**SIGACCESS FY’17 Annual Report**

**Submitted by: Shari Trewin, SIGACCESS Chair**

*SIGACCESS promotes the professional interests of computing personnel with disabilities and the application of computing and information technology in solving relevant disability problems. The SIG also strives to educate the public to support careers for people with disabilities.*

## Research and Innovation in Accessibility

Accessibility research seeks to understand and overcome access barriers. In 2016, the SIGACCESS Award for Outstanding Contributions to Accessibility recognized the leadership, advocacy and significant research contributions of Dr Richard Ladner, University of Washington. Dr Ladner has dedicated himself to growing the field of accessible computing research and his support and advocacy for people with disabilities have tangibly increased their participation in STEM fields. In his keynote address at ASSETS 2016, he argued that accessibility is becoming mainstream in education, research and industry. This theme of a convergence of mainstream and accessibility technology was echoed in the 2016 ASSETS Best Paper: **Would You Be Mine: Appropriating Minecraft as an Assistive Technology for Youth with Autism**, by Kathryn Ringland, Christine Wolf, LouAnne Boyd, Mark Baldwin and Gillian Hayes of the University of California, Irvine, which urged accessibility researchers to reconsider the scope of their field. The 2016 Best Student Paper was **Uncovering Challenges and Opportunities for 3D Printing Assistive Technology with Physical Therapists** by Samantha McDonald, Niara Comrie, Erin Buehler, Nicholas Carter, Braxton Dubin, Karen Gordes, Sandy McCombe-Waller and Amy Hurst of the University of Maryland, Baltimore County. In this paper, the authors describe the potential of 3D printing to empower clinicians and individuals with disabilities to create their own assistive devices. Other notable papers identified challenges and opportunities for improving low vision access to computing devices, gesture-based interaction for individuals with developmental disabilities in India, orientation technologies for people with visual impairment, and audio feedback to support young visually impaired people in reaching for objects. In these papers and across the field, the internet of things, availability of new sensors, and cognitive technologies are opening up new potential solutions to accessibility challenges.

## SIGACCESS Programs

Our flagship conference, ASSETS 2016 was held in Reno, Nevada, USA, chaired by Jinjuan Feng of Towson University, with Matt Huenerfauth of Rochester Institute of Technology as Program Chair. This year’s conference attracted a significant level of industry sponsorship and participation, with 16 companies represented.

This year, we helped to grow and diversify the field of accessibility through the ACM Student Research Competition, the ASSETS Doctoral Consortium (sponsored by NSF), a mentoring program for new authors, 3 travel scholarship awards, support for two student members to attend the ACM Turing Award celebration, and enabling participation at the ASSETS conference by Beam telepresence robot, for a student with disabilities who could not attend in person.

SIGACCESS travel award recipients were Blessin Varkey, Director of Innovation and Technology at Tamana, New Delhi, a non-profit technology research lab providing assistive technology resources to people with disabilities in India, Thomas Hahn, a low vision Masters student at the University of Arkansas who described his experiences using mainstream technologies to support his class work in bioinformatics, and Shafeka Hashash, a blind political science PhD student from Cornell Tech, studying accessibility from a social science perspective.

SIGACCESS serves both the accessibility research community and the broader ACM community by maintaining a set of resources to support improved accessibility in academic publications and events. This year, we added guidance on giving accessible presentations, and worked with SIGCHI’s accessibility interest group to update and broaden the guidelines for running an accessible conference. We developed a template for an ‘Accessibility FAQ’ for conference websites that is already in use within ASSETS, SIGCHI conferences, and other external conferences.

We also contracted Sheridan to provide accessibility features for submitted papers, and perform accessibility checking. We provided extensive advice and training, with mixed success. Providing accessibility for pdf documents in a way that does not burden authors remains a challenge, and this year we are allowing HTML5 submissions, and publishing in both HTML5 and pdf.

## Key Issues

One of the key issues facing the accessibility research community over the next 2-3 years is to encourage research work on machine learning techniques for accessibility challenges. One barrier is the lack of agreed benchmarks or standard datasets for objective comparison of solutions. To encourage progress, SIGACCESS is planning to launch a call for data contributions, with a view to building such datasets. Examples could be sign language video with translations, scientific images with text descriptions, or a corpus of conversations held through AAC (augmentative & alternative communication) devices.

An issue of concern for the accessibility communities in the US and UK is the threat of cuts to essential support services, while there is steadily growing interest in supporting accessibility in developing countries where support services and assistive technologies are basic or nonexistent. These trends can be expected to direct research attention to low cost solutions based on mainstream technologies.

A final challenge for the research community is to identify and proactively address new accessibility barriers or discriminatory effects that may be introduced by developments in human-computer interaction. For example, a move to voice-controlled devices will create barriers for those who cannot speak, unless attention is paid to developing techniques robust enough to respond to artificial speech, or to provide alternative control points. Similarly, authentication methods based on sensing physical characteristics (fingerprint detection, iris recognition) could inadvertently exclude people who lack the expected characteristics. A machine learning system trained only on data from people without disabilities, or younger adults, could discriminate against these groups, or simply fail to work. Again, a push to gather appropriate training data for such systems could be one response from the accessibility research community that would have a positive impact.

**SIGAda FY’17 Annual Report**

**Submitted by S. Tucker Taft, SIGAda Vice Chair**

**AWARDS**

Started in 1994, the ACM SIGAda Awards recognize individuals and organizations that have made outstanding contributions to the Ada community and to SIGAda. This year one of the awards was renamed in honor of Robert Dewar, a key contributor to the Ada community and a co-founder of Ada Core Technologies, who died in 2015. This newly renamed “Robert Dewar Award for Outstanding Ada Community Contributions” is given for broad, lasting contributions to Ada technology and usage. The SIGAda Distinguished Service Award is given for exceptional contributions to SIGAda activities and products.

This year the **Robert Dewar Award for Outstanding Ada Community Contributions** was awarded to Juan Antonio de la Puente, Full Professor at the Technical University of Madrid, Spain.

Juan Antonio de la Puente is head of the research group on Real-Time Systems and Telematic Services Engineering (STRAST). His research interests focus on software engineering, programming languages, and implementation platforms for real-time systems. He has long been a promoter of Reliable Real-Time Systems in general, and Ada in particular.

Below is a summary of the many activities Juan Antonio de la Puente has performed that benefit the Ada community:

- Coordination and participation in several Ada-focused or related projects such as Open Ravenscar Real-Time Kernel (ORK), UPMSat2, Ada for LEGO Mindstorms, MultiPARTES, HI-PARTES, CHESS, ASSERT, ...

 - Author of more than 100 papers in topics such as Ada, Real-Time

 Systems, Reliable Software, Model-based design, etc.

 A list of his publications is available here: <http://www.dit.upm.es/~str/publicaciones.html>

 - Teaching for many years various subjects in software design, reliable software, Ada language, real-time systems,

- Member of ISO's working group on Ada (WG9) and its Annex H Rapporteur Group (HRG - Guidance for Safety/Security applications in Ada).

 - Member of the Board of Ada-Spain (Juan is and was for many years member of the Board in several roles).

 - Editor of Ada-Europe's quarterly periodical "Ada-Europe News" from 1989 to 1993.

 - Program Co-Chair of Ada-Europe 1999 and Ada-Europe 2015 conferences, in Santander and Madrid, Spain, resp.

 - Program Chair of the 13th International Real-Time Ada Workshop

 (IRTAW 2007), in Woodstock, Vermont, USA.

 - Editor-in-Chief of IFAC-PapersOnLine.

- Professional member of ACM and SIGAda.

No nominations were received in 2016 for the **ACM SIGAda Distinguished Service Award**.

 **CONFERENCES/WORKSHOPS**

* **HILT (High Integrity Language Technology) 2016**

In 2016, the HILT conference series was reformulated as a workshop to reduce costs and simplify administration. The SIGAda/HILT 2016 workshop on Model-Based Development and Contract-Based Programming was held in Pittsburgh, PA as part of the 2016 Embedded Systems Week (ESWEEK) of conferences and workshops. ESWEEK 2016 ran from October 2nd to 7th, 2016, and in addition to HILT included the EMSOFT, CODESISSS, and CASES conferences. The HILT workshop was held on Thursday and Friday, October 6-7. The workshop was a success, and also produced a small surplus, as did the prior two HILT conferences (HILT 2013 and HILT 2014). We had three very distinguished invited speakers (John Knight of UVA, Bernard Dion of ANSYS/Esterel, and Phil Koopman of CMU), and a number of excellent technical papers and demonstrations

* **Upcoming Workshop**

The SIGAda Executive Committee has decided to continue a two-year cycle for High-Integrity Language-Technology (HILT) workshops, and is beginning to plan our next workshop for fall of 2018, with an anticipated focus on high-integrity language technology for developing secure systems.

**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 have included 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.

In February 2016, the ISO WG9 working group released a corrigendum to the Ada 2012 standard, ISO/IEC 8652:2012/Cor 1:2016, after a successful 13-0 ballot.

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 2016 workshop) and at the 2017 Ada Europe conference in Vienna, Austria. Tucker Taft (Vice Chair) represented SIGAda for these meetings, while David Cook (Chair) prepared the formal SIGAda reports for WG9.

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

Since 1994 SIGAda has conducted an “Ada Awareness Initiative.” It includes our SIGAda professional booth display unit in exhibition halls at important software engineering conferences, as well as encouraging other Ada awareness activities, such as the “Make with Ada” contest sponsored by AdaCore, and participation in an Ada “room” at the annual FOSDEM open source conference in Belgium. These activities let 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.

At the SIGAda booth, SIGAda 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 events have. These programs continue to be successful and are viewed as an important thrust by the SIGAda membership.

**FUTURE ISSUES**

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

As security issues become more and more urgent in the software industry, there has been increased attention on formal methods as a way to reduce security vulnerabilities within system software. The contract-based programming features of Ada 2012 have emerged as a very successful addition to the safety- and security-oriented features of Ada, allowing Ada to remain on the vanguard of technologies to address the growing security challenge. Over the next 2-3 years, SIGAda will continue to work with Ada tool vendors and other Ada-oriented organizations such as the Ada Resource Association, Ada-Europe, and the International Ada Real-Time Workshop (IRTAW) to increase the awareness of Ada and its value to the industrial community, which is facing growing security threats. SIGAda and Ada-Europe in particular have been discussing additional ways to coordinate our activities and share content across our user publications, to ensure efficient and effective connections to the industrial and academic computer science and information technology communities.

We will continue to publish two to three issues of the Ada Letters newsletter each year, seek participation in the form of contributing articles and papers, and publish special issues providing archived proceedings for both the HILT and IRTAW workshops.

* **SIGAda conference and workshop activity**

As mentioned above, the SIGAda executive committee has decided to continue a bi-annual workshop schedule, with the next SIGAda/HILT workshop planned for fall of 2018, focused on secure software development. In conjunction with annual AdaEurope conferences and bi-annual IRTAW workshops, we believe this schedule best fits the scale of the Ada community, and the monetary and organizational resources of ACM SIGAda.

**SIGAI FY’17 Annual Report**

**Submitted by: Sven Koenig, SIGAI Chair**

Authors who are elected ACM SIGAI officers

* Sven Koenig, ACM SIGAI Chair
* Sanmay Das, ACM SIGAI Vice-Chair
* Rosemary Paradis, ACM SIGAI Secretary/Treasurer

Authors who are appointed ACM SIGAI Officers

* Eric Eaton, ACM SIGAI Newsletter Editor-in-Chief
* Yolanda Gil, ACM SIGAI Past Chair
* Katherine Guo, ACM SIGAI Membership and Outreach Officer
* Bojun Huang, ACM SIGAI Information Officer
* Albert Jiang, ACM SIGAI Education Officer
* Benjamin Kuipers, ACM SIGAI Ethics Officer
* Nicholas Mattei, ACM SIGAI Ethics Officer
* Amy McGovern, ACM SIGAI Newsletter Editor-in-Chief
* Larry Medsker, ACM SIGAI Public Policy Officer
* Todd Neller, ACM SIGAI Education Activities Officer
* Plamen Petrov, ACM SIGAI Industry Liaison Officer
* Michael Rovatsos, ACM SIGAI Conference Coordination Officer
* David Stork, ACM SIGAI Award Officer

The scope of ACM SIGAI consists of the study of intelligence and its realization in computer systems (see also its website at https://sigai.acm.org/). This includes areas such as autonomous agents, cognitive modeling, computer vision, constraint programming, human language technologies, intelligent user interfaces, knowledge discovery, knowledge representation and reasoning, machine learning, planning and search, problem solving and robotics.

Members of ACM SIGAI come from academia, industry and government agencies worldwide. ACM SIGAI is proud of the fact that many AI researchers in the past year received ACM honors, including becoming ACM fellows as well as receiving other awards.

ACM SIGAI is committed to increase its activities in order to support its members even better. In order to do so, ACM SIGAI has created several new appointed officer positions, namely an industry liaison officer, an award officer and two ethics officers.

In the course of the last year, ACM SIGAI has been responsive to specific events and circumstances as well as continued to support and expand a range of regular activities.

## Responsive Initiatives in the Last Year

ACM SIGAI actively supported the founding of a new ACM SIGAI chapter in China with help from the membership and outreach officer. ACM SIGAI China held its first event, the ACM SIGAI China Symposium on New Challenges and Opportunities in the Post-Turing AI Era, as part of the ACM China Turing 50th Celebration Conference on May 12-14, 2017 in Shanghai.

