems with Node Sharing"

M. Jung et al., "Exploring the Future of Out-Of-Core Computing with Compute-Local Non-Volatile Memory"

D. Laney et al., "Assessing the Effects of Data Compression in Simulations Using Physically Motivated Metrics"

P. Jolivet et al., "Scalable Domain Decomposition Preconditioners For Heterogeneous Elliptic Problems"

E. Dart et al., "The Science DMZ: A Network Design Pattern for Data-Intensive Science"

P. Starr et al., "Taking a Quantum Leap in Time to Solution for Simulations of High-Tc Superconductors"

M. Bernaschi et al., "20 Petaflops Simulation of Protein Suspensions in Crowding Conditions"

P. Byle et al., "The Origin of Mass"

M. Bussmann et al., "Radiative Signatures of the Relativistic Kelvin-Helmholtz Instability"

S. Habib et al., "HACC: Extreme Scaling and Performance Across Diverse Architectures"

3. Significant programs that provided a springboard for further technical efforts

We initiated a reviewing process for assessing quality of workshops/conferences proposing in-cooperation status. After applying it, we cooperated with 15 over the course of the year. All generated proceedings that are now in the DL.

[WORKS'13](#): 8th Workshop on Workflows in Support of Large-Scale Science

[IA'3 2013](#): Workshop on Irregular Applications: Architectures & Algorithms

[E2SC](#): Energy Efficient SuperComputing

[UltraVis](#): Eighth Workshop on Ultrascale Visualization

[NDM](#): Third International Workshop on Network-Aware Data Management

[PDSW 2013](#): 8th Parallel Data Storage Workshop

[DISCS-2013](#): 2013 International Workshop on Data-Intensive Scalable Computing Systems

[WHPCF13](#): Sixth Workshop on High Performance Computational Finance

[ScalA](#): Workshop on Latest Advances in Scalable Algorithms for Large-Scale Systems

[SEHPCCE](#): First International Workshop on Software Engineering for High Performance Computing in Computational Science & Engineering

[VHPC'13](#): 8th Workshop on Virtualization in High-Performance Cloud Computing

[HiPCNA-PG](#): Third International Workshop on High Performance Computing, Network and Analytics for the Power Grid

[EuroMPI 2013](#)

[ICCS 2013](#): International Conference on Computational Science

[ROSS 2013](#): International Workshop on Runtime Operating Systems for Supercomputers

4. Innovative programs which provide service to some part of your technical community

SIGHPC hosted two webinars. Bill Gropp's "Changing How Programmers Think about Parallel Programming" broke all previous ACM record for attendance (826 live attendees, with 938 on-demand attendees later). Mark

Ebersole's "Achieve Massively Parallel Acceleration with GPUs" was almost as successful (over 750 people attended live).

5. Events or programs that broadened participation either geographically, or among under-represented members of your community

First instance within ACM of a "virtual chapter" was chartered as a SIGHPC chapter. It focuses on educators who include HPC in computer science, computational science, or other curricula. By making it a virtual chapter, there is no need to be co-located with colleagues.

6. A very brief summary for the key issues that the membership of that SIG will have to deal with in the next 2-3 years.

We are still coming to grips with what types of services are most useful to our members, tempered by the availability of volunteer time to implement them. Although ideas are plentiful, we're finding it difficult to find people who will spearhead an activity and then keep it going over time. We've started restructuring in an attempt to better "distribute the load."

SIGIR FY'14 Annual Report
July, 2013 – June, 2013
Submitted by: Charles Clarke

1 Overview

On July 1, 2013 a new Executive Committee took over responsibility for the operation and guidance of SIGIR. The outgoing Executive left us in excellent financial shape, with a healthy and growing community of volunteers and members. We thank James Allan, our Past Chair, along with Ian Ruthven, Andrew Trotman, Ian Soboroff, and Liz Liddy for their hard work over their three-year term.

SIGIR currently sponsors two conferences (SIGIR and ICTIR), co-sponsors three conferences (CIKM, WSDM, and JCDL). Our SIGIR Forum newsletter is published twice a year (June and December). We also maintain a website, mailing list, Facebook page, and Twitter feed. SIGIR offers its over 800 members the following benefits: SIGIR Forum (paper & online); reduced conference registration fees to sponsored and "in cooperation" conferences; access to the ACM Digital Library, in particular SIGIR, CIKM, JCDL, and WSDM conference proceedings.

2 Finances

The SIG's reserves of approximately \$1.2 million remain greater than one times the annual conference expenditure of approximately \$400K. The Executive Committee attempts to run a "break even" budget, in which SIGIR neither gains nor loses much money. To maintain this steady state, profits from the digital library and conferences are used to fund student travel to our conferences, particularly for students with accepted papers. For example, we funded 77 students to attend SIGIR this year, allocating over \$125K for this purpose. SIGIR places a high priority on student support, and we expect to continue this practice in the coming year. Our field as a whole is dependent on our future researchers, whom we now support as students.

3 Volunteers

In addition to the elected officers, SIGIR is served by a large community of volunteers, including some with named roles:

Forum Editor, June edition:	Raman Chandrasekar (ending June 2014) Craig MacDonald (starting July 2014)
Forum Editor, December edition:	Fernando Diaz (ending June 2014) Ben Carterette (starting July 2014)
SIG-IRList Editor:	Claudia Huff
Awards Chair:	Shlomo Geva (ending December 2013) Fernando Diaz (starting January 2014)
Information Director:	Krisztian Balog
Social Media Director:	Guido Zuccon
JCDL Liaison:	Edie Rasmussen
CIKM Liaison:	Charles Clarke
WSDM Liaison:	Ricardo Baeza-Yates

The position of Social Media Director is new this year. This role will be responsible for managing our Twitter feed (@ACMSIGIR) and Facebook page.

SIGIR thanks all of our volunteers for their work on behalf of the IR community during the last year.

4 Conferences

SIGIR sponsors, co-sponsors, and cooperates with other technical groups on several conferences and/or workshops during the year.

4.1 SIGIR Conference

Our main conference is the Annual ACM SIGIR Conference on Research and Development in Information Retrieval. The thirty-seventh SIGIR was held in Gold Coast, Australia, July 6-11, 2014. SIGIR 2015 will be held in Santiago, Chile; SIGIR 2016 will be held in Pisa, Italy; SIGIR 2017 will be held in Tokyo, Japan.

The SIGIR main conference continues to be the leading conference in the field of Information Retrieval. SIGIR 2014 received a total of 389 full paper submissions and accepted 82, or 21%. This rate is within the target acceptance rate for the conference. The number of submissions was up slightly from 2013.

The location of the SIGIR main conference rotates between three regions: (1) The Americas (2012 Portland OR,; 2015 Santiago, Chile); (2) Europe, Africa, or the Middle East (2013 Dublin, Ireland; 2016 Pisa, Italy); and (3) Asia or Australia (2014 Gold Coast Australia; 2017 Tokyo, Japan).

Our annual business meeting is held at the conference, where major announcements are officially made and feedback from the community is heard. Preliminary expressions of interest were presented at the 2014 conference for SIGIR 2018, which will be held in the Americas. Interested groups were asked to prepare formal bid documentation to be reviewed by the Executive Committee, following the ACM protocol. The bid process is documented at <http://sigir.org/bid.html>.

4.2 International Conference on the Theory of Information Retrieval

In early 2014, we officially welcomed the International Conference on the Theory of Information Retrieval (ICTIR) into the family of conferences we sponsor and co-sponsor. ICTIR grew from a series of SIGIR workshops on mathematical and formal methods for IR, regularly held during the years 2000 to 2005, and organized by Sándor Dominich, Keith van Rijsbergen, Mounia Lalmas, and Iadh Ounis. In 2007, ICTIR was founded as a fully independent conference held in Budapest. Since then, ICTIR has been held bi-annually in Cambridge (2009), Bertinoro, Italy (2011) and Copenhagen (2013). Over these years, ICTIR was supported by the BCS-IRSG, and this support will continue, with SIGIR as a new partner and sponsor. SIGIR thanks the many people involved with the BCS-IRSG who helped to make this relationship happen, particularly John Tait.

The first SIGIR-sponsored ICTIR will be held at a venue close to Amherst, Massachusetts in September 2015, with James Allan and Bruce Croft as the General Chairs. This location was selected by a new conference steering committee headed by Oren Kurland. ChengXiang Zhai and Arjen de Vries will be the PC Chairs for full papers; Norbert Fuhr and Yi Zhang will be the PC Chairs for short papers. Submissions are due in May 2015, with more information available at ictir2015.org. We particularly thank Bruce Croft and James Allan for their tremendous work in bringing ICTIR to North America as a SIGIR-sponsored conference.

Starting in 2015, ICTIR becomes an annual conference. In future years, ICTIR will rotate around the world, following a pattern similar to that of other SIGIR-sponsored conferences, while maintaining an awareness of the dates and locations of these other conferences.

4.3 Co-sponsored Conferences

SIGIR also co-sponsors three other ACM conferences, CIKM, JCDL, and WSDM. A very successful WSDM was held in New York in late February. In September, JCDL will be held jointly with TPDJ in London. In early November, CIKM will be held in Shanghai.

4.4 In-cooperation Conferences

In addition to the four conferences that SIGIR sponsors or co-sponsors, we “cooperate” with several other IR-related conferences but have no financial stake in them. These conferences complement the technical focus of our own conferences. As a cooperating society, SIGIR members obtain reduced registration fees and other member benefits at these conferences. Upcoming and recent “in cooperation” events include:

- Australiasian Document Computing Symposium, Melbourne, Australia, November 27-28, 2014.
- Asia Information Retrieval Society Conference, Kuching, Sarawak, Malaysia, December 3-5, 2014.
- ACM Conference on Recommender Systems, Foster City, California, October 6-10, 2014.

4.5 Conferences and Events Supported as “Friends”

SIGIR offers a limited amount funding (up to \$5,000) to support events related to SIGIR’s mission (our “friends”). Such events include small workshops and regional events directly related to information retrieval or of strong interest to the SIGIR community. For more information see <http://sigir.org/general-information/funding-for-sigir-related-events/>. Events supported in the past year include:

- European Conference on Information Retrieval, Amsterdam, April 13-16, 2014.
- Australasian Document Computer Symposium, Brisbane, Australian, December 5-6, 2013.
- MediaEval Benchmarking Initiative for Multimedia Evaluation Workshop, Barcelona, Catalunya, Spain, October 18-19, 2013.

5 Awards made by SIGIR

In addition to Best Paper Award(s), SIGIR provides the triennial Gerard Salton Award (to be awarded next in 2015), and funds JCDL’s Vannevar Bush Award jointly with SIGWEB. SIGIR continues working to put forth deserving nominees for the general ACM Awards. All SIGIR awards are documented on the SIGIR web site.

During 2014 we have been planning the introduction of a new Test of Time Award. We received feedback on this award at SIGIR 2014, and a proposal will be put before the SIG Governing Board within the next few months.

5.1 Gerard Salton Award

This award is presented every three years to an individual who has made "... significant, sustained and continuing contributions to research in information retrieval". It was established as the SIGIR Award in 1983 and renamed in 1997 in honor of Professor Gerard Salton, who is considered by many to be the person most responsible for the establishment, survival, and recognition of the field of IR. The Salton Award Committee is comprised of the available prior winners of the Salton Award, in consultation with the SIGIR Chair. This award was most recently presented in 2012 to Norbert Fuhr who gave a keynote talk at SIGIR 2012 entitled “Information Retrieval as Engineering Science.” The next award will be presented at SIGIR 2015.

5.2 Vannevar Bush Best Paper Award

Along with SIGWEB, SIGIR jointly funds the Vannevar Bush award honoring the best paper at the Joint Conference for Digital Libraries. The 2013 award went to Kazunari Sugiyama and Min-Yen Kan for their paper [Exploiting Potential Citation Papers in Scholarly Paper Recommendation..](#)

5.3 SIGIR Best Paper Awards

The SIGIR 2013 conference Best Paper Award was presented at SIGIR 2013 in Dublin. The award went to Ryan W. White for his paper [Beliefs and Biases in Web Search](#), which explores the impact of pre-conceived biases when searching in the health domain using a combination of surveys, human labeling of search results, and large scale search log analysis.

SIGIR awards a parallel Best Student Paper Award if the Best Paper award is not given to a student paper. At SIGIR 2013 the award went to Karthik Raman for the paper [Toward Whole-Session Relevance: Exploring Intrinsic Diversity in Web Search](#), which addresses the role that search has within a user’s whole information-seeking session, identifying signals in a user’s search session which can help to promote diversity in the results of web search. The paper was co-authored with Paul N. Bennett and Kevyn Collins-Thompson.

6. Major Awards to SIGIR Members

In early 2014 we were thrilled to learn that the ACM had selected Sue Dumais as the ACM-W Athena Award Lecturer for 2014-15. The ACM-W Athena Award celebrates women researchers who have made fundamental contributions to Computer Science. Dr. Dumais is a long-standing member of the Information Retrieval community, making many theoretical and applied contributions across the field. In 2009 she was awarded

SIGIR's highest honor, the Salton Award. She has also served as PC Chair for SIGIR and as Chair of our Executive Committee. Dr. Dumais gave her Athena Lecture in July at SIGIR 2014 in the Gold Coast, Australia.

At SIGIR 2014, Jamie Teevan was presented with an Anita Borg Early Career Award, an award presented annually to a woman in computer science and/or engineering at a relatively early state in her career who has made significant research contributions while also having a positive, significant impact on advancing women in the computer-research community. Also this year, Bruce Croft was awarded the UKeiG Tony Kent Strix Award, given in recognition of an outstanding contribution to the field of information retrieval. In addition a number of SIGIR members became ACM Fellows, including Christine Borgman, Ingemar Cox, Marti Hearst, Yoelle Maarek, Christopher Manning, and Stephen Robertson.

7 Communications

The SIGIR Web site provides timely information about SIGIR-sponsored conferences, "in cooperation" conferences, and SIGIR activities, as well as Business Meeting slides, the annual report, and other information about how SIGIR operates and SIGIR's history. In addition to providing information about the organization, the SIGIR web site also hosts the SIGIR Forum and SIG-IRList sites. Our Information Director, Krisztian Balog, maintains the site. During the past year, he updated the site with a new look and new content management software. In conjunction with the Web site, SIGIR now operates a Twitter feed and maintains a Facebook page, both managed by our new Social Media Director, Guido Zuccon.

During the last year, the SIGIR Forum was co-edited by Fernando Diaz and Raman Chandrasekar. The Forum is published twice a year, covering IR conferences, workshops and symposia. It includes in-depth essays based on the Salton Award Lecture and other keynote addresses, as well as short papers on current research trends. The Forum appears both online (<http://www.acm.org/sigir/forum/>) and in paper. Next year, Ben Carterette and Craig Macdonald take over as our new Forum co-editors.

The SIG-IRList is a SIGIR-sponsored electronic newsletter (<http://www.acm.org/sigir/sigirlist/>), edited by Claudia Huff. The SIG-IRList provides a regular newsletter of IR information and nicely complements the archival publication SIGIR Forum. The SIG-IRList contains job announcements, notices of publications, conferences, workshops, calls for participation, and project announcements.

8 Other Programs

Because of heavy industrial activity in the Information Retrieval community, the SIGIR conference has run an industry track at the conference, now called the "SIGIR Symposium on IR in Practice" (SIRIP). The track started as a separate event in 2007 and was integrated into the main conference starting in 2009. The track has been very popular, highlighting key industrial issues and challenges as well as attracting industrial researchers to the main technical conference.

SIGIR has been collecting archive publications from the early days of the Information Retrieval field. Most of the information is unavailable anywhere on-line, so this archive provides new access to the historical information. A description of the gathered information is available at <http://sigir.org/resources/museum>. It continues to be updated with new (old) material on an on-going basis, as the information is found and can be scanned. SIGIR is exploring ways to make this information a more valuable resource for the community.

9 Key issues facing SIGIR in the next 2-3 years

Overall, SIGIR is a healthy and thriving community of researchers and practitioners. Things can always be improved, and there are a number of issues that the Executive Committee continues to see as possible challenges.

There continues to be strong concern but sharply divided opinion among members of the community regarding publications that are based upon proprietary data available to no or very few members of the community. SIGIR 2012 included a panel to debate/discuss the multiple perspectives and a summary of that panel was published in the December 2012 issue of SIGIR Forum. The Executive Committee has continued to encourage the program chairs to update reviewing questions to raise this issue to forefront of consideration, whether or not it is an explicit aspect for consideration. The adoption of ICTIR as a SIGIR-sponsored conference may help to alleviate this problem, since its overall philosophy leans in the direction of open data.

In addition, the SIGIR EC is continuing an effort to locate procedural documents related to the SIG and to move them onto the SIGIR web site so that they are easily available to the SIGIR EC and publicly available to all interested members of the community.

10 Summary

SIGIR had another productive and successful year, with important intellectual and social contributions. One highlight was the adoption of ICTIR as a SIGIR-sponsored conference. Our conferences have been successful in all senses (with strong technical content and good international participation), and our financial situation is quite healthy. Perhaps most importantly, we continue to have very strong participation in ACM SIGIR by the international IR community, especially in a willingness to serve as volunteers for conference and SIG-related activities.

SIGITE FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Rob Friedman

The 14th Annual Conference on Information Technology Education, co-located with the 2nd Annual Conference on Research in Information Technology, was hosted by University of South Florida and held in Orlando, FL, October 10-12, 2013. 90 technical papers were submitted; 26 were accepted for SIGITE and 12 for RIIT, which significantly reduced our acceptance rate from the previous 6-year average of 54% to a single year low of 40%.

Awards that were given out

At the 2013 SIGITE/RIIT Conferences, three best paper awards were presented:

SIGITE: Kenny Heinonen, [Kasper Hirvikoski](#), [Matti Luukkainen](#) and [Arto Vihavainen](#) of the University of Helsinki for their paper, "Learning Agile Software Engineering Practices Using Coding Dojo."

RIIT: Sargon Hasso, Wolterskluwer, Inc. and Carl Carlson, Illinois Institute of Technology for their paper, "Design Patterns as First-class Connectors."

Student: Norman Villaroman, Dale Rowe, and Richard Helps of Brigham Young University for their paper, "Design and Evaluation of Face Tracking User Interfaces for Accessibility."

Significant papers on new areas that were published in proceedings

Based on comparative downloads, there were three relatively significant papers published in the SIGITE and RIIT 2013 proceedings:

"Administrative Evaluation of Intrusion Detection System" by Xinli Wang, Michigan Tech University.

"MOOC as a University Entrance Exam" by Arto Vihavainen, Matti Luukkainen, and Jaakko Kurhila, University of Helsinki.

"Flipping the Classroom - Is It For You?" by Rebecca Rutherford, Southern Polytechnic State University and James Rutherford, Chattahoochee Technical College.

Significant programs that provided a springboard for further technical efforts

SIGITE members, led by Bill Paterson of Mount Royal University, contributed to a preliminary study by the ACM Ed Council to gauge the extent to which the 2008 IT Curriculum Guidelines were in need of revision. Other SIGITE members will participate in drafting revisions for 2016.

A very brief summary for the key issues that the membership of that SIG will have to deal with in the next 2-3 years.

Bylaws: we continue to need to find an acceptable, agreeable way to modify our bylaws so that we can expand formal participation through representation on the executive committee.

Conference location: attendance improves when venues are attractive to participants. After an analysis of contributing authors, registration trends, SIGITE membership demographics and institutions willing to serve as hosts, we decided to keep our annual conferences on the eastern side of the US. We will monitor registrations and trends as we further discuss moving from our membership-based hosting protocols to selecting resort destinations as a way to increase attendance.

Conference paper and attendance metrics are flat. We need to increase the number of submissions and continue to reduce the acceptance rate while also increasing registrations.

Professional accreditation: we need more members involved in enhancing the communication/coordination flow between SIGITE, CSAB and ABET/CAC.

SIGKDD FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Bing Liu

The SIGKDD Executive Committee consists of the following individuals who are in their first year in these roles in SIGKDD:

Bing Liu, University of Illinois at Chicago, USA (Chairman)
Michael Zeller, Zementis, Inc. USA (Secretary/Treasurer)
Deepak Agarwal, LinkedIn, USA
Usama Fayyad, Oasis500, Jordan & ChoozOn Corp, USA

Johannes Gehrke, Cornell University, USA
Ying Li, Concurix Corporation, USA
Jian Pei, Simon Fraser University, Canada
Raghu Ramakrishnan, Yahoo! Research, USA
Mohammed J. Zaki, Rensselaer Polytechnic Institute, USA

Information director: Ankur Teredesai, University of Washington

1. Annual Awards

The ACM SIGKDD presents two prestigious awards every year in two categories: Innovation and Service Awards. The nomination process and the selection of award winners are conducted by a committee of experts typically chaired by the winner of the prior year's Service Award. If the prior year winner of the Service Award cannot serve, a prior winner is selected.

2013 ACM SIGKDD Awards Committee

- **Ying Li – Chair**, Concurix Corporation (prior winner of the SIGKDD Service Award)
- Bharat Rao, Deloitte (prior winner of the SIGKDD Service Award)
- Christos Faloutsos, Carnegie Mellon University (prior winner of the SIGKDD Innovation Award)
- Osmar Zaiane, University of Alberta (prior winner of the SIGKDD Service Award)
- Padhraic Smyth, University of California, Irvine (prior winner of the SIGKDD Innovation Award)
- Ross Quinlan, Rulequest Research (prior winner of the SIGKDD Innovation Award)
- Ramasamy Uthurusamy, General Motors Corporation (prior winner of the SIGKDD Service Award)
- Sunita Sarawagi, Indian institute of technology (prior winner of the SIGKDD Service Award)
- Usama Fayyad, ChoozOn Corporation (prior winner of the SIGKDD Innovation and Service Awards)
- Vipin Kumar, University of Minnesota (prior winner of the SIGKDD Innovation and Service Award)

ACM SIGKDD 2013 Innovation Award was awarded to [Prof. Jon Kleinberg](#) of Cornell University (USA) on Aug. 11, 2013 with Citation: "He is recognized for his seminal contributions to the analysis of social and information networks, mining the web graph, study of cascading behaviors in networks, and the development of algorithmic models of human behavior. ACM SIGKDD Innovation Award is the highest award for technical excellence in the field of Knowledge Discovery and Data Mining (KDD). It is conferred on one individual or one group of collaborators whose outstanding technical innovations in the KDD field have had a lasting impact in advancing the theory and practice of the field. The contributions must have significantly influenced the direction of research and development of the field or transferred to practice in significant and innovative ways and/or enabled the development of commercial systems. ***The award includes a plaque and a check for \$2,500***

Past winners of the SIGKDD Innovation award are:

YEAR: Awardee

2000: Rakesh Agrawal
2002: Jerome Friedman
2003: Heikki Mannila
2004: Jiawei Han
2005: Leo Breiman
2006: Ramakrishnan Srikant
2007: Usama M. Fayyad
2008: Raghu Ramakrishnan

2009: Padhraic Smyth
2010: Christos Faloutsos
2011: J. Ross Quinlan
2012: Vipin Kumar

ACM SIGKDD 2013 Service Award was awarded to **Dr. Gabor Melli** of [VigLink](#) (USA). The award was awarded on Aug. 11, 2013 with Citation: "Dr. Gabor Melli is recognized for his substantial technical contributions to the practice and application of data mining and for his outstanding service to the global KDD community." ACM SIGKDD Service Award is the highest service award in the field of knowledge discovery and data mining (KDD). It is conferred on one individual or one group for their outstanding professional services and contributions to the KDD field. Services recognized include significant contributions to the activities of professional KDD societies and conferences, leading organizations or projects that contribute technically to the field as a whole, furthering education of students, researchers and practitioners of KDD, funding R&D activities of the KDD community, professional volunteer services in disseminating technical information to the field, and contributions to society at large through applications of KDD concepts to improve global medical care, education, disaster/crisis management, environment, etc. ***The award includes a plaque and a check for \$2,500***

Past winners of the SIGKDD Service award are:

YEAR: Awardee

2000: Gregory Piatetsky-Shapiro
2002: Ramasamy Uthrusamy
2003: Usama M. Fayyad
2004: Xindong Wu
2005: The WEKA Team led by Ian Witten and Eibe Frank
2006: Won Kim
2007: Robert L. Grossman
2009: Sunita Sarawagi
2010: Osmar R. Zaiane
2011: R. Bharat Rao
2012: Ying Li

SIGKDD Distinguished Dissertation Award

The Distinguished Dissertation award was established to recognize excellent research contributions by a doctoral candidate in the field of data mining and knowledge discovery. Nominations limited to one doctoral dissertation per academic unit with initial vetting done by individual university departments who can only nominate a single candidate from their academic unit.

SIGKDD Dissertation Award Selection Committee

- **Bamshad Mobasher**, DePaul University, USA (**Chair**)
- Tanya Berger-Wolf, University of Illinois, Chicago, USA
- Christos Faloutsos, Carnegie Mellon University, USA
- Dimitrios Gunopulos, The University of Athens, Greece
- Mohammad Al Hasan, Indiana University-Purdue University, USA
- Sofus Macskassy, Facebook, Inc., USA
- Jennifer Neville, Purdue University, USA
- Myra Spiliopoulou, Otto von Guericke University Magdeburg, Germany
- Shusaku Tsumoto, Shimane University, Japan
- Jaideep Vaidya, Rutgers University, USA

The 2013 SIGKDD Doctoral Dissertation award attracted a high number of excellent applicants. 4 finalists were selected by the committee: one winner, one runner-up and two honorable mentions. The winner receives a check for \$2,500 from SIGKDD. The winner and runners-up are recognized at 2013 KDD conference.

The 2013 annual doctoral dissertation award for SIGKDD was awarded to **Dr. Yizhou Sun** of University of Illinois at Urbana-Champaign (USA) for her dissertation titled: "Mining Heterogeneous Information Networks" Advisor: Prof. Jiawei Han.

The runner-up was:

Dr. Byron Wallace of Tufts University (USA) for his dissertation titled "Machine Learning in Health Informatics: Making Better use of Domain Experts" - Advisor: Prof. Carla Brodley, Tufts University.