ACM SIGAI held the ACM SIGAI Student Essay Contest on the Responsible Use of AI Technologies (run by one of the ethics officers), where students could win five cash prizes of US$500 or skype conversations with five very senior AI researchers from academia or industry if their essay provided good answers to the following two questions:

* What do you see as the 1-2 most pressing ethical, social or regulatory issues with respect to AI technologies?
* What position or steps can governments, industries or organizations (including ACM SIGAI) take to address these issues or shape the discussions on them?

The winning essays will be published in the ACM SIGAI newsletter.

ACM SIGAI extended its coordination and collaboration with a variety of groups, both inside and outside of ACM:

* ACM SIGAI started to participate in the ACM US Public Policy Council (USACM). USACM addresses US public policy issues related to computing and information technology and regularly educates and informs US Congress, the US Administration and the US courts about significant developments in the computing field and how those developments affect public policy. The public policy officer, for example, facilitated talks between the leaderships of USACM and the American Association for the Advancement of Science (AAAS) on areas of potential collaboration.
* ACM SIGAI started to participate in the IEEE Global Initiative for Ethical Considerations in AI and Autonomous Systems. The purpose of this initiative is to ensure that every technologist is educated, trained and empowered to prioritize ethical considerations in the design and development of autonomous and intelligent systems.
* ACM SIGAI also provided a response to the public request for information from the US Office of Science and Technology Policy (OSTP) in 2016 on Preparing for the Future of AI, thus supporting the US government in making decisions concerning AI technologies and their applications.

In response to developments regarding international travel policies, ACM SIGAI released the following public policy statement in 2017 via an effort of the public policy officer:

“The ACM SIGAI executive committee shares the view of its parent organization that ’the open exchange of ideas and the freedom of thought and expression are central to the aims and goals of ACM. ACM supports the statute of International Council for Science in that the free and responsible practice of science is fundamental to scientific advancement and human and environmental wellbeing. Such practice, in all its aspects, requires freedom of movement, association, expression and communication for scientists. All individuals are entitled to participate in any ACM activity.’ SIGAI is working on policies to support inclusive participation in our AI-related activities. We encourage event organizers to share their efforts and experiences with us through our AI Matters newsletter at aimatters@sigai.acm.org and blog postings at <https://sigai.acm.org/aimatters/blog/>.”

ACM SIGAI also actively supported the Journal of Human-Robot Interaction (JHRI) in its desire to become an ACM journal and be included in the ACM Digital Library. JHRI will become the ACM Transactions on Human-Robot Interaction in January 2018.

## Continuing Activities

**Organizing events:**

ACM SIGAI organized the annual ACM SIGAI Career Network Conference (CNC), overseen by the vice chair. CNC showcases the work of early career researchers to their potential mentors and employers. Each early career researcher (or student) is mentored by a senior AI researcher, with small group mentoring sessions as well as individual advice. CNC 2016 was held at Northeastern University in Boston, Massachusetts, on October 19-20, 2016 (and ACM SIGAI gratefully acknowledges the support and hospitality of Northeastern University). 36 early career researchers presented their work via talks and posters, and two panels (on “Career Options” and “Getting Started”, featuring senior AI researchers and practitioners from academia, industry and the public sector) completed the program.

ACM SIGAI has an agreement with the Association for the Advancement of AI (AAAI) to jointly organize the annual joint job fair at the AAAI conference, where attendees can find out about job and internship opportunities from representatives from industry, universities and other organizations. This event was held at AAAI 2017 as planned.

**Supporting international conferences and other events:**

ACM SIGAI processed requests for co-sponsored and in-cooperation status from 27 conferences. The conference coordination officer improved the support provided to conference organizers by contacting them personally immediately after approval, inviting them to publicize their conference via the ACM SIGAI newsletter and mailing lists, and following up with a request for a conference report after the conference, in order to publish it in the ACM SIGAI newsletter and blog.

ACM SIGAI has an agreement with AAAI to co-sponsor, jointly with AAAI, the annual joint doctoral consortium at the AAAI conference. The doctoral consortium provides an opportunity for Ph.D. students to discuss their research interests and career objectives with the other participants and a group of established AI researchers that act as their mentors.

ACM SIGAI also co-sponsored the following conferences (future events are in italics):

* ACM/IEEE International Conference on Human-Robot Interaction (HRI 2017)
* 22nd International Conference on Intelligent User Interfaces (IUI 2017)
* *ACM/IEEE International Conference on Human-Robot Interaction (HRI 2018)*
* *ACM/IEEE International Conference on Automated Software Engineering (ASE 2017)*
* *ACM/IEEE International Conference on Automated Software Engineering (ASE 2018)*
* *International Conference on Web Intelligence (WI 2017)*
* *International Conference on Web Intelligence (WI 2018)*
* *23rd International Conference on Intelligent User Interfaces (IUI 2018)*
* *24th International Conference on Intelligent User Interfaces (IUI 2019)*

In addition, ACM SIGAI granted in-cooperation status to the following conferences:

* Swarm/Human Blended Intelligence Workshop (SHBI 2016)
* 6th International Conference on Pattern Recognition Applications and Methods (ICPRAM 2017)
* International Conference on Agents and Artificial Intelligence  (ICAART 2017)
* International Knowledge System Conference (KMIKS 2017)
* 16th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2017)
* 16th International Conference on Artificial Intelligence and Law (ICAIL 2017)
* International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems (IEA/AIE 2017)
* *14th International Conference on Informatics in Control, Automation and Robotics (ICINCO 2017)*
* *11th ACM Conference on Recommender Systems (RecSys 2017)*
* *International Conference on the Foundations of Digital Games (FDG 2017)*
* *International Joint Conference on Rules and Reasoning (RuleML+RR 2017)*
* *4th International Workshop on Sensor-based Activity Recognition and Interaction (iWOAR 2017)*
* *Data Institute San Francisco Conference (DSCO 2017)*
* *9th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management (IC3K 2017)*
* *9th International Joint Conference on Computational Intelligence (IJCCI 2017)*
* *10th International Conference on Agents and Artificial Intelligence (ICAART 2017)*
* *7th International Conference on Pattern Recognition Applications and Methods (ICPRAM 2018)*
* *11th International Joint Conference on Biomedical Engineering Systems and Technologies (BIOSTEC 2018)*
* *31st International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems (IEA/AIE 2018)*
* *12th ACM Conference on Recommender Systems (RecSys 2018)*
* *31th Annual ACM Symposium on User Interface Software and Technology (UIST 2018)*
* *20th International Conference on Enterprise Information Systems (ICEIS 2018)*

ACM SIGAI has an agreement with the International Foundation for Autonomous Agents and Multiagent Systems (IFAAMAS) to sponsor the ACM SIGAI Autonomous Agents Research Award. The ACM SIGAI Autonomous Agents Research Award is an annual award for excellence in research in the area of autonomous agents. The recipient is invited to give a talk at the International Conference on Autonomous Agents and Multiagent Systems (AAMAS). The 2017 ACM SIGAI Autonomous Agents Research Award was presented at AAMAS 2017 to David Parkes from Harvard University for his work on a variety of topics in multi-agent systems and economics.

**Increasing the visibility of AI research:**

ACM SIGAI actively supports the Research Highlight Track of the Communications of the ACM (CACM) by nominating publications of recent, significant and exciting AI research results that are of general interest to the computer science research community to the Research Highlight Track. This way, ACM SIGAI helps to make important AI research results visible to many computer scientists.

**Supporting student members:**

ACM SIGAI believes that funding students is a good way to ensure vitality in the AI community and thus a good investment in the future. Consequently, it awarded a number of scholarships to students to attend conferences co-sponsored by it as well as the 50 Years of the ACM Turing Award Celebration. The amounts of the scholarships vary but are generally in the range of $1,000 to $10,000 per conference, depending on the conference size. ACM SIGAI changed the period of time before students who join ACM SIGAI can apply for financial benefits. There is now a 3-month membership requirement before students can apply for fellowships and travel support.

**Communicating with and supporting members:**

ACM SIGAI publishes four issues of its newsletter AI Matters per year. AI Matters features articles of general interest to the AI community, from research overview articles to dissertation abstracts. The editors-in-chief instituted a number of reforms over the last year. For example, they started a number of recurring columns in an effort to focus on the needs and interests of individual populations of the membership and promote content creation for each issue. These columns are led by individual column editors, who are responsible for soliciting content or writing the column each quarter. These columns have included

* AI Interviews (with interesting people from academia, industry and government),
* AI Amusements (including AI humor, puzzles and games),
* AI Education (led by one of the education activities officers),
* AI Policy Issues (led by the public policy officer),
* AI Buzzwords (which explains new AI concepts or terms),
* AI Events (which includes conference announcements and reports),
* AI Dissertation Abstracts and
* News from AI Groups and Organizations.

To promote readership, the editors-in-chief have moved to an open-access model (where AI Matters is openly available on the ACM SIGAI website) and instituted a new AI Matters blog (at https://sigai.acm.org/aimatters/blog/) to feature timely posts and promote discussion among community members. For example, the public policy officer posts new information every two weeks in the blog to survey and report on current AI policy issues and raise awareness about the activities of other organizations that share interests with ACM SIGAI. Behind the scenes, the editors-in-chief have also revamped the editorial process and created tools to streamline the assembly of each issue.

ACM SIGAI organized or co-organized ACM webinars to inform ACM members about AI topics, such as the Town Hall on AI, Machine Learning, and More in 2016 (run by the secretary/treasurer) and the Panel and Town Hall on Big Thoughts and Big Questions about Ethics in AI (run by one of the ethics officers). The webinars were streamed live but the videos are archived at https://learning.acm.org/webinar/.

Additional ACM SIGAI membership benefits include reduced registration fees at many of its co-sponsored and in-cooperation conferences and access to the proceedings of many of these conferences in the ACM Digital Library.

## Planning for the Future

ACM SIGAI is working on increasing the communication with its current membership (for example, via social media and membership surveys) and intensifying its activities that reach students (for example, via the student essay contest) and industry professionals (for example, via the webinars). Additional activities in this directions are currently being planned. ACM SIGAI also intends to continue expanding the number of co-sponsored and in-cooperation conferences and its efforts to influence public policy and further the discussion on the responsible use of AI technologies. Finally, it intends to reach out to more AI groups worldwide that could benefit from ACM support, such as providing financial support, making the proceedings widely accessible in the ACM Digital Library and providing speakers via the ACM Distinguished Speakers program.

**SIGAPP FY’17 Annual Report**

**Submitted by: Jiman Hong, Chair**

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 - Jiman Hong, Soongsil University, Seoul, Korea

 Vice Chair – Tei-Wei Kuo, National Taiwan University, Taiwan

 Secretary – Maria Lencastre, University of Pernambuco Recife, Pernambuco, Brazil

 Treasurer – JungYeop (John) Kim, Utica College, USA

 Immediate Past Chair – Sung Y. Shin, South Dakota State University

 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 Marrakesh, Morocco after taking place in Pisa, Italy. 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, the 2016 Reliable and Convergent Systems (RACS 2016) was held in Odense, Denmark in October 2016, and the 2017 International Conference on Ubiquitous Information Management and Communication (IMCOM 2016) was held in Beppu, Japan in January, 2017. The RACS 2016 and IMCOM 2017 conferences were successful, and have been beneficial for SIGAPP. We will continue supporting those conferences in the coming years.

ACR 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 2017 in Marrakesh, Morocco. The selected papers have been expanded, revised, and peer-reviewed again for publishing in ACR. The next issue will be published in fall of 2017. We selected good quality papers from two SIGAPP partially sponsored conferences, RACS and IMCOM, as well. We have a number of in-cooperation conferences, and the list of in-cooperation conferences are below:

* SENSORNETS 2016 (International Conference on Sensor Networks)
* ICPRAM 2016 (International Conference on Pattern Recognition Applications and Methods)
* FedCSIS 2016 (Federated Conference on Computer Science and Information Systems)
* PEARC’17: Prance and Experience in Advanced Research Computing Conference, <https://www.pearc.org/>
* ManLang’17 : 14th International Conference on Managed Languages and Runtimes, http://d3s.mff.cuni.cz/conferences/manlang17/
* SENSORNETS’17: 6th International Conference on Sensor Networks, [http://www.sensornets.org/?y=201](http://www.sensornets.org/?y=2017)
* ENASE'17: 12th International Conference on Evaluation of Novel Approaches to Software Engineering, <http://www.enase.org/?y=2017>
* FedCSIS'17: Federated Conference on Computer Science and Information Systems, <https://fedcsis.org/2017>
* ICPRAM'17: 6th International Conference on Pattern Recognition Applications and Methods, <http://www.icpram.org/?y=2017>
* BICT'17: 10th International Conference on Bio-inspired Information and Communications Technologies, <http://bionetics.org/2017/show/home>
* ECBS 2017: 5th European Conference on the Engineering of Computer Based Systems, <http://www.cyprusconferences.org/ecbs2017>
* HPCS’17 : International Conference on High Performance Computing and Simulation, http://hpcs2017.cisedu.info/
* PEARC'17: Practice and Experience in Advanced Research Computing, [http://pearc17.pearc.org](http://pearc17.pearc.org/)
* ManLang '17: 14th International Conference on Managed Languages and Runtimes, <http://d3s.mff.cuni.cz/conferences/manlang17>
* MEDES'17: 9th International Conference on Management of computational and collective IntElligence in Digital EcoSystems, <http://medes.sigappfr.org/17/>
* PECCS'17: 7th International Conference on Pervasive and Embedded Computing and Communication Systems, <http://www.peccs.org/?y=2017>
* mLearn 2017 : 16th World Conference on Mobile and Contextual Learning, <http://iamlearn.org/mlearn/>

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. 27 students were granted awards to attend SAC 2017. $24,984.58 was spent for this year of these awards. We also implemented a Developing Countries Travel Award for researchers from developing countries who would otherwise have difficulty attending the SAC conference. For 2017, this award was suited exclusively for students from developing countries but in 2012 and beyond, we also hope to support faculty-level researchers from such countries. We may implement this award for the 2018 SAC.