The honorable mentions were:

1. Dr. U Kang of Carnegie-Mellon University for his dissertation titled "Mining Tera-Scale Graphs: Theory, Engineering and Discoveries" - Advisor: Prof. Christos Faloutsos, Carnegie-Mellon University.
2. Dr. Venu Satuluri of the Ohio State University for his dissertation titled "Scalable Clustering of Modern Networks"- Advisor: Prof. Srinivasan Parthasarathy, the Ohio State University.

All annual awards were presented at KDD-2013 Conference as part of the opening ceremony of the conference on August 11, 2013 in Chicago, IL, USA.

2013 KDD Best Research Paper Awards

The award recognizes best papers presented at the annual KDD conference that advance the fundamental understanding of the field of knowledge discovery in data and data mining. The selection committee was chaired by: Rich Caruana (Microsoft) & Ke Wang (SFU). The committee decided to give four awards.

KDD 2013 Best Research Paper Awards:

Best Research Paper

Title: Simple and Deterministic Matrix Sketching

Authors: Edo Liberty, Yahoo! Labs

Best Research Paper Runner-Up

Title: Querying Discriminative and Representative Samples for Batch Mode Active Learning

Authors: Zheng Wang, Arizona State University; Jieping Ye, Arizona State University

Best Student Research Paper Awards:

Best Student Research Paper

Title: A space efficient streaming algorithm for triangle counting using the birthday paradox

Authors: Madhav Jha, Pennsylvania State University; C. Seshadhri, Sandia National Labs; Ali Pinar, Sandia National Labs

Best Student Research Paper Runner-Up

Title: Recursive Regularization for Large-scale Classification with Hierarchical and Graphical Dependencies

Authors: Siddharth Gopal, CMU; Yiming Yang, CMU

2013 KDD Best Industry/Government Track Paper Award

The award recognizes papers presented at the annual KDD conference that advance the fundamental understanding and applications of knowledge discovery in data and data mining.

Best Industry Government Paper

Title: Amplifying the Voice of Youth in Africa via Text Analytics

Authors: Prem Melville, IBM Research; Vijil Chenthamarakshan IBM Research; Richard Lawrence, IBM Research; James Powell, UNICEF Uganda; Moses Mugisha, UNICEF Uganda; Sharad Sapra, UNICEF Uganda; Rajesh Anandan, US Fund for UNICEF; Solomon Assefa, IBM Research

Best Industry Government Paper Runner Up

Title: Query Clustering based on Bid Landscape for Sponsored Search Auction Optimization

Authors: Ye Chen, Microsoft; Weiguo Liu; Jeonghee Yi; Anton Schwaighofer; Tak Yan, Microsoft

New award: the KDD Test-of-Time award was established in 2013. The first set of awards will be presented at the KDD-2014 conference. It honors papers published at least 10 years ago that have had significant impact to the field of data mining and knowledge discovery.

2. Significant Publications:

The KDD-2013 Conference Proceedings and New Program components

The KDD 2013 annual conference maintained KDD's position as the leading conference on data mining and knowledge discovery, with 726 submissions of full papers in the Research track and 136 submissions of full papers in the Industry/Government Applications track. The program committee consisted of over 350 members with 50 senior PC members to help distribute the significant paper review load as each paper got 3 reviews.

Of the 726 research track papers submitted, the program committee accepted 125 papers for publication, representing a very selective acceptance rate of only about 17.2%. Of the 136 Industry/Government papers submitted, the program committee accepted 34 papers for publication, representing an acceptance rate of only 25%. The Industry Practice Expo consists of 8 presentations on actual deployed and significant applications or systems presented by industry leaders, and a panel on "Death of the Expert? The Rise of Algorithms and Decline of Domain Experts".

The breadth of topics covered in this year's research program is correspondingly diverse, including social networks, privacy, text mining, predictive modeling, time-series forecasting, spatial data analysis, opinion mining, stream mining, and more. These areas were in addition to traditional data mining classification, clustering, research and applications papers.

The conference included 4 world-class keynote speakers this year, providing expert overviews of the latest advances:

Raghu Ramakrishnan, Technical Fellow and CTO Information Services, Microsoft
Andrew Ng, Stanford University and Coursera,
Stephen J. Wright, Computer Sciences Dept., University of Wisconsin-Madison
Hal Varian, Chief Economist at Google.

The conference also organized a panel discussion on "A Data Scientist's Guide to Making Money from Start-ups" with panelists: Ron Bekkerman, Carmel Ventures; Oren Etzioni, U. Washington; Usama Fayyad, Oasis 500 and ChoozOn; Claudia Perlich, M6D. Moderators: Geoff Webb and Foster Provost.

The conference organizing committee was extensive and led by:

General Co-Chairs: Robert Grossman, University of Chicago and Open Data Group, and Ramasamy Uthrusamy, Information Systems and Services Division, General Motors Corp.

Research Track Co-Chairs: Inderjit Dhillon, Department of Computer Sciences, University of Texas at Austin, and Yehuda Koren, Google.

Industry and Government Track Co-Chairs: Rayid Ghani, University of Chicago, and Ted Senator, SAIC

Industry Practice Expo Co-Chairs: Paul Bradley, MethodCare, Inc, and Rajesh Parekh, Groupon

Workshop Co-Chairs: Jian Pei, School of Computing Science, Simon Fraser University, Canada, and Jie Tang, Department of Computer Science and Technology, Tsinghua University, China

Tutorial Co-Chairs: W. Scott Spangler, Almaden Research Center, IBM, and Zhi-Hua Zhou, Department of Computer Science & Technology, Nanjing University, China.

The high level of interest at the I/G Applications track (application papers) continued to attract authors and attendees. We have very positive experiences with the third year of running the "Industry Practice Expo" track which consisted primarily of invited speakers.

2.1 KDD-2013 Conference Dates and Attendance

KDD 2013 was held in Chicago, USA starting Sunday August 11th to Wednesday August 14th, 2013. Saturday August 10th was provided as an extra day for the **Big Data Camp**.

Conference Workshops and Tutorials took place on August 11. The opening session with awards ceremony was held on August 11 evening as part of the plenary opening session of the formal conference. **The conference attracted an all-time record high for KDD of over 1176 registrants.** We believe this is a healthy growth trend from previous years and we expect it to continue in next few years.

KDD-2014 will be held in New York City from August 24 to 27, 2014.

KDD-2013 Conference continued to have strong participation of the industrial researchers, as evidenced by a record 136 papers submitted to the industrial track (only 34 accepted). In this and last year, we enhanced the

criteria for acceptance and raised the bar on what we considered a real application that is deployed and used in the field. This resulted in diminished acceptances but a much higher quality of content.

This year's statistics on the Industry/Government application Track were as follows:

- Submissions: 136 (significant growth over 2012)
- Acceptances: 34
- Papers were presented in 8 Sessions: Business & Sports, Health & Safety, Experimentation, Social Good, Social & Communities, Monitoring, Security & Privacy, and Advertising and Search.

2.2 Workshops and Tutorials

In addition, KDD 2013 hosted 10 full-day and 5 half-a-day workshops and 6 tutorials. Workshops were held on August 11, 2013. There was also a big data camp, which was held on August 10, 2013. Six experts were invited to give talks about big data.

Full day workshops (10)

- [ADKDD: The 7th International Workshop on Data Mining for Online Advertising](#)
- [BigMine: The 2nd International Workshop on Big Data, Streams and Heterogeneous Source Mining: Algorithms, Systems, Programming Models and Applications](#)
- [BioKDD: The 12th International Workshop on Data Mining in Bioinformatics](#)
- [DMH: Workshop on Data Mining for Healthcare](#)
- [IDEA: KDD 2013 Workshop on Interactive Data Exploration and Analytics](#)
- [MDS: Mining Data Semantics in Heterogeneous Information Networks](#)
- [MLG: The 11th Workshop on Mining and Learning with Graphs](#)
- [SNAKDD: The 7th SNAKDD Workshop on Social Network Mining and Analysis](#)
- [UrbComp: The Second ACM SIGKDD International Workshop on Urban Computing](#)
- [WISDOM: Workshop on Issues of Sentiment Discovery and Opinion Mining](#)

Half-a-day Workshops (5)

- [MDMKDD: The 13th International Workshop on Multimedia Data Mining](#)
- [ODD: KDD 2013 Workshop on Outlier Detection and Description](#)
- [MultiClust: The 4th MultiClust Workshop on Multiple Clusterings, Multi-view Data, and Multi-source Knowledge-driven Clustering](#)
- [PMML: Predictive Model Markup Language](#)
- [KDD Cup workshop](#)

The tutorials were held on August 11, 2013 and consisted of the following tutorials:

1. Alan Frieze, Aristides Gionis and Charalampos Tsourakakis. Algorithmic techniques for modeling and mining large graphs (AMAZING)
2. Spiros Papadimitriou, and Tina Eliassi-Rad. Mining Data from Mobile Devices: A Survey of Smart Sensing and Analytics
3. Jimeng Sun and Chandan K. Reddy. Big Data Analytics for Healthcare
4. Lise Getoor and Ashwin Machanavajjhala. Entity Resolution for Big Data
5. Mohammad A. Hasan, Jennifer Neville and Nesreen Ahmed. Network Sampling
6. Amr Ahmed and Alex Smola. The Dataminer's Guide to Scalable Mixed-Membership and Nonparametric Bayesian Models.

2.3 SIGKDD Video Releases: the KDD-2013 conference program videos

We used VideoLectures.net (which handled some previous KDD conferences). The videos can be seen from http://videolectures.net/kdd2013_chicago/.

3. Conference Attendance and Budget Management

The KDD-2013 conference continued a strong tradition of high attendance and continued healthy financial management and performance. The conference attracted a total of 1176 registrants. This is an all-time high, and represents over 16% growth in registrations over KDD-2012. We continue to thrive and draw interest even through years of crisis and low travel budgets.

Revenue Summary:

10. Final registrations: 1176 Registrants
11. Revenue from Registrants: \$709,838
12. Revenue from Sponsorship: \$139,000
13. ACM Allocation: \$ 107029.45

14. Total Revenue: \$902,228.00
15. Total Expenses: \$775,963.51
16. Conference Net: \$ 126,264.49 (surplus)

4. SIGKDD Explorations

We announced a new Editorial team for SIGKDD Explorations in 2014. The new Editor-in-Chief is Dr. Charu Aggarwal, IBM T.J. Watson Research Center. The associate editors are Haixun Wang, Google, Ankur M. Teredesai, University of Washington Tacoma, and Hanghang Tong, Arizona State University. SIGKDD Explorations published two issues in the last fiscal year:

- December, 2013, Volume 15, Issue 2. One position paper and 5 contributed articles.
- June, 2014, Volume 16, Issue 1. Special issue on big data with 6 contributed articles and one interview (ready to print).

5. Significant programs that provided a springboard for further technical efforts

ACM Transactions on Knowledge Discovery and Data Mining (TKDD) launched in 2007, <http://tkdd.cs.uiuc.edu/>, with Jiawei Han as its founding Editor-in-Chief, has continued as one of the two major journals in our field. In 2013, we have the new Editor-in-Chief: [Philip S. Yu](#) and team. TKDD published 4 issues in 2013 and 3 issues in 2014.

The original major journal in our field, *Data Mining and Knowledge Discovery*, currently with Geoff Webb as Editor-in-Chief continues to be a top-cited journal internationally. This journal was launched in 1996 with Usama Fayyad as the founding Editor-in-Chief.

6. A brief summary for key issues that the SIGKDD EC will deal with in the next 2-3 years.

Some of the key issues for SIGKDD and SIGKDD members:

- Continuing to maintain effective SIGKDD operations.
- Past difficulty of getting industry participation in KDD conferences have been addressed with the new Industry Practice Expo launched in KDD-2011. More work will be done.
- Getting new membership and especially student members.
- Addressing issues of data privacy and the role of data mining, positive or negative in that arena.
- Competitive pressure from a new generation of APPLIED conferences that are drawing attention and causing some attention pressure. KDD-2010 responded by creating an additional applied invited track on predictive analytics as well as new formats for fireside chat on important topic and special applied panels. This year we have also started to sponsor local SIGKDD chapters, which helped us to promote SIGKDD and KDD conferences. Two new SIGKDD Chapters have been formed in 2014, in Australia & New Zealand, and in the Seattle area. We also have two earlier formed chapters, the India Chapter and the Austin Chapter.
- Creating more forums for participation on-line as well as a professionally produced magazine for the field if the economics justify it and there are enough interests.
- Creating a new generation, web 2.0 web presence for SIGKDD and KDD conferences.

7. Financial Snapshot

SIGKDD continues to have a healthy financial balance sheet and surplus cash balance. After the closing of KDD-2013 in Feb, 2014, SIGKDD has a cash balance of over one million dollars (\$1,322,322). Our cash balance re-enforces our financial feasibility as a SIG. The closing of KDD-2013 accounting shows a major surplus of \$126,264.49 for the year. This surplus was the result of the significant efforts of the 2013 General Chairs to be frugal and control expenses and at the same time providing an innovative technical program and diligent efforts to attract an unusually high number of attendees. Unlike in 2010, 2011 and 2012, which with large attendances of more than 900 were not able to generate good organic surplus, KDD-2013 made a big progress in this regard and generated a large surplus without a big sponsorship money from industry. We plan to increase investment activities in the next fiscal year to institute some value added programs to increase the value of SIGKDD to members and SIGKDD chapters, as well as enhance the field as a whole. We currently have personnel to handle PR and promotions and are considering hiring additional dedicated part-time contractors to address issues that need more systematic attention, such as web site maintenance and marketing activities related to the field. We also plan to make a major improvement to the Web site in the coming year.

SIGLOG FY'14 Annual Report
April 2014 – June, 2014***
Submitted by: Prakash Panangaden

Since this SIG was only chartered this April we are only at the beginning. Many of the activities that would have been reported this year were actually held in July since the ACM-IEEE Symposium on Logic in Computer Science was held in July this year rather than June. Thus Awards, the SIGLOG Launch event etc. were all in July, just missing the deadline.

1. Awards: None awarded by SIGLOG. However, The European Association for Computer Science Logic, which plans to closely collaborate with SIGLOG in the future, awarded its annual dissertation award for 2013, named the Ackermann Award for the Outstanding Dissertation in Logic in Computer Science went to Matteo Mio who did his PhD at the University of Edinburgh under the supervision of Alex Simpson. The title of his dissertation is:

"Game Semantics for Probabilistic Modal Mu-Calculi"

2. Significant developments in Logic and Computation over the past year: A major source of excitement has been the burgeoning interest in Homotopy Type Theory. This originated from a model of Martin-Löf type theory and has developed into a major topic offering new hopes for the mechanization of mathematical proofs and indeed new foundations for constructive mathematics. One of the key figures is the Field's Medallist Vladimir Voevodsky. A free electronic book on the subject is available for download. Another major figure is Steve Awodey who was awarded a grant of 7.5 million dollars for research into homotopy type theory.

Another major achievement is the mechanized proof of the odd-order theorem. This theorem simply states that all finite groups of odd order are solvable. The first proof by Feit and Thompson filled an issue of the Pacific Journal of Mathematics and runs to well over 200 pages. The mechanization of this proof is a major milestone in mechanized reasoning and was achieved by a team led by Georges Gonthier of Microsoft Research.

Significant papers that appeared in the last year include Alessandro Facchini, Yde Venema and Fabio Zanasi. A characterization theorem for the alternation-free fragment of the modal mu-calculus (LICS 2013).

3. Significant Programs: As SIGLOG is only just chartered and its major event for the year (the FLoC conferences in Vienna) was just outside the time window we have no event to report in this report. We are the sponsor of the ACM-IEEE Annual Symposium on Logic in Computer Science but the 2013 edition of this conference was sponsored by SIGACT as SIGLOG was still under consideration at the time. We are actively seeking to associate with other conferences.

We have begun the publication of a Newsletter, edited by Andrzej Murawski which will feature 5 columns, the names of the column editors appear in parentheses: Verification (Andrey Rybalchenko), Security (Matteo Maffei), Complexity (Neil Immerman), Semantics (Mike Mislove) and Automata (Mikolaj Bojanczyk).

We also have a website which serves as a focal point for gathering and disseminating community news.

4. Innovative programs which provide service to our technical community:

We have founded an education committee which will seek to explore and advocate for the role of logic in computer science education. We are putting into place steps to organize the next FLoC in 2018. We are seeking to gather information on funding issues in North American and European countries and we hope to advise and influence the funding agencies.

5. Summary of key issues that the membership of SIGLOG will have to deal with in the next 2-3 years.

I quote from the SIGACT Annual Report for 2013:

"The role of the logic community within ACM needs to be resolved. This is a potentially large community that SIGACT brought into ACM with its co-sponsorship of LICS, but the fit is not an ideal one. SIGACT strongly supports the creation of SIGLOG, a logic-oriented SIG." We thank SIGACT and especially its Chair, Paul Beame for his support which was crucial to the formation of SIGLOG. SIGLOG now exists and the LICS conference is now a SIGLOG conference. The main issues now are getting the SIG going.

The fundamental issue for SIGLOG is raising the membership and making the community aware of the role and potential of SIGLOG. We are hoping to recruit members outside North America and Europe and are

considering ties with ACM-India for example. There is a large community: the Vienna Summer of Logic, in July 2014 attracted 2000 registrants. However, a large part of the community is in Europe and we need to ensure that the community does not view ACM as an "American" organization.

Research funding for our subject is always a fundamental concern. Gathering the community under one umbrella will help with the formation of a unified voice when it comes to convincing funding agencies of the importance of logic in areas like security and verification.

SIGMETRICS FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: John Lui

ACM SIGMETRICS had a strong and active year. In particular, we had our annual conference ACM SIGMETRICS'14, which was held in University of Texas at Austin, from June 16-20, 2014. Sigmetrics'14 had a strong and well-balanced technical program at the conference. We had topics from stochastic modeling to energy efficient computing to measurement study on Google Play. In Sigmetrics14, we presented a number of awards:

Achievement Award

ACM SIGMETRICS is pleased to announce the selection of Prof. François Baccelli of the University of Texas at Austin as the recipient of the 2014 ACM SIGMETRICS Achievement Award, in recognition of his fundamental contributions to stochastic geometry and to discrete-event dynamic system theory for the analysis of computer/communication systems.

Prof. Baccelli holds the Simons Chair in Mathematics and Electrical and Computer Engineering at The University of Texas at Austin. He joined UT Austin in August 2012 from École Normale Supérieure in Paris, where he was an INRIA Senior Researcher (INRIA is the French National Institute for Research in Computer Science and Control) and head of TREC, a research team investigating the modeling and control of communication networks. He has also held visiting positions at AT&T Bell Laboratories, UC Berkeley, Stanford and Cambridge. Prof. Baccelli is a member of the French Academy of Sciences and is a part-time researcher at INRIA.

Prof. Baccelli is a cutting-edge researcher at the intersection of mathematics, telecommunications, and information theory. His three main areas of research have been: wireless stochastic geometry, and in particular the development of SINR stochastic geometry for the analysis and optimization of cellular networks; discrete event dynamical systems based on the max-plus algebra; and the stationary-ergodic framework for stochastic systems. These three areas of research all relate to the theory and practice of computer/communication systems performance evaluation, yet they are clearly distinct areas of research, which make Prof. Baccelli's seminal contributions in each one of them all the more remarkable.

During the course of his career, he has forged and maintained deep industry connections with both telecommunication equipment vendors (Alcatel, Alcatel-Lucent, Qualcomm, and Intel) and service providers (Orange, France Telecom, and Sprint). In these collaborations, he has used his powerful theories to provide design insights and to guide communication system implementation and optimization.

Prof. Baccelli has also encouraged the careers of exceptional younger researchers, and contributed strongly to the performance evaluation community through his organizational skills and his leadership.

For more information about Prof. Baccelli, please visit his website: <http://www.ma.utexas.edu/users/baccelli/>

Rising Star Award

ACM SIGMETRICS is pleased to announce that Dr. Florian Simatos of INRIA has been selected as the recipient of the 2014 ACM SIGMETRICS Rising Star Researcher Award. Florian has made significant contributions to the area of performance evaluation of communication networks, in particular the design of efficient algorithms for cognitive radio networks and for constrained queueing networks. He has also provided methodological contributions for establishing heavy traffic approximations.

Florian obtained a bachelor's degree at the Ecole Polytechnique in 2004, followed by a master's degree at Stanford in 2005 and a PhD at INRIA in 2009. He then completed postdoctoral fellowships at the Center for Mathematics and Computer Science (CWI) and at Eindhoven University of Technology (TU/e). In January 2014, he returned to INRIA as a researcher, investigating branching processes and conducting performance analysis of distributed algorithms for medium access in wireless networks.

Florian's research sits at the boundary of the performance evaluation and applied probability, and he is an active member of both the ACM SIGMETRICS and INFORMS Applied Probability communities. Thus far in his career, Florian has published six conference papers (four at ACM SIGMETRICS) and 11 journal papers. He

was a co-author on the best paper at ACM SIGMETRICS 2010. He has served as a reviewer for numerous top quality journals and conferences. He has given over 20 invited talks on his research. In 2011, he co-organized a meeting of the Young European Queueing Theorists.

For more information about Dr. Simatos, please visit <http://www.di.ens.fr/~simatos/>

Test of Time Award

This year, the Test of Time Award goes to Stephen Blackburn, Perry Cheng, and Kathryn McKinley and their work is "Myths and Realities: the Performance Impact of Garbage Collection", which was published in Proceedings of ACM SIGMETRICS '04/PERFORMANCE '04.

This paper explores and quantifies garbage collection behavior for three canonical algorithms which encompass the key mechanisms and policies from which essentially all garbage collectors are composed. The study is unique in its breadth of garbage collection algorithms and its depth of analysis, and its observations are still resonating a decade after its publication.

This year, we have the following awards for the conference:

Best Paper Award :

Concave switching in single and multi hop networks
by Neil Walton (University of Amsterdam)

The Ken Sevcik Outstanding Student Paper Award

A Measurement Study of Google Play
by Nicolas Viennot (Columbia University); Edward Garcia (Columbia University); Jason Nieh (Columbia University).

Conference Activities

The annual ACM SIGMETRICS conference is the premier forum for performance evaluation research, which spans a wide range of application domains in computer and communication systems. This year, the ACM SIGMETRICS conference was held at University of Texas at Austin, from June 16-20, 2014. Professor Sanjay Shakkottai and Sujay Sanghavi from UT Austin were the general chairs, and they did a wonderful job in organizing every detail of the conference. They also did a good job in seeking out industrial donations, which helped the conference by providing more student travel grants. The technical co-chairs were Prof. Marc Lelarge (INRIA) and Bianca Schroeder (University of Toronto). Both of them spent a lot of time and effort in coming up with an exciting technical program.

The registered attendance for our event this year was around 160, which is a very good number for SIGMETRICS. We received healthy sponsorship from various companies so that we could reduce the conference registration fee. All in all, we expect to have a surplus, but the final amount is still under calculation.

The general feedback on the conference was very positive. The main conference and its related tutorials and workshops lasted five days.

This year, we have a smaller number of tutorials but the feedback on the tutorials was extremely positive. The tutorials were:

Algorithm Design for MapReduce and Beyond

Speaker: Sergei Vassilvitskii, Google

Abstract:

Traditionally we think of algorithms as running on data available in a single location, typically in main memory or on disk. In many modern applications, the data is often too large to reside in a single location (tera- and petabyte sized datasets are common). Processing such data requires new algorithms and new models of computation. In recent years, practitioners have turned to MapReduce-based systems, such as Hadoop, for large scale data analysis. The goal of this tutorial is to provide an overview of algorithmic advances in MapReduce algorithms.

We begin with the question of modeling MapReduce and then turn our attention to graph algorithms, where we show how fundamental algorithms, such as those for counting connected components, finding spanning trees and computing matchings can be implemented in this setting. We then tackle the large class of greedy algorithms and show how to adapt these seemingly sequential algorithms to MapReduce. Finally, we turn our attention to data mining algorithms such as those for clustering and social network analysis. We present new parallel-friendly approaches for these problems, and discuss how to handle other important practical considerations such as data skew.

Bandit Games

Speaker: Sebastien Bubeck, Princeton

Abstract:

In the recent years the multi-armed bandit problem has attracted a lot of attention in the theoretical learning community. This growing interest is a consequence of the large number of problems that can be modeled as a multi-armed bandit: ad placement, website optimization, packet routing, etc. Furthermore the bandit methodology is also used as a building block for more complicated scenarios such as reinforcement learning, model selection in statistics, or computer game-playing. While the basic stochastic multi-armed bandit can be traced back to Thompson (1933) and Robbins (1952), it is only very recently that we obtained an (almost) complete understanding of this simple model. Moreover many extensions of the original problem have been proposed in the past fifteen years, such as bandits without a stochastic assumption (the so-called adversarial model), or bandits with a very large (but structured) set of arms.

The tutorial will be divided into three parts: In the first part we discuss the state-of-the-art results on the basic multi-armed bandit problem (both stochastic and adversarial). In the second part the focus will be on continuously-armed stochastic bandits, with a Lipschitz assumption on the mean-payoff. Finally in the third part we consider the case of adversarial bandits, with a linear loss and a very large set of arms with some combinatorial structure.

Big Data Privacy: Threats, Countermeasures, and Incentives

Speakers: Ioannidis Stratis, Technicolor and Udi Weinsberg, Technicolor

Abstract:

Big data analytics are the cornerstone of numerous online services, underlying tasks such as targeted advertising, personalized recommendations and user profiling. The proliferation of user data collection practices that have enabled such services, along with several recent high-profile privacy breaches, have raised privacy concerns from consumer advocacy groups, regulatory bodies and the public at large. In turn, this has recently spurred an extensive research effort on both theoretical and practical aspects of privacy in big data analytics.

The purpose of this tutorial is to overview this nascent field along three different axes: threats, countermeasures, and user incentives. After a brief introduction of big data analytic techniques, we will cover privacy threats arising from their unfettered application on user data, focusing on case studies of private information leaks. We will then discuss methods for mitigating privacy risks, while still preserving the utility of deployed services. We will cover statistical methods, such as differential privacy, as well as cryptographic techniques applied to inference tasks such as regression and matrix factorization. Finally, we will conclude by discussing how to incentivize strategic users to relax their privacy constraints in return for monetary compensation. We will cover the formal setting of privacy auctions, and overview recent results for such auctions over different regression tasks.

We also had three workshops. They were:

- Greenmetrics Workshop 2014
- The joint Workshop on Pricing and Incentives in Networks and Systems (W-PIN+NetEcon) 2014
- The Workshop on Mathematical performance Modeling and Analysis (MAMA)

Overall, the attendance at the tutorials and workshops was very good, however, more effort is needed to improve the attendance for future new workshops. We emphasized this point in the SIGMETRICS executive meeting, in particular, whether we want to have workshops/tutorials in ACM FCRC'15.

This year's conference continues the long-standing SIGMETRICS tradition to publish the highest quality research on the development and application of state-of-the-art, broadly applicable analytic, simulation, and measurement-based performance evaluation techniques. We are pleased to present a diverse set of papers in areas such as sensor, mobile and wireless networks, queuing and scheduling, msocial networks, memory technologies, large-scale measurement studies, system tracing and monitoring, data center resource provisioning and energy management. Our authors hail from 13 countries on 4 continents and represent both academia and industry.

SIGMETRICS 2014 received 237 submissions, the second highest number since the founding of this SIG. Of these, we accepted 40 papers, the largest in the history of the conference, while still maintaining a highly competitive acceptance rate of 16.8%. During the review process, the Program Committee provided 4-6 reviews for each paper and made extensive use of HotCRP's Comment feature for online discussions. The Program Committee then met in person in a 1.5-day meeting on February 7-8, 2014, in Toronto, Canada, and selected 40 papers to be included as full papers in the technical program. In addition, 31 papers were invited as 2-page posters, and the authors of 30 of these papers accepted our invitation. As an experiment, we invited for the first time also all authors of full papers to present a poster version of their paper during one of the breaks at the conference to foster interaction between authors and attendees. We used Eddie Kohler's excellent HotCRP software to manage all stages of the review process, from submission to author notification.

The SIGMETRICS 2015 will be part of FCRC. The General Co-Chairs will be Prof. Bill Lin (UCSD) and Prof. Jun Xu (Georgia Tech). The program co-chairs will be Prof. Devavrat Shah (MIT) and Dr. Sudipta Sengupta (Microsoft Research).

New Journal

We completed our initiative for our SIG in proposing a new journal, ACM Transactions on Modeling and Performance Evaluation of Computing Systems (ACM ToMPECS). We got the final approval from ACM. The editors-in-chief will be Carey Williamson (University of Calgary) and Don Towsley (University of Massachusetts at Amherst). At this point, we have completed our editorial board and get ready for the first issue.

Issues and Challenges

An ongoing challenge for our SIG is the slowly declining membership, which has been a trend for many SIGs since the introduction of the ACM Digital Library. We hope that the new journal, our awards program, and our increased visibility from co-sponsored and "in cooperation" events will help to promote the value of SIGMETRICS membership, and allow us to grow our membership base in the years ahead. We are also exploring how to increase membership in regions outside USA/Europe, for example, one can consider the growing interest of performance evaluation in Asia (e.g., China, Taiwan, India, Singapore,...etc) as well as Australia.

Other issues that the officers are discussing:

- Should we change the submission format for SIGMETRICS conference and try to follow the VLDB format?
- Should SIGMETRICS slightly increase the number of papers, including long and short papers, so as to increase the size of our community and participation?
- How can we help our members to achieve senior membership in ACM, like ACM Distinguished Engineers or ACM Fellows ?

SIGMICRO FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Pradip Bose

The following are highlights of SIGMICRO's activities during fiscal year 2014.

SIGMICRO has worked to ensure the success of our flagship MICRO conference (in conjunction with co-sponsor, IEEE Technical Committee on Microarchitecture (TCμArch)). MICRO celebrated its 46th anniversary last year in Davis, CA. The conference offered an excellent technical program. Attendance was at or above levels seen in the past three years. SIGMICRO has also helped start and support several other major conferences since 2001: CASES, CGO, and Computing Frontiers. All are doing well as reported below. As also reported below, we have a strong program to encourage attendance at our conferences by students and those facing financial hardship, with numerous travel grants provided to help defray cost of attendance, in addition to heavily discounted student registration rates. SIGMICRO passed its viability review in March 2013 and as such its term was renewed for another four years.

SIGMICRO awarded plaques to the three 2013 inductees to the Micro Hall of Fame (<http://newsletter.sigmicro.org/micro-hof.txt/view>), Tor Aamodt, Andreas Moshovos and Karthikeyan Sankaralingam

SIGMICRO CONFERENCE Activities

MICRO-46: December 7-11, 2013

<http://www.microarch.org/micro46>

SIGMICRO's flagship conference was quite successful with an excellent registration count, somewhat above the "normal" target of about 300. The conference received 239 submissions from all over the world (~15 countries). Of the 239 submissions, 39 were accepted with a 16.3 % acceptance rate. There were also 3 workshops and 3 tutorials. As in MICRO-45, the main technical program included a "Lightning Session" as well as a "Poster Session" in addition to the regular paper presentations. The MICRO-46 allocated at least \$15,000 for student travel grants, of which \$7500 was committed by ACM SIGMICRO. As of July 1, 2014, all student reimbursement claims received by SIGMICRO were processed.

MICRO enjoyed excellent technical talks, keynotes, workshops, and tutorials. The local organization and facilities were adequate. SIGMICRO polled attendees using surveymonkey.com as in prior years. The satisfaction levels were a bit below the prior-year (Vancouver) offering – with regard to conference organization logistics (including meals). The SIGMICRO executive committee had a meeting in late January and early February 2014 to discuss the results of the survey and the technical quality of the conference. The committee did not feel the need to take any action regarding the improvement in organization for the next MICRO-47 offering. However, it was recommended that we be in touch with the General Chair no later than September 2014, to make sure that the Student Travel Grants are being administered in a timely manner.

Location: Davis, CA

Outing (including Banquet): California State Railroad Museum

General Chair: Matthew Farrens, UC Davis

Program Chair: Christos Kozyrakis, Stanford University.

Keynotes: Bryan Black, Senior Fellow, AMD; Talk Title: "Die Stacking is Happening."
Vidya Rajagopalan, VP of Processing Systems, Xilinx

3 Tutorials:

- *ESESC Simulation Framework:* Organizer/Presenter: Jose Renau (UC Santa Cruz).
- *GPUWatch Simulation Framework:* Organizers/Presenters: Nam Sung Kim (U of Wisconsin, Madison), Jingwen Leng (U of Texas, Austin), Tayler Hetherington (U of British Columbia).
- *Modeling and Parallel Simulation of Multicore Systems with Manifold:* Jun Wang, Sudhakar Yalamanchili Tom Conte, George Riley (all from Georgia Tech)

3 Workshops (compared to 8 in 2010):

- **NoCArc:** Workshop on Network on Chip Architectures
- **CARL:** Workshop on Intersections of Computer Architecture and Reconfigurable Logic
- **WoNDP:** Workshop on Near-Data Processing

Best Paper Award:

SAGE: Self-Tuning Approximation for Graphics Engines, Mehrzad Samadi, Janghaeng Lee, Davoud Jamshidi (University of Michigan), Amir Hormati (Google) and Scott Mahlke (University of Michigan) – selected from an initial set of six papers shortlisted by the PC chair and then voted upon by the full technical program committee.

Student travel: \$7500 + buffer of \$500 (if needed) as allocated for donation by SIGMICRO. This is in addition to other allocations from other sponsors.

CGO 2014: February 15 – 19, 2014

<http://www.cgo.org/cgo2014>; co-located with HPCA-2014 and PPOPP-2014

Also Co-Sponsored by ACM SIGPLAN.

CGO [Code Generation and Optimization] was held in San Jose, CA. Submissions: 103 papers; of which 20 were accepted (28%). CGO 2014 featured three keynotes a welcome reception / student poster session, and numerous workshops and tutorials. There were a total of 6 tutorials and workshops offered under CGO; and since this was a joint session of two other conferences, the attendees were able to avail of a total of 25 tutorials and workshops!

Location: Orlando, FL.

General Co-Chairs: Tip Moseley, Google; David Kaeli, Northeastern University

Program Chairs: Vijay Janappa Reddi, University of Texas at Austin
Scott Mahlke, University of Michigan

Keynotes: Mark D. Hill (University of Wisconsin, Madison)
Calin Cascaval (Qualcomm)
Norm Rubin (NVIDIA)

5 Tutorials:

- Programming Models & Compiler Optimizations
- LR(1) Parser Generator HYACC
- SPIR – A Standard Portable IR for OpenCL Kernel Language
- Inside X10: Implementing a High-Level Language for Large-Scale Distributed and Heterogeneous Platforms
- One VM to Rule Them All

1 Workshop:

- ODES-11: Workshop on Optimizations for DSP and Embedded Systems
- Keynote: David Whalley: "Energy Efficient Data Access Techniques."

Best Paper Award:

"Just-in-Time Software Pipelining" Hongbo Rong, Park Hyunchul, Youfeng Wu, Cheng Wang (Intel Labs)

Test of Time Award:

LLVM: A Compilation Framework for Lifelong Program Analysis and Transformation; *Chris Lattner and Vikram Adve. Proceedings of the 2004 International Symposium on Code Generation and Optimization (CGO'04), Palo Alto, California, Mar. 2004.*

Best Presentation:

Fix the code. Don't tweak the hardware: A new compiler approach to Voltage-Frequency scaling
Alexandra Jimborean, Konstantinos Koukos, Vasileios Spiliopoulos, David Black-Schaffer, Stefanos Kaxiras (Department of Information Technology, Uppsala University, Sweden)

CASES 2013: Sept 29 – Oct 4, 2013

<http://esweek.acm.org/esweek2013/cases/>

Also in cooperation with ACM SIGBED

CASES [Compilers, Architecture, and Synthesis for Embedded Systems] joined two other embedded systems conferences in 2006 to create a larger "ESWeek" grouping and promote cross-fertilization of efforts in the embedded area. The combination of conferences was a success, and ESWeek has been repeated ever since, with the 2013 version in Montreal, Canada. In all, 68 submissions were received, of which 21 were accepted

(for an acceptance rate of ~31%). This compares with a cumulative acceptance rate of 33% over the history of the CASES conference.

The historical profile of CASES submitted vs. accepted papers shows that in 2013 the number of submissions went up again slightly after a general period of decline since 2007. This is viewed as an encouraging sign.

Location: Montreal, Canada

One of 3 Conferences in Embedded Systems Week: <http://www.esweek.org>

- **CASES**
- CODES+ISSS (Co-sponsored by ACM SIGDA and SIGBED)
- EMSOFT (Sponsored by ACM SIGBED)

Plus 2 other Symposia:

- ESTIMedia: IEEE Symposium on Embedded Systems for Real-Time Multimedia
- RSP: IEEE International Symposium on Rapid System Prototyping

Program Chairs: Rodric Rabbah (IBM T. J. Watson Research Center),
Anand Raghunathan (Purdue University)

Keynotes:

Clas A. Jacobson, Chief Scientist, United Technologies Systems & Controls Engineering

Richard Schooler, Vice-President Software Engineering, Tiler Corp.

Michael Laurence, CEO and Co-Founder, Octasic, Inc.

Best Paper Awards:

CASES-2013:

"ILPc: A Novel Approach for Scalable Timing Analysis of Synchronous Programs" Jia Jie Wang, Partha Roop and Sidharta Andalam

CODES+ISSS 2013:

"Improving Polyhedral Code Generation for High-Level Synthesis" Wei Zuo, Peng Li, Deming Chen, Louis-Noel Pouchet, Shunan Zhong and Jason Cong

EMSOFT 2013:

"Safety Verification for Linear Systems" Sridhar Duggirala and Ashish Tiwari

Computing Frontiers 2014: May 22-24, 2014

<http://www.computingfrontiers.org/2014>

Computing Frontiers was held this year again in Cagliari, Italy. It continued to attract high quality papers on futuristic ideas on the frontiers of computing, with a program consisting of 28 full papers and 9 posters. Student travel grant awards were sponsored by SIGMICRO.

Location:

Cagliari, Italy

General Chair:

Pedro Trancoso, University of Cyprus, CY

Program Co-Chairs:

Diana Franklin, University of California at Santa Barbara

Sally McKee, Chalmers University of Technology, Sweden

Keynotes:

Bruce Jacob, University of Maryland

Gabriel Loh, AMD Corp.

David Bailey, University of California, Davis

Best Paper Award:

[Ali Javadi Abhari](#), [Shruti Patil](#), [Daniel Kudrow](#), [Jeff Heckey](#), [Alexey Lvov](#), Frederic T. Chong, [Margaret Martonosi](#): **ScaffCC: a framework for compilation and analysis of quantum computing programs.**

SIGMICRO FUTURE PLANS

We are working to improve the value of SIGMICRO to its members:

- Begun in 2008, SIGMICRO has been expanding the Micro Hall of Fame:
<http://newsletter.sigmicro.org/micro-hof.txt/view>. The Micro Hall recognizes those authors with 8 or more papers since the conference inception in 1967. Since 2010, SIGMICRO has presented plaques at the conference to recipients. The Hall of Fame currently has 42 members, with three new members inducted in 2013: Tor Aamodt, Andreas Moshovos and Karthikeyan Sankaralingam.
- In 2010, under the auspices of the larger ACM oral history project, the prior SIGMICRO chair Erik Altman oversaw the completion of the first round of the SIGMICRO Oral History Project. Yan Solihin of North Carolina State led the effort, working with historian Paul Edwards of the University of Michigan. Prof Edwards compiled excellent interviews with Bob Colwell and Edward Davidson. These interviews – both transcripts and oral recordings – are available on the SIGMICRO Newsletter site: <http://newsletter.sigmicro.org/sigmicro-oral-history-transcripts>. They contain a vast array of information from the personal (Bob Colwell growing up as one of six children of a milkman and Ed Davidson's fighting uncle to Intel's concern in the 1990s about the imminent demise of the x86 architecture in the face of the RISC onslaught and Ed Davidson's thoughts about advising graduate students.) Due to the unavailability of Yan Solihin, the SIGMICRO executive committee is now searching for a qualified and eager replacement. The goal is to continue this fine effort by adding on to the successful compilation already in place.
- The SIGMICRO Newsletter continues under the editorship of Russ Joseph, who is a member of the SIGMICRO Executive Committee.
- SIGMICRO has revamped its website, with continuous updates being provided by Jason Mars, who has been serving on the executive committee for the last couple of years.
- SIGMICRO has instituted a new Distinguished Service Award, which has been approved by the ACM SIG Board. The inaugural award is planned for 2014, to be given at MICRO-47 in December 2014.
- With support from SIGMICRO, the MICRO conference steering committee has started up a Test of Time Award, with inaugural year award planned for 2014 – to be given at MICRO-47 in December 2014. The current SIGMICRO chair, Pradip Bose, is part of the award committee, with Rich Belgard serving as chair.
- We have considered other ways to add value, some of which have been suggested by the prior term executive committee:
 - Increasing the allocation of surplus funds to provide for more student travel grants in SIGMICRO-sponsored conferences. The current executive committee has made a concerted effort to increase the level of student grants support for sponsored conferences.
 - Providing funded sponsorship of worthy forums that promote the participation of women and minorities in research areas of relevance to SIGMICRO. **For example, SIGMICRO has approved to be a sponsor of the CRA-W workshop in 2012, and has offered similar support in subsequent years – if requested.**
 - Providing simplified mechanism for ACM and SIGMICRO membership when registering for our flagship MICRO Conference.
 - Encouraging qualified members of SIGMICRO to become Senior and Distinguished ACM Members.
 - Providing a discount on SIGMICRO membership for members of other SIGs. Joint membership helps encourage cross-pollination of ideas and areas, which often leads to productive results.
 - Minimizing conflicts between conference dates.
 - Encouraging and developing SIGMICRO members to become ACM Distinguished Lecturers.
 - Reviving the effort to publish a few top SIGMICRO papers in CACM or proposing a new mechanism for highlighting the topmost SIGMICRO-relevant conference papers through a special issue in a reputed journal or magazine.

LEADERSHIP

The leadership of SIGMICRO reflects the new executive committee that took over from the prior one chaired by Erik Altman; the committee was re-appointed for two additional years beyond the original elected period of two years.

Chair:

Pradip Bose (*IBM*)

Vice-Chair:

David Brooks (*Harvard*)

Secretary-Treasurer:

Vijayalakshmi Srinivasan (*IBM*)

Members-at-Large:

Michael Gschwind (*IBM*) – *Industry Issues Editor*

Russ Joseph (*Northwestern University*) – *Newsletter Editor*

Milos Prvulovic (*Georgia Tech*) – *Chief Technical Strategist*

Erik Altman (*IBM*) – *Past Chair and SGB Liaison*

Jason Mars (*U of Virginia*) – *Website Editor*

SIGMIS FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Janice C. Sipior

Mission and Overview

SIGMIS is the Special Interest Group on Management Information Systems of the ACM. Members of SIGMIS are interested in information systems and technologies for management and the management of these systems and technologies. SIGMIS was founded in 1961 as the Special Interest Group on Business Data Processing and later was known as the Special Interest Group on Business Information Technology. SIGMIS publishes *The Data Base for Advances in Information Systems (Data Base, for short)* and holds the annual SIGMIS CPR conference dedicated to research addressing computers and people. SIGMIS also participates in the annual International Conference on Information Systems (ICIS) and the annual International Federation for Information Processing (IFIP) TC8 committee, as well as other conferences. SIGMIS promotes student achievement and partners with other organizations to provide services to members and to the profession.

Summary of Recent Accomplishments

During FY'14, some of the major events and accomplishments of SIGMIS include:

- Held the SIGMIS CPR Conference May 29-31, 2014 in Singapore
 - Awarded the "Magid Igharia Outstanding Conference Paper of the Year Award"
 - Held the SIGMIS Computers and People Doctoral Consortium
 - Provided travel grants to Doctoral Consortium participants
 - Held an Industry Panel and a Journal Editor's Panel
- At the International Conference on Information Systems (ICIS2013) in Milan, Italy from December 15-18, 2013
 - Sponsored the Doctoral Dissertation Paper Award
 - Held the SIGMIS Networking Reception
- Continued to represent ACM as a member of a select group to develop model curriculum for education in IS, both at the undergraduate and graduate level
- Continued to fund a representative to the International Federation for Information Processing (IFIP)

1. Awards

Beginning with ICIS 1995, SIGMIS became the sponsor of the ICIS MIS Doctoral Dissertation Award. In 2013, the award was given to Ben Eaton, supervised by Carsten Sørensen at the London School of Economics and Political Science, for the dissertation entitled "The Dynamics of Digital Platform Innovation: A Study of Modular and Architectural Innovation in Apple's iOS."

Beginning at the 2004 SIGMIS CPR conference, SIGMIS initiated the "Magid Igharia Outstanding Conference Paper of the Year Award." This year at the 2014 SIGMIS CPR Conference, the recipients were Deborah Armstrong, Florida State University, and Cindy Riemenschneider, Baylor University, for their paper entitled "The Barriers Facing Women in the Information Technology Profession: An Exploratory Investigation of Ahuja's Model."

2. Papers

SIGMIS held the SIGMIS CPR Conference May 29-31, 2014 in Singapore. The conference program is available from the SIGMIS CPR conference website at:

<http://www.sigmis.org/SIGCPR2014/cpr.html> or directly at:
<http://www.sigmis.org/SIGCPR2014/CPR2014Conference%20Program.pdf>.

Additionally, SIGMIS publishes *The Data Base for Advances in Information Systems (Data Base, for short)*, a quarterly peer-reviewed publication devoted to communicating advances in research and best practice in MIS. Beginning in January 2012, the editorship transitioned to Co-Editors-in-Chief Andrew Schwarz, Louisiana State University, and David Salisbury, University of Dayton. Colleen Schwarz of Louisiana State University is the Managing Editor. For information about *Data Base*, please visit the SIGMIS website at:
<http://www.sigmis.org/DataBase.html>.

3. Programs

Since 2006, SIGMIS has held the Computers and People Doctoral Consortium. This year's CPR Doctoral Consortium was held on Thursday, May 29, 2014 at the SIGMIS CPR Conference May 29 – May 31, 2014 in Singapore. Beginning with the CPR 2011 conference, SIGMIS is providing travel grants to Doctoral Consortium participants.

Beginning at the 2012 SIGMIS CPR conference, SIGMIS initiated two CIO panels. In 2013, these panels were transformed to an industry panel and a journal editor's panel, both continued in 2014.

4. Service to MIS Community

In conjunction with representatives of the Association for Information Systems (AIS), SIGMIS has been involved in the development of model curriculum for education in information systems both at the undergraduate and graduate levels. The latest version of the curriculum, IS 2010 Curriculum Guidelines for Undergraduate Degree Programs in Information Systems, was finalized. IS 2010 is available as a Communications of the Association for Information Systems (CAIS) article at <http://aisel.aisnet.org/cais/vol26/iss1/18>. The ACM news release is available at: <http://www.acm.org/press-room/news-releases/2010/is-2010-curriculum-report/view>.

Additionally, the ACM and the IEEE Computing Society are founders of the International Federation for Information Processing (IFIP). IFIP acts on behalf of member societies in carrying out international cooperation to advance the information processing profession. SIGMIS continues to fund the attendance of the ACM's representative for one of the annual meetings of IFIP to promote involvement among the membership of SIGMIS and IFIP.

5. Key Issues

We have interest in hosting the next several CPR conferences, including:

2015 Newport Beach
2016 Pittsburgh
2017 Frankfurt
2018 Bangalore or Buffalo

Now we need to increase attendance at this annual conference. We need to retain and attract new members. This requires formulating initiatives which will be seen as reasons to become a member.

SIGMM FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Shih-Fu Chang

1. Awards

SIG-wide awards:

- (1) SIGMM Technical Achievement Award 2013**
- (2) SIGMM Best PhD Thesis Award 2013**
- (3) SIGMM Rising Star Award (new, starting FY15)**

SIGMM Journal awards:

- (1) TOMCCAP Best Paper Award 2013**
- (2) TOMCCAP Best Associate Editor Award 2013**

SIGMM Technical Achievement Award 2013

At the flagship conference ACM Multimedia held in Barcelona October 2013, the SIGMM community enthusiastically celebrated exceptional achievements of a few colleagues receiving the prestigious SIGMM awards listed above.

First, Dr. Dick Bulterman was presented the 5th SIGMM Award for Outstanding Technical Contributions to Multimedia Computing, Communications and Applications (Technical Achievement Award for short). The award citation reads "*for outstanding technical contributions in multimedia authoring through research, standardization, and entrepreneurship.*" Dr. Dick Bulterman is currently the President and COO of FXPAL. Before that, he was a Research Group Head of the Distributed and Interactive Systems at Centrum Wiskunde & Informatica (CWI) in Amsterdam, The Netherlands. He was also a Full Professor of Computer Science at Vrije Universiteit, Amsterdam.

Dick Bulterman has been a long time intellectual leader in the area of temporal modeling and support for complex multimedia system. His research has led to the development of several widely used multimedia authoring systems and players. He developed the Amsterdam Hypermedia Model, the CMIF document structure, the CMIFed authoring environment, the GRiNS editor and player, and a host of multimedia demonstrator applications. In 1999, he started the CWI spinoff company called Oratrix Development BV, and he worked as CEO to widely deliver this software. In addition, he has also made significant contributions to the development and specification of the Synchronized Multimedia Integration Language (SMIL). His conference publications and book on SMIL have helped to promote SMIL and its acceptance as a W3C standard.

SIGMM Best PhD Thesis Award 2013

The SIGMM Best Thesis Award went to Dr. Xirong Li for his outstanding work entitled "Content-based visual search learned from social media." Dr. Li's work offered novel insights into the possibilities for realizing image retrieval solutions using vast information that can be drawn from the social media. His research led to successful learning of automatic image indexing mechanisms that can be made personalized for individual users. In addition to this award, Dr. Li has also received several significant awards including the IEEE Transactions on Multimedia Prize Paper Award 2012, Best Paper Nominee of the ACM International Conference on Multimedia Retrieval 2012, and the Best Paper Award of the ACM International Conference on Image and Video Retrieval 2010. He is currently an Assistant Professor in the Key Lab of Data Engineering and Knowledge Engineering, Renmin University of China.

SIGMM Rising Star Award (new award approved in 2013, starting in 2014)

Starting 2014, ACM SIGMM will present a "Rising Star" Award annually, recognizing a young researcher - an individual either no older than 35 or within 7 years of PhD - who has made outstanding research contributions to the field of multimedia computing, communication and applications during this early part of his or her career. We are very excited about this award and believe it will provide an opportunity for us to recognize the achievements of early researchers and support their further career advancement within and beyond SIGMM.

TOMCCAP Best Paper Award 2013

The EiC of TOMCCAP, Ralf Steinmetz, announced the 2nd ACM TOMCCAP Nicolas Georganas named award for Best Paper, published in the TOMCCAP journal, to honor the memory and outstanding work of Prof. Nicolas Georganas, the founder and first EiC of TOMCCAP, who passed away in July 2010. The award was given to the paper entitled "*Exploring interest correlation for peer-to-peer socialized video sharing*" (TOMCCAP vol. 8, Issue 1) authored by Xu Cheng and Jiangchuan Liu. Xu Cheng is currently a research engineer at BroadbandTV, Vancouver, Canada. Jiangchuan Liu is an Associate Professor in School of Computing Science, Simon Fraser University, British Columbia, Canada. In this paper the authors examine architectures for large-scale video streaming systems exploiting social relations. To achieve this objective, a large study of YouTube traffic was conducted and a cluster analysis performed on the resulting data. A new approach for video pre-fetching based on social relations has been developed. This important work bridges the gap between social media and multimedia streaming and hence combines two extremely relevant research topics.

TOMCCAP Best Associate Editor Award 2013

Our flagship journal, ACM Transactions on Multimedia Computing, Communications and Applications (TOMCCAP) acknowledges the work of the associate editors and gives out the TOMCCAP Best Associate Editor Award to an editor who provides most excellent services to authors and the community. In 2013, the award was given to Prof. Mohan S. Kankanhalli from the National University of Singapore. He is also the Associate Provost for Graduate Education at NUS.

At our SIGMM-sponsored conferences, we have given out numerous conference-specific awards to celebrate the outstanding research as follows:

1.1. ACM International Conference on Multimedia (ACM Multimedia)

The 21st ACM International Conference on Multimedia was held in Barcelona Catalunya Spain October 2013.

(1) Best Paper Award

Luoqi Liu, Hui Xu, Junliang Xing, Si Liu, Xi Zhou and Shuicheng Yan, National University of Singapore (NUS), "Wow! You Are So Beautiful Today!"