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 32nd Annual edition of SAC has marked another successful event for the Symposium on Applied Computing. This international gathering attracted over 400 attendees from over 58 countries. It was hosted by Cadi Ayyad University (UCA) of Marrakesh, Morocco Under the High Patronage of his Majesty, King Mohammed VI and held on the Radisson Blu Hotel, Marrakech, Morocco, April 2017. There was an open Call for Track Proposals and after prescreening the proposals, 38 Tracks were finally accepted for SAC 2017. 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 992 final paper submissions from 58 different countries. The submitted papers underwent the blind review process and 232 papers were finally accepted as full papers for inclusion in the Conference Proceedings and presentation during the Symposium. The final acceptance rate for SAC 2017 is 23.38% for the overall track. In addition to the accepted full papers, 52 papers that received high enough review scores were accepted as short papers for the Poster Program. The Student Research Competition (SRC) program, sponsored by Microsoft Research, was added from SAC 2013. The SRC program is designed to provide graduate students the opportunity to meet and exchange ideas with researchers and practitioners in their areas of interest. 40 submissions were received and finally 17 SRC contributions were actually presented in the final program. SAC 2018 will be held in and will be hosted by Université de Pau et des Pays de l'Adour (UPPA), Bayonne, France from April 9 – 13, 2018. The web site <http://www.sigapp.org/sac/sac2018/> has further details such as symposium committee, technical tracks, and track chairs. SAC 2019 is being considered for Nicosia. A decision by the SAC steering will be made soon. To date, 2019 SAC local host proposals have been submitted from Biarritz, France.

**SigAPP volunteer development process**

The SigAPP volunteer development process is an essential issue for SigAPP. The SigAPP Executive Committee keep looking for the new volunteer to serve the future SIGAPP officers.  We usually encourage the SIGAPP members to serve as a volunteer for SAC conference which is the flagship conference of SIGAPP.   The development process is as follows,

* Encourage to submit the track proposal of the SAC, and server as the track chair
* Encourage to serve the SAC organizing committee member based on the successful track chair records.
* Encourage to be a candidate for SIGAPP officer election.

SIGAPP’s volunteer process has been successful but we will continue to improve and establish our volunteer development process

**Summary**

1. 27 Student Travel Awards were granted, totaling $24,984.58.

2.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.

3. 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.

4. The Student Research Competition (SRC) program, sponsored by Microsoft Research. The SRC program is designed to provide graduate students the opportunity to meet and exchange ideas with researchers and practitioners in their areas of interest. The 17 SRC contributions actually presented in the final program have been selected out of 40 submissions.

5. 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)

**SIGBED FY’17 Annual Report**

**Submitted by: Insup Lee, SIGBED Chair**

**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, <http://sigbed.blogspot.com/p/awards.html>

The 2016 Paul Caspi Memorial Dissertation Award recipient is Santiago Pagani, Karlsruhe Institute of Technology, for his thesis Power, Energy, and Thermal Management for Clustered Manycores. The winner of the 2016 award was chosen from a total of 9 nominations. The selection committee found the winning thesis to offerboth a significant theoretical contribution and a substantial systems work.The committee took into consideration the citation counts of research publications that form the basis for the thesis, as well as awards received by these publications.

SIGBED also sponsors 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 2015 SIGBED-EMSOFT Best Paper is titled “Underminer: A Framework for Automatically Identifying Non-Convergent Behaviors in Black Box System Models,” by Ayca Balkan, Paulo Tabuada, Jyotirmoy Deshmukh, Xiaoqing Jin, and James Kapinski.

A new award, SIGBED Early Career Award has been established in 2017. A committee to select nominations is currently being established.

**Student Travel Grants**

To promote excellence in embedded systems education and research, SIGBED offers travel grants for students to attend ESWEEK and CPSWEEK, the premier forums in the areas of embedded and cyber-physical system design areas. The travel grants can be used to partially cover conference registration and/or hotel accommodation.The current SIGBED leadership views travel grants as one of the best investments into the SIG future and the budget allocation for travel grants has been increased every year. For ESWEEK 2016 in Pittsburgh, PA, all 13 applicants for travel grants have received the awards of $1000. CPSWEEK 2017, also in Pittsburgh, PA, received 66 applications for travel grants, of which 12 grants of $1250 were awarded from SIGBED. SIGBED awards for CPSWEEK were complemented by other sources of travel funds, 51 awards made overall.

**Events highlighting new areas of interest at conferences**

The main conferences supported by SIGBED are invariably concerned with identifying new directions and challenges for the research community and related industries. ESWEEK 2016 featured the following keynotes on emerging horizons in embedded systems:

* “Secure Hardware Platforms for the Internet of Things” by Srini Devadas, MIT
* “Learning from Life” by Louis K. Scheffer, Howard Hughes Medical Institute
* “Approximate Computing for Energy-efficient Error-resilient Systems” by Kaushik Roy - Purdue University

Similarly, CPSWEEK 2017 featured keynotes discussing new CPS applications and significant challenges:

* “Cybergenetics” by Mustafa Khammash, ETH Zurich
* “Major Challenges for IoT Development” by Wei Zhao, President of the University of Macau
* “Towards safe learning in semi-autonomous systems” by Claire Tomlin, UC Berkeley

**SIGBED membership drive**

SIGBED officers organized a business meeting at ESWeek 2016 in Pittsburgh, PA. The purpose of the meetings was to raise awareness of the research community regarding activities organized or sponsored by SIGBED and benefits that SIGBED provides to its members. Several members of the audience volunteered to help with SIGBED activities.

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

SIGBED continues to sponsor two major federated conferences, CPSWEEK (comprised of HSCC, ICCPS, IPSN, and RTAS) in the spring and ESWEEK (comprised of CASES, CODES+ISSS, and EMSOFT) in the fall, as well as several other leading conferences in the embedded systems community. Sponsorships approved this year include SenSys 2017, BuildSys 2017, MEMOCODE 2017, NOCS 2017, LCTES 2017, CHASE 2017. “In cooperation” status was approved for DAC 2018, ASPLOS 2018, EWSN 2018, FPGAworld 2017, ICDSC 2017.

SIGBED continues to operate a blog for announcements and other information at sigbed.org and the @sigbed Twitter account. The SIGBED-MEMBERS mailing list is used for announcement of events of interest to the community.

The SIGBED review continues to provide a forum for technical contributions by members as well as lists of upcoming events. Since Spring 2017, the editor of SIGBED Review is Sergiy Bogomolov, Australian National University.

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

**Recognitions**

Two SIGBED members were selected for ACM Future of Computer Academy: Björn Brandenburg, Max Planck Institute for Software Systems, and Linh Thi Xuan Phan, University of Pennsylvania.

**Issues**

No new issues to raise.

**SIGBIO FY’17 Annual Report**

**Submitted by: Srinivas Aluru, Chair**

*The ACM Special Interest Group on Bioinformatics, Computational Biology, and Biomedical Informatics (SIGBio) bridges computer science, mathematics, statistics with biology and biomedicine. The mission of ACM SIGBio is to improve our ability to develop 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.*

**Membership Statistics:**

Professional: 235

Affiliate: 63

Student: 41

Total: 339

**Annual Community Meeting:**

The SIGBIO annual meeting was held on the sidelines of the ACM BCB conference in Seattle, Washington on Monday, October 3, 2016 from 4-6 PM. The meeting was used to reach out to our general membership, present work carried out to date, announce new initiatives, seek volunteers to contribute to these and other efforts, and receive general community feedback to help shape future planning.

**SIGBIO Conference (ACM BCB):**

ACM BCB is the flagship conference for SIGBIO. The seventh ACM International Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM BCB 2016) was held at the Motif Hotel in Seattle, Washington during October 2-5, 2016. The conference had 214 attendees.

The main program featured 47 peer-reviewed, technical presentations that appear in the proceedings, and 35 technical posters that were exhibited at the meeting. The conference was preceded by 7 international workshops on the topics of network biology, big data in life sciences, healthcare analytics, parallel software libraries for sequence analysis, topological analysis in biomedicine, parallel and cloud-based bioinformatics, and data mining and visualization for brain science. The conference also featured 6 tutorials, the poster session, an industry session, 3 demos, NSF sponsored Ph.D. student research forum, the SIGBIO Women in Bioinformatics panel, and a student networking and social event.

**Web Portal for ACM BCB:**

The SIGBIO flagship conference ACM BCB did not have permanent web presence. The conference general chairs create the conference web pages each time the conference is run, typically using their local university resources. Besides the obvious disadvantage of duplicative work, it is difficult for the community to know the details of the meeting, the URL of which keeps changing every year. To solve these problems, SIGBIO worked with ACM staff to secure the domain [www.acm-bcb.org](http://www.acm-bcb.org) and use this domain to create uniform content, look, and feel for running the conference each year. In addition, details of past events are archived.

**In-Cooperation Conferences:**

SIGBio was in cooperation with the following conference:

* BIOSTEC’17: 10th International Joint Conference on Biomedical Engineering Systems and Technologies, Porto, Portugal, February 21-23, 2017.

**SIGBIO Awards:**

These awards are given to the best paper and best student paper, respectively, as judged by the awards committee and selected from among the papers accepted for the ACM BCB conference. The 2016 awards are presented at the banquet event of the ACM BCB 2016 conference.

SIGBIO Best Paper Award:

Bipartite matching generalizations for peptide identification in tandem mass spectrometry, by Wenruo Bai, Jeffrey Bilmes and William S. Noble

SIGBIO Best Student Paper Award:

A fast sketch-based assembler for genomes, by Priyanka Ghosh and Ananth Kalyanaraman

**NSF Awards:**

SIGBIO was awarded a National Science Foundation grant to support the ACM BCB conference. The funds primarily supported a distinguished female keynote speaker, and travel support for 25 U.S. based students and postdocs with high priority for female, minority, and young professionals to participate in the conference.

NSF IIS-1642377: Student Support to Attend 7th Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM BCB 2016), $25,000, Dongmei Wang (PI)

**Partnership with WABI:**

The Workshop on Algorithms in Bioinformatics (WABI), established in 2001, is a major annual international conference. It is a single track meeting that features high quality algorithmic work in bioinformatics and attracts about 75 attendees. In recent past, the conference has completely shifted to Europe and held as part of the ALGO Conferences, primarily due to difficulty in identifying suitable organizers in the U.S. The SIGBIO chair worked with WABI steering committee to run WABI as part of ACM BCB conference in Atlanta in 2015. Essentially, the WABI program was run as one of the tracks of the ACM BCB conference. This was a successful experiment and resulted in an all-time record thus far in ACM BCB attendance. It provided additional value to participants of both the meetings. Subsequently, SIGBIO forged an agreement with WABI to make it a part of ACM BCB conference every alternate year. The next such meeting will be held in August 20-23, 2017 in Boston, Massachusetts.

**Key Issues:**

The key issues facing SIGBIO in the near future are:

-- *Membership*: The membership of SIGBIO has stagnated in recent years. We do not believe the current membership is fully reflective of the broad base of professionals and students working in the fields SIGBIO represents. SIGBIO leadership needs to devise proactive approaches and take steps to reach out to community and provide compelling value. The partnership with WABI mentioned above is a step in this direction but much needs to be done.

-- *Operations*: SIGBIO can do more for its members but finding dedicated volunteers to execute these tasks has been difficult. There is much to learn from long-established and well run SIGs. For example, the SIGACT and SIGMOD have excellent and highly informative newsletters. In the coming years, the SIGBIO chair plans to undertake new initiatives aimed at improving the quality of existing services provided to members, and to increase services provided to members.

# SIGCAS FY’17 Annual ReportSubmitted by: Michael Goldweber, SIGCAS Chair

## Mission Statement

**SIGCAS mission has been to provide a forum to discuss, debate and research all issues pertaining to the social implications of computing, including ethical and philosophical concerns, for the computing profession.**

## General Report

FY 2017 was a big growth year for SIGCAS. The highlights include:

- Newsletter: Dee Weikle has flourished in her role as the newsletter’s EIC. Last fiscal year, Dee and the prior EIC, Vaibhav Garb, revamped the newsletter to increase its value and applicability to our membership. Soon thereafter, Vaibhav resigned due to professional obligations. Dee, stepped into the EIC role and continued producing the revamped newsletter.

Earlier this spring, an assistant EIC, Randy Connelly, was identified and has now partnered with Dee in producing our quarterly newsletter.

- SIGCAS’s social media presence continues to both flourish and grow. Vigorous debate continues to take place on the SIGCAS-TALK list whenever a topic hits the nerve of the membership. The primary focus of this Twitter feed is not to “speak for the SIG,” but to continually draw the membership’s attention to issues, both large and small, of potential interest to the community.

- Elections: This spring was an EC election year. Unlike in past years when the nominating committee had to *beat the bushes* to find volunteers to run for office, six volunteers stepped forward to run for office. More important: only one of the six was a current EC member.

While one might conclude this is a sign of discontent with the current leadership, I believe it is more a sign that current leadership personnel have been hard at work developing our volunteer pipeline.

- Annual Pre-Symposium Event: Each spring, as a pre-(SIGCSE) Symposium event, SIGCAS holds a SIGCAS-themed workshop. This year’s theme was *Driverless Cars*. A panel of experts (algorithmic fairness and computation ethics) was assembled. This panel led a lively group of 30 participants on both the issues and potential techniques for including the issues from driverless cars throughout the CS curriculum.

- Conferences: Perhaps this is the most exciting part of the report; SIGCAS has grown from a zero-conference SIG to one that is now sponsoring two annual conferences!

 - LIMITS: Previously, this workshop was an in-cooperation event for SIGCAS. About a year ago, the LIMITS leadership reached out to the SIGCAS leadership about changing the status from in-cooperation to full sponsorship. After much discussion about the pros and cons, for both entities, we all agreed to move forward with full sponsorship. LIMITS’17 was held this past June in Santa Barbara, CA.

 - DEV (Computing for Social Good): In a similar scenario, the leadership from the IT for Development (DEV) community approached SIGCAS about sponsorship. One key driver for this is the widening, and rebranding, of the DEV community to *Computing for Social Good* – and hence their seeking out SIGCAS. The second driver for this match is the ACM Digital Library – also a driver for the LIMITS folk. Having a first class presence in the ACM DL (sponsorship vs in-cooperation) is a strong motivator.

The first SIGCAS sponsored Computing for Social Good conference is tentatively scheduled for early 2018.

- Key Areas for Work:

- Awards (see below).

- Webpage: This is clearly our highest volunteer recruitment priority, after having filled the assistant-EIC role.

- Conference management: Most SIGs are organized/ran around the management of one or more technical conferences/meetings, with other activities flowing out from that primary event. SIGCAS has had almost 50 years of SIGdom without having to consider how to manage conferences. Procedures will need to be created to effectively and profitably manage SIGCAS’s two annual conferences.

- 50th Anniversary Celebration events: upcoming.

## 2. Awards

Sadly, no awards have yet to be awarded for 2016. The Award’s committee chairperson, Flo Appel’s auto accident was one important factor. This area has been identified by the new EC as a key goal to get back on track.

## 3. Significant papers on new areas that were published in proceedings

It is anticipated that this is the last year this area will remain blank.

## 4. Significant programs that provided a springboard for further technical efforts

SIGCAS in close cooperation with COPE is working hard to create an updated version of the ACM Code of Ethics.

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

* SIGCAS continues to spearhead the effort to recast computing as a field that one can go into if one wishes to have a socially relevant impact. SIGCAS, in addition to continue working with SIGCSE in planning pre-Symposium events, is also exploring cooperative ventures with other SIGs.
* SIGCAS continues to participate in a joint IEEE/ACM Ethics project.
* SIGCAS continues to work with other conferences world-wide through an “in cooperation” status.
* SIGCAS now sponsors two conferences in its primary area of focus.

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

Computational ethics, including algorithmic fairness is having a moment of greater visibility. As algorithms become more integrated into our lives, especially via AI techniques, the issues of ethics, privacy, and fairness have gained both visibility and importance.

These issues will affect all of computing. Sadly, the ethics sub-group in SIGCAS, the natural leaders in thinking/talking about these issues, has not seen any significant growth in membership. With its primary movers and shakers at or near retirement, SIGCAS is at risk for losing its voice in these conversations.

Related to this is one of intra-SIG visibility. There is much that we can offer to many other SIGs, but nonetheless, struggle to get out our message. What form this might take and how it might materialize will continue to be a struggle in the coming years.

**SIGCHI FY’17 Annual Report**

**Submitted by: Loren Terveen, SIGCHI Chair**

The scope of the Special Interest Group on Computer-Human Interaction (SIGCHI) is the study of human factors in the human-computer interaction process, including research, design, development and evaluation of interactive computing systems.

The 2017 fiscal year was a very successful one for SIGCHI. Key milestones and activities included:

\* Continued expansion and strong interest in our conference series. Our flagship CHI conference, held in Denver in May, had about 3000 attendees, and we continue to have several other conferences with large (+500) attendance including CSCW, RecSys, and Ubicomp. Our conference series also continues to grow, as we added Collective Intelligence this past year. We also continue to work on our “Family of Conferences” initiative, encouraging conference steering committee chairs to identify opportunities to work together.

\* Significant and continued emphasis on international development. Our goals are to help develop HCI communities around the world, and to integrate regional HCI communities into the worldwide network of HCI researchers and innovators. We have sponsored a number of events in eastern Asia, including in Thailand, Indonesia, and Japan. bringing together researchers and practitioners from around the region. This has resulted in groups in Malaysia, Thailand, Brunei, Vietnam, and the Philippines taking steps to form SIGCHI local chapters. We also are in advanced stages of identifying a location in Japan for the CHI 2021 conference. In addition, we have greatly expanded our efforts in “developing” countries. For example, we funded an event at CHI 2017 that brought together dozens of researchers, practitioners, and students from many African, South American, and Asian countries. The people who were able to attend were very enthusiastic about the opportunity, and many have become catalysts for our field and SIG in their own regions.

\* Empowering our members. SIGCHI posted a Request for Proposals for Summer/Winter Schools last December and another in June. We funded 7 in the first round and 1 in the second. The schools collectively will enable hundreds of participants from around the world to deepen their knowledge and to network with expert faculty and each other. The locations include The USA, Switzerland, Ireland, Poland, Mexico, Australia, China, and Argentina. We also have a number of funding programs available for students to attend our conferences and other events.; we have committed over $100,000 to fund these programs. And finally, we continue our emphasis on diversity and inclusion both within our events and in computing more generally. CHI 2017 had a very well attended diversity and inclusion luncheon, and we have made support available to all our conference (and membership) for other such events. We also have funded ACM-W scholars to attend our conferences, the CRA-W Grad Cohort, and womENcourage. You can read more about our funding programs here: <https://sigchi.org/get-involved/funding/>.

\* Publications infrastructure. Some of our conferences are transitioning their publications to the Proceedings of the ACM. This brings lots of issues, and we are supporting all conference series that make this move. In addition, much of our process and software infrastructure is not scaling well to handle the number of submissions and accepted papers our conferences now are dealing with. For example, CHI is receiving over 2000 submissions and ends up accepting over 400 papers as well as many workshops, courses, panels, SIGS, etc., and the conference program has over 15 parallel tracks. Even CSCW has around 500 submissions a year, up to 150 published papers, and 5 parallel tracks. Therefore, we are working to develop software that can handle all aspects of this process (submission, reviewing, formatting accepted papers for the ACM digital library, scheduling sessions) and examining our relationship with vendors.

\* Public communications and outreach. At CHI 2017, we offered courses to our members on how to deal with the press and communicate with the public. We intend to continue this at CHI 2018 as well as creating a program of “Ted-like” public talks to be presented in conjunction with CHI and to be made available as high-quality videos through our YouTube channel.

SIGCHI Awards are presented at each year’s CHI conference to recognize and honor leading members of the human-computer interaction community . This year’s award winners were (see <https://sigchi.org/awards/sigchi-award-recipients/> for details):

Lifetime Achievement in Research

Brad A. Myers

Lifetime Achievement in Practice

Ernest Edmonds

Social Impact

Jacob O. Wobrock

Indrani Medhi Thies

Lifetime Service

Scott E. Hudson

Zhengjie Liu

SIGCHI Academy

Elisabeth Andre

Lorrie Faith Cranor

Vicki L. Hanson

Marti A. Hearst

Gloria Mark

Philippe Palanque

Paul Resnick

Thad Eugene Starner

**SIGCOMM FY’17 Annual Report**

**Submitted by: S. Keshav, SIGCOMM Chair**

SIGCOMM is ACM's professional forum for the discussion of topics in the field of communications and computer networks, including technical design and engineering, regulation and operations, and the social implications of computer networking. SIG members are particularly interested in the systems engineering and architectural questions of communications.

SIGCOMM continues to be a vibrant organization serving a broad community of researchers from both academia and industry interested in all aspects of computer networking. We 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.

**Conferences**

The SIG sponsors an eponymous flagship conference as well as, solely: CoNEXT,  eEnergy, Information-Centric Networking (ICN), and HotNets Workshop;  and jointly: Internet Measurement Conference (IMC), SenSys, ACM/IEEE Symposium on Architectures for Networking and Communications Systems (ANCS), Symposium on SDN Research (SOSR), and ANRW, the joint ACM, ISOC, IRTF Applied Networking Research Workshop.

Our flagship conference, continuing our policy of rotation among regions on a 3-year cycle, was held in Florianopolis, Brazil (the wildcard location in the rotation) in August 2016. We substantially increased our travel grant support for students to attend this more remote location. The conference had an attendance of about 325 participants. This was less than half of our usual attendance, due entirely to the Zika scare on social media that kept many participants away, despite the facts on the ground. Florianopolis is in southern Brazil, with cool winter weather during August, so there were no mosquitos and no Zika. Nevertheless, many participants were unwilling to travel through Rio and Sao Paolo. To deal with this, we made arrangements for some talks to be presented as pre-recorded videos, followed by questions on the phone. This turned out to be quite good, overall, with some participants saying that the experience was even better than an in-person presentation!

The conference made a small profit, as did most of our other conferences.  The overall financial strength of the SIG, therefore, continues to be extremely strong, which allows us considerable freedom to support the community and to be innovative.

As in previous years, we continued to financially support regional conferences in computer networking. 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 will also support a new conference focussed in Asia-Pacific, APNET, whose first edition will be held in Fall 2017. 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.

We are in-cooperation with a number of events, including the International Conference on Network and Service Management (CNSM), the International Teletraffic Congress (ITC), Multimedia Systems (MMSys), the USENIX Symposium on Networked Systems Design and Implementation (NSDI), the Workshop on Network and Systems Support for Games (NetGames), and the International conference on Networked Systems (NetSys) besides the aforementioned COMSNETS, AINTEC, and APNET.

SIG elections were held this year and the elected members as well three other members of the EC have stepped down. The new Chair is Roch Guerin, the new Vice-Chair is Aditya Akella, and the new Secretary-Treasurer is Lars Eggert.

We continue to work with MeetGreen to provide administrative support to our volunteers. By taking on registration and travel grant duties, MeetGreen has allowed us to reduce the number of errors made by volunteers and also made it easier for our volunteers to serve as conference managers.

**Newsletter**

Our newsletter, Computer Communications Review (CCR), is 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.

**Awards**

This year, SIGCOMM recognized Prof. Raj Jain, Washington University in St. Louis, with the SIGCOMM Award for Lifetime Achievement; he will receive the award and present a keynote talk at the annual SIGCOMM conference in August 2017 in Los Angeles. He was recognized "For life-long contributions to computer networking including traffic management, congestion control, and performance analysis."  The award committee consisted of Bruce Davie, Albert Greenberg, Nick McKeown (chair), Radia Perlman, and Don Towsley.

There are two winners of the 2016 Doctoral Dissertation Award, Justine Sherry from the University of California at Berkeley, and Vamsi Talla from the University of Washington.  The award committee consisted of Fabián Bustamante, Rodrigo Fonseca, Dave Levin (chair), and Ellen Zegura.

Justine's thesis, "Middleboxes as a Cloud Service" was cited as follows. "Sherry’s dissertation proposes that advanced network functions be implemented as software services running in the cloud, and develops in depth the algorithms and system designs needed to realize this vision in practice."  Justine's advisor was  Sylvia Ratnasamy.

Vamsi's thesis, "Power, Communication and Sensing Solutions for Energy Constrained Platforms" was cited as follows.  "Talla's dissertation introduces techniques that make it possible to build low-power sensors and devices that consume no energy beyond what is already in the air, in ambient RF signals such as cellular, TV, and Wi-Fi." Vamsi's advisor was Joshua Smith.

The winner of the SIGCOMM 2016 Rising Star Award is Vyas Sekar.  "The award is in recognition of outstanding research contributions, early in his career, in the areas of network middleboxes, video quality of experience, and network security." The award committee consisted of  Serge Fdida, Dina Papagiannaki, Craig Partridge, Patrick Thiran, and Tilman Wolf (chair).

Two papers were selected for the 2017 SIGCOMM Test of Time Award. The first is titled "Ethane: Taking control of the Enterprise" (SIGCOMM 2007) , by Martin Casado, Michael J. Freedman, Justin Pettit, Jianying Luo, Nick McKeown, and Scott Shenker.  The citation for the award is "Ethane ushered in the age of Software-Defined Networking (SDN) and a new generation of research that inspired both academia and industry to design network control planes that we can reason about."

The second paper is titled "Measurement and analysis of online social networks" (IMC 2007), by Alan Mislove, Massimiliano Marcon, Krishna P. Gummadi, Peter Druschel, and Bobby Bhattacharjee.  The citation is  "This is one of the first papers that examine multiple online social networks at scale. By introducing novel measurement techniques, the paper has had an enduring influence on the analysis, modeling and design of modern social media and social networking services ."

The award committee was composed of composed of Katerina Argyraki, Matthew Roughan, Walter Willinger (chair), and Heather Zheng.

At the ACM level, six SIGCOMM members have been selected as ACM Fellows this year: Paul Barford, Robert Grossman, Joseph Bryan Lyles, Venkata N Padmanabhan, Nick Feamster, Adrian Perrig.. Three other members of the community were recognized as ACM Distinguished Scientists: Raheem Abdul Beyah, Rudra Dutta, and Pan Hui.

**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:

* We are providing student travel grants of $200K to support student attendance at \*all\* of our sponsored conferences.
* We continue to support national networking summits with grants totalling $30K, to be given in the form of student travel grants.
* We have continued funding for summer schools in the area of networking.
* We held preview talks to give background for the technical sessions at SIGCOMM 2015 and 2016. This helps new community members come up to speed on ‘hot’ topic areas
* We have continued the practice of waiving 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.
* Three years ago, 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. In this past year, Nick McKeown and Christophe Diot stepped down from the board and Jeff Mogul and Dave Oran have joined. Renata Teixeira is stepping down as the chair and Venkat Padmanabhan is serving as the new chair from July 2017.