(2) Best Student Paper Award

Hanwang Zhang, Zheng-Jun Zha, Yang Yang, Shuicheng Yan, Yue Gao and Tat-Seng Chua, National University of Singapore (NUS), "Attributes-augmented Semantic Hierarchy for Image Retrieval"

(3) Grand Challenge 1st Place Award [Sponsored by Technicolor]

Brendan Jou, Hongzhi Li, Joseph G. Ellis, Daniel Morozoff-Abegauz and Shih-Fu Chang, Digital Video & Multimedia (DVMM) Lab, Columbia University, "Structured Exploration of Who, What, When, and Where in Heterogenous Multimedia News Sources"

(4) Grand Challenge 2nd Place Award [Sponsored by Technicolor]

Subhabrata Bhattacharya, Behnaz Nojavanasghari, Tao Chen, Dong Liu, Shih-Fu Chang, Mubarak Shah, University of Central Florida and Columbia University, "Towards a Comprehensive Computational Model for Aesthetic Assessment of Videos"

(5) Grand Challenge 3rd Place Award [Sponsored by Technicolor]

Shannon Chen, Penye Xia, and Klara Nahrstedt, UIUC, "Activity-Aware Adaptive Compression: A Morphing-Based Frame Synthesis Application in 3DTI"

(6) Grand Challenge Multimodal Award [Sponsored by Technicolor]

Chun-Che Wu, Kuan-Yu Chu, Yin-Hsi Kuo, Yan-Ying Chen, Wen-Yu Lee, Winston H. Hsu, National Taiwan University, Taiwan, "Search-Based Relevance Association with Auxiliary Contextual Cues"

(7) Best Technical Demo Award

Duong-Trung-Dung Nguyen, Mukesh Saini; Vu-Thanh Nguyen, Wei Tsang Ooi, National University of Singapore (NUS), "Jiku director: An online mobile video mashup system"

(8) Best Doctoral Symposium Paper

Jules Francoise, Institut de Recherche et Coordination Acoustique/Musique (IRCAM), "Gesture-Sound Mapping by demonstration in Interactive Music Systems"

(9) Best Open Source Software Award

Dmitry Bogdanov, Nicolas Wack, Emilia Gómez, Sankalp Gulati, Perfecto Herrera, Oscar Mayor, Gerard Roma, Justin Salamon, Jose Zapata Xavier Serra (UPF), "ESSENTIA: An Audio Analysis Library for Music Information Retrieval"

1.2. ACM International Conference on Multimedia Retrieval (ICMR)

The ICMR 2014 conference was a SIGMM-sponsored conference. This was the 3rd conference after the merger of ACM CIVR (Conference on Image and Video Retrieval) conference and ACM MIR (Multimedia Information Retrieval)

- **The best paper award** was received by *Subhabrata Bhattacharya, Felix Yu and Shih-Fu Chang* from Columbia University for the paper entitled "Minimally Needed Evidence for Complex Event Recognition in Unconstrained Videos."
- **The Best Student Paper Award** was received by Sean Moran and Victor Lavrenko from the University of Edinburgh for the paper entitled "Sparse Kernel Learning for Image Annotation".

1.3. ACM Multimedia Systems (MMSys) 2014

The MMSys 2014 conference was a SIGMM-sponsored conference. This was the 5th conference after MMSys was created as a follow-on conference to the now defunct MMCN (Multimedia Computing and Networking). MMCN was co-sponsored by SPIE/IS&T and ACM SIGMM. The MMSys 2014 was held in Singapore during March 19-21, 2014. MMSys had one special award this year:

- The **best paper** award was received by Philipp Schaber, Stephan Kopf, Christoph Wesch, and Wolfgang Effelsberg from the University of Mannheim, for the paper "CamMark - A Camcorder Copy Simulation as Watermarking Benchmark for Digital Video."

2. Significant Papers on New Areas That Were Published in Proceedings

The following paper published in ACM Multimedia 2013 was selected to receive the Best Paper Award. Since then, it has attracted a lot of attention and has been downloaded 3,600 times on ACM Digital Library since publication.

Liu, Luoqi, Hui Xu, Junliang Xing, Si Liu, Xi Zhou, and Shuicheng Yan. "Wow! you are so beautiful today!." In *Proceedings of the 21st ACM international conference on Multimedia*, pp. 3-12. ACM, 2013.

The paper presented a fully automatic system for hairstyle and facial makeup recommendation and synthesis, with live interactive demo shown at the demo session attended by a large number of people.

In MMSys14, a significant paper entitled below was selected to receive the best paper award. "CamMark - A Camcorder Copy Simulation as Watermarking Benchmark for Digital Video" by Philipp Schaber, Stephan Kopf, Christoph Wesch, and Wolfgang Effelsberg.

It presents a tool that mimics the process of "camcorder copy", where a camcorder is used to digitally record a video displayed on a screen. This tool not only enables reproducible evaluation in digital video watermarking research, it also eliminates the tedious process to manually produce a camcorder copy.

In ICMR14, the following paper addressed the fundamental problem in discovering the minimal evidences needed by humans to decide the occurrence of a complex event (such as birthday party or making foods). It developed novel interactive mechanisms for such discovery and demonstrated the utilities of such evidences in video retrieval.

Bhattacharya, Subhabrata, Felix X. Yu, and Shih-Fu Chang. "Minimally Needed Evidence for Complex Event Recognition in Unconstrained Videos."

3. Significant Programs That Provided a Springboard for Further Technical Efforts

Throughout the SIGMM-sponsored conferences we had several significant programs that provided a springboard for future technical efforts:

3.1. **ACM Multimedia 2013**

- Following the guidelines of the ACM Multimedia Review Committee, the conference was structured into 12 Areas, with a two-tier TPC, a double-blind review process, and a target acceptance rate of 20% for long papers and 27.7% for short papers.
- Multimedia Grand Challenges have been a very successful program at ACMMM conference. This year we continued the tradition and included 14 presentations addressing the emerging challenges identified by industry leaders:
 - NHK – Where is beauty? Grand Challenge
 - Technicolor - Rich Multimedia Retrieval from Input Videos Grand Challenge
 - Yahoo! – Large-scale Flickr-tag Image Classification Grand Challenge
 - Huawei/3DLife - 3D human reconstruction and action recognition Grand Challenge
 - MediaMixer/VideoLectures.NET – Temporal Segmentation and Annotation Grand Challenge
 - Microsoft: MSR – Bing Image Retrieval Grand Challenge
- Two keynote talks were presented

“**Multimedia Framed**” by Dr. Elizabeth F. Churchill (Ebay Research Labs), and

“**The Space between the Images**” by Prof. Leonidas J. Guibas (Stanford University).

- A panel on “Cross-Media Analysis and Mining” was presented including a few visionaries sharing their views on this exciting topic. The panelists are Mark Zhang, Alberto del Bimbo, Selcuk Candan, Alexander Hauptmann, Ramesh Jain, Alexis Joly, Yueting Zhuang.
- Brave New Ideas session addressed long term research challenges, pointed to new research directions, or provided new insights or brave perspectives that pave the way to innovation. This year we had 6 long papers presented in this BNI session.
- This year we have received 80 excellent technical demonstrations proposals, from which 40 demos were selected and shown to a large attendance group with very positive feedback.
- Another successful tradition at ACMMM is the Open Software Competition, which was the 6th edition this year. The goal of this competition is to recognize the invaluable contribution of researchers and software developers who advance the field by providing the community with implementations of codecs, middleware, frameworks, toolkits, libraries, applications, and other multimedia software. This year we included 11 presentations in this highly praised program.
- ACM Multimedia provided a rich **Multimedia Art Exhibition** to stimulate artists and researchers alike to meet and discover the frontiers of multimedia artistic communication. The Art Exhibition has attracted significant work from a variety of digital artists collaborating with research institutions. We have endeavored to select exhibits that achieved an interesting balance between technology and artistic intent. The techniques underpinning these artworks are relevant to several technical tracks of the conference, in particular those dealing with human-centered and interactive media. We had a satellite venue, FAD (Forment de les Arts i del Disseny), for the art exhibition located in the center of the city. The venue had a very good public access. The exhibition was open from Oct. 21 to Oct. 28 and visited by more than 2,000 visitors.

3.2. **ACM MMSys 2014**

For ACM MMSys 2014, we again expanded the breadth of the program by hosting one additional workshop, in complement to the now traditional existing two, NOSSDAV and MoVid. MMVE, the 6th Workshop on Massively Multiuser Virtual Environments, was added to MMSys as a venue for multimedia researchers who explore challenging questions related to virtual environments in various use cases such as serious and entertainment games, training, etc. This joint program worked out very well. The event again had one inclusive registration fee that allowed attendees to peruse the conference and all of the workshops. Attendees were able to attend two *interesting keynotes*. A joint NOSSDAV/MoVid 2014 keynote was presented by Douglas L. Jones from the Advanced Digital Sciences Center on the very refreshing topic of “**Biologically Inspired Audio**.” The second was

delivered by Dah Ming Chiu from The Chinese University of Hong Kong, who spoke on “**In Search of Insights**” about the modeling and analysis of Internet-based content distribution systems. Both keynotes were very well received.

3.3. **ACM TOMCCAP Special Issues**

ACM TOMCCAP published a special issue in October 2013 to celebrate the 20th anniversary of the flagship conference ACM Multimedia. 23 papers were published including the best paper candidates selected from ACM Multimedia 2012. It has attracted great interest with more than 4100 downloads from ACM DL so far. In addition, it published a special issue to highlight the extended Best Paper candidates selected from ACM MMSys 2013 and ACM NOSSDAV 2013.

4. **Innovative Programs Which Provide Service to Some Part of Your Technical Community**

Several SIGMM-sponsored conferences had innovative programs which provided service to technical community:

4.1. **ACM Multimedia 2013**

In attempt to continuously improve ACM Multimedia and ensure its vibrant role for the multimedia community, we have made a number of enhancements for this year's conference:

- The Technical Program Committee defined **twelve Technical Areas** for major focus for this year's conference, including introducing new Technical Areas for Music & Audio and Crowdsourcing to reflect their growing interest and promise. We have also changed the names of some traditional Technical Areas and provided extensive description of each area to help the authors choosing the most appropriate Technical Area for their manuscripts.
- We have introduced **a new role in the organization of the conference: the author's advocate**. His explicit role was to listen to the authors, and to help them if reviews are clearly below average quality. The authors could request the mediation of the author's advocate after the reviews have been sent to them and they had to clearly justify the reasons why such mediation is needed (the reviews or the meta-review were below average quality). The task of the advocate was to investigate carefully the matter and to request additional review or reexamination of the decision of the particular manuscript. This year, the author's advocate was Pablo Cesar from CWI, The Netherlands.
- We have decided to keep a couple of **plenary sessions** which will bring singular focus to conference activities: keynotes, Multimedia Grand Challenge competition, Best Paper session, Technical Achievement Award and Best PhD Award sessions. The other technical sessions are held in parallel to allow pursuit of more specialized interests at the conference. We have limited the number of parallel session to no more than 3 to minimize the risk of having overlapping interests.
- The use of **video spotlights** for advertising the works to be presented. These were meant to offer all attendees an opportunity to become aware of the content of each paper, and thus to be attracted to attend the corresponding poster or talk.
- Workshops and Tutorials are held on separate days from the main conference in order to reduce conflict with the regular Technical Program.
- **The Multimedia Art Exhibition** featured both invited and selected artists. It was open for the duration of the conference in the satellite venue located in the center of the city.
- Following the last two years' precedent, **Tutorials are made free for all participants**.
- Recognizing that students are the lifeblood of our next generation of multimedia thinkers, this year's **Student Travel Grant was greatly expanded**. We had a total amount of \$26,000 received from SIGMM (\$16,000) and NSF (\$10,000) that supported 35 students.
- Finally, we have decided to provide open access for the community to the proceedings available in the ACM Digital Libraries during the month after the conference date.

4.2. *ACM MMSys 2014*

MMSys 2014 continued with the gathering, advertising and disseminating of very interesting **datasets** (10 in total this time) such as a soccer video and player dataset, several DASH related datasets (Ultra High Definition HEVC DASH dataset, performance measuring dataset), social event detection dataset, and more. These datasets are hosted by UMass and have established themselves as a valuable resource for researchers in the field.

Continuing the archiving tradition that was started at MMSys 2013 in Oslo, for MMSys 2014 the organizers again managed to **record all presentations** and they will be available on YouTube. Participants who missed the event will be able to access the slides and presentation via videos and listen to material discussed and presented at MMSys 2014. Furthermore, student scribes were assigned to summarize the talks and the discussions that ensued after each presentation. The notes will be made available online on the MMSys website.

4.3. *ACM ICMR 2014*

The 4th ACM international conference on Multimedia Retrieval took place in Glasgow during April 1-4, 2014. The workshop and tutorial day opened the conference with two half-day tutorials and three workshops, which was a record number for ACM ICMR. Overall, more than 100 participants attended the first day.

On the second day, the main conference sessions started with a keynote on user experience and multimedia content by Susanne Boll, a professor of media informatics and multimedia systems in the Department of Computing Science at the University of Oldenburg. The papers of the main track covered the core topics of the field. ICMR 2014 today is evidence that multimedia retrieval research has become a mature and distinct field in its own right. For example, ICMR 2014 papers on automated image annotation made use of innovative cross-media models, tackled large classes of images, and utilized social activities, all while reporting better image annotation performance than ever before. At the other end of the spectrum from theory and practice is work that exploits the user and capitalizes on intuitive interfaces that allow the exploration of multimedia collections—whether they contain videos, celebrities, 3D models, citizen science data, or social media TV snippets. Much of this work was shown in demos at ICMR 2014. This year, ICMR also had one special session with research papers on the theme of user-centric video search and hyperlinking.

On Friday, 4 April, an industry day opened with a panel discussing the past, present, and future of multimedia retrieval. Industry representatives also gave talks on recent advancement in product, tools, and services. Chordify's Bas de Haas showed how music analysis and retrieval can help to play the chords of your favorite music song. Rogerio Feris of IBM talked about the latest results in multimedia surveillance applications; Alexandr Krainov of Yandex, Russia talked about Yandex video retrieval techniques; Matthew Cooper of FXPAL discussed the over emphasis of quantitative evaluation & interesting augmented reality; and Pieter van der Linden of Technicolor, the Netherlands, talked about the latest advances made through the [Quaero program](#). Another interesting event was the panel on "Recommendation Systems have taken Control: Is Multimedia Retrieval still Relevant?"

5. **Events or Programs That Broadened Participation**

5.1. *Local Chapter Activities*

This year we established a new local chapter in the Bay Area of California, which has hit the ground running since creation. Led by the energetic chapter chair, Dr. Qiong Liu of FXPAL, the group has organized several extremely successful events. The local chapter was established to serve the multimedia researchers in the SF Bay Area. Many joined startups and product teams at large companies, and so do not have time to travel to academic conferences. However, they want to meet other peers to exchange ideas. They want to attend short, more frequent, local meetings. In addition, professors from local universities or universities in other states/countries want a forum at which to meet industrial researchers to expose their ideas to researchers and have more interaction with industry. They also want to learn about real problems that industry wants to solve to guide their future research. To fit everyone's tight schedules, short but more frequent meetings are preferable. To meet these needs, we started Bay Area Multimedia Forum series through collaboration with IEEE TCMC, IEEE TCSEM, FXPAL and PARC. From last November till now, we hosted four events (First BAMMF in FXPAL on November 7th 2013, second BAMMF in PARC's George E. Pake Auditorium on February 4th 2014, third BAMMF in PARC's George E. Pake Auditorium on May 27th 2014, and fourth BAMMF

in Gates Building in Stanford on June 20th 2014). In the first three events, we had two keynote talks and two short talks for each event. In the fourth event, we had one keynote talk and 11 short talks. The number of registered participants of these four events are 50 (room capacity), 143, 126, and 206 (room capacity) respectively. All these events are recorded by professionals and posted on the website www.bammf.org so that people at other locations can watch them.

The SIGMM China Local Chapter (currently 50+ members) organized its flagship conference, the Sixth International conference on Internet Multimedia Computing and Service (ICIMCS 2014) during July10-12, 2014 in Xiamen, China. ICIMCS 2014 is a forum for researchers from the academia and the industry, professionals, standard developers to exchange information on the state-of-art of internet multimedia information processing technologies and applications, as well as to identify the emerging research topics and define the future of multimedia information computing from internet. There are totally 21 oral, 48 poster, and 24 special session papers presented at the event. 100+ attendees from more than 10 countries attended. David Ayman Shamma (senior fellow of the American Academy of Yahoo) and Sun-Yuan Kung (IEEE fellow, professor of Princeton University) gave keynote speeches in the conference.

6. Brief Summary for the Key Issues That the Memberships of SIGMM Will Have to Deal with in the Next 2 Years

Going forward, we are expecting to address the following key issues.

- We continue to seek the best strategies for maintaining the leading position of SIGMM in terms of reputation, technical innovation, broad impacts, membership services, diversity, and education. We are organizing a retreat on November 3rd 2014 to review the state of SIG and develop best strategies and execution plans.
- SIGMM is positioned nicely in the growing field of Big Data. But we need to significantly grow and articulate the strategic foci of SIGMM in both discipline foundations and grand challenge applications. This will be among the most important topics in the upcoming retreat and conference steering committees.
- We need to continue finding best ways of attracting and nurturing young members. To this goal, we are pleased to see the success in creating the SIGMM Rising Star Award, which is in the process of selecting the awardee in its inauguration year.
- We continue to provide best support to increase participation of female researchers and members from diverse groups. We held a very successful lunch at ACMMM 2013 for Women Researchers in Multimedia. Senior leaders from academia and industry joined the face-to-face informative session to provide advices for career planning and professional development. We set aside student travel grants for female students. Inspired by the successful programs organized in events like Grace Hopper Celebration of Women in Computing, we will develop additional programs focusing on career building and leadership skills for Women in Multimedia.
- Continue to expand the industry participation at SIGMM conferences. We had 10 industry sponsors and 4 institutional sponsors in ACMMM 2013. With the growing interest in this field, we should be able to further expand this.
- Two of the three major conferences of SIGMM are already placed with top ranks on the China Computer Federation (CCF) list. We will seek to add another conference ACM MMSys to the list, as this will raise its profile in China and allow more researchers to target MMSys for their submissions (as they will then be counted in their tenure and promotion processes).
- The Art Exhibition component at the premiere ACM Multimedia conference continues to draw broad interest and participation, but the financial model for sustaining its operation continues to be challenging partly because of the extra requirements of setting up the space and facility. We will learn the best practices from sister SIGs and develop sustainable solutions that allow us to maintain this unique and attractive tradition.

- Strengthen the relation between SIGMM conferences and journals (TOMCCAP). We have enjoyed great recognition of the quality and impact of our conferences, but we need to encourage more interaction and collaboration between journals and conferences. This will help raise the profile of the SIGMM journal and provide a timely venue for dissemination of extended content beyond the conference papers.

7. Other Highlights in SIGMM Activities

- ACM Multimedia 2013 continued as a very vibrant program, attracting 544 participants in the conference and workshops and more than 2,000 visitors to its Art Exhibition program
- We started a new initiative at ACM Multimedia 2013 to gather opinions from the participants. We performed a post-conference survey and the results are analyzed and summarized. The effort to gather all this information is the first of its kind at ACM Multimedia and we hope this tradition will be continued in the future. The results of the survey represent in our opinion a very good source of information for the future organizers.
- We created a new SIG-wide recognition, ACM SIGMM Rising Star Award. The inauguration award will be given in 2014
- We are seeing very vibrant programs organized by SIGMM local chapters. The Bay Area Chapter has organized 4 successful workshops within a very short period of time, attracting more than 200 attendees (limited to room capacity). The China Chapter continued a successful annual conference held in Xiamen this year with more than 100 attendees. Earlier this year we have also started a local chapter in Taipei.
- Based on the Chinese Computing Federation Conference Ranking (2013): ACM ICMR is the *1st ranked Multimedia Retrieval conference* in the world and the *4th ranked conference in the category of multimedia and graphics*. This year, it also attracted the largest number of attendants in its history with a wonderful program held in Glasgow UK.
- In addition to the quarterly membership communication, SIGMM Records, we revamped the content of the weekly broadcast communication with clear focuses on jobs, CFP, and top downloaded papers. This is intended to disseminate information of broad interest to the community in a timely manner.

SIGMOBILE FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Suman Banarjee

Introduction

SIGMOBILE is the ACM Special Interest Group on the Mobility of Systems, Users, Data, and Computing. Engaging with the mobile industry, academic, and government research communities, its scope includes all aspects of mobile computing and communications, such as mobile systems and applications, wireless networking protocols and algorithms, and mobile information access and management. In 2013 mobile computing is a fast moving, topical, and exciting area of computer science and engineering. Supporting the mobile research community, SIGMOBILE sponsors many successful conferences and workshops that are well attended by its members and generating high-quality and widely cited publications.

These are valuable services for SIGMOBILE's members and the community, resulting in a strong Special Interest Group, with about 650 members, and with positive income with a projected fund increase of 11.5% in the last year. In the spring of 2013, SIGMOBILE held its leadership elections, resulting in a new Executive Committee taking the helm on July 1st, 2013.

The new elected officers in SIGMOBILE's Executive Committee (EC) are listed below:

- Chair: Prof. Suman Banerjee (University of Wisconsin-Madison)
- Vice Chair: Prof. Lili Qiu (University of Texas at Austin, USA).
- Secretary: Dr. Alec Wolman (Microsoft Research, Redmond)
- Treasurer: Prof. Marco Gruteser (Rutgers University)

Following SIGMOBILE's bylaws, Roy Want (Google Inc.) remains on the Executive Committee as Past Chair. We thank the out-going committee for their hard work and valuable service to SIGMOBILE.

The previous officers and out-going elected Executive Committee are:

- Chair: Dr. Roy Want (Google Inc, USA);
- Vice Chair: Prof. Robert Steele (University of Sydney, Australia);
- Secretary: Prof. Ramesh Govindan (University of Southern California, USA); and
- Treasurer: Prof. Lili Qiu (University of Texas at Austin, USA).

The out-going Past Chair is Prof. David B. Johnson (Rice University, USA). This marks the end of Dave's continuous run of EC service to SIGMOBILE (although we hope not the end of his unofficial service to SIGMOBILE), holding SIGMOBILE executive committee positions for the last 16 years. We thank him for his extensive contributions and source of sage advice for the SIG.

Committee Appointed Positions

SIGMOBILE's leadership has four committee appointed positions:

- Editor-in-Chief (EIC) for SIGMOBILE's journal/newsletter for our members (Mobile Computing and Communications Review or MC2R), Prof. Eyal de Lara (University of Toronto, Canada)
- Information Director: Dr. Sharad Agarwal (Microsoft Research) – This is a New Appointment. The SIG thanks Prof. Robert Steele (University of Sydney, Australia), the out-going Information Director who served in this role for 8 years.
- Digital Library Coordinator: Dr. Guanling Chen (University of Massachusetts Lowell, USA),
- Award Committee Chair: Edward W. Knightly (Rice University, USA)

SIGMOBILE Mobile Computing Research Fund (MCRC)

In January 2012 SIGMOBILE established the Mobile Computing Research Community (MCRC) fund to support research projects and activities that have wide benefit to the mobile research community. We solicit proposals for these awards based on the guidelines presented below:

Guidelines

MCRC proposals will typically support the following kinds of activity:

- Research data or benchmark archive. e.g. CRAWDAD at Dartmouth
- New community software: e.g. CAD, mobile research tools
- Maintenance of software already used by the community
- Education support for mobile computing
- Student conference sponsorships
- Open collaborative research project funding

Call for Proposals

Submission Process

Using the format described here, proposals should be sent by email to the SIGMOBILE executive committee using the email address: sigmobile-mcrfund@acm.org. All proposals must have an a priori established SIGMOBILE Executive Committee member who is prepared to champion the proposal during the selection process. The committee endeavors to review a proposal, and either accept or reject a proposal within 1 month of submission.

Funding Criteria:

- The proposal must be submitted by a SIGMOBILE member
- The project proposal must be judged to be of high-quality by the SIGMOBILE Executive Committee
- The project must be relevant to, and provide value for, a wide cross-section of the SIGMOBILE membership.
- An award should not exceed \$20k in a calendar year.
- A proposal must be for a specified period of time, but not exceed 3 years.
- For proposals longer than one year, a 2-page report must be generated each year summarizing its achievements. Continued funding will be conditional on a positive review of the annual report by the Executive Committee.
- The project must disseminate its results to SIGMOBILE members through either the sigmobile.org website, MC2R quarterly publication, or at one of SIGMOBILE's sponsored conferences or workshops.
- SIGMOBILE will not pay for hosting organization overhead fees, only for items that directly contribute to the project.

Proposals should include:

- Title: What is the project to be called?
- Subject matter: What is the purpose of this project?
- People: Who speaks for, and takes responsibility for this project? Who else is on the team? What are their qualifications, or track-record for carrying out this project?
- Requested Award: The total amount requested
- Duration: Will this project need on-going, continual funding? If so, how many years of seed money are being sought, and what is the plan for continuing funding?
- Schedule: When will it start and end?
- Prior work: What work has already been done in this area and how will this project build on it?
- Relevance: What SIGMOBILE membership is this project relevant to? Do they have similar projects already underway? How will they be involved?
- Potential value: What is the potential value of the proposed project to SIGMOBILE members?
- Deliverables: What will be the outcome of the project?
- Delivery vehicle: Who is the audience for this outcome? How will these people be informed of the outcome? Where applicable, how will they get access to it?
- Additional funding: Have you considered other sources of funding? Will someone match SIGMOBILE MCRC Funding?
- Dependency: What other things does the successful completion of this project depend upon?
- End-game: How will you know the project has succeeded?

Format

- Proposals should be 3 US-letter size pages typed in 10-pt Arial font. Additional supporting material such as CVs, resumes, figures or papers may be included in an appendix

ACM Mobility Tech Pack

ACM Tech Packs are "innovative learning packages by subject experts for serious computing professionals", basically an annotated reading list of the most useful papers for students or professionals wanting to enter the field or refresh their knowledge about the latest significant publications in the area. The Mobility Tech Pack was created by the SIGMOBILE EC and has been available on the ACM website since the beginning of 2012; it can be found at the link <http://techpack.acm.org/mobility/>. SIGMOBILE is committed to keeping the Tech Pack up to date as the subject evolves over time.