**The SIGCOMM industrial liaison board has worked on many fronts to increase industry-academic collaboration:**

* Continued the industrial demo session at the SIGCOMM 2016 conference. This year the board accepted six industrial demos. The industrial demos are becoming a tradition at SIGCOMM, so starting in 2017 they will be part of the regular conference organization with dedicated industrial demo co-chairs.
* Creation of the “SIGCOMM Networking Systems Award”, which is awarded to an institution or individual(s) to recognize the development of a networking system that has had a significant impact on the world of computer networking. The impact may be reflected in the wide-spread adoption of the system or its underlying concepts by the wider networking community either in research projects, in the open-source community, or commercially.
* Formalized the “industry days” with an open call with two deadlines per year. The goal of "Industry Days" is to increase the opportunities for collaboration between industry and academia in the field of networking. An industry day will generally focus on a narrow topic that should attract industrial interest. The first industry day was the "Workshop on Research and Applications of Internet Measurements" (RAIM) organized in Japan in November 2015 in close proximity to both the IETF meeting and the IMC conference. The second was the “Wireless Networking Industry Day” in March 2016 co-location with NSDI.
* Continued the editorial series in CCR entitled "Examples of Research Affecting the Practice of Networking”. The latest article appeared in the July 2016 issue of CCR on “Research Impacting the Practice of Congestion Control” by Nandita Dukkipati , Yuchung Cheng, Amin Vahdat. We are discussing with the CCR editor to identify a sub-set of the CCR editorial board who will help find articles for this column in a regular basis.

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

* To support the participation of women in SIG conferences and in our community, we support N^2women 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).
* To further support geodiversity, we now also provide travel grants for program committee members from developing countries to travel to program committee meetings

**Key issues facing the SIG**

It appears that computer communication is no longer a ‘hot’ topic these days; the focus has moved to topics such as robotics, AI, big data, and deep learning. Consequently, there has been a decline in the number of both researchers and students interested in the area, compared to the situation a some years ago. We expect this to be reflected in the numbers of papers and attendees at our conferences and workshops. This is probably a healthy change for us, in the long term, in that it will result in a consolidation of research areas rather than a rush to publication based on speculatory and perhaps less well-grounded work.

**SIGCSE FY’17 Annual Report**

**Submitted by: Amber Settle, SIGCSE Chair**

The scope of SIGCSE is to provide a global forum for educators to discuss research and practice related to the learning, and teaching of computing, the development, implementation, and evaluation of computing programs, curricula, and courses at all education levels, as well as broad participation, educational technology, instructional spaces, and other elements of teaching and pedagogy related to computing.

**Awards:**

The SIGCSE Award for Outstanding Contribution to Computer Science Education was presented to Gail Chapman for her long-term impact on computer science education through the creation of curriculum, teacher professional development, and fierce advocacy for social equity in all computing classrooms.

The SIGCSE Award for Lifetime Service to Computer Science Education was given to Mats Daniels for more than two decades of dedicated service to computing education research, building and supporting the international network of computing educators.

**Significant papers on new areas that were published in proceedings:**

At ICER 2016 two paper awards were presented.

The Chair's Award is selected by the organizing committee and was presented to Alex Lishinski, Aman Yadav, Jon Good, and Richard Enbody (Michigan State University) for their paper "Learning to Program: Gender Differences and Interactive Effects of Motivation, Goals, and Self-Efficacy on Student Performance".

The ICER 2016 John Henry Award is selected by the conference attendees and was presented to Elizabeth Patitsas, Jesse Berlin, Michelle Craig and Steve Easterbrook (University of Toronto) for their paper

"Evidence that Computer Science Grades are not Bimodal".

In 2017 the SIGCSE Symposium gave three best paper awards.

The Best Experience Report Paper was awarded to Erik Brunvand and Nina McCurdy (University of Utah) for "Making Noise: Using Sound-Art to Explore Technological Fluency".

The Best New Program Paper was presented to Kathleen Timmerman and Travis Doom (Wright State University) for "Infrastructure for Continuous Assessment of Retained Relevant Knowledge".

The Best CS Education Research Paper was awarded to Austin Cory Bart, Ryan Whitcomb, Dennis Kafura, Clifford A. Shaffer, and Eli Tilevich (Virginia Tech) for "Computing with CORGIS: Diverse, Real-world Datasets for Introductory Computing".

There was a single Best Paper Award given at ITiCSE 2017. It was awarded to Allison Scott, Alexis Martin, Frieda McAlear, and Sonia Koshy for "Broadening Participation in Computing: Examining Experiences of Girls of Color".

**Innovative programs which provide service or broadened participation to some part of your technical community:**

The SIGCSE Special Projects Fund provides grants up to $5000 per project and has a call for proposals in November and May of each year.

The November 2016 call funded two projects. An award of $3,800 was given to Yasmine N. El-Glaly and Daniel E. Krutz at Rochester Institute of Technology for their project "Inclusive Apps: Supporting Mobile Accessibility Standards through Educational Exercises". Drs. El-Glaly and Krutz will create a publicly accessible oracle of mobile applications which will define problems relating to the accessibility of mobile applications for individuals with disabilities. A second award of $4,700 was given to Brett A. Becker at University College Dublin for his project "What Exactly Are We Expecting Our Novice Programming Students to Achieve?". To answer this question Dr. Brett Becker will collect, categorize and analyze the learning outcome statements of CS1 courses across a large, diverse set of institutions.

The May 2017 call funded three projects. An award of $5,000 was given to Vicki Almstrum and Barbara Boucher Owens for their project "Computing Educators Oral History Project (CEOHP) Growth: Awardee Interviews and Website Update". Drs. Almstrum and Owens plan to extend the collection of oral interviews documenting the history of computing educators.  In addition, the project will entail a significant reworking of the CEOHP website which serves as a repository for the oral interviews. A second award of $1,060 was given to Amber Wagner for her project "Understanding Movement". Dr. Wagner will develop a project-based course for novice computer science students intended to demonstrate the relevance of computing.  Inspired by ESPN’s Sport Science, students will combine physiology with computer science to build wearable devices to measure the force or speed of various movements.  A third award of $5,000 was given to Brandon Myers for his project "Active Learning Materials for Computer Architecture and Organization". Dr. Myers will develop eight Process-Oriented Guided Inquiry Learning (POGIL) activities for use in Computer Organization and Architecture classes.  Exercises will be based on the learning outcomes defined in the 2013 ACM/IEEE Computer Science Curriculum Guidelines.

ITiCSE 2017 has nine working groups on the following topics: (1) Understanding international benchmarks on student engagement – awareness, research alignment and response from a computer science perspective, (2) Game development for computer science education, (3) Integrating international students into computer science programs: challenges and strategies for success, (4) Developing assessments to determine mastery of programming fundamentals, (5) "I know it when I see it'' -- perceptions of code quality, (6) Developing a holistic understanding of systems and algorithms through research papers, (7) Understanding the effects of lecturer Intervention on computer science student behaviour, (8) The internet of things in CS education: current challenges and future potential, and (9) Searching for early developmental activities leading to computational thinking skills. The participants in the working groups develop a research project that culminates in a peer-reviewed paper. The projects foster international research collaborations.

Every other year the SIGCSE Board sponsors a Department Chairs Roundtable where challenges and opportunities for people serving as departmental chairs are discussed and addressed. On March 8, 2017 the Department Chairs Roundtable was held in Seattle, Washington. The event was organized by Mary Lou Maher, and thirteen people attended. SIGCSE provided funds for meals at the event, which was partially offset by a nominal charge for attendance.

On alternate years the SIGCSE Board runs a workshop for graduate students and new faculty. The next New Educator's Workshop will be held in Baltimore, Maryland in February 2018.

The 2017 SIGCSE Symposium held twenty four three-hour workshops for professional development. In addition, the SIGCSE Symposium provided meeting space for eleven events namely POGIL in CS, Managing the Early Academic Career for Women Faculty and Women Graduate Students, Strategies for Integrating Driverless Cars into the Computing Curricula, Aligning to the ACM Cybersecurity-infused Computer Science Transfer Curriculum, Making K-12 Computer Science Accessible, POSSE Roundup – Student Participation in Humanitarian Open Source Software, NSF UP CS Ed Reearch Event for Emerging CS Education Researchers at SIGCSE, ACM Joint Task Force for Cybersecurity Education, CSforAll Consortium Networking Reception at SIGCSE, Breakfast with BlueJ and Greenfoot, and CRA Teaching Track Faculty Lunch.

A Doctoral Consortium was run by Anthony Robins and Ben Shapiro on Thursday, September 8, 2016 in Melbourne, Australia just prior to ICER 2016. The workshop was attended by nineteen graduate students in computer science education and five discussants. SIGCSE provided travel grants to the students and partial funding for lodging to the discussants. The students presented their work at the workshop and also during ICER 2016.

SIGCSE has a Travel Grant Program for faculty and teachers who have never attended the SIGCSE Symposium. Six awards were given for the 2017 Symposium, including two high school teachers and one recipient from Puerto Rico.

The SIGCSE Speaker's Fund supports the dissemination of outstanding SIGCSE Symposium, ITiCSE conference, or ICER workshop presentations to non-ACM conferences that are in-cooperation with SIGCSE. In 2017 Bill Manaris was funded to present "Making Music With Computers" at the Twenty-Third Annual Conference of the Central Plains region of the Consortium for Computing Sciences in Colleges (CCSC-CP 2017), USA.

**Key Issues for the Next Few Years:**

We have been successful in growing our computing education research conference, ICER. In 2015 the conference was held in Omaha, Nebraska and had 118 attendees and 20 participants in the Doctoral Consortium. In 2016 the conference was held in Melbourne, Australia and had 84 attendees – the largest Australasian attendance and second largest ICER attendance ever. Paper submissions in 2016 grew by 6% over 2015, while the acceptance rate remained around 25%. An NSF funded workshop was held immediately prior to ICER 2016 with 10 participants. The Doctoral Consortium remained strong with 20 applications and 18 participants. In addition to the research papers, 8 lightning talks and 6 posters were presented.

There was a record number of papers submissions for the conference in 2017, with 108 complete submissions, a 6% growth over 2016. The acceptance rate was 27%. With 29 papers accepted for 2017, to maintain the single track unique format, the conference has expanded to three days. The continued growth in paper submissions has also necessitated a change in reviewing procedures. The conference organizers have now moved to a model in which the leadership of the conference is chosen from nominations taken from the community at large. Managing the growth in a way that maintains the character of the conference will be important moving forward.

The SIGCSE Board continues to work to find ways to nurture leadership among conference and other volunteers. Crucial for this is the volunteer development process discussed below, but equally important are robust term limits and rotation polices for existing volunteers. The Board has been active in developing documented approaches to term limits and leadership management for the three SIGCSE conferences.

**SIGCSE Volunteer Development Process**

SIGCSE's volunteers are recruited at conferences, on the SIGCSE listserv, and through annual articles in the SIGCSE Bulletin. Board members all attend the annual SIGCSE Symposium and encourage attendees to consider volunteering in some way. At sigcse.org there is a volunteer signup page with a list of possible SIGCSE positions, and whenever possible new volunteers are chosen from this list. Volunteers for a particular role are trained by the person previously in that role. Many of our positions are overlapping rotating positions such as for the SIGCSE Bulletin where two people work together, one experienced and one new. The SIGCSE Board is also piloting a repository for keeping important documents for organizational memory.

**SIGDA FY’17 Annual Report**

**Submitted by Vijay Narayanan, SIGDA Chair**

SIGDA has been a vibrant special interest group with multiple activities benefiting the design automation community. Two major awards were presented this year – honoring a pioneer and a paper that has had significant retrospective technical impact on EDA industry. New activities were also launched this year to broaden participation in areas outside the US. Finally, SIGDA announced partnership with Cadence in sponsoring several educational activities.

**Activities associated with financially sponsored or in-cooperated conferences**

* Sponsored/in-cooperated conferences
	+ 16 financially sponsored conferences approved
	+ 4 in-cooperation conferences approved, one of them (Neuromorphic Computing: Architectures, Models and Applications (NCAMA) is new
* Held a virtual seminar with conference organizers on Nov 14, 2016.
	+ The purpose of the seminar is for the conference organizes to report their event status, share best practices, and learn what SIGDA can do for them
	+ Representatives from 8 SIGDA sponsored conferences/workshops attended the seminar. (A similar seminar was held in May, 2016 and 7 other event organizers attended that one.)

The following is a list of events financially (co)sponsored by SIGDA.

* Student Research Forum at ASPDAC
* PhD Forum at DATE
* PhD Forum at DAC
* Design Automation Summer School at DAC
* Young Faculty Workshop at DAC
* University Demonstration at DAC
* School on Physical Design Automation (Porto Alegre, Brazil)
* CADAthlon contest at ICCAD
* Student Research Competition at ICCAD
* Hardware and Algorithms for Learning On-a-chip at ICCAD
* Design Contest at International Conference on VLSI Design (Pune, India)
* Future Chip Workshop (Beijing, China)

**Education activities of ACM SIGDA:**

In the past year, ACM SIGDA continues organizing the following education activities. More details can be found on SIGDA webpage.

1. PhD/Student Research Forums at DAC, DATE, and ASPDAC

2. Design Automation Summer school at DAC

3. University Research Demonstration at DAC

4. CADAthlon at ICCAD

5. ACM Student Research Competition (SRC) at ICCAD

6. Young Faculty Workshop at DAC

Besides the above activities, SIGDA also launched a new editorial board of SIGDA E-News and continues to deliver an online education program: SIGDA Live Webinar, which is held bimonthly.

**2017 SIGDA Awards:**

SIGDA Outstanding New Faculty Award: Yier Jin, University of Central Florida

SIGDA Outstanding Ph.D. Dissertation Award  “Trustworthy Integrated Circuit Design”,

by Jeyavijayan Rajendran, PhD. Advisor: Ramesh Karri, New York University

**MAJOR AWARDS**

**SIGDA Pioneer Achievement Award:**

2017 winner: Professor Chung Laung (Dave) Liu, National Tsinghua University.

To honor a person for lifetime, outstanding contributions within the scope of electronic design automation, as evidenced by ideas pioneered in publications, industrial products, or other relevant contributions. The award is based on the impact of the contributions throughout the nominee’s lifetime.

**2017 A. Richard Newton Technical Impact Award in Electronic Design Automation**

To honor a person or persons for an outstanding technical contribution within the scope of electronic design automation, as evidenced by a paper published at least ten years before the presentation of the award.

2017 winners: Matthew W. Moskewicz, Conor F. Madigan, Ying Zhao, Lintao Zhang, Sharad Malik

Citation

For seminal contributions to scalable Boolean satisfiability solving including locality-based search and efficient backtracking.

Paper

Chaff: Engineering an Efficient SAT Solver

Proc. of the 38th annual Design Automation Conference, pp. 530 - 535, June 2001.

**New international initiatives**

The following list summarizes the new initiatives by SIGDA during the current reporting period.

* Latin America: School on Physical Design Automation in Brazil: This event offers a set of tutorials covering the state-of-art methodologies for physical design. The lectures are given by the top researchers from both academic and industry in the field.
* India: Design Contest in India: This event is co-located with the International Conference on VLSI Design. Students will be given the opportunity to work on several problems in the area of EDA, analog/digital design and embedded systems.
* China: Future Chip Workshop in China: This event attracts both domestic and international researchers to discuss the recent advances and future challenges for design automation. Students are also invited to the event to learn about the state-of-the-art development in EDA.

**New Industry Collaboration**

Cadence became the official “SIGDA Global Education Partner” since June 1, 2017 with an annual sponsorship of $27K for the six SIGDA education activities in total.

**SIGDOC FY’17 Annual Report**

**Submitted by: Claire Lauer, SIGDOC Chair**

SIGDOC is regarded—in the technical writing, information architecture/design, content development, and UX communities—as a vibrant organization doing cutting-edge research. This is reflected in several areas, including our competitive elections in 2016, our increased attendance at our 2016 annual conference – which saw the highest number of papers presented and the highest attendance ever at a SIGDOC conference, and our ability to recently appoint a new editor for the SIGDOC publication, *Communication Design Quarterly*, which we are pursuing into turning into an ACM journal.

**Financials**

Our financial viability remains strong.

Overall SIGDOC balance for FY 2016:

Opening: $84,185

Ending: $86,339

We netted $2,154 overall in 2016

We are currently $66,108 over our required minimum

**Elections 2016**

We had smooth and successful elections in July 2016. We had two or three members vying for each of the three elected positions (Chair, Vice Chair, and Secretary/Treasurer). I (Dr. Claire Lauer) was elected chair, Dr. Kirk St.Amant from Louisiana Tech University, was elected Vice Chair, and Dr. Kristen Moore from Texas Tech University, was elected Secretary/Treasurer.

As chair, I put together a 20-person advisory board in an effort to bring as many new people into the organization as possible. I will likely streamline this structure a bit in the coming year, but in the first year it served the purpose of casting a wide net in an effort to increase the involvement of new people into the leadership of the organization.

**SIGDOC Annual Conference 2016**

Our flagship conference is our annual SIGDOC conference, which typically takes place in the summer or fall of each year. The SIGDOC 2016 conference took place in Washington, DC from September 21-23, 2016. We had a record number of papers published in the proceedings and a record number of attendees. We saw a robust engagement with graduate and undergraduate students who participated in our Microsoft SRC; we featured well-known keynote speakers, including our Rigo Award winner, Dr. Jan Spyridakis, from the University of Washington’s Human Centered Design and Engineering program; and we saw robust attendance at our series of professional development workshops, Ignite talks, and the SIGDOC Research Network.

The conference closed with the following:

Total Revenue: $22,900.00

Total Expenses: $18,567.53

Allocation: $2,561.04

Surplus/Loss: $4,332.47

Paid Attendance: 100

Actual Attendance: 100

The research that our members are presenting at our conference is addressing the most salient needs of communication design and technical communication work. A sampling of the papers appearing in 2016’s conference proceedings included:

[Ethical Information Flows: Working with/against the Healthcare Industry's Fascination with Social Media](http://dl.acm.org/authorize?N26394) by Dawn Opel

[A Tool to Remotely Collect and Visualize Users' Interactions with Web-Based Content](http://dl.acm.org/authorize?N26372) by Bob Watson and Jan Spyridakis

[Emerging Guidelines for Communicating with Animation in Mobile User Interfaces](http://dl.acm.org/authorize?N26382)

By Dan Liddle

[Globally Fit: Attending to International Users and Advancing a Sociotechnological Design Agenda for Wearable Technologies](http://dl.acm.org/authorize?N26378) by Jason Chew Kit Tham

### [Helping Local Residents Make Informed Decisions with Interactive Risk Visualization Tools](http://dl.acm.org/authorize?N26306) by Dan Richards

**Communication Design Quarterly**

Our publication, *Communication Design Quarterly*, is scheduled out to the Spring 2019 issue and publishes some of the top names in our field, including as guest editors of special-themed issues, such as our most recent issue on “Re-thinking Social Media” (Vol 4, No. 2).

We recently received several qualified applications for the editor position of CDQ as part of our 5-year rotation schedule, and the board chose Derek Ross, Associate Professor out of Auburn University. Ross is Co-Director of LUCIA, the Laboratory for Usability, Communication, Interaction, and Accessibility, and is currently Ethics Editor/Columnist for *Intercom: The Magazine of the Society for Technical Communication*.

Ross brings a welcome and ambitious vision to elevating CDQ into a leading journal in our field, publishing the highest quality research in an effort to compete with STC’s *Technical Communication*, IEEE’s *Transaction on Professional Communication*, ATTW’s *Technical Communication Quarterly*, and Iowa State University’s *Journal of Business and Technical Communication*, while recognizing the unique position *CDQ* has of being the forerunner in dynamic communication design research. His appointment also brings with it institutional editorial support in the form of a funded RAship and travel funding from his university, making it easier for SIGDOC to begin to develop a CDQ operations fund over the next few years that we can eventually use to fund additional RAships and a more robust content management system. I could not be more optimistic about Ross’ recent appointment as editor of CDQ. Ross will transition into the Editor role over the next year and take over completely as editor in late 2018.

Our top 5 downloaded articles were (in order of most downloads to least)

1. Online networks, social media, and communication design by Kirk St. Amant (74 downloads)

Vol. 4, No. 2

2.  Big data visualization: promises & pitfalls by Katherine Hepworth (71 downloads)
Vol. 4, No. 4

3. The social help desk: examining how Twitter is used as a technical support tool by Chris Lam and Mark A. Hannah (43 downloads)
Vol. 4, No. 2

4.  User value and usability in technical communication: a value-proposition design model by Keshab R. Acharya (34 downloads)

Vol. 4, No. 3

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5. Over, under, or through: design strategies to supplement the LMS and enhance interaction in online writing courses by Heidi Skurat Harris and Michael Greer (33 downloads)
Vol. 4, No. 4

Our most downloaded issue for 2016 was Vol. 4, No 4 (final issues of the year) with 228 downloads to date. Our metrics for CDQ articles in 2016 appear lower at this time because they were not submitted to the DL by our interim editor until March of 2017. With a new editor in place, this oversight will not happen again.

**Social Media**

We have increased our social media reach on Facebook and Twitter from our 2016 numbers, adding 108 more Twitter followers, for a total of 748, and 28 more Facebook followers, for a total of 348. We have also started a podcast series, which has produced and posted three podcasts to our website in the past six months with well-known researchers in the field of communication design.

**Membership**

Because SIGDOC is newer than many of the more longstanding organizations in our field, I have deliberately recruited members of our board over from those other organizations. For instance, our organizational liaison served as chair of the Council for Programs in Scientific and Technical Communication, one of our members-at-large was a keynote speaker at and active member of Computers and Writing, and another member at large is on the board of IEEE ProComm. I have also prioritized organizational, industry, gender, race, and geographic diversity of our board members to help expand our reach.

We have also given awards to members and organizations from which our current membership can grow, including Women in Technical Communication, which won our Diana Award in 2015. Women in Technical Communication has united women across our three major field organizations: SIGDOC, Council for Programs in Technical and Scientific Communication (CPTSC), and the Association for Teachers of Technical Writing (ATTW). Through their work, a network has been established to support women in their roles as academics from graduate students to emeritus faculty. SIGDOC hosts a Women in Technical Communication breakfast each year at our conference to encourage this collaboration further. We also use the Microsoft SRC as a way of recruiting the earliest scholars in our field and their mentors.

**Future Goals**

**Conferences**

Members in our fields do not rely heavily on grant money, which means that they are typically not funded to attend more than one conference a year. We address this competition in several ways: by keeping our conference registration fees low, by featuring an impressive slate of panels, papers, workshops, ignite talks, and keynote speakers at our conferences, by awarding best paper awards, and by co-locating our conferences, or hosting them in interesting cities with vibrant academic and industry presence so as to draw on local attendance as well.

For instance, the upcoming SIGDOC conference expanded our offerings from 2 to 3 days. We will award a best paper award (to Emma Rose and Elin Borjing’s “Designing for Engagement: Using Participatory Design to Develop a Social Robot to Measure Teen Stress.”); we will feature four workshops, including:

* [**Social Media and Data Mining for Communication Research**](https://sigdoc.acm.org/conference/2017/program/workshops/#workshop1)
Friday, August 11, 9:00-11:30 a.m.
* [**Content Auditing: How to Improve Your Organization’s Most Valuable Asset**](https://sigdoc.acm.org/conference/2017/program/workshops/#workshop2)
Friday, August 11, 9:00-11:30 a.m.
* [**Academia/Industry Workshop: Preparing Students to be Leaders and Innovators in Technical Communication**](https://sigdoc.acm.org/conference/2017/program/workshops/#workshop3)
Friday, August 11, 12:00-3:00 p.m.
* [**Data Communication for Data Scientists and Designers**](https://sigdoc.acm.org/conference/2017/program/workshops/#workshop4)
Saturday, August 10, 2:30-5:00 p.m.

We will host the Microsoft SRC; ignite talks (including one from the program chair of SIGKDD), and showcase two renowned keynote speakers, including our Rigo Award winner, Dr. Karen Schriver, and Karel Vredenburg, who is the Director of Design at IBM.

In 2015, we co-located our conference with IEEE’s ProComm conference in Ireland. This allowed us to connect with scholars who might not have normally thought of SIGDOC as a place to publish and present. We are considering co-locating again with IEEE ProComm in Aachen, Germany, in 2019. In 2018, the Milwaukee School of Engineering has agreed to host our conference, which provides a central US location surrounded by a great many quality programs in our field, including MSOE’s own new Design of Communication degree.

To project an ethos of stability and professionalism, we are hoping to schedule conferences out three years in advance, so we are currently in talks with folks at the University of Nevada, Reno about hosting our 2020 conference, because they are also developing a communication design degree and are located in a beautiful part of the country close to major industry in California.

**Bylaws**

The executive committee, in consultation with an appointed bylaws committee, will be revising the bylaws to update the (very outdated) SIGDOC vision statement, permanently extend our terms from 2 to 3 years, and make other changed that will streamline the operations of the SIG.

**SIGDOC Career Advancement Research Grant**

In an effort to support our members and encourage new membership, SIGDOC will award a competitive $1500 career advancement research grant that will support pre-tenure junior faculty beginning in the fall of 2017. Inaugural applications are due September 30, 2017, and the award committee will be comprised of the SIGDOC chair and former Rigo Award winners.

**SIGecom FY’17 Annual Report**

**Submitted by: Kevin Leyton-Brown, Chair**

SIGecom’s mission statement is as follows:

**ACM SIGecom is dedicated to the advancement of electronic commerce, principles and practice. As the leading computing-centric professional organization in the field, SIGecom seeks to promote the informed development of commerce automation technology, employing the best available engineering methods and economic understanding.**

SIGecom thus serves as a bridge between theoretical research on economic systems (conducted by those in the fields of economics and operations research as well as computer science) and the practice of electronic commerce in industry. As this report details, we are very successfully carrying out this mission: we attract top researchers and publications on topics that span theory and practice (with a relative emphasis on the former) and maintain close relationships with—and ongoing conference sponsorship from—some of the most significant companies in our sector (notably Google, Microsoft and Facebook). However, maintaining this position requires a careful balancing act, ensuring that we continue to accommodate the viewpoints, research methodologies, and publication practices of different communities.

SIGecom's four primary activities are convening the annual *Conference on Economics and Computation* (EC), giving paper and dissertation awards which are announced at this conference, editing the electronic newsletter *SIGecom Exchanges*, and running the journal, *ACM Transactions on Economics and Computation* (TEAC).

It happens that two iterations of our annual flagship conference were held during the ACM’s July to June reporting period.