Sponsorship for the Mobile Computing Research Community

In 2013-2014, SIGMOBILE has provided sponsorship in the form of financial support for three programs in the mobile computing research community:

- **The Community Resource for Archiving Wireless Data At Dartmouth (CRAWDAD)** continues to be a thriving resource for the SIGMOBILE community. As of mid-June 2014, it contains 96 databases, each containing one or more traces about wireless networks or mobile users, and 19 tools, many of which are designed to help researchers work with such datasets. There were 10 new datasets or tools released since the last report, and there are currently 6 datasets in the pipeline for release. There are now over 6,200 users from 101 countries around the world – 6 new countries since last year's report! CRAWDAD continues to be popular, with more than 1,000 new users registering within the past year. Although the primary archive is at Dartmouth, the CRAWDAD site and data are mirrored on servers located in the UK and Australia to guarantee uninterrupted service, and fast downloads to users all around the world.

CRAWDAD data has supported over 1,217 papers in the field, and continues to be the go-to place for authors wishing to share data they've collected, or to obtain data they can use for testing their system prototypes and algorithms. SIGMOBILE support makes it possible for the CRAWDAD project to retain a technical staff person (part time) to maintain the site. Our new "self-serve" website allows contributors to provide all the metadata needed to release a dataset, and we continue to streamline the process of releasing a new dataset. Furthermore, our rewritten website has a dramatically simpler underlying framework that will make it more robust, easier to maintain, and easier to set up mirror sites. We also moved CRAWDAD to a new server for speedier access.

- **Networking Networking Women (N² Women)** is a discipline-specific community for researchers in the communications and networking research fields. The main goal of N² Women is to foster connections among the under-represented women in computer networking and related research fields. N² Women allows women to connect with other women who share the same research interests, who attend the same conferences, who face the same career hurdles, and who experience the same obstacles. To assist in our networking goals, N² Women has an email list for the group: N2Women@acm.org. There are currently 687 members of N² Women.

N² Women is an [ACM SIGMOBILE](#) program that has been financially supported by SIGMOBILE, [Microsoft Research](#), [HP Labs](#), NSF, IEEE CS TCCC, and CRA-W. In the past year, funds from SIGMOBILE were requested for two purposes. First, we requested SIGMOBILE funds to continue our successful N² Women Student Fellowship program. A student applies for a Fellowship and, if selected, N² Women partially covers the student's travel cost (up to \$500) to a conference where an N² Women event will be held. In exchange, the student must help organize the N² Women meeting. The benefit of doing the organization, in addition to the travel funds, is for the student to connect with the organizers of the conference who are, typically, leaders in the research field. We arrange for a senior member of N² Women to assist/mentor the student in this task.

Since June 2013, there have been 11 N² Women Student Fellows who organized N² Women events at prestigious conferences, with two more planned in near future. The following lists details the Student Fellows and the conferences where the N² Women meetings were held:

- ICC 2013: Anna Zakrzewska, DTU Technical University of Denmark

- MobiHoc 2013: Diala Naboulsi, INSA Lyon – INRIA
- SECON 2013: Fatemah Afghah, University of Maine
- SIGCOMM 2013: Wenxuan Zhou, UIUC
- MobiCom 2013: Israat Tanzeena, University of Alberta
- MobiCom 2013: Raqeebir Rab, Concordia University
- SenSys 2013: Martina Brachmann, Technische Universität Darmstadt, Germany
- INFOCOM 2014: Yan Zhang, University of Arizona
- IPSN 2014: Rajagopal Niranjini, Carnegie Mellon University
- WoWMoM 2014: Ozlem Bilgir Yetim, Princeton University
- MobiSys 2014: Aarathia Prasad, Dartmouth College

Upcoming:

- SECON 2014: Aly Heba, Alexandria University, Egypt
- MobiHoc 2014: Jelena Marasevic, Columbia University

Second, SIGMOBILE funds were requested to help fund the 4th Networking Networking Women Workshop. This workshop is in the planning stage and will be held in conjunction with SIGCOMM on August 17, 2014 in Chicago, Illinois. We are expecting approximately 70 attendees.

In all N² Women announcements, SIGMOBILE (and other sponsors of N² Women) are thanked. Further details of N² Women are available at: <http://committees.comsoc.org/n2women/>

.ACM-W: In 2013, SIGMOBILE continues to sponsor ACM-W (ACM's Women in Computing organization). "ACM-W's mission is to celebrate, inform and support women in computing, and work with the ACM-W community of computer scientists, educators, employers and policy makers to improve working and learning environments for women." This is an organization that the Executive Committee (EC) whole-heartedly supports. Women in CS education can request sponsorship for SIGMOBILE conferences, and for eligible cases, the EC will provide sponsorship for travel and registration.

SIGMOBILE Conferences and Workshops

SIGMOBILE currently sponsors or co-sponsors five annual conferences, all recognized as the premier conferences and focus areas within 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.
- **Ubicomp:** The International Conference on Ubiquitous Computing, addresses the interdisciplinary field of ubiquitous computing, which utilizes and integrates pervasive, wireless, embedded, wearable and/or mobile technologies to bridge the gap between the digital and physical worlds. Ubicomp has been held every year since 1999, and SIGMOBILE began sponsoring it in 2009.

MobiCom 2013, the 19th Annual International Conference on Mobile Computing and Networking, was held at Hyatt Regency Miami, Miami, FL. The General Chairs was Summi Helal, and the Program Co-Chairs are Ranveer Chandra and Robin Kravets.

The technical program featured two plenary speakers: Flavio Bonomi (Cisco Fellow & Vice President at Cisco) on the evolution of mobility and wireless technologies and Victor Bhal (Microsoft Research) for his outstanding contributions award talk.

The MobiCom 2013 program also included two days of workshops

On Monday, September 30:

- The 5th Wireless of Students, by Students, for Students Workshop (S3 2013)
- The 8th ACM International Workshop on Challenged Networks (CHANTS 2013)
- The 8th ACM International Workshop on Wireless Network Testbeds, Experimental evaluation and Characterization (WiNTECH 2013)
- The Workshop on Lowest Cost Denominator Networking for Universal Access (LCDNet 2013)

And on Friday, October 4th:

- The 8th ACM International Workshop on Mobility in the Evolving Internet Architecture (MobiArch 2013)
- The 2nd ACM International Workshop on Mission-Oriented Wireless Sensor Networking (MiSeNet 2013) ([CFP](#))
- The 1st ACM Workshop on Cognitive Radio Architecture for Broadband (CRAB 2013)

MobiCom 2014 will be held September 7-11th at 30th – October 4th at Westin Maui Resort and Spa in Maui, Hawaii. The General Chair is Sung-Ju Lee (Narus Inc.), and the Program Co-Chairs are Ashutosh Sabharwal (Rice University) and Prasun Sinha (Ohio State University).

MobiHoc 2013, the 14th International Symposium on Mobile Ad Hoc Networking, was held at the LaLit Ashok hotel Bangalore, India, July 29th to August 1st 2013. The General Chairs were A. Chockalingam (Indian Institute of Science, Bangalore) and D. Manjunath (Indian Institute of Technology, Bombay). The Technical Program Chairs will be Massimo Fanceschetti (UC San Diego) and Leandros Tassiulas (University of Thessaly/CERTH).

Also, the MobiHoc 2014 conference will be held in August 2014 in Philadelphia, PA, USA.

MobiSys 2014, the 12th International Conference on Mobile Systems, Applications, and Services, was held June 16 – 19, 2014 at the Mount Washington Hotel in Bretton Woods, New Hampshire. The General Co-Chairs were Andrew Campbell and David Kotz (Dartmouth College) and the Co-Program Chairs were Landon Cox (Duke University) and Morley Mao (University of Michigan).

The MobiSys program also featured 3 workshops, a tutorial, and a PhD Forum on Tuesday, June 25th.

- The ACM Workshop on Mobile Augmented Reality and Robotic Technology-based Systems (MARS)
- The ACM Workshop on Physical Analytics
- The 5th ACM Workshop on Mobile Cloud Computing and Services (MCS)
- PhD Forum on Mobile Systems, Applications, and Services

SenSys 2013, the 10th ACM Conference on Embedded Networked Sensor Systems, was held November 11-15th, 2013, in Rome Italy. General Chair: Chiara Petrioli (University of Rome 'La Sapienza') and Program Co-Chairs, Landon Cox (Duke University) and Kamin Whitehouse (University of Virginia).

There were three workshops and a Doctoral Colloquium:

- BuildSys'13: The 5th ACM Workshop on Embedded Sensing Systems for Energy Efficiency in Buildings
- ENSSys'13: The 1st Workshop on Energy Neutral Sensing Systems
- SenseMine'13: The 1st Workshop on Sensing and Big Data Mining
- Doctoral Colloquium (Chaired by Cecilia Mascolo)

In 2013, ACM Ubicomp, the 14th International Conference on Ubiquitous Computing, merged with the long running independent Pervasive computing conference and became Ubicomp 2013. The conference was held 8th – 12th September, 2013, in Zurich, Switzerland. The General Chairs were Friedemann Mattern (ETH Zurich, CH) and Silvia Santini (TU Darmstadt, DE) and the Program Co-Chairs will be John F. Canny (UC Berkeley, USA), Marc Langheinrich (University of Lugano, CH), and Jun Rekimoto (University of Tokyo, Japan). Ubicomp workshops were held on 8th and 9th of September:

- [Second Workshop on Wearable AR Systems for Industrial Applications](#)

- HomeSys 2013: Workshop on Design, Technology, Systems and Applications for the Home
- [AwareCast 2013: Second Workshop on Recent Advances in Behavior Prediction and Pro-active Pervasive Computing](#)
- [SOFTec 2013: Second Workshop on Computer Mediated Social Offline Interactions](#)
- [UbiMI'13: Second International Workshop on Ubiquitous Mobile Instrumentation](#)
- [HiCUE 2013: Workshop on Human Interfaces for Civic and Urban Engagement](#)
- PURBA 2013: The Third International Workshop on Pervasive Urban Applications
- Atelier of Smart Garments and Accessories
- [Green Food Technology: Ubicomp opportunities for reducing the environmental impacts of food](#)
- [Recognise2Interact: First Workshop on Human Factors and Activity Recognition in Healthcare, Wellness and Assisted Living](#)
- [ASPI 2013: International Workshop on Adaptive Security & Privacy management for the Internet of Things](#)
- [PeTRE: Workshop on Pervasive Technologies in Retail Environments](#)
- HASCA 2013: International Workshop on Human Activity Sensing Corpus and its Application
- [CoSDEO 2013: Device-Free Radio-Based recognition](#)
- [PUCAA 2013: First International Workshop on Pervasive Urban Crowdsensing Architecture and Applications](#)
- [MCSS 2013: Second Workshop on Mobile Systems for Computational Social Science](#)
- [WoT 2013: Fourth International Workshop on the Web of Things](#)
- [PerFab 2013: Workshop on Personal and Pervasive Fabrication](#)
- [SenCity: Uncovering the Hidden Pulse of a City](#)

In addition to the conferences and co-located listed workshops above, SIGMOBILE also sponsors the HotMobile workshop (previously WMCSA) as a stand-alone event, not co-located with a conference. The HotMobile workshop series 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. The Executive Committee encourages the MobiCom Program Committee meeting be collocated with HotMobile to ensure that a representative selection of senior researchers attend the event. This workshop was previously sponsored each year by the IEEE Computer Society, but has been sponsored only by ACM SIGMOBILE since HotMobile 2008.

HotMobile 2014, the 15th International Workshop on Mobile Computing Systems and Applications, was held February 26-27th, 2014, in Santa Barbara, California, USA. The General Chair is Matt Welsh (Google Inc), and the Program is Chair Stefan Sariou (Microsoft Research).

SIGMOBILE also sponsored the following high-value additional events over the last year. These are annual decisions and sponsorship one year does not guarantee support in a following year. If the standard remains high, SIGMOBILE is however likely to continue with its support.

- PerDis'2014: The 3rd International Symposium on Pervasive Displays, June 4-5th, 2013 at the Google campus in Mountain View, California, USA.
- WUWNet 2013: The 7th ACM International Workshop on Underwater Networks, November 5-6th, 2012, Los Angeles, California, USA.

Each year, SIGMOBILE is also "in-cooperation" with a number of events sponsored by other organizations. Events offered "in-cooperation with" SIGMOBILE allow its members to register at the same discounted rate as for members of other sponsoring organizations for the event, providing a significant savings to SIGMOBILE members. During this past year (July 2012 through June 2013), SIGMOBILE was in-cooperation with the following events:

- The 6th International Conference on COMmunication Systems and NETworkS (COMSNETS 2014), Bangalore, India, 7-10 January, 2014
- Wireless Health Conference (Wireless Health 2013), Baltimore, MD, USA, November 1-3, 2013

SIGMOBILE continues to be fortunate to receive strong support for its conferences and workshops in the period July 2013-2014, from leading-edge companies and organizations from around the world. This last year, many

organizations have contributed to SIGMOBILE conferences and workshops, helping to ensure their success. These include the following:

Alcatel-Lucent, Airtight Networks, AquaSeNT, Brocade, CDAC, Comsnets Association, Dartmouth College, Extreme Networks, Facebook, Google, HP, HTC, IBM, Intel, Microsoft Research, National Taitung University, National Sun Yat-Sen University, Nokia, Tata Consultancy Service, Tejas Networks, Telefonica, Qualcomm, UBICITEC, University di Roma Sapienza, University of Florida, US National Science Foundation, and US Office of Naval Research.

As always, SIGMOBILE is sincerely grateful for all contributions.

SIGMOBILE Publications

In addition to the proceedings for each of the conferences and workshops that SIGMOBILE sponsors, SIGMOBILE also publishes a peer-reviewed, quarterly journal/newsletter for SIGMOBILE members, Mobile Computing and Communications Review (MC2R). Non-members may also subscribe to MC2R, and the publication is also available in the ACM Digital Library.

The Editor-in-Chief for MC2R for most of the year has been Prof. Suman Banerjee (University of Wisconsin-Madison, USA). The Area Editors for MC2R over this period included Dr. Sharad Agarwal (Microsoft Research, USA), Prof. Aditya Akella (University of Wisconsin-Madison, USA), Prof. Christian Bettstetter (University of Klagenfurt, Germany), Prof. Srdjan Capkun (ETH, Zurich, Switzerland), Prof. Augustin Chaintreau (Columbia University, USA), Prof. Eylem Ekici (Ohio State University, USA), Dr. Michelle Gong (Google, USA), Prof. Marco Gruteser (Rutgers University, USA), Prof. Prashant Krishnamurthy (University of Pittsburgh, USA), Prof. Panos Papadimitratos (EPFL, Switzerland), Prof. Andreas Terzis (Johns Hopkins University, USA), Prof. Moustafa Youssef (Egypt-Japan University of Science and Technology, Egypt), and Prof. Lin Zhong (Rice University, USA).

MC2R publishes articles that provide a balance between state-of-the-art research and practice, with a thorough pre-publication review 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 throughout the world, bibliographies and locations of technical reports, and other general news in the field.

In addition, 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 quite selective, remaining under about 20%.

In the recent issues, the following are some example articles that were published in the different categories described above: (i) poster and demo abstracts from ACM HotMobile 2013, (ii) the best articles from the various workshops in ACM MobiCom 2013, (iii) multiple invited articles describing testbed development activities of different types, and (iv) diverse peer-reviewed articles on all topics related to mobile computing and wireless networking.

In 2014, a new Editor-in-Chief was appointed, Prof. Eyal de Lara (University of Toronto, Canada). Prof. de Lara has assumed responsibility and will publish upcoming issues starting in July 2014. He has made some significant plans to raise the profile of the publication even further. All aspects of the journal's operation are run entirely by volunteers, including final assembly of each issue.

SIGMOBILE Monthly Newsletter

SIGMOBILE Information Director, Dr. Sharad Agarwal, has been sending out a re-vamped email newsletter roughly every month or two, since August 2013. The contents vary every month. Key deadlines for SIGMOBILE-sponsored events and awards are listed. Notable SIGMOBILE news may be included, such as winners of awards. A mini-editorial may be included that may comment on new hardware availability in the market, significant shifts in industry, accepted publications for SIGMOBILE events, or observations on technology trends. The email newsletter is now formatted in HTML, and sometimes includes pictures.

SIGMOBILE Email List Restructuring

SIGMOBILE Information Director, Dr. Sharad Agarwal, has split our email list into two separate lists to better manage email announcements and discussions amongst SIGMOBILE members.

SIGMOBILE-MEMBERS@LISTSERV.ACM.ORG is now used exclusively for email announcements for SIG members. This includes our periodic email newsletter. It may include announcements that are particularly relevant to the members. The Members List has been re-populated with those who have active SIGMOBILE membership, plus those who fall within a 3-month grace period. New members will continue to be added and anyone who falls past the grace period will be trimmed off.

SIGMOBILE-INTEREST@LISTSERV.ACM.ORG is now used to disseminate any relevant CFPs and support discussions amongst the community. Relevant CFPs will include SIGMOBILE sponsored events as well as non-SIGMOBILE sponsored events that are related to mobility.

Non SIG members will be allowed to join via the MY ACM website. The Interest list has been set up, with an open subscription. It is our hope that the myriad of conference and workshop specific email lists will merge into this single SIGMOBILE-INTEREST mailing list.

ePub Format for SIGMOBILE Publications

An important change being explored by the SIGMOBILE community is in introducing the ePub format for making content more easily accessible using popular mobile devices.

Over the years, we have noticed that SIGMOBILE members (like many other communities) are often seen using tablets and smartphones to access publications. Unfortunately, the typical publications are not as easily manageable and accessible on mobile devices. It is cumbersome to pinch-and-zoom and scroll across a the standard two-column PDF publication on a mobile device.

The ePub format bridges this gap. Unlike PDF, ePub does not dictate how content should be laid out on paper or a screen – that is left up to the software that displays the document. ePub readers are available on almost all mobile devices, and will scale documents to the size of the screen for ease of viewing.

SIGMOBILE Information Director, Dr. Sharad Agarwal, worked with the organizing committee of ACM MobiSys 2014 to provide ePub files for all accepted papers, in addition to the traditional 2 column PDF files. Since existing conversion tools to ePub from either PDF or Latex are lacking in several features, we used an external company to do the conversion for a modest fee. The ePub files were made available to conference attendees via the conference website, and the ACM DL team has added these files to the DL as well. Feedback from several conference attendees has been very positive. We will next consider ACM MobiCom 2014.

SIGMOBILE Website

As an additional resource for our members and the community, 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. This web site also contains archived copies of most SIGMOBILE conference web sites, including all previous years of MobiCom, MobiHoc, and MobiSys.

SIGMOBILE Social Media

SIGMOBILE makes use of social media to support interactive communication with its community. It has groups on LinkedIn and Facebook and has a SIGMOBILE Twitter feed.

SIGMOBILE Local Chapters

There are currently two Local Chapters of SIGMOBILE chartered with ACM:

- Dublin Chapter: Mobile Computing Society Ireland (started 2013): This is a University based Chapter organized by the RINCE Institute, Dublin City University (DCU).
- Taiwan Chapter: This is a University based Chapter organized by the Institute of Computer Science and Information Engineering, National I-lan University (NIU), Taiwan

Local Chapters provide a local focus for activities related to the area of SIGMOBILE, including mobile computing and wireless and mobile networking, and continue SIGMOBILE's work within their local regions. 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/>.

SIGMOBILE Membership

The SIG's membership was 650 on June 30th 2014, down 7% from the previous year. The membership has spanned the 650-800 range for last 7 years, and for all time has been in the 437-872 range. SIGMOBILE provides substantial benefits to our members, including:

- The quarterly journal, and newsletter "Mobile Computing and Communications Review" (MC2R), which serves 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.
- A monthly e-mail SIGMOBILE newsletter, including 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.
- Announcements via the moderated, members-only email distribution list, keeping you informed of the latest happenings in our field, such as conference Calls for Papers.
- Qualify for the lowest registration rates at conferences and workshops sponsored by SIGMOBILE, and for the many events that are "in cooperation" with SIGMOBILE. SIGMOBILE sponsors five conferences each year (MobiCom, MobiHoc, MobiSys, SenSys, and UbiComp).
- 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 five conferences, containing the full conference Proceedings.

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

- Organization and sponsorship of five annual conferences (MobiCom, MobiHoc, MobiSys, SenSys, and UbiComp).
- Promotion of emerging new areas through sponsorship of numerous workshops each year.
- An ACM Mobility Tech Pack edited by the SIGMOBILE officers, providing an annotated reading list of the definitive mobile research papers to date; thus enabling somebody new to the field to rapidly come up to speed.
- 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.
- The SIGMOBILE RockStar Award recognizes an individual who has made recent outstanding research, or product, contributions to the field of mobile computing during the early part of his, or her, career.
- Best paper awards are given at all five of our sponsored conferences and presented each year.
- Support for students at SIGMOBILE conferences and workshops, through reduced registration fees, student travel awards for some conferences (with NSF support), and student poster sessions.
- 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.
- SIGMOBILE also provides financial support for mobile networking community programs such as CRAWDAD (Community Resource for Archiving Wireless Data At Dartmouth) and N² Women (Networking Networking Women).

SIGMOBILE Awards

Outstanding Contribution Award 2013

The highly prestigious SIGMOBILE Outstanding Contributions Award (OCA) was presented to Dr. Victor Bahl (Microsoft Research) for "Pioneering contributions to wireless Internet broadband technologies, and for inspirational leadership of the mobile computing community," at MobiCom 2013 in Miami, Florida, USA. He is the 14th recipient of the OCA since the SIGMOBILE was formed. The SIGMOBILE Outstanding Contribution

Award is given for significant and lasting contributions to research on mobile computing and communications, and wireless networking.

Best Papers

The SIGMOBILE Best Paper Award for each conference is given to the authors of the best paper from among all papers submitted to the conference that year. Typically the conference Technical Program Committee forms the Selection Committee for this award; additional awards are at the discretion of the conference organizers.

MobiSys 2014, Best Paper Award

"Rio: A System Solution for Sharing I/O between Mobile Systems" by Ardalan Amiri Sani, Kevin Boos, Min Hong Yun, and Lin Zhong (Rice University)

"COIN-GPS: Indoor Localization from Direct GPS Receiving" by Shahriar Nirjon (University of Virginia), Jie Liu, Gerald DeJean, Bodhi Priyantha, Yuzhe Jin, and Ted Hart (Microsoft Research, Redmond, WA)

MobiCom 2013, Best Paper Award

"Whole-Home Gesture Recognition Using Wireless Signals", by Qifan Pu, Sidhant Gupta, Shyamnath Gollakota, and Shwetak Patel (University of Washington, Seattle)

MobiHoc 2013, Best Paper Award

"Quantize-Map-Forward (QMF) Relaying: an experimental study" by Melissa Duarte (Rice University), Siddhartha Brahma, Ayan Sengupta, Christina Fragouli (EPFL, Switzerland), and Suhas Diggavi (University of California Los Angeles)

SenSys 2013, Best Paper Award

"Chaos: Versatile and Efficient All-to-All Data Sharing and In-Network Processing at Scale" by Olaf Landsiedel (Chalmers University of Technology, Sweden), Federico Ferrari and Marco Zimmerling (ETH Zurich, Switzerland)

UbiComp 2013, Best Paper Award

"Exploring Capturable Everyday Memory for Autobiographical Authentication" by Sauvik Das, Eiji Hayashi, and Jason I Hong (Carnegie Mellon University), and

"Instant Inkjet Circuits: Lab-based Inkjet Printing to Support Rapid Prototyping of UbiComp Devices", by Yoshihiro Kawahara (The University of Tokyo), Steve Hodges (Microsoft Research Cambridge), Benjamin S. Cook, Cheng Zhang, Gregory D. Abowd (Georgia Institute of Technology)

"There's No Such Thing as Gaining a Pound: Reconsidering the Bathroom Scale User Interface" by Matthew Kay, Dan Morris, mc schraefel (Microsoft Research), Julie A. Kientz (University of Washington)

"It Takes a Network to Get Dinner: Designing Location-based Systems to Address Local Food Needs" by Lynn Dombrowski, Jed R. Brubaker, Sen H. Hirano, Melissa Mazmanian, and Gillian R. Hayes (University of California, Irvine)

"MACH: My Automated Conversation coach" by Mohammed (Ehsan) Hoque (MIT), Matthieu Courgeon, Jean-Claude Martin (LIMSI-France), Bilge Mutlu (University of Wisconsin-Madison), Rosalind W Picard (MIT)

ACM Student Research Competition (SRC)

The SRC is an annual event sponsored by Microsoft Research at the MobiCom conference. The most recent event was in 2013, and had the following winners:

First Place: Tan Zhang, University of Wisconsin, Madison

"V-Scope: A Vehicle-Assisted Approach to Sensing Spectrum Dynamics in TV Whitespaces"

Second Place: Yan Wang, Stevens Institute of Technology

"Measuring Human Queues Using WiFi Signals"

SIGMOBILE in the News

Throughout the year, some of our SIGMOBILE publications have been reported in popular technical news articles. The list below captures some of the articles for MobiSys 2013 and MobiCom 2012, but this list is not comprehensive. It does, however, give readers a sense of the interest in SIGMOBILE research.

MobiSys 2014

- **WiFi-Honk! Smartphone App Gets Pedestrians out of the Way**
IEEE Spectrum | Sarah Lewin | July 14, 2014

- **Microsoft plans a GPS receiver indoor**
WebNews | Luke Colantuoni | June 27, 2014
- **Twist lock screen graphics make passwords more secure**
CNBeta | June 24, 2014
- **How to make smart watches not worth stealing**
MIT Technology Review | David Talbot | June 23, 2014

MobiCom 2013

- **New 'white spaces' research from Microsoft and China makes it easier to find vacant spectrum**
Network World | John Cox | Oct 2, 2013

SIGMOBILE Business Meeting & Executive Committee Planning

Each year SIGMOBILE holds its business meeting as part of the ACM MobiCom conference program, usually at the end of the first day. In addition to a general discussion about the status of the SIG, the following topics were discussed in the open meeting.