The 17th ACM Conference on Electronic Commerce (EC'16) was held July 24-28, 2016 in Mastricht, Netherlands, along with the 5th World Congress of the Game Theory Society. The General Chair was Vince Conitzer (Duke); the Program Co-Chairs were Dirk Bergemann (Yale) and Yiling Chen (Harvard). As with the last time we held this conference outside North America (2012), we had about 75% of the registration we usually do. However, we made up for this by co-locating with a large game theory conference. The local arrangements were excellent, and we managed to negotiate free cross-attendance between the conferences. Thus, overall, the event was a great success, particularly from the perspective of increasing participation by both economists and Europeans.

The SIG gave four paper awards at the 2016 conference. First, we awarded the Test of Time Award to J. Bartholdi, J. Orlin, C. Tovey, and M. Trick, for two very early papers on strategic voting, an area that has since become very popular: “Single Transferable Vote resists strategic voting” (1991) and “How hard is it to control an election?” (1992). Second, we awarded the Doctoral Dissertation Award to Inbal Talgam-Cohen (Stanford) for the Dissertation Entitled “Simple and Robust Mechanism Design” advised by Tim Roughgarden. Third, we recognized the Best Paper at the conference: “Which Is the Fairest (Rent Division) of Them All?” by Kobi Gal, Moshe Mash, Ariel Procaccia and Yair Zick. Finally, we recognized the conference’s Best Paper with Student Lead Author, awarded to “Deferred Acceptance with Compensation Chains”, by Piotr Dworczak.

The 18th ACM Conference on Electronic Commerce (EC'17) was held at the Massachussets Institute of Technology in Cambridge, MA, June 26-30, 2017. The program chairs were Moshe Babaioff (Microsoft Research Israel) and Herve Moulin (University of Glasgow); the general chair was Costis Daskalakis (MIT). For only the second time since 2006, and in response to popular demand from the community, this conference was not co-located with another event; furthermore, we held the conference inexpensively on campus at an accessible North American location. The result was record-setting attendance: over 270 attendees for the two-day workshop/tutorial program, the three-day main conference program, or both. (This was about 25% more people than we have ever had, and more than a 67% increase over last year’s attendance.)

The SIG gave three paper awards at the 2017 conference. First, we awarded the Test of Time Award to Daniel Lehmann, Liadan Ita O'Callaghan and Yoav Shoham for their 1999 conference and 2002 journal papers entitled *Truth Revelation in Approximately Efficient Combinatorial Auctions*. This seminal work launched the idea of economic mechanisms based on approximation algorithms, and has profoundly shaped the direction of the field in the past two decades. Second, we awarded the Doctoral Dissertation Award to Peng Shi (MIT) for the dissertation “Prediction and Optimization in School Choice”, advised by Itai Ashlagi. We also recognized two runners up for this award. The first was Bo Waggoner (Harvard) for the dissertation “Acquiring and aggregating information from strategic sources” advised by Yiling Chen. The second was James Wright (UBC) for the dissertation “Modeling Human Behavior in Strategic Settings” advised by Kevin Leyton-Brown. Third, we recognized the Best Paper at the conference: “Combinatorial Cost Sharing” by Shahar Dobzinski and Shahar Ovadia. Because this paper already had a student lead author, we did not give a separate Best Paper with Student Lead Author award.

The TEAC journal is doing well. It continues to run by-invitation special issues of the most recent EC conferences and also draws papers similarly from the WINE conference. It has two editors (one from computer science and one from economics). We’ve just moved on to our second pair of editors: David Pennock (Microsoft Research) and Ilya Segal (Stanford University). They aim to continue growing the journal and cementing it as a preferred destination for work in our field.

Our Exchanges newsletter continues to publish two issues annually. The current editor is Hu Fu (University of British Columbia). For a third year in a row, in an effort to improve the EC academic job market, Exchanges has collected and published bios of all job market candidates. There was also a panel on this topic at EC’17; a summary of the event is planned to appear in Exchanges.

SIGecom’s volunteer development is extremely strong. Many dozens of people serve across a wide range of roles: in the conference organization committee; organizing committees for our various workshops; tutorial presenters; TEAC editors in chief and associate editors; SIGecom Exchanges editors; SIG executive; three best paper award committees. We are extremely conscious of diversity—particularly, but not limited to, diversity across research areas, countries of origin, and gender—and have been very successful in ensuring that our volunteer leaders are diverse, reflective of the community at large, and top-caliber researchers.

The main topics for active discussion in the SIG concern the format of our conference.

* The conference continues to grow, and has reached a size where the acceptance rate has fallen to a level that is probably too low. We had an extensive discussion on alternatives at the EC 2017 business meeting. The community was divided on the idea of holding a winter conference but was ultimately not enthusiastic; nevertheless, the community strongly favors bringing the existing WINE conference under the SIG’s umbrella if possible. The community had no interest in a longer event, but (in a change from previous years) overwhelmingly favored giving the program chairs the ability to add a third track.
* To accommodate authors who publish journal papers in non-CS venues that do not allow previous conference publication, we allow single-page abstracts (which are reviewed as full papers and presented identically at the conference). This has grown from five or ten percent to over half the papers in the conference (for the first time in 2017), forcing us to think carefully about the link between talks and archival papers. We now structure our best paper awards to allow recognizing an abstract-only paper but to ensure that at least one archival paper is recognized.
* We have an unusual “tracks” system in which papers are designated as belonging to either one or two of “theory”; “AI” and “empirical”. Each of these has a separate SPC who oversee all papers having that area’s “tag”. This reassures minority communities in the conference that their work will be reviewed according to the community’s own standards, but is somewhat complex to handle in the conference management system (because papers may have two tags). We currently have a subcommittee exploring alternative conference management systems that can support our conference structure while still being more modern.
* We are considering a system in which excellent papers that have recently appeared in other publication venues will be actively solicited for presentation at the conference by a dedicated committee. We see this as a way of preventing fragmentation, drawing in underrepresented communities, and maintaining EC as a “one-stop shop” for cutting edge research at the boundary between economics and computer science.
* A big topic of discussion this year was whether we should move from single-blind to double-blind peer review. While this issue has simmered for years, this year a compelling presentation on the topic at our business meeting produced a surprising outcome: a straw vote in which over 90% of voters favored a double-blind system. We’re not entirely committed to how we’ll move forward with this mandate, but anticipate instituting double-blind review as a one-year experiment and then evaluating how well it has gone and how disruptive the community found it.

**SIGEVO FY’17 Annual Report**

**Submitted by: Marc Schoenauer, Chair**

**EXECUTIVE BOARD and ADVISORY BOARD**

As decided during the 2016 Executive Committee meeting in Denver during GECCO-2016, an Advisory Board was created, allowing the Executive Board to keep alive the experience and wisdom of former members while nevertheless allowing some fresh blood to enter the Executive Board. Advisory Board members are nominated by SIGEVO Officers.

Ken DeJong elegantly resigned from the Executive Board, and was nominated the first member of SIGEVO Advisory Board.

But 2017 was also a year where one third of the Executive Board (i.e., 6 members) was to be renewed. The nomination committee, chaired by Darrell Whitley, nominated 12 SIGEVO members. The 6 elected members have been announced in June. But in order to fill Ken DeJong’s seat, the 7th ranked candidate of this election, J.J.Merelo, was invited to attend our Executive Board business meeting in Berlin (July 2017), where he was nominated to join the Board until 2021, Ken’s end of mandate.

**BUSINESS MEETING IN BERLIN**

GECCO 2017 is formally outside the report period, but very close, so I shall report on the results of the business meeting that took place in Berlin during this conference, as they cover most of SIGEVO activities in the last 12 months.

As usual, the chair and E-i-C of both 2017 and 2018 GECCOs were also invited.

The following announcements and decisions were made at the meeting:

1. J.J. Merelo is nominated to replace Ken DeKong in the Executive Board after his resignation, and nomination to the Advisory Board – subject to ACM approval.
2. Submissions to GECCO 2017 is back to ‘normal’ after a low 2016 – and, quite surprisingly, attendance to GECCO 2017 is the second highest in GECCO history, with more than 600 attendees. Acceptance rate was kept below 40%. Direct poster submissions, a first-time trial, was a success with 32 submissions (not counted in the acceptance rate).
3. GECCO will take place for the first time in GECCO history in Asia, more precisely Kyoto. Prof. Keiki Takadama is General Chair, and Prof. Hernan Aguirre is Editor in Chief. The venue is already decided, and everything is in good shape.
4. SIGEVO Newsletter is back on track, thanks to Emma Hart. However, Emma has become EiC of Evolutionary Computation, and will be replaced as EiC of the newsletter by Gabriela Ochoa by end 2017. As a reminder, it was decided to decrease the frequency to at most 3 per year starting in 2017 – Fall, Winter and Spring.
5. Job Ads, a new item on SIGEVO website, has been a success, with 60 ads being posted there. A live session during GECCO also encountered great success. All this thanks to Tea Tusar, a young EC researcher, who put a lot of energy there.
6. A call for hosting next FOGA will be out early Fall – even though last FOGA was a limited audience (13 people).
7. The look-and-feel of GECCO web site was modernized, thanks to GECCO 2017 Electronic Media Chairs, though keeping the same CMS-based framework, i.e., information being propagated from one year to the next.
8. The processing of GECCO papers has been totally outsourced to Linklings: in previous years, Linklings was only in charge of the submissions, while Sheridan was responsible for preparing the papers for inclusion in the DL. The was painful for both the authors, the Proceeding chair … and the budget: Linklings asks for less than $10k where Sheridan’bill was over $30k.
9. The new concept of GECCO Summer School was experimented at GECCO 2017, and proved to be a great success, thanks to Enrique Alba. It started 1 day before the conference, and included 2 days after the conference. The students were proposed courses on the first day, received assignments from mentors that were to be fulfilled during the conference, and reported on these assignments on the last 2 days after the conference. More than 60 students wanted to attend, but we had room for only 30, advised by 10 mentors. The post-school poll revealed that most students were very happy with this kind of schedule, and will be proposed again next year.
10. The 2 new awards, an “outstanding achievement” award (working title) and a “Best PhD dissertation” award, have been submitted to ACM approval. Added to the “Impact Award”, this would result in SIGEVO having 3 awards.

**GECCO 2016**

GECCO 2015 was held in Denver, USA, in July 2016. The submissions and attendance figures were rather low. The reason was identified as being the low attractiveness of Denver – especially compared to Vancouver, where CEC was hold. The General Chair of GECCO 2016 was Frank Neumann (University of Adelaide, Australia) and the E-i-C was Tobias Friedrich (Hasso-Plattner-Institut, Germany). Executive Events was our conference management provider.

**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, Summer School) to use surplus for rewarding our membership through higher visibility and more services for students: Student support in travel grants at GECCO has been at $25K per year, FOGA 2017 workshop has also been sponsored for students. It is expected to spend more on students travel grants for GECCO 2018 because it is being held in Japan.

**AWARDS**

**Competitions**: Five competitions were held at GECCO-2016 with awards and prizes presented at the SIGEVO Annual Meeting. The areas of the competitions were

* Black Box Optimization Competition
* Combinatorial Black Box Optimization Competition (CBBOC)
* Niching Methods for Multimodal Optimization
* The General Video Game AI (Single-Player Planning Track)
* Virtual Creatures

**Humies Awards**: The most prominent competition is the Humies Award for the best human-competitive application of Evolutionary Computation methods published in the last year. 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.

Gold Medal*: Automatic Software Transplantation.* Earl Barr, Mark Harman, Yue Jia, Alexandru Marginean, Justyna Petke, CREST, UCL, London, UK

Silver Medal (Tie)

* *On Routine Evolution of Complex Cellular Automata.* Michal Bidlo, Evolvable Hardware Group, Faculty of Information Technology, Brno University of Technology, Czech Republic
* *Can a machine replace humans in building regular expressions? A case study*

Alberto Bartoli, Andrea De Lorenzo, Eric Medvet, Fabiano Tarlao, University of Trieste, Italy

Bronze Medal*: Multi-objective Software Effort Estimation*. Federica Sarro, Alessio Petrozziello, Mark Harman, CREST, UCL, London, UK

**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.

**GECCO Impact Award**: The “SIGEVO Impact Award” is given every year 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 the following paper published in GECCO 2007 proceedings:

*\* Techniques for highly multiobjective optimisation: some nondominated points are better than others.* DW Corne, JD Knowles. In Hod Lipson (Eds), Proceedings of the 9th annual conference on Genetic and Evolutionary Computation, pp 773-780, ACM, 2007.

**SIGGRAPH FY’17 Annual Report**

**Submitted by Jeff Jortner, President**

**Mission of ACM SIGGRAPH:**

ACM SIGGRAPH's mission is to foster and celebrate innovation in Computer Graphics and Interactive Techniques. The organization promotes its vision by bringing people together in physical, on-line, and asynchronous communities to invent, inspire, and redefine the many creative and technical artifacts, disciplines, and industries that are touched by computer graphics and interactive techniques.

**Awards that were presented:**

Significant New Researcher Award: Chris Wojtan, IST Austria

CG Achievement Award: FrŽdo Durand, MIT

Distinguished Artist Award: Steina Vasulka

Outstanding Service Award: Alain Chesnais, TrendSpottr

Outstanding Doctoral Dissertation Award: Eduardo Sim›es Lopes Gastal?, UFRGS

SIGGRAPH Computer Animation Festival Awards: The festival presents several awards. The Best in Show Award given to ÒBorrowed TimeÓ qualified to be considered for nomination in the Academy of Motion Picture Arts and SciencesÕ Best Animated Short Film category.