Conference co-locations

SIGMOBILE today sponsors five major conferences --- MobiCom, MobiHoc, MobiSys, SenSys, and UbiComp. Each conference has slightly different focus, has thrived over the years, and is considered a premier venue in the field. However, there was some discussion in the SIGMOBILE business meeting about whether occasional co-location of these conferences is useful to allow greater interaction between the attendees of these different venues. In the past, MobiCom and MobiHoc have been co-located in two individual instances with great success. The community continues to debate the merits and disadvantages of such conference co-location.

Institutional Review Board policies and the role of the Technical program committees

Many institutions, the world over, have strict policies in place that dictate how researchers should operate when human subjects are involved. For instance, the US academic institutions have Institutional Review Boards (or IRBs) that educate researchers about policies and ensure that the researchers follow them adequately. As research in the SIGMOBILE community begins to have interactions with human subjects, in form of data collected from mobile devices carried by such subjects, it is important that the community be educated about ethical practices around collection and use of such data. There was some discussion in the business meeting as to what role a Technical program committee of a conference should play in evaluating a submitted paper with regards to adherence to such ethical practices. The MobiSys 2014 conference decided to adopt the policy that all submitted papers need to attest that they have adhered to their IRB (or equivalent) process before submitting their paper to the conference. The effectiveness of policy would be studied on determining if such policy is adopted across more or all of SIGMOBILE conferences.

Mobile Computing Community Research (MCRC) Fund

At the business meeting we discussed various ways the community could possibly use the recently created Mobile Computing Community Research (MCRC) fund. The fund has so far supported a long-running effort of maintaining a data repository for the community hosted in Dartmouth College, called CRAWDAD, and continues to seek other efforts that meet the proposed criterion outlined earlier in this document.

New Conferences for SIGMOBILE to Support

In 2013, SIGMOBILE sponsored a new conference --- "Pervasive Displays" (PerDis'13) which explores a new trend for mobile devices and fixed infrastructure to work together in support of ad hoc user interaction. PerDis has not been part of our list of annual sponsored conferences at this time, but given its relative success in the first year, the SIGMOBILE EC decided to sponsor it for a second year in 2014. If it continues to grow, it would be a future candidate for annual SIGMOBILE sponsorship.

Summary

Mobile computing is one of the fastest growing fields within computer science and engineering, and as a result SIGMOBILE continues to be a strong, successful, well-supported organization. Membership is relatively stable at 650, and the SIG's conferences and workshops are well attended, creating a wealth of publications for the ACM digital library and the SIG's members. Furthermore, our financial situation has strengthened in 2014 with a projected 11.5% increase (a positive trend for 6 years now) providing the organization with fiscal flexibility, and the option to support additional high-value research programs. To this end, we have established the MCRC fund to support SIGMOBILE community projects and promote new activities that will benefit the SIG.

SIGMOD FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Donald Kossmann

Mission

ACM SIGMOD (Special Interest Group on Management of Data) is concerned with the principles, techniques, and applications of database management systems and data management technology:

"The goal of SIGMOD is to be the premier international organization devoted to research in data management systems. It serves the academic and industrial community and offers a platform for innovative sharing and dissemination of knowledge concerning the management of data, broadly defined to include all aspects of data issues, such as semantic and structural modeling and representation, storage and indexing, querying and updating, analysis, integration, distribution and parallelization, integrity and consistency, curation and provenance, and privacy and security."

Main Conferences and Newsletter

SIGMOD/PODS Conferences — These continue to be very successful and highly regarded events that bring together theoreticians & experimentalists presenting high-quality research and other results. In 2014 the conferences were held in Salt Lake City, Utah. The conferences' value was enhanced by an extensive collection of co-located workshops: a dozen SIGMOD sponsored workshops, including the SIGMOD New Researcher Symposium and the SIGMOD/PODS Ph.D. Symposium.

The executive committee of SIGMOD includes a Conference Coordinator who provides continuity in the organization of the conferences from year-to-year. During the reporting period, Professor K. Selçuk Candan (Arizona State University, USA) has continued to play this role. He has been extremely helpful not only in the preparation of the SIGMOD/PODS 2014 conferences, but also in the planning of these conferences for 2015 (held in Melbourne, Australia) and 2016 (San Francisco, CA). The planning of these conferences is well on track.

SIGMOD Record — SIGMOD Record continues to be a high-quality quarterly newsletter and its coverage has been growing. Over the past years, several columns were added (influential papers, database principles, systems and prototypes, and standards). Dr. Yanlei Diao (University of Massachusetts, Amherst) has taken over the role of SIGMOD Record editor in chief from Dr. Ioana Manolescu (INRIA, France) who has served in this role for more than six years. This transition has been smooth. Dr. Diao heads a team of eleven associate editors. This team has not been changed during the transition phase, but it is likely to change punctually as some of the associate editors have already served for many years.

We plan to have a special issue of SIGMOD Record in future, called "Top Picks in DB Topics". This issue will publish 4-6 page summaries of top papers of the SIGMOD conference, TODS, and related conferences and journals (e.g., VLDB, VLDB Journal, ICDE, EDBT, and ICDT). These summaries should be consumable for the general (technical) audience. Only highly innovative papers and results will be invited to produce these summaries for publication.

Awards

SIGMOD sponsors several awards each year that recognize excellence in the database community. In 2014, these awards were given to the following researchers:

SIGMOD Edgar F. Codd Innovations Award: Martin Kersten (CWI, Netherlands).

SIGMOD Contributions Award: Kyu-Young Whang (KAIST, Korea).

SIGMOD Jim Gray Doctoral Dissertation Award: Aditya Parameswaran (Stanford University, CA), Andrew Pavlo (Brown University, RI).

SIGMOD Test-of-Time Award: "Order-preserving Encryption for Numeric Data", Rakesh Agrawal, Jerry Kiernan, Ramakrishnan Srikant, and Yirong Xu, ACM SIGMOD Conference, 2004.

SIGMOD 2014 Best Paper Award: "Materialization Optimizations for Feature Selection Workloads", Ce Zhang, Arun Kumar, and Christopher Ré.

PODS Alberto O. Mendelzon Test-of-Time Award: "Composing Schema Mappings: Second-order Dependencies to the Rescue", Ronald Fagin, Phokoin Kolaitis, Lucian Popa, and Wang-Chiew Tan and "Foundations of Semantic Web Databases", Claudio Gutiérrez, Carlos Hurtado, and Alberto Mendelzon.

PODS 2013 Best Paper Award: "Weaker Forms of Monotonicity for Declarative Network: A More Fine-grained Answer to the CALM-conjecture", Tom Ameloot, Bas Ketsman, Frank Neven, and Daniel Zinn.

If approved by the ACM SGB, SIGMOD will establish a new award in 2015: the SIGMOD System Award for highly innovative systems that have had major impact on the scientific community and/or society.

Electronic Information

As of early 2011, the SIG website and all physical information products outlined below are managed by our Information Director, Prof. Curtis Dyreson (Utah State University) and his team of six Associate Information Directors.

SIGMOD Online — Our website (<http://www.sigmod.org/>) provides access to a wealth of content, including the proceedings of SIGMOD/PODS and other co-sponsored conferences, the newsletter issues, metadata for the ACM Collection on Digital Content (see below), and videos of interviews of distinguished database researchers. Improvement of the site's usefulness, readability, and searchability is an ongoing activity.

SIGMOD Blog — SIGMOD's official blog site, at <http://wp.sigmod.org>, came to life in early 2012 and is managed by Dr. Georgia Koutrika (HP Labs, USA). Its purpose is to catch the heartbeat of our community on exciting and controversial topics that are of interest to the community, and facilitate discussions among researchers on such topics. Blog posts by notable researchers and teachers in the database community appear regularly and have covered topics such as publication practices, historical perspectives, and entrepreneurship, in addition to more technical topics. The most popular was "Are we publishing too much?", which explored the issue of publication counts versus quality.

SIGMOD Social Media Presence — In addition to the blog, SIGMOD also uses social media to inform and build the database community. SIGMOD has a Facebook group, a Facebook page, and a Google+ community. Furthermore, as of last 2012, Twitter is being used during the SIGMOD/PODS conferences for both conference-wide and paper-specific discussions.

DBJobs — The revived dbjobs service, at <http://www.dbjobs.org>, is a searchable collection of database jobs offered for free to the database community by SIGMOD. It is intended for use by job seekers that have a background in databases. Job postings are moderated, so they are guaranteed to be database-related. Job postings are automatically scraped and pulled in from DBWorld and other resources, so job seekers need only check dbjobs.

ACM Collection on Digital Content (SIGMOD Digital Collection) — Working with Wayne Graves of the ACM, we have created a collection of all material in the ACM Digital Library that is considered relevant to the SIGMOD community, whole journal volumes and conference proceedings but also individual papers. The ACM Collection on Digital Content is available at <http://dl.acm.org/collection.cfm?id=C6>.

SIGMOD is committed to continue to support and expand these services.

Membership

Professional SIGMOD membership is distinguished between *online* (at \$15 per year, with benefits such as conference registration discounts and web access to significant content, e.g., quarterly SIGMOD Record issues and Anthology & DiSC metadata, being now expanded to the ACM Collection on Digital Content, linking to the ACM DL) and *print* (at \$35 per year, which includes the additional benefit of print copies of the SIGMOD Record issues). Finally, student SIGMOD membership (at \$10 per year for online and \$30 per year for print), has the same benefits as the professional membership.

SIGMOD membership has been dropping slightly over the past several years. Most SIGMOD members are also ACM members, some with life-time memberships. All SIGMOD resources are open to ACM members (e.g., the newsletter). As a result, there is little incentive for members of the SIGMOD community to become SIGMOD members in addition to their ACM membership. Because of the life-time ACM membership, some members of the SIGMOD community forget to renew their SIGMOD membership and may not even be aware that they are *not* SIGMOD members. We are trying to advertise SIGMOD membership whenever possible, but we are not prioritizing these activities given the current situation.

Initiatives

Experiment repeatability — After its launch in the 2008 SIGMOD conference, the program of evaluating the “repeatability” of experimental results reported in SIGMOD papers entered a trial period during which authors of accepted papers are extended the option of having the experimental aspects of their work validated by a separate SIGMOD-sponsored experimental program committee. This is de-coupled from the conference reviewing, both in terms of the program committees and timelines. Validated papers are listed in a SIGMOD Record article and can make reference to this, as an incentive for authors to participate in this effort to improve the standards of experimentation in the database field. The trial has been quite successful and participation has been stable in terms of number of submissions through the years. The community has learned several lessons from this activity, including the fact that we are still far from the vision of “executable papers”. The initiative will soon be thoroughly evaluated and the results of this activity will determine its future.

Undergraduate and Graduate Scholarship Program — As part of its educational mission, SIGMOD continued to subsidize the student registration fees for the conference for all students. In addition, SIGMOD supported undergraduate students from various institutions around the world to attend the 2013 SIGMOD/PODS conferences and present posters on their research work. It did the same for all students presenting their work at the PhD symposium, and also for a large number of graduate students who might otherwise not have been able to attend (applications for these travel grants were solicited through an open call and decided by a separate committee). In particular, a total of 66 students have been directly supported by SIGMOD to attend the 2013 SIGMOD/PODS Conference. In addition to SIGMOD’s own funds (\$45K), a \$20,000 student travel grant from NSF helped support part of the costs for some of the students, along with an extra \$3,000, which came out of Google’s conference sponsorship, at their request.

Traveling Speakers Program and Database Summer Schools — Both are in collaboration with VLDB and are under development. The former will organize multi-day visits to major campuses in a chosen country by a pair of senior database researchers (plans for Romania are under way) while the latter will promote education in databases in developing countries.

Open Access — SIGMOD has joined the great majority of SIGs and decided to participate in the 3-year experiment of ACM on Open Access. We decided to make the proceedings of our conferences freely available via the ACM DL for up to one month around the events, under the control of the particular conference leaders, as well as to maintain tables-of-content of the most recent conference in a series with ACM Authorizer links leading to the final versions of the papers in the ACM DL freely. The support from the entire community, including the SIGMOD Advisory Board, in doing this was overwhelming.

Other — SIGMOD has several additional ongoing or new initiatives that benefit the database community. These include support for DBLP (<http://www.informatik.uni-trier.de/~ley/db/>), a book donation program from SIGMOD/PODS attendees to research institutions in needy countries, and the PubZone non-profit discussion forum for publications in the database community (in cooperation with ETH Zurich).

Collaborations and Collaborative Activities

We continue to be in close collaboration with our sister societies, such as VLDB Endowment, IEEE TCDE, EDBT Association, and ICDT Council. Especially with VLDB, we have a series of joint activities, i.e., the Summer Schools and the Traveling Speakers Program, the inclusion of VLDB material in the ACM DL, and others. We are also carefully observing the PVLDB journal initiative, where VLDB conference presentations are associated with PVLDB journal papers published during the preceding year and are not chosen by a special program committee.

We are also cooperating closely with several other ACM SIGs on various activities, primarily conference co-sponsorship. Examples include SIGKDD for the KDD Conference, SIGSOFT for the Distributed Event-Based Systems Conference (DEBS), and SIGKDD, SIGIR, and SIGWEB for the Web Search and Data Mining Conference (WSDM). A very successful relatively recent example is our collaboration with SIGOPS for the Symposium on Cloud Computing (SOCC), where both SIGs were instrumental in creating what promises to become an important annual conference.

Finances

SIGMOD is a thriving, very active SIG with healthy finances in spite of the economic downturn. This is largely thanks to the efforts of our corporate-sponsorship chairs of the last few years, who have been able to secure sponsorship funds for the SIGMOD conference in excess of \$150,000 every year and sometimes over

\$200,000, ensuring profitability of the individual conferences as well as financial security of the SIG overall. According to the latest estimates, SIGMOD 2014 has made a surplus of about \$90,000. Given this financial flexibility, as mentioned above, we have subsidized student registrations heavily in recent SIGMOD/PODS conferences and provided a substantial number of travel grants to undergraduate and graduate students, enabling them to attend the SIGMOD/PODS conferences.

Current Status and Future Outlook

SIGMOD continues to be a thriving, healthy, and very active SIG. There are certainly areas where it can improve even further, but we feel that SIGMOD is a strong organization and have every expectation of it continuing to provide useful benefits to its members, and thereby, continuing to grow.

SIGPLAN FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Jan Vitek

1. Awards that were given out

Programming Languages Achievement Award

Distinguished Service Award

Programming Languages Software Award

Robin Milner Young Researcher Award

John C. Reynolds Doctoral Dissertation Award

Most Influential Paper Awards

- Most Influential ICFP Paper
- Most Influential OOPSLA Paper
- Most Influential PLDI Paper
- Most Influential POPL Paper

John Vlissides Award

2. Significant papers on new areas that were published in proceedings

Title: A General Constraint-Centric Scheduling Framework for Spatial Architectures

Authors: Tony Nowatzki, Michael Sartin-Tarm, Lorenzo De Carli, Karthikeyan Sankaralingam, Cristian Estan, Behnam Robatmili

Venue: PLDI 2013

Scheduling of computation to hardware resources is absolutely critical to the success of spatial architectures, but it's a very tough problem. The authors present a general framework for scheduling on spatial architectures, and evaluate that framework on three diverse architectures with impressive results with regard to specialized schedulers. This work is an impressive study of the scheduling problem presented by these architectures and will be of interest to PL and architecture people alike.

Title: CLAP: Recording Local Executions to Reproduce Concurrency Failures

Authors: Jeff Huang, Charles Zhang, Julian Dolby

Venue: PLDI 2013

CLAP is an efficient technique for reproducing concurrency bugs that logs thread local execution and computes memory dependencies offline, allowing an observed concurrency bug to be reproduced. The principal contribution is the identification of a new approach to reproducing concurrency bugs that reduces overheads and reduces the observer effect seen in existing systems that inject synchronization points.

Title: From Relational Verification to SIMD Loop Synthesis

Authors: Gilles Barthe, Juan Manuel Crespo, Sumit Gulwani, Cesar Kunz, Mark Marron

Venue: PPOPP 2013

This paper addresses a compiler optimization problem, namely generating SSE vector code for loops with data-driven control flow and suboptimal data layout, with an interesting and unexpected combination of techniques. The initial loop restructuring step only generates pre- and post-conditions for various code fragments. A synthesis algorithm is then used to fill these fragments in. This paper won the PPOPP best paper award and was recommended by Saman Amarasinghe, one of the PC Chairs.

Title: SIMD Parallelization of Applications that Traverse Irregular Data Structures

Authors: Bin Ren, Gagan Agrawal Jim Larus, Todd Mytkowicz, Tomi Poutanen Wolfram Schulte

Venue: CGO 2013

Finding ways to parallelize important computations is now essential in creating a competitive product or service. This paper addresses the challenging problem of mapping a SIMD model of computation onto an irregular data

structure and demonstrates the effectiveness of this approach for two important classes of problems: regular expression matching and evaluating forests of decision trees. The paper shows that with the proper intermediate language abstraction, such irregular computations can be mapped efficiently onto SIMD units and result in speedups of over 10 times for random forest evaluation mapping the computation onto the SSE extensions of the x86 instruction set on a single core machine. These improvements result both from parallelizing the irregular computation and carefully laying out the data being manipulated to reduce the memory latency. By showing that the approach applies to two large interesting classes of irregular computations, the authors demonstrate the generality of their approach its potential for broad impact.

3. Significant programs that provided a springboard for further technical efforts

N/A

4. Innovative programs which provide service to some part of your technical community

5. Events or programs that broadened participation either geographically, or among under-represented members of your community and;

Programming Languages Mentoring Workshop 2014 <http://plmw2014.inria.fr>

SIGPLAN held the 2014 Programming Languages Mentoring Workshop (PLMW) immediately before the 41st edition of POPL, in San Diego this past January. The goal of PLMW is to introduce newcomers (mainly young PhD students, along with some MSc and undergraduate students) to the field of programming language theory and formal verification, with a particular emphasis on women and under-represented minorities.

6. A very brief summary for the key issues that the membership of that SIG will have to deal with in the next 2-3 years.

The ACM lack of responsiveness to community demands is pushing conferences such as SPLASH to reconsider their affiliation to the association.

SIGSAC FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Trent Jaeger

1. SIGSAC CONFERENCES AND WORKSHOPS

SIGSAC's mission is to develop the information security profession by sponsoring high quality research conferences and workshops. SIGSAC's first sponsored event was the ACM Conference on Computer and Communications Security (CCS) in 1993. Since then, it has been held twice in Fairfax, Virginia (1993, 1994), and once each in New Delhi, India (1996), Zurich, Switzerland (1997), San Francisco (1998), Singapore (1999), Athens, Greece (2000) and Philadelphia (2001). In the period 2002-2008, CCS was held in the Washington, DC metropolitan area (i.e., in Alexandria, VA). In 2009, 2010, and 2011 CCS was held in Chicago; these editions saw a major increase in attendance (with CCS 2011 having more than 540 attendees). The 2011 edition of CCS featured, in addition to the research paper program, a successful poster and demo program. The 2012 edition of CCS was held in Raleigh (NC); the conference received 439 submissions of which 81 were accepted - an increase over the number of papers accepted to the 2011 edition - and the conference was well attended. The 2013 edition was held in Berlin (Germany); this edition received more than 560 submissions – the highest number of submissions ever received by a CCS edition. Also, over 700 attendees participated in the conference, justifying the decision to hold CCS in Europe. The 2014 CCS edition will be held in Phoenix (AZ). Again, a new record number of submissions was received (585 submissions) and 114 papers have been selected for presentation (some are being shepherded). The 2015 CCS edition will be held in Denver (CO); Indrajit Ray will serve as general chair and Ninghui Li and Christopher Kruegel will serve as program chairs. We are still evaluating candidate venues for hosting the 2016 CCS meeting. The challenge is that we would like to take CCS 2016 to Europe again (Vienna), where we had a great attendance in 2013. However, we have come to find that the CCS 2013 may have run a significant deficit. We need to understand the cause for this deficit and whether we can mitigate the risks surrounding that cause for the Vienna proposal.

From its inception, CCS has established itself as among the very best research conferences in security. This reputation continues to grow and is reflected in the high quality and prestige of the program. In 2014, the CCS acceptance rate was 19%. Undoubtedly, CCS remains one of the most competitive conferences in the area. Three papers were selected as "best student papers" at CCS 2013.

- **Adam Waksman and Matthew Suozzo**, FANCI: Identification of Stealthy Malicious Logic Using Boolean Functional Analysis
- **Emil Stefanov, Christopher Fletcher, Ling Ren, and Xiangyao Yu**, Path ORAM: An Extremely Simple Oblivious RAM Protocol
- **Jeyavijayan Rajendran and Michael Sam**, Security Analysis of Integrated Circuit Camouflaging

As in previous years, the program of CCS includes several co-located workshops. We expect that the CCS submission rate and attendance to remain high in future years.

Starting in 2001, SIGSAC launched a second major annual conference called the ACM Symposium on Access Control Models and Technologies (SACMAT). The first three meetings were held in Chantilly, Virginia; Monterey, California; and Como, Italy. From 2002, SACMAT meetings have been co-located with the IEEE International Workshop on Policies for Distributed Systems and Networks. The 2006 SACMAT was held in Lake Tahoe, California, in 2007 in Nice – Sophia Antipolis, France, in 2008 in Estes Park, Colorado, in 2009 in Stresa, Italy, in 2010 in Pittsburgh, Pennsylvania, in 2011 in Innsbruck, Austria, in 2012 in Newark, New Jersey in 2013 in Amsterdam, The Netherlands. The 2014 edition was held in London, Ontario, Canada, on June 25-27 and attracted 72 submissions of which 21 were accepted for presentation at the conference (a 29% acceptance rate). The submission and acceptance rates were similar to 2013. The attendance for SACMAT 2014 was down, however, from previous years. SACMAT 2015 will be held in Vienna, Austria, which we hope will boost attendance. SACMAT 2012 also included, for the first time in the SACMAT series, a demo session, featuring several interesting demos. The demo session was continued in the 2013 and 2014 editions of the conference, and we expect it to be continued.

In 2014, SIGSAC held the seventh instance of its third major conference, namely ACM Symposium on Information, Computer and Communications Security (ASIACCS), in Kyoto, Japan on June 4-6, 2014. The first ASIACCS was held in Taipei, Taiwan on March 21-23, 2006, the second was held in Singapore on March 22-24, 2007, the third in Tokyo, Japan on March 18-20, 2008, the fourth in Sydney, Australia on March 10-12,

2009, the fifth in Beijing, China on April 13-16, 2010, the sixth in Hong Kong on March 22-24, 2011, the seventh in Seoul, South Korea on May 2-4, 2012, and the eighth in Hangzhou, China on May 8-10, 2013. The 2014 edition of the conference received 255 submissions (a record) and accepted 42 regular papers and 8 short papers yielding an acceptance rate of 20%. The increased number of submissions suggests that there is a sustained interest in the information security area outside North America. A record 176 participants attended ASIACCS 2014. ASIACCS 2015 will be held in Singapore with Gail-Joon Ahn and Jianying Zhou serving as PC Co-Chairs. The ASIACCS 2016 edition will be held in Xi'an, China with XiaoFeng Wang and Xinyi Huang serving as PC Co-Chairs.

The Wireless Network Security Conference (WISEC) was started in Alexandria, Virginia, on March 31-April 2, 2008. This conference merged two successful ACM workshops, namely WiSec (held in conjunction with Mobicom) and SASN (held in conjunction with CCS) in the US, and a successful European workshop (ESAS) held in conjunction with ESORICS in Europe. In 2009, WISEC was held in Zurich, Switzerland. In 2010 the conference was held in Hoboken, New Jersey on March 22-24, 2010. In 2012 the conference was held in Hamburg, Germany on June 14-17, 2011. In 2012 the conference was held Tucson, Arizona, USA on April 16-18. Starting from 2012 the conference has been renamed Conference on Security and Privacy in Wireless and Mobile Networks (WiSec). In 2013 the conference was held in Budapest, Hungary on April 17-19, 2013, and the 2014 conference was held in Oxford, UK on July 23-25, 2014. In the 2014 conference 24 papers were accepted out of 92 for a 26% acceptance rate.

SIGSAC launched its fifth major conference in February 2011. This new conference focuses data and applications security and privacy. The inaugural edition of the ACM Conference on Data and Applications Security and Privacy (CODASPY 2011) was held February 21-23, 2011 in Hilton Palacio Del Rio, San Antonio, Texas. The second edition of CODASPY has also been held in San Antonio, Texas, in February 2012. The 2013 edition of CODASPY was also held in San Antonio, Texas, in February 28-30, 2013 and has been expanded to include posters. The 2013 edition received 107 submissions and accepted 24 (an acceptance rate of 22%). The poster session was well attended and participants enjoyed the technical discussions during the poster session. The 2014 edition of the conference was also held in San Antonio. 19 full papers and 9 short papers were accepted for the conference, and the 2014 edition also continued the practice of holding a poster session. While it was envisioned that the CODASPY conference would be moved to a new location in 2015, the plan is still to hold the 2015 edition in San Antonio.

2. SIGSAC PUBLICATION INITIATIVES

ACM Transactions on Information and Systems Security (TISSEC) remains our major journal venue for research publications. We do not expect to sponsor another journal for the foreseeable future.

3. SIGSAC SPECIAL PROJECTS

The establishment of the SIGSAC Doctoral Dissertation Award for Outstanding PhD Thesis in Computer and Information Security has been completed; this project started in 2010. This annual award by SIGSAC will recognize excellent research by doctoral candidates in the field of computer and information security. The SIGSAC Doctoral Dissertation Award winner and up to two runners-up will be recognized at the ACM CCS conference. The award winner will receive a plaque, a \$1,500 honorarium and a complimentary registration to the current year's ACM CCS Conference. The runners-up each will receive a plaque. The first edition of the award is now taking place. According to the chair of the PhD Thesis award committee, Paul Syverson, six PhD theses were nominated. The winner and runner-up will be announced at ACM CCS 2014.

4. AWARDS

The two SIGSAC awards started in 2005. The 2005 Outstanding Innovation Award was given to Dr. Whitfield Diffie of SUN Microsystems, and the Outstanding Contribution Award was given to Dr. Peter G. Neumann of SRI International. In 2006, the Outstanding Innovation Award was given to Dr. Michael Schroeder of Microsoft Research and the Outstanding Contribution Award was given to Dr. Eugene Spafford of Purdue University. The 2007 Outstanding Innovation Award was given to Dr. Martin Abadi of the University of California, Santa Cruz (and Microsoft Research) and the Outstanding Contribution Award was given to Professor Sushil Jajodia of George Mason University. The 2008 Outstanding Innovation Award was given to Professor Dorothy Denning of Naval Postgraduate School and the Outstanding Contribution Award was given to Professor Ravi Sandhu of the University of Texas at San Antonio. The 2009 Outstanding Innovation Award was given to Dr. Jonathan Millen of The MITRE Corporation, and the Outstanding Contribution Award was given to Dr. Carl Landwehr of the

University of Maryland. The 2010 Outstanding Innovation Award was given to Dr. Jan Camenisch of IBM Research, Zurich, and the Outstanding Contribution Award was given to Professor Bhavani Thuraisingham of The University of Texas at Dallas. The 2011 Outstanding Innovation Award was given to Professor Virgil Gligor of Carnegie Mellon and the Outstanding Contribution Award was given to Professor Ravishankar Iyer of The University of Illinois at Urbana-Champaign. The 2012 Outstanding Innovation Award was given to Professor Ravi Sandhu of University of Texas at San Antonio and the Outstanding Contribution Award was given to Dr. Robert Herklotz of the Airforce Office for Scientific Research. The 2013 Outstanding Innovation Award was given to Professor Adrian Perrig of Carnegie-Mellon University and ETH Zurich and the Outstanding Contribution Award was given to Professor Karl Levitt of UC Davis.

5. ACM DIGITAL LIBRARY

The ACM Digital Library has become an important source of revenue for all SIGs. With the addition of several workshop proceedings, SIGSAC received a healthy share of the total revenue. SIGSAC will seek new ways to add to the library's content (such as collecting speakers' slides and videos of conference invited talks, tutorials, and paper presentations) to strengthen and broaden its appeal to all subscribers. To increase awareness of SIGSAC and access to the digital library among the security community, SIGSAC plans to include SIGSAC membership with the registration for ACM CCS 2014 (opt-out is permitted, but default is opt-in).

6. ELECTIONS AND EXECUTIVE COMMITTEE

Following the elections held in 2013, the following officers started their terms on July 1, 2013: Professor Trent Jaeger of Pennsylvania State University (Chair), Professor Ninghui Li of Purdue University (Vice-Chair), and Professor Barbara Carminati of University of Insubria, Italy (Treasurer).

According to the bylaws of SIGSAC, the executive committee starting from July 2013 consists of the elected officers and the previous SIGSAC Chair, Professor Elisa Bertino. The chair of the executive committee is Professor Trent Jaeger.

7. POLICIES

SIGSAC has put in place a new policy concerning simultaneous submissions of manuscripts to conferences, symposia, and workshops sponsored by SIGSAC. Under this new policy (posted at the SIGSAC web site: <http://www.sigsac.org/submissions.html>), the authors of manuscripts violating the simultaneous submission policy will be banned for two years from submitting manuscripts to any conference, symposium and workshop sponsored by SIGSAC.

8. SUMMARY

SIGSAC is in excellent shape both in terms of successful technical activities and financially. We expect that, in the coming years, SIGSAC will continue to sustain and build on existing activities.

SIGSAM FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Ilias S. Kotsireas

I was elected SIGSAM Chair in July 2013 and since then I have undertaken a number of initiatives to improve various aspects of SIGSAM.

- (1) I have initiated a major webpage overhaul, with the aim to make the SIGSAM webpage more informative for the benefit of the membership but also for the benefit of all Computer Algebra and Symbolic Computation researchers.
- (2) I was able to successfully nominate a candidate for the ACM-W Athena Award. Her nomination was enthusiastically endorsed by top notch researchers and was very positively received by the ACM-W committee. I received encouraging comments from the committee and was asked to maintain the nomination in the pool for next year. It is my personal experience that with this kind of nominations, such as Honoris Causa degrees for instance, it often takes a few rounds before the nomination gets selected for the Award.
- (3) I was able to successfully transition between two Editors of the SIGSAM publication, namely "ACM Communications in Computer Algebra". The previous Editor resigned in March 2014, in order to pursue his research career more intensively. I was able to replace him with another equally energetic and efficient Editor who ensured the smooth production of two CCA issues already. The ACM Communications in Computer Algebra has been published since 1965 (previously called SIGSAM Bulletin). The CCA is published quarterly; however, only two double-issues are printed and mailed per year, with the four electronic issues appearing through the digital library and the SIGSAM website. The change to two rather than four printed issues was made to save money and was received quite positively by our members.
- (4) I managed to have 4 conferences to operate under the SIGSAM in-cooperation status and really hope to increase this number next year.
- (5) There are 8 new SIGSAM members since July 2013. It is not a massive increase, but it is a start. I am trying to find new members/volunteers and engage more members in volunteering. This will be done through a membership increase campaign that I have discussed with the other SIGSAM Officers. Once we have the new webpage going, I plan to send individual letters to about 1500 active researchers, to invite them to join SIGSAM and contribute to its activities.

Awards that were given out

ISSAC 2014 was held in Kobe Japan <http://www.issac-symposium.org/2014/> and two SIGSAM awards were given out:

ISSAC 2014 Distinguished paper award:

Francois Le Gall legall@is.s.u-tokyo.ac.jp
Powers of Tensors and Fast Matrix Multiplication

ISSAC 2014 Distinguisher Student Author awards:

Shiyun Yang s97yang@uwaterloo.ca for co-authoring the paper: Arne Storjohann and Shiyun Yang. Linear independence oracles and applications to low rank linear algebra

Carlos Arreche carreche@qc.cuny.edu

Computing the differential Galois group of a parameterized second-order linear differential equation

Key issues that SIGSAM members will have to deal with in the next 2-3 years.

The Symbolic Computation research community is thriving worldwide. Its flagship journal, the Journal of Symbolic Computation (JSC) has a large number of backlog submissions and there are several other journals that cater to the community, such as MCS, TOMS, AAECC, etc. On the software side, there are major new releases of Maple, Mathematica and other platforms. Newcomers such as SAGE are gaining momentum increasingly and are becoming an integral part of the research at many Universities and companies worldwide. The community is able to sustain a large number of international conferences, including some of a more regional and/or specialized nature. I believe one of the key challenges that SIGSAM will be facing is how to translate the enthusiasm of this vibrant community into an increase in its membership.

SIGSIM FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Paul Fishwick

1. Awards

ACM Distinguished Contributions Award (December 10, 2013) to Professor Richard Fujimoto, Georgia Tech University presented at the 2013 Winter Simulation Conference (WSC) in Washington, DC. SIGSIM is one of the co-sponsors of WSC.

6 Travel Awards to PhD students to attend WSC @ \$1K each as available based on receipts provided by students to ACM HQ. An amount up to \$1K was provided.

3 Travel Awards to PhD students to attend the 2nd ACM SIGSIM-PADS Conference in Denver, Co (May 2014) – similar to WSC payment (up to \$1K each based on expenses).

SIGSIM Awards are documented here:

<http://www.acm-sigsim-mskr.org/awards.htm>

2. Significant Papers

The Best Paper student paper award given at the 2013 Winter Simulation Conference co-sponsored by ACM SIGSIM: <http://www.acm-sigsim-mskr.org/bestPhDpaperAwardRecipients.htm>

3. Significant Programs

The main program was the introduction of student travel awards for both the Winter Simulation Conference and the flagship SIGSIM-PADS conference. For the prior year, the main contribution was the comprehensive web presence for the MSKR: www.sigsim.org which continued to grow during the past year.

4. Innovative Programs

There is a new Education Chair responsible for coordination of student activities (the Sunday Colloquia at WSC and SIGSIM-PADS) and travel awards. The Chair is Dr. David Bell, Brunel University, UK. There are plans to introduce additional certificates and prizes for students but the proposals have not yet been addressed.

5. Events or programs that broadened participation either geographically, or among under-represented members of your community

None added during performance period.

6. Key issues

a) Growing the membership of SIGSIM

Social networking is currently an issue – not enough of it. A small move in the right direction is to moderate the huge number of Calls for Papers (CFPs) submitted to the main list. Also there were two original lists, but these lists have been merged into a single list with the help ACM HQ and John Tufarolo (Social Networking chair). We will attempt to re-engage the membership in social networking for modeling and simulation but this has been ongoing problem for us.

b) Increasing the registration for the annual SIGSIM-PADS conference

The main issue is there are not enough registrants, especially for the most recent conference in Denver (May 2014). We must fix this issue. One solution we are putting in place for the 2015 conference in London is to allow for “invited papers” from known contributors, or groups that we’d like to involve in SIGSIM who are in other, technically-related, societies. The hope is that this will increase registrations and revenue. Also, the European venue is expected to increase revenue as it did for the Winter Simulation Conference in Berlin, Germany (Dec 2012). The goal is to be extremely proactive or the 2015 conference to ensure steady growth in conference attendance.

SIGSOFT FY'14 Annual Report
July, 2014 – June, 2014
Submitted by: Will Tracz

ACM's Special Interest Group on Software Engineering (SIGSOFT) had another excellent year, both technically and financially in 2013-14. This report provides a summary of key SIGSOFT activities over the past year.

AWARDS THAT WERE GIVEN OUT

SIGSOFT has a large awards program that recognizes the many achievements of the software engineering community (see <http://www.sigsoft.org/>).

Our prestigious service, research and education awards were presented again this year at the International Conference on Software Engineering (ICSE) 2014 in Hyderabad, India. The recipients are as follows:

The **ACM SIGSOFT Distinguished Service Award** was presented to: Leon J. Osterweil from the University of Massachusetts, "For promoting and expanding the field of software engineering through visionary leadership of the Impact Project and for bringing the community to China, and China into the community, by organizing ICSE 2006 in Shanghai, as well as sustained editorial, program, and award committee service."

The **ACM SIGSOFT Outstanding Research Award** was presented to Alexander L. Wolf from Imperial College, "For formative work in software architecture, influential research in distributed event-based systems, and important contributions in software deployment, configuration management, and process."

The **ACM SIGSOFT Influential Educator Award** was presented to Mary Lou Soffa from the University of Virginia "For a sustained record of teaching and mentoring students at all ranks in the field of computing, especially in software engineering, with half of the mentored students being women or minorities."

At ICSE 2014 we also recognized new ACM Senior Members, ACM Distinguished Members and ACM Fellows for 2014 from the SIGSOFT community.

- The new **ACM Senior Members** are Punam Bedi, Cormac Flanagan, Cory Plock, Manu Sridharan, Masao Ito, Thomas Zimmermann, and Vicente Ferreira de Lucena Jr.
- **Distinguished Members:** André van der Hoek and Gregg E. Rothermel were recognized as new ACM Distinguished Scientists. Owen Astrachan was recognized as a Distinguished Educator
- This year there was only one SIGSOFT member who was named an **ACM Fellow** - David Garlan of Carnegie Mellon University "For contributions to the development of software architecture as a discipline in software engineering."

The **SIGSOFT Impact Paper Award** recognizes a paper published in a SIGSOFT conference at least 10 years earlier that has had exceptional impact on research or practice. The 2014 SIGSOFT Impact Paper Award committee, led by Peri Tarr, selected the paper: "*Evidence-based Software Engineering*" by Barbara A. Kitchenham, Tore Dybå, Magne Jørgensen, from the Proceedings of the 26th International Conference on Software Engineering (ICSE '04).

This is the second year for the **ACM SIGSOFT Outstanding Doctoral Dissertation Award** for the outstanding PhD dissertations in the field of software engineering. This year's awardee was Jeff Huang for his dissertation "Effective Methods for Debugging Concurrent Software." Huang's research developed new algorithms and tools to make programmers much more productive in finding, understanding, and fixing software bugs that particularly pertain to concurrent programs that simultaneously use multiple cores. Huang completed his Ph.D. at the Hong Kong University of Science and Technology, China, advised by Professor Charles Zhang.

Many of our sponsored meetings this year also presented ACM SIGSOFT Distinguished Paper Awards to the authors of a select number of their accepted papers. The awardees are listed in next section.

SIGNIFICANT PAPERS ON NEW AREAS THAT WERE PUBLISHED IN PROCEEDINGS

The problems and topics addressed in the papers presented at SIGSOFT meetings remain varied and timely. Software engineering researchers are increasing their application of techniques borrowed from other areas of computer science, particularly virtualization, mobile computing, and human/computer interaction. The acceptance rates have been around the 20-25% range with SIGSOFT Distinguished paper awards ratio being up to 1 award for every 10 accepted papers. ESEC/FSE had 251 submissions with 51 papers accepted (20%) but there were no Distinguished Paper Awards. ICSE had 499 submission with 99 papers accepted (20%) that resulted in ten Distinguished Papers Awards, of which the following provided innovative insights.

- **Cowboys, Ankle Sprains, and Keepers of Quality: How is Video Game Development Different from Software Development?** by Emerson Murphy-Hill, Thomas Zimmermann, and Nachiappan Nagappan
- **Characterizing and Detecting Performance Bugs for Smartphone Applications** by Yepang Liu, Chang Xu, and Shing-Chi Cheung
- **Improving Automated Source Code Summarization via an Eye-Tracking Study of Programmers** by Paige Rodeghero, Collin McMillan, Paul W. McBurney, Nigel Bosch, and Sidney D'Mello
- **Unit Test Virtualization with VMVM** by Jonathan Bell and Gail Kaiser
- **Coverage Is Not Strongly Correlated with Test Suite Effectiveness** by Laura Inozemtseva and Reid Holmes

ISSTA had three Distinguished Paper Awards based on 124 submissions with 32 accepted (26%).

SIGNIFICANT PROGRAMS THAT PROVIDED A SPRINGBOARD FOR FURTHER TECHNICAL EFFORTS

SIGSOFT has two software engineering education programs – one targeted toward students and the seconded focused on educators. Students receive discounted membership rates and registration fees at all SIGSOFT-sponsored conferences and workshops. In addition, our two flagship conferences: ICSE and ESEC/FSE offer a Doctoral Symposium where students are mentored by experienced Software Engineering professors. Also, SIGSOFT provides travel support to SIGSOFT sponsored or co-sponsored conferences or workshops for graduate and undergraduate students who are SIGSOFT members through the Conference Aid Program for Students (CAPS) – <http://www.sigsoft.org/CAPS/>. Attendance at conferences and workshops to present papers and to interact with researchers and practitioners in software engineering is an important component of students' education and professional development. Moreover, students' presence at conferences and workshops enriches and broadens conference and workshop activities. Conferences and workshops are also a good way to introduce students to the services of SIGSOFT. In FY 2014 over \$70K of grants were given to 71 graduate and 6 undergraduate students (out of 131 requests).

SIGSOFT holds Software Engineering Educators Symposium (SEES) in non ESEC/FSE years. It consists of two half-day tutorials covering approaches for teaching programming and software engineering to undergraduates. Symposium participants are provided access to instructional materials, receive practical tips on how to successfully apply the approaches, and learned about tools that support hands-on instruction and active learning. ACM SIGSOFT is providing funding for this year's FSE in Hong Kong.

INNOVATIVE PROGRAMS WHICH PROVIDE SERVICE TO SOME PART OF THE TECHNICAL COMMUNITY

This year we expanded the Award Nomination Submission web site to handle all award submissions and evaluations. In addition we "normalized" all awards so that there is a single submission deadline. The use of the website proved very beneficial and it will be cloned and expanded to handle SEN submissions in 2015.

Another innovation is the SIGSOFT Webinar Series, which will be open to the general software engineering community. Webinars will be based on the Future of Software Engineering Track at ICSE 2014. Kevin Sullivan at the University of Virginia is leading this effort.

Finally, jointly used by SIGSOFT/SIGPLAN tool, PCMiner was made available all SIGS at the SGB meeting. Program chairs can use it to identify suitable candidates to serve on their program committees. Steering committees can use it to identify suitable candidates to serve as program chair or general chair.

Broadening Participation Events/Program

In order to increase participation in SIGSOFT-sponsored events and increase/retain membership, we:

- Raised/Lowered SIGSOFT Membership fees by creating an electronic-only category of membership.
- Explored conference profit sharing as a means to reduce conference registration fees
- Proposed to ACM reduced conference registration fees for retired SIGSOFT members
- Increased CAPS support funding by \$10K to provide additional travel assistance for student conference attendance
- Created six issues of SEN with over 100 papers, columns, and book reviews being added to the Digital Library. Our publication policy increases early dissemination of research and our mentoring process on editing submissions helps new authors develop better communication skills.

BRIEF SUMMARY OF KEY ISSUES FACING THE SIGSOFT MEMBERSHIP

Challenges for the years to come include:

- Increasing the number of award nominations
- Reducing conference/workshop registration fees
- Providing more resources to practitioners
- Increasing use of social media
- Increasing volunteer involvement and development.

SIGSPATIAL FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Mohamed F. Mokbel

1. SIGSPATIAL CONFERENCES AND WORKSHOPS

SIGSPATIAL's mission is to address issues related to the acquisition, management, and processing of spatially-related information with a focus on algorithmic, geometric, visual, and systems considerations. The scope includes, but is not limited to, geographic information systems (GIS). These issues have become increasingly important in terms of public awareness with the growing interest and use of online mapping systems such as Microsoft Virtual Earth and Google Maps and Google Earth as well as the integration of GPS into applications and devices such as, but not limited to, the iPhone and Android. Presently, SIGSPATIAL is fulfilling this mission by sponsoring high quality research conferences and workshops. As indicated by its mission, SIGSPATIAL's domain is much more than just geographic information systems and with this in mind it tries to differentiate its conferences and workshop from others by focusing on the computer science aspects of the field rather than on the available commercial products. In addition, a major concern and focus of the SIGSPATIAL leadership is keeping its flagship conference, the ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL GIS), affordable so that it can continue to be of good value to its attendees and be competitive price-wise with related conferences which are priced at considerably lower levels than most ACM SIG conferences. SIGSPATIAL has been able to achieve this goal by being very active in soliciting sponsor contributions as well as being vigilant at minimizing SIGSPATIAL's financial exposure in terms of contractual obligations when planning the conference by building reserves that can be used in years when the financial climate is not so healthy.

2013 was the sixth year of SIGSPATIAL and its main activity was its flagship conference (ACM SIGSPATIAL GIS) that was held in Orlando, Florida, (November, 5-8, 2013). ACM SIGSPATIAL GIS 2013 was the twenty first event of an annual series of symposia and workshops with the mission to bring together researchers, developers, users, and practitioners carrying out research and development in novel systems based on geo-spatial data and knowledge. The conference fosters interdisciplinary discussions and research in all aspects of spatial systems including but not limited to Geographic Information Systems and Science (GIS) and provides a forum for original research contributions covering all conceptual, design, and implementation aspects of GIS and ranging from applications, user interface considerations, and visualization to storage management, indexing, and algorithmic issues.

This was the sixth time that the conference was held under the auspices of the new ACM Special Interest Group on Spatial Information (SIGSPATIAL). The conference program attracted 322 attendees (including 131 students), which is close to 100% increase in the number of attendees when SIGSPATIAL started. The technical program lasted for two and half days, and based on the feedback of the participants, we can conclude that the conference was very successful in terms of new ideas presented and level of interaction provided.

The call for papers led to 229 paper submissions over three tracks: research, PhD showcases, and demos. The research paper track attracted 202 research paper submissions, of which 39 were accepted as full papers, 32 were accepted as poster papers. The Ph.D. Showcase track received two submissions, of which one is accepted, while the demonstrations track received 25 submissions, of which 16 were accepted. The submissions were reviewed by a program committee of 113 members. Each paper was reviewed by at least three reviewers, and in most cases four. These numbers indicate the continued health, interest, and growth of the research field of spatial information systems, and the need to bring its researchers, students, and industrial practitioners together.

The conference program featured two outstanding invited speakers:

1. Ming C. Lin, University of North Carolina at Chapel Hill and Tsinghua University, for a talk titled "Virtual Traffic for Real-World Challenges".
2. Blaise Agüera y Arcas, Microsoft, Distinguished Engineer, for a talk titled "Applications and Services Group - Photosynth2".

The conference was run in a single track with one of the highlights being a fast forward poster session in the first afternoon where each poster author was given two minutes to present the highlights of their work to the audience. This was followed by a poster and Demo reception in the evening where the conference participants had an opportunity to interact with the poster authors. Poster paper authors were encouraged to do a good job by having two awards: one for best fast forward presentation and one for the actual poster. Demo paper

authors were awarded a best demo award for a running prototype that the authors demonstrate. The poster and demo components of the conference proved to be very popular with both the conference audience and the poster and demo authors.

The conference also included a business meeting for SIGSPATIAL which was open to all SIGSPATIAL members as well as to all conference attendees. The meeting included a discussion of budgetary issues, plans for next year's conference, a discussion of some initiatives such as ensuring that the ACM Digital Library has copies of all past issues of the conference proceedings, and soliciting feedback from members.

The conference was preceded by a workshop day with the following eleven workshops:

1. BIGSPATIAL 2013: The Second ACM SIGSPATIAL International Workshop on Analytics for Big Geospatial Data
General Chairs: Varun Chandola, Ranga Raju Vatsavai
2. CoMP 2013: The First ACM SIGSPATIAL International Workshop on Computational Models of Place
General Chairs: Simon Scheider, Benjamin Adams, Krzysztof Janowicz, Maria Vasardani, Stephan Winter
3. GEOCROWD 2013: The Second ACM SIGSPATIAL International Workshop on Crowdsourced and Volunteered Geographic Information
General Chairs: Dieter Pfoser, Agnès Voisard
4. GIR 2013: The Seventh International Workshop on Geographic Information Retrieval
General Chairs: Ross Purves, Chris Jones
5. HealthGIS 2013: The Second ACM SIGSPATIAL International Workshop on the Use of GIS in Public Health
General Chairs: Daniel W. Goldberg, Ori Gudes, Yaron Kanza
6. ISA 2013: The Fifth ACM SIGSPATIAL International Workshop on Indoor Spatial Awareness
General Chairs: Martin Tomko, Scott Bell, Ki-Joune Li
7. IWCTS 2013: The Sixth ACM SIGSPATIAL International Workshop on Computational Transportation Science
General Chairs: Monika Sester, John Krumm, and Clement Mallet
8. IWGS 2013: The Fourth ACM SIGSPATIAL International Workshop on GeoStreaming
General Chairs: Mohamed Ali, Anas Basalamah, Farnoush Banaei-Kashani
9. LBSN 2013: The Sixth ACM SIGSPATIAL International Workshop on Location-Based Social Networks
General Chair: Alexei Pozdnoukhov
10. MapInteract 2013: The First ACM SIGSPATIAL International Workshop on Interacting with Maps
General Chairs: Falko Schmid, Chris Kray, Holger Fritze
11. MobiGIS 2013: The Second ACM SIGSPATIAL International Workshop on Mobile Geographic Information Systems
General Chairs: Chi-Yin Chow, Shashi Shekhar

This year's conference was generously co-sponsored by NSF, ESRI, Google, Microsoft, Oracle, and NVIDIA, whose participation and generosity demonstrated what can be accomplished by a successful partnership between academia and industry. Some of the sponsors held a recruiting table for potential students during one day of the conference.

The SIGSPATIAL leadership is currently planning for the 2014 ACM SIGSPATIAL GIS Conference that will be held in Dallas, Texas on November 4-7, 2014 with as many as 12 workshops on November 4. It has already secured sponsorship from ESRI, Microsoft, Google, Oracle, Facebook, and NVIDIA. SIGSPATIAL has also applied for support from the National Science Foundation (NSF) in the amount of around \$30K and plan to use these funds to offer 25-30 student travel grants. Of these funds, we plan to allocate \$20K for the general student participation in the conference and \$10K for the students that participate in the spatial data competition.

2. SIGSPATIAL PUBLICATION INITIATIVES

In 2013 the ACM Transactions on Spatial Algorithms and Systems (ACM TSAS) started to review submissions for publication. There have been 30 submissions so far and they are being reviewed by the TSAS Editorial Board. This is a slow process as TSAS must decide whether the submissions fit its scope which at times is not an easy task. A number of articles have already been accepted for publication but more are needed so as to establish a backlog. We are also attempting to identify some top papers that appeared in the SIGSPATIAL Conference in past years whose authors will be invited to submit expanded versions for consideration for publication in a special "best conference papers" issue should a sufficient number be identified and accepted after undergoing a review. It is hoped to start publication sometime in 2015.

3. AWARDS

In 2013, SIGSPATIAL continued to offer a best paper award. The ad hoc 2013 ACM SIGSPATIAL GIS Best Paper Award Committee consisting of the program committee chairs and several additional members selected the following paper for the best paper award:

Dejavu: An Accurate Energy-Efficient Outdoor Localization System

Heba Aly (Alexandria University, Egypt), Moustafa Youssef (Egypt-Japan University of Science and Technology (E-JUST), Egypt)

Awards were also made at the conference by ad hoc committees for the best demo presentation, the best poster paper presentation, and the best fast forward poster presentation.

Best Demo Paper Presentation:

GIVA: A Semantic Framework for Geospatial and Temporal Data Integration, Visualization, and Analytics

Isabel F. Cruz (University of Illinois at Chicago, USA), Venkat R. Ganesh (University of Illinois at Chicago, USA), Claudio Caletti (University of Illinois at Chicago, USA), Pavan Reddy (University of Illinois at Chicago, USA)

Best Demo Presentation Runner-up:

The mGIS: A minimal geographic information system accessible to users who are blind

Megen Brittell (Computer and Information Science, University of Oregon, USA), Michal Young (Computer and Information Science, University of Oregon, USA), Amy Lobben (Department of Geography, University of Oregon, USA)

Best Poster Paper Presentation:

On Robust Interpretation of Topological Relations in Identity and Tolerance Models

Alberto Belussi (Università degli Studi di Verona, Italy), Sara Migliorini (Università degli Studi di Verona, Italy), Mauro Negri (Politecnico of Milano, Italy), Giuseppe Pelagatti (Politecnico of Milano, Italy)

Best Poster Presentation Runner-up:

Accentuating Focus Maps via Partial Schematization

Thomas van Dijk (Universität Würzburg, Germany), Arthur van Goethem (TU Eindhoven, Netherlands), Jan-Henrik Haurert (Universität Würzburg, Germany), Wouter Meulemans (TU Eindhoven, Netherlands), Bettina Speckmann (TU Eindhoven, Netherlands)

Best Fast Forward Poster Paper Presentation:

Accentuating Focus Maps via Partial Schematization

Thomas van Dijk (Universität Würzburg, Germany), Arthur van Goethem (TU Eindhoven, Netherlands), Jan-Henrik Haurert (Universität Würzburg, Germany), Wouter Meulemans (TU Eindhoven, Netherlands), Bettina Speckmann (TU Eindhoven, Netherlands)

Best Fast Forward Poster Paper Presentation Runner-up:

GPS Tracking: Timely, Accurate, or Cheap - Pick any Two

James Biagioni (University of Illinois at Chicago, USA), Abm Musa (University of Illinois at Chicago, USA), Jakob Eriksson (University of Illinois at Chicago, USA), John Krumm (Microsoft Research, USA)

4. ACM DIGITAL LIBRARY

SIGSPATIAL plans to expand its presence in the ACM Digital Library by soliciting workshop proposals both in its role as a sponsor and on an in cooperation status. This can be seen by the increased number of workshops that it sponsored in 2013. In 2014, SIGSPATIAL was proactive in soliciting workshop proposals and designated its Treasurer, Mohamed Mokbel, as the Workshops Chair. He successfully created a uniform framework for them with a program of 12 concurrent workshops.

5. SIGSPATIAL CHAPTERS

SIGSPATIAL has four Chapters: SIGSPATIAL Australia, SIGSPATIAL China, SIGSPATIAL Korea, and SIGSPATIAL Taiwan. These chapters are representative of the amount in interest in SIGSPATIAL from members in these regions and are reflected by their participation in the flagship conference as authors and attendees.

6. PLANS FOR THE 2014 FISCAL YEAR

SIGSPATIAL is working hard to fulfill its mission of sponsoring high quality research conferences and workshops. It will continue to be more proactive in soliciting workshops in emerging areas, e.g., we had 11 successful workshops in 2011, two of them were new ones addressing new emerging issues of computational modeling and human compute interaction with maps. In addition, we were successful to attract an already well established workshop about Geographic Information Retrieval to be held with SIGSPATIAL.

We will continue to seek out more sponsors and try to devise activities that will increase its attractiveness to the potential sponsors. We are planning to continue the company recruiting event which was very successful in the last two years. We will continue to enrich the sponsors program to make it attractive to industrial partners. We strive to continue to maintain, as well as build on, the momentum of its first six years of existence.

7. ELECTIONS and OFFICERS

SIGSPATIAL held its elections for officers in Summer 2014. The elected officers for the three year term running from July 1, 2014 through June 30, 2014 were:

Chair: Mohamed F. Mokbel, University of Minnesota
Vice-Chair: Shawn Newsam, University of California Merced
Secretary: Roger Zimmermann, National University of Singapore
Treasurer: Egemen Tanin, University of Melbourne

According to the SIGSPATIAL bylaws, the past SIGSPATIAL chair is also a member of the EC.
Past Chair: Walid G. Aref, Purdue University

The SIGSPATIAL EC is in the process of appointing three more officers for the positions of: Newsletter Editor, Conference Venue Coordinator, and Webmaster.

SIGUCCS Annual Report
July, 2013 – June, 2014
Submitted by: Kelly Wainwright

During the past year, SIGUCCS (Special Interest Group for University and College Computing Services) continued as an "association of professionals who support and manage the diverse aspects of information technology services in higher education institutions" (SIGUCCS Bylaws, Article 1). However this mission, as well as the acceptance rate of papers for our annual Service & Support conference, was questioned at the Fall SGB meeting. We subsequently spent the year reviewing this process and searching for an understanding of who SIGUCCS needs to be in order to be a successful SIG. We continue to hold a SIGUCCS annual conference, which consists of the Management Symposium and the Service and Support conference being held consecutively. After three years of this format, we surveyed participants to evaluate the level of success of this model. We continue to evaluate ways to make this a more effective approach.

The Executive Committee members for 2013-2014 (Chair, Kelly Wainwright; Vice Chair/ Conference Liaison, Parrish Nambi; Secretary, Karen McRitchie; Treasurer, Melissa Bauer; Information Director, Mat Felthousen; and Past Chair Bob Haring-Smith) continued their three-year term of office. Beth Rugg (Professional Development Coordinator) and Trevor Murphy (Communication Awards Chair) continued in their appointed roles. Nancy Bauer (chair of the Marketing Committee) resigned in the past year, and her duties were incorporated into the Information Director role for the remainder of the term. Other volunteers, too numerous to name here, individually contribute their energy and ideas to the organization through their service on conference and program committees, on the Awards Committee, on the Membership and Marketing Committees, the Newsletter Committee, the Mentor/Mentee program, delivering webinars and as judges for the Communication Awards. Many of these individuals are listed in appropriate pages on the SIGUCCS web site (<http://www.siguccs.org>).

The SIGUCCS board election was held in the spring, but we started to publicize it last fall in order to solicit volunteers to run for office and to encourage voting participation by the membership. A strong slate of two candidates for Chair, and eight candidates for the other four newly-elected positions on the Committee was assembled by the Nominating Committee. No one petitioned for inclusion on the ballot. Mat Felthousen was elected Chair and Melissa Bauer, Allan Chen, Laurie Fox and Beth Rugg were elected to the Executive Committee.

Awards and Grants

The SIGUCCS Awards Programs have been in place for more than a decade. The Penny Crane Award for Distinguished Service recognizes an individual's significant and/or multiple contributions to SIGUCCS and the profession over an extended period of time. The Hall of Fame awards recognize selected individuals who have contributed their time and energies to benefit SIGUCCS. For descriptions of the awards programs, please go to: <http://www.siguccs.org/awards/>.

Penny Crane Award for Distinguished Service – Terris Wolff was the recipient of the 2013 Penny Crane Award. For more information please go to: http://www.siguccs.org/awards/penny_crane/terris_wolff.html

Hall of Fame – Eight individuals were inducted into the Hall of Fame in 2013, Gale Fritsche, Greg Hanek, Patti Mitch, Carol Rhodes, Cindy Sanders, Leila Shahbender, Christine Vucinich and Jim Yucha. See <http://www.siguccs.org/awards/halloffame/halloffame2013.html> for more information.

Conference attendance grants – The SIGUCCS Grant Program provides partial support for individuals in institutions of higher education to participate in the annual SIGUCCS Conference. This support is funded by SIGUCCS and consists of a full registration to the grantee's choice of either the Management Symposium or the Service and Support Conference; registration for one half-day workshop or executive seminar associated with the chosen portion of the conference; and three nights' accommodation at the conference hotel. In selecting grant recipients, we favor applicants from institutions that have not been represented at recent SIGUCCS conferences. This approach is intended to make the conferences more widely known and build future attendance.

The program completed its fifth year in 2012. The three awardees of this grant for the SIGUCCS 2012 Annual Conference were:

Yelena Lyudmilova, Essex County College
Steve Mihm II, The College at Brockport, State University of New York
Julie VanLeuven, Idaho State University

On January 1, 2014, Mike Yohe became Chair of the SIGUCCS Awards Selection Committee and Tim Foley became Past Chair, following the rotation of the committee's membership as described at http://www.siguccs.org/awards/awards_committee.html. Two new members, Greg Hanek and Leila Shahbender, replaced Nancy Bauer and Rob Paterson, who completed their service to the committee at the end of 2013.

2013 Communications Awards - As we have done for many years, we held the Communications Awards competition in conjunction with our Conference. A description of these awards and the 2013 winners can be found at: <http://www.siguccs.org/Conference/2013/awards.php>. Judging for this competition was led by Trevor Murphy as the current Communications Awards Chair. The Communications Awards Committee is formed each year from the previous year's top award winners in each category.

As can be seen from the listing, there need not be an award made in a category, even if there are submissions. Each year the categories in the competition are reviewed to ensure that they appropriately represent the range of communications currently used in higher education.

A video highlighting the SIGUCCS communication awards and spotlighting some of the 2013 recipients can be viewed at http://www.siguccs.org/awards/communication_awards.html.

Conferences

The third SIGUCCS Annual Conference comprised of the Management Symposium and the Service and Support Conference was held November 3-8, 2013 in Chicago, Illinois, with the theme of "50 Years of Reaching New Heights." The conferences occurred consecutively, giving attendees the opportunity to register for either or both parts of the conference. The keynote speakers were Jay Dominick, Vice President for Information Technology and CIO, Princeton University for the Management Symposium, David Zach, Futurist, for the joint plenary that bridged the two conferences, and Kirk Weisler, Chief Morale Officer, for the Service and Support Conference. An Executive Seminar on "Development, Implementation, and Evaluation of a Higher Education Strategic Plan for Mobilization," was held along with one full-day workshop before the Service and Support Conference and one half-day workshop afterwards. For the complete program, see <http://www.siguccs.org/Conference/2013/program.php>.

Over the last several years, the SIGUCCS EC has worked with conference planning committees to develop ways that we can continue to maintain the integrity of the conference while balancing the budget. Each conference budget has come close to that goal, while both the 2011 the 2013 conference were able to make money. This is due in part to the slowly increasing attendance at conferences.

Planning is currently underway for the next annual conference, our fourth combined conference, which will happen November 2-7, 2014 at the Sheraton Salt Lake City in Salt Lake City, Utah. The conference committee has chosen a theme of "BYOD: Build Your Own Destiny" as we prepare ourselves for the never-ending changes in technology and career opportunities that will determine our destiny.

Webinars

SIGUCCS continued our offering of professional development webinars under the leadership of Professional Development Coordinator Beth Rugg. We have offered webinars that will help participants better understand the SIGUCCS organization, and on topics discussing current issues. This year we have held 9 different webinars with a total attendance of 221 participants. Recordings of past webinars are available on the SIGUCCS web site at <http://www.siguccs.org/resources/webinar.html>.

We continue to use GoToMeeting's webinar service, which is also used for board meetings and provides a versatile medium for SIGUCCS services and operations. In addition to webinars and board meetings it is used extensively for committee meetings, pre-conference orientation sessions for first-time attendees at the SIGUCCS Conference, and other on-line volunteer gatherings.

SIGUCCS Mentoring

As a way to expand our professional development opportunities for our membership, SIGUCCS established a mentoring program in 2013. This program allows members of the SIGUCCS community to both be mentored and to mentor their colleagues.

In the second year of this program, we had 42 people complete the application to participate in the program. A mentoring advisory team matched mentors with mentees based on these applications and formed 21 mentoring pairs. This is a 61% increase in participation from the first year of the mentoring program.

The plan is to have this mentoring relationship lasting for a year, culminating at the annual conference. Throughout the program, peer support is offered to both the mentors and mentees through regular online hangouts.

SIGUCCS Newsletter

SIGUCCS is again offering a quarterly newsletter to our members. A number of years ago, SIGUCCS was a Conference and Newsletter SIG. We reconstituted the practice of a member newsletter as a vehicle for communicating with our membership between conferences, especially since conferences now happen further apart. The quarterly newsletter is distributed electronically as a PDF file and archived in the ACM Digital Library.

Special Projects

The SIGUCCS Executive Committee and groups of SIGUCCS volunteers have worked on several special projects during the past year.

SIGUCCS 50: SIGUCCS was founded in 1963 and held its first conference in 1973, so 2013 marked both the 50th anniversary of SIGUCCS and the 40th anniversary of that first conference. A group led by former SIGUCCS Chairs Leila Lyons and Jack Esbin worked with the SIGUCCS 2013 conference committee to include a celebration of this milestone during the conference. For that purpose, the conference incorporated a "50th Anniversary" track one day of the conference culminating in the 50th Anniversary Gala. Individuals interested in attending only attending 50th Anniversary events could do so at a special rate. It was important to the "SIGUCCS 50" group that the anniversary celebration not be simply an exercise in nostalgia for older members of the SIGUCCS community, but also have a clear value for all who rely on SIGUCCS services. Certainly, many of the biggest challenges we face are perennial problems of management, communication, and staff development. Recognizing how the problems persist even as the technology changes was an important outcome of the SIGUCCS 50 events.

Viability Review and Response: After the SIGUCCS Viability Review this past fall, at which time the SGB EC recommended, and the SGB approved, a two-year conditional approval, with a response due in one year, the SIGUCCS EC spent considerable time discussing and evaluating a response to the SGB. In direct response to the SGB recommendation, SIGUCCS is evaluating our mission and our paper review and acceptance process. We are also working to better identify our membership and articulate their needs and the purpose of our SIG.

SIGUCCS Marketing: The SIGUCCS marketing committee continues its work to promote the SIGUCCS organization. This includes assisting the conference committee in promotion activities, assisting in the promotion of other SIGUCCS programs such as webinars and to develop and advance the SIGUCCS name within IT organizations at institutions of higher education. This past year, the marketing committee administered a survey to past attendees of Management Symposia and Conferences, going back to fall 2006. The purpose of the marketing survey was to gain a better understanding of the demographics of those who attend the SIGUCCS conference, and gauge the success of our combining the Management Symposium and Service & Support Conference into a single timeframe.

What we learned from the survey was that the demographic of the SIGUCCS community was more established in their careers than we had previously thought; our attendees had more than ten years of experience, and most had a management or leadership role. We also determined that overall the combined format was a success. We will continue to examine the data from the survey to further improve our responsiveness to member and attendee needs.

Issues

SIGUCCS is continually evaluating that we are meeting the needs of our constituency. With the drop in attendance at our conferences after the economic downturn in 2009, we continue to explore ways to reach IT organizations in institutions of higher education. We find that there are still a number of colleges that do not know about SIGUCCS and what it has to offer in the area of professional development and networking. We believe that by finding ways to better market and inform individuals of the existence of SIGUCCS we will improve conference attendance and consequently improve the financial health of the SIG.

We are continuing to evaluate and amend the model of offering our two conferences consecutively. This change was made both for programmatic as well as budgetary considerations. After our third year of this model we sought specific feedback. While conference evaluations support that the combined conference allows access to participants who were previously forced to choose between the two conferences, anecdotally we heard that being out of the office for a week-long conference is difficult. This prompted us to make some minor

adjustments in the length of each conference.

Finally, as mentioned above, we are dealing with the concerns expressed by the SGB EC. They expressed concerns about our high paper acceptance rate and asked that we also re-evaluate our mission as a SIG. In subsequent discussions with members of the SGB, it has become apparent that another issue in this discussion is the need for SIGUCCS to better articulate to the SGB the nature of our membership and the nature of our SIG being one more of professional development than the more traditional academic research SIG. To this end, we have spent much time and energy exploring how we can meet the needs and requests of the SGB without harming the integrity of the SIGUCCS community.

SIGWEB FY'14 Annual Report
July, 2013 – June, 2014
Submitted by: Simon Harper

We can characterise the SIG as exhibiting increasing impact and influence, while showing reduced membership.

While the conferences we run and the research we publish are increasingly relevant to the community (seen by increasing conference attendance and therefore revenue, and increasing digital library downloads, again increasing revenue) we can also see a continued and slight decline in membership - which we need to address. In short SIGWEB has successfully expanded its range of conference sponsorships, is working hard on membership and volunteer development and benefits, and is financially healthy with a solid leadership.

The last year has been an exciting one for SIGWEB. From the sponsorship of six Web conferences, to that of Cooperating Conferences; from the increase in student travel sponsorship (to \$36,000pa), to our increasing volunteer effort; the SIG has been at work at all levels of our domain.

We have forged links with multiple (~20) conferences and workshops across our field, focusing on new contribution awards and broadening participation of the SIG - including the first outing of supporting childcare at Hypertext 2014, while still maintaining our low membership dues. In short, it has been an active and productive year.

We have membership numbers (of 506). But, we have an increasing funds balance (to \$800,000), and are still increasing the amount we have to spend on each member, from \$800 last year to \$1100 this year; with member benefits of: Reduced rates at SIGWEB sponsored, co-sponsored, and co-operating events; Free access to ACM DL content of events sponsored by SIGWEB; Reduced subscription rates to New Review of Hypermedia and Multimedia; Free subscription to the SIGWEB members email list, with calls, advance and final event programs; and news of interest to the community posted regularly; we still have an excellent membership offering.

SIGWEB represents a unique interdisciplinary research community centred on the technical and human issues that arise from systems of linked information.

This idea of explicitly linking pieces of information gave birth to a rich well of research trying to augment the human intellect, a vision articulated by the legendary computing pioneer Douglas Engelbart nearly half a century ago. Engelbart, Ted Nelson, and other early researchers realised this vision through hypermedia systems, which are still of interest to the SIGWEB community today, including the World Wide Web, the largest hypermedia system ever built.

Modern researchers have found a host of other realisations of this vision, ranging from digital libraries to knowledge management systems. SIGWEB includes more than just computer researchers and professionals, though. From cognitive psychologists to ethnographers to anthropologists to hypertext writers, SIGWEB embraces those researchers and practitioners that address how people use computers, so that better tools for augmenting the human intellect can be built. SIGWEB also balances the findings of the research world with the experiences of the practical world, in which our ideas and theories are tested daily.

SIGWEB (originally SIGLINK) was founded 22 years ago to provide a home for the hypertext community and the ACM Hypertext conference. Over the years, SIGWEB has changed its name and has begun to sponsor a wide range of conferences encompassing hypertext, Web science, document engineering, digital libraries, knowledge management and Web search.

1. OFFICERS, EXECUTIVE COMMITTEE, & VOLUNTEERISM

The Elected Officers are:

- Simon Harper (Chair & Hypertext)
- Dick Bulterman (Vice-Chair & CIKM)
- Maria de Gra_a C. Pimentel (Secretary/Treasurer & DocEng)

The Appointed Executive Committee are:

- Ethan Munson (Past Chair & WebSci)

- Yeliz Yesilada (Information Director)
- Jessica Rubart (Newsletter Editor)
- Bebo White (WebSci & SIG History)
- Cathy Marshall (JCDL)
- Charles Nicholas (CIKM)
- Brian D. Davison (WSDM)
- Peter Brusilovsky (at-Large)
- Claus Atzenbeck (at-Large)

Additional Members:

- Hamman W. Samuel (Webmaster)
- Caroline Jay (Broadening Participation / Full Inclusion)
- Andrew Brown (Senior and Junior SIGWEB Awards)

Volunteer development has historically been a challenge for SIGWEB. We have new volunteers handling regular columns in the newsletter, and increasing numbers of people working around the publicity/social media area. We are always on the lookout for newsletter contributors and we are still looking for a Membership Coordinator to chase lapsed memberships and promote the SIG into getting more.

2. RECENT INITIATIVES

The SIG has put into place some recent initiatives over the last year or so: the Web Science Conference has now transferred to SIGWEB; Hypertext, DocEng, JCDL, CIKM, WSDM, and Web Science Student awards raised to \$6000 each pa; and Working Group Awards enacted upto \$5,000 over 3 years (please apply). We have now submitted a number of SIGWEB members for central ACM awards such as the ACM-W Athena Lecturer Award. We are further implementing the ACM full-inclusion directives with HT2014 as the first SIGWEB conference where attendees can apply for childcare support. Finally, we continue with open access to our conference proceeding. Any SIGWEB conference can request Open Access for 1 full year, we will also be offering a licence to publish without copyright transfer; and we will be offering Gold and Hybrid open access pay options.

3. FY 2014 TECHNICAL MEETINGS AND AWARDS

The technical meetings sponsored by SIGWEB were:

- ACM Symposium on Document Engineering (DocEng) 2013.
- ACM Conference on Information and Knowledge Management (CIKM 2013)
- ACM International Conference on Web Search and Data Mining (WSDM 2014)
- ACM/IEEE Joint Conference on Digital Libraries (JCDL 2013)
- ACM Conference on Hypertext and Hypermedia (HT 2013)
- ACM International Web Science Conference (WebSci 2014)

Table I: Conference Attendance

Conference	2013/14 Attendance	SIGWEB %
Hypertext	70	100%
DocEng	117	100%
Web Science	200	100%
JCDL	208	34%
CIKM	773	50%
WSDM	291	25%

The awards presented by SIGWEB in FY 2013 were:

- The Douglas C. Engelbart Best Paper Award for 2013 (HT 2013). David Millard, Charlie Hargood, Michael Jewell, Mark Weal. Canyons, Deltas and Plains: Towards a Unified Sculptural Model of Location-Based Hypertext.
- The Theodor Holm Nelson Newcomer Award for 2013 (HT 2013). Dominic Rout, Daniel Preotiuc-

Pietro, Kalina Bontcheva, Trevor Cohn. Wheres @wally? A Classification Approach to Geolocating Users Based on their Social Ties.

- The Vannevar Bush Award for 2013 (JCDL 2013). Kazunari Sugiyama, Min-Yen Kan: Exploiting potential citation papers in scholarly paper recommendation. JCDL 2013: 153-162.
- The DocEng Best Paper Award for 2013 (DocEng 2013). Thanh-Ha Do, Salvatore Tabbone, Oriol Ramos Terrades: Document noise removal using sparse representations over learned dictionary. ACM Symposium on Document Engineering 2013: 161-168

4. PARTNERSHIPS

SIGWEB shares sponsorship of three conferences: JCDL is co-sponsored with SIGIR and the IEEE TCDL; CIKM is co-sponsored with SIGIR; and WSDM is co-sponsored with SIGIR, SIGKDD, and SIGMOD.

5. FINANCES

SIGWEB's finances are stable and strong (some figures are projected as this report was prepared before the end of the ACM financial year). The SIG's fund balance stands at over \$800,000. This is a \$90,000 increase from the preceding year, and we now have funds, which are substantially higher than several years ago. The fund balance is more than adequate to support SIGWEB's planned activities under ACM's formula. Indeed, SIGWEB's conferences have generally been making profits and in some cases have made large profits. However, in the past year some very small losses were made. SIGWEB runs a surplus on its basic operational expenses, largely due to Digital Library income. In the last four years, the SIG has initiated a system of student travel awards, paid out of the operational budget (or the fund balance, depending on your viewpoint) and this substantial new expense has reduced the operational surplus.

6. MEMBERS

In June 2014, SIGWEB had 506 members (349 professional, 33 student, and 124 affiliate). This is a slight decrease on June 2013. Previous membership totals were: June 2014: 506 June 2013: 561 June 2012: 520 June 2011: 555 June 2010: 666 June 2009: 699 June 2008: 644 June 2007: 534

Clearly, membership has fallen back to the levels of June 2007. The reasons are not clear but all ACM SIG membership number is down. The current best guess is that the SIG has not been as efficient in processing the free memberships given to attendees of 100%-sponsored events as we were in 2008 and 2009.

It is worth mentioning SIGWEB's system of free memberships for conference attendees, because it is a topic of some controversy in ACM SIG circles. Clearly, giving away memberships can increase membership totals. However, the additional members are less 'sticky' because they haven't decided to join on their own. As a result, membership totals can be more variable. SIGWEB chooses to offer free memberships because it appears to us to be a meaningful benefit to our community. Much of SIGWEB's active conference attendance comes from Europe. European academics, in general, are not allowed to pay for society memberships from university funds, even when doing so would reduce the total cost of attending a conference.

One argument is that attending a SIGWEB conference MEANS that attendees are de-facto SIGWEB Members – so let's acknowledge this with a membership; the contrary argument is that we lose direct funding. If no one paid we would lose \$15,000 pa. We are still discussing the ideas of: No conference memberships; memberships free to conference attendees; Additional conference class' (ACM Member Early-Bird + ACM Membership) but this could be dangerous as we may then not get any Non-ACM Members (which make the conference more money); or Attendees, paying Non-Member fees, get the membership included after they have paid.

So, the SIGWEB Exec Comm believes that the SIG can support its natural members by giving them memberships automatically when they attend conferences that only SIGWEB sponsors, but there is still some discussion to be had around how this is accomplished. This said we can see that member retention has decreased in 1 year at 25.30%, but is up for 2+ years at 82.11%, the total being 60.42%. This suggests that giving free memberships doesn't negatively affect one year retention.

Table II: Member Retention

	1st Year	2+ Years	Total
2013	25.3%	82.11%	60.42%
2013	31.9%	80.56%	64.30%
2012	33.70%	78.21%	62.33%
2011	24.90 %	77.51%	56.04%
2010	32.30 %	80.69%	56.78%
2009	42.00 %	79.14%	62.19%

7. COMMUNITY

SIGWEB sponsors or co-sponsors the ACM Hypertext Conference (HT), ACM Symposium on Document Engineering (DocEng), ACM/IEEE Joint Conference on Digital Libraries (JCDL), ACM Conference on Information and Knowledge Management (CIKM), and ACM International Conference on Web Search and Data Mining (WSDM). We also hold in-cooperation and sponsorship agreements and provide other support for several related conferences, symposia, and workshops (including a five year agreement with the Web4All conference). Finally we sponsor or co-sponsor the Douglas C. Engelbart Best Paper Award, Theodore H. Nelson Newcomer Award, Vannevar Bush Best Paper Award, and the SIGWEB DocEng Best Paper Award.

By supporting the community, SIGWEB feels it is performing a vital role in encouraging up and coming research areas and agendas, which may well be beneficial to both SIGWEB and the wider community in the future. Indeed, we also have a program to confer small grants to new conference and workshop initiatives - the first being the Social Network Working Group.

These community benefits are really the key to SIGWEB, and your membership not only guarantees you get into our conferences at the cheapest rate available, but is an altruistic philanthropic gesture which supports all SIGWEB members in achieving their professional and training goals.

8. CONCLUSION

SIGWEB has a cross-disciplinary (inter disciplinary) stable of conferences. We see a plateau in membership. We see a high funds increase. However, we also see the beginnings of an expected bounce back in membership this year. This means that SIGWEB has successfully expanded its range of conference sponsorships. SIGWEB is also working hard on membership and volunteer development. SIGWEB is financially healthy and has solid leadership. Looking ahead we wish to: strengthen the organisation; monitor the first year that Web Science will be part of SIGWEB; enact more member services, but sustainable ones; create new volunteer opportunities; and keep good relationships with other SIGs and the ACM especially SIGDOC and SIGIR.

The main thing the SIG needs to consider for the upcoming year is that of membership and particularly retention beyond the first year. We will be addressing this in 4 key ways:

1. Firstly, we will be offering complimentary membership to SIGWEB conference attendees;
2. We will also be offering complimentary membership to long term members with over 4 years with the SIG;
3. Our membership structure will be changing to reflect the central ACM structure with lower rates for those taking a career break, and retired professionals; and finally,
4. We will be looking to support better links with citizen scientists and makers with specific conference discounts for these people.

ACKNOWLEDGMENTS

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