**Significant papers on new areas that were published in the proceedings:**

119 papers were presented at SIGGRAPH 2016, selected from a total of 467 submissions. 89 technical papers were presented at SIGGRAPH Asia 2016 selected from a total of 300 submissions. The top 3 viewed papers in the DL from SIGGRAPH 2016 were: (1)Soli: ubiquitous gesture sensing with millimeter wave radar, (2)Fusion4D: real-time performance capture of challenging scenes, and (3)Painting style transfer for head portraits using convolutional neural networks.

Innovative Programs which provide service or broaden participation to some part of our many technical communities:

The SIGGRAPH 2016 Experience Hall which includes the VR Village, Studio, and Emerging Technology, and Art Gallery programs has become a showcase for many communities outside the academic technical programs.

A significant effort has begun to develop and deploy a 5-year strategy for all aspects of ACM SIGGRAPH. The initial concepts have been developed with the vision of ÒEnabling Everyone to Tell Their Stories.Ó

**Events and Programs**

In addition to our monthly newsletter, ACM SIGGRAPH extensively uses social media as a communication path our members and community. All of the social media channels are continuing to see increased participation rates:

Twitter: 2016 - 26,589: 2017 Ð 29,600 Facebook: 2016 - 29,500: 2017 Ð 36,644

ACM SIGGRAPH Facebook: 2016 - 4,329: 2017 Ð 5,338

YouTube: 2016 - 17,372: 2017 Ð 22,445 LinkedIn 2017 - 10,204: 13,695 (2 groups)

SIGGRAPH, the worldÕs premier conference on computer graphics and interactive techniques returned to Anaheim in 2016 for its 42nd conference attracting attendees from over 75 countries. We also saw the 9th ACM SIGGRPAH Asia Conference and Exhibition in Macau, China. SIGGRAPH Asia attracted attendees from over 53 countries.

ACM SIGGRAPH has agreements with 26 specialized conferences. The second group meeting for all specialized conference organizers was held at SIGGRAPH 2016. The purpose of the meeting was to share ideas and discuss common issues among themselves, ACM and ACM SIGGRAPH. The meeting has significantly improved communication among the EC, SIGGRAPH conferences and specialized conferences.

**Key Issues facing ACM SIGGRAPH in the foreseeable future:**

Implementation of a new 5-year strategy for the organization and conferences.

Volunteer development is a continuing issue for all aspects of the organization. Efforts in this area need to be increased to maintain a healthy diverse volunteer base.

Preservation of SIGGRAPH history as we approach our 50th anniversary.

**SIGHPC FY’17 Annual Report**

**Submitted by Jeff Hollingsworth, SIGHPC Chair**

1. **Awards that were given out**

Travel grants to attend SC16 were given to 6 students: 2 undergraduate and 4 graduate students from universities in Norway, The Netherlands, and the United States.

SIGHPC in collaboration with Intel awarded the 14 inaugural recipients of the ACM SIGHC/Intel Computational and Data Science Fellowship (applications and reviewing was during FY16, awards were made in early July 2016). The fellowship, funded by Intel and announced at SIGHPC’s SC conference in November of last year, enables outstanding women and underrepresented minority students to pursue graduate degrees in computational and data science. The fellowship provides $15,000 annually for study anywhere in the world.

Students were nominated by their graduate advisors. Nominees spanned 21 disciplines and represented large, mid-sized, and small institutions in 23 countries. 80% of nominees were female, and 20% were identified as an underrepresented minority.

1. **Significant papers on new areas that were published in proceedings**

ACM Gordon Bell Prize winner: “10M-Core Scalable Fully-Implicit Solver for Nonhydrostatic Atmospheric Dynamics”, Chao Yang, Chinese Academy of Sciences, et. Al

SC16 Best Paper winner: “Daino: A High-Level Framework for Parallel and Efficient AMR on GPUs” by Mohamed Wahib Attia and Naoya Maruyama, RIKEN; Naoya Maruyama, RIKEN; and Takayuki Aoki, Tokyo Institute of Technology.

SC16 Best Student Paper winner: “Flexfly: Enabling a Reconfigurable Dragonfly Through Silicon Photonics,” by Ke Wen, Payman Samadi, Sebastien Rumley, Christine P. Chen,, Yiwen Shen, Meisam Bahadori, and Karen Bergman, Columbia University and Jeremiah Wilke, Sandia National Laboratories.

Other SC16 finalists:

 “Toward Green Aviation with Python at Petascale”, Peter Vincent, Freddie Witherden, Brian Vermeire, Jin Seok Park, and Arvind Iyer, all of Imperial College London.

“The Mont-Blanc Prototype: An Alternative Approach for HPC Systems”, Nikola Rajovic, Barcelona Supercomputing Center, et. Al

“Automating Wavefront Parallelization for Sparse Matrix Codes”, Anand  Venkat, University of Utah; Mahdi Soltan Mohammadi, University of Arizona; Jongsoo Park, Intel Corporation; Hongbo Rong, Intel Corporation; Rajkishore Barik, Intel Corporation; Michelle Mills Strout, University of Arizona; Mary Hall, University of Utah.

“Failure Detection and Propagation in HPC Systems”, George Bosilca, University of Tennessee; Aurelien Bouteiller, University of Tennessee; Amina Guermouche University of Tennessee; Thomas Herault, University of Tennessee; Yves Robert, ENS Lyon; Pierre Sens, LIP6 Paris; Jack Dongarra, University of Tennessee.

“Performance Modeling of In Situ Rendering”, Matthew Larsen, University of Oregon; Cyrus Harrison, Lawrence Livermore National Laboratory; James Kress, University of Oregon; Dave Pugmire, Oak Ridge National Laboratory; Jeremy Meredith, Oak Ridge National Laboratory; Hank Childs, University of Oregon.

“An Efficient and Scalable Algorithmic Method for Generating Large-Scale Random Graphs”, Maksudul Alam, Virginia Polytechnic Institute and State University; Maleq Khan, Virginia Polytechnic Institute and State University; Anil Vullikanti, Virginia Polytechnic Institute and State University; Madhav Marathe, Virginia Polytechnic Institute and State University.

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

The SC16 Cluster challenge with support and encouragement of SIGHPC focused on replication of scientific studies. All of the student teams were assigned the task of replicating the results of a selected SC15 paper. During the conference, they coded and demonstrated their efforts. Conference attendees were able to stop by the booths for each team and talk with the students about their efforts. This project promoted the importance of replication in CS. A special issue of the journal Parallel Computing will feature the best of these student efforts.

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

Our virtual chapters program provides a way for different sub-groups in our community to interact and share information. Currently we have virtual chapters in:

SIGHPC BigData Chapter: this chapter promotes the convergence between HPC and BigData.

SIGHPC Education Chapter: this chapter targets aspects of teaching HPC, developing educational or training materials, and curriculum development.

SIGHPC-RCE Chapter: this chapter's mission is to promote the advancement of the field of High Performance Computing in Resource Constrained Environments (RCE).

SYSPROS Chapter: the Systems Professionals chapter supports the interests and needs of systems administrators, developers, engineers, and other professionals involved or interested in the operation and support of systems for high performance computing.

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

The ACM SIGHPC/Intel Computational & Data Science Fellowships awarded its second class of fellows. Specifically targeted at women or students from racial/ethnic backgrounds that have not traditionally participated in the computing field, the program is open to students pursuing degrees at institutions anywhere in the world. For the school year 2017-2018 we continued the class of 14 students in the 2016-17 cohort into their second year, and awarded an additional 12 fellowships to members of underrepresented groups in computational and data science.

Nominees for the 2017-18 cohort spanned disciplines from finance and robotics to managing personal health data, and represented large, mid-sized, and small institutions in 25 countries. 80% of nominees were female, and 40% were identified as an underrepresented minority in their country of study. The nominations were evaluated based on nominees’ overall potential for excellence in data science and/or computational science, and the extent to which they will serve as leaders and role models to increase diversity in the workplace. Of the 12 students named as winners this year, nine are women and six are underrepresented minorities in their country of study. Awardees are given a $15,000 fellowship and recognized at the prestigious annual SC conference ([sc17.supercomputing.org](http://sc17.supercomputing.org)).

SIGHPC also completed the launch of its second major diversity activity by announcing the first winner of ACM SIGHPC Emerging Woman Leader in Technical Computing award. This award is unique in recognizing mid-career women in the technical and high performance computing communities. Ilkay Altintas was recognized “for research leadership that makes distributed scientific and technical computing applications more reusable, scalable, and reproducible.” The award consists of a $2,000 honorarium, a plaque, and presentation at the prestigious annual SC conference ([sc17.supercomputing.org](http://sc17.supercomputing.org)).

SIGHPC's flagship conference, SC17, is continuing the Advanced Computing for Social Change pilot funded during SC16 by SIGHPC Vice Chair John West, who also served as conference general chair. The program is 4-day long student engagement experience designed to teach computation, data analysis, and visualization techniques in order to take a data centric view of a significant social issue. SC16's program focused on the violence and rhetoric surrounding the #Blacklivesmatter movement. Participants included 19 undergraduate and graduate students from 12 different universities including Historically Black Colleges and Universities, Minority Serving Institutions, and Hispanic Serving Institutions. 58% of participants were first generation college students, 63% were female, 45% were black or African American, 18% Hispanic or Latino, and 14% were American Indian or Alaska Native; the remainder were white or Asian American. Objectives of the program include; 1) engaging students in a social action challenge utilizing advanced computing techniques, 2) increasing the participation of students historically underrepresented in STEM at SC conferences, and 3) creating a cohort of students to serve as future ambassadors at SC conferences.

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

The SIG will be challenged to increase value for non-US participants over the next several years, principally through relationships with workshops and conferences outside the US.

While HPC has several notable career capstone awards (such as the ACM-IEEE CS Ken Kennedy Award), the community is missing early and mid-career awards that serve to encourage accomplishment during the formative stages of a career and create visible role models for later entrants in the field. SIGHPC has made progress here with its fellowship (funded by a grant from Intel) and its mid-career award for women, but more work needs to be done. Planning is underway for a dissertation award recognizing the start of an academic career, and additional awards are expected.

HPC, along with all of the computer science-related disciplines, suffers from a lack of diversity in its workforce. The SIG will continue its efforts support groups that are under-represented in computing -- such as women, black and African Americans, Native Americans, and Hispanic and Latino groups -- through its fellowship, travel support, and award programs. However we must carefully evaluate the impact of those programs and continue to experiment with new ways to address this critical need.

**SIGIR FY’17 Annual Report**

**Submitted by: Diane Kelly, SIGIR Chair**

***SIGIR focuses on all aspects of information storage, retrieval and dissemination, including research strategies, output schemes and system evaluations.***

**Key Initiatives and Accomplishments**

* Awarded nearly $200K in student travel scholarships to those attending SIGIR-sponsored and co-sponsored conferences: SIGIR, CHIIR, ICTIR, CIKM, WSDM and JCDL.
* In conjunction with Google, offered student travel scholarship to those from underrepresented groups to attend the SIGIR Conference.
* Sponsored CRA-W and sent a volunteer to staff a booth.
* Sent 10 students to the 50 Years of Turing Celebration.
* Nominated 12 juniors for the ACM Academy.
* Created a new volunteer position, *Student Affairs Chair*, and the *Student Liaisons Program*. Students apply for the liaison positions and the inaugural class has six students from around the world (USA: 1; Europe: 2; Middle East: 1; Asia: 1; Australia: 1). The student liaisons have launched their first program, *PhD Buddy Program*, which will premiere at this year’s SIGIR Conference.
* Hosted a student luncheon and student party at the SIGIR Conference. At this year’s SIGIR conference, we are hosting a *Diversity and Inclusion Luncheon*.
* Provided space and support for the *Women in IR* group, which was launched several years ago by our members.
* Created a new volunteer position, *Industry Liaison*. We have appointed a chair, with whom we are working to recruit the inaugural class of liaisons to work with the SIGIR Executive Committee to continue to forge strong ties with industry and be responsive to their needs.
* Created a new award for the SIGIR Conference, *Best Short Paper*. Our Awards Chair worked in conjunction with the Best Paper Chair for SIGIR 2017 to draft procedures for selecting the award winner. They also formally documented the specific procedures for selecting the best paper award for the conference.
* Awarded approximately $40K through our *Friends of SIGIR* program to SIGIR members hosting local, IR-related events. Funding went to support events in a number of countries and included the *Forum on Information Retrieval Evaluation* (India), *IR Autumn School* (Germany), *Asia Information Retrieval Societies Conference*, *Australasian Document Computing Symposium* and *CORIA* (French Information Retrieval Conference).
* In response to member concerns about rising conference fees, we worked with our ACM contacts to identify a few standard policies which we could follow that would allow for this (namely, including expected sponsorship in the TMRFs).
* Created high resolution images of the SIGIR logo and added them to the ACM SIG Logo Matrix (our logo was missing).
* Moved our major mailing list, SIGIR List to the ACM for hosting.
* Worked with the editor of *ACM Transactions on Information Systems* to develop a policy for allowing authors of TOIS papers to present their work at conferences which are fully sponsored by SIGIR: SIGIR, CHIIR, ICTIR. We have implemented this policy and have already had presentations from TOIS authors. We also connected the TOIS editor with the ACM Publications Board to investigate the possibility of the journal being part of the Gold OA experiment.
* Contributed a number of physical proceedings from older conference series related to IR to the ACM Digital Library.
* Continued to support and nurture our recently launched SIGIR-sponsored conference, the *Conference on Human Information Interaction and Retrieval (CHIIR)* and the *International Conference on the Theory of Information Retrieval (ICTIR)*, which made their second and third annual appearance, respectively, in Oslo, Norway and Newark, Delaware. Sponsored the CHIIR Best Paper Award.

**Ongoing Work**

* We are in the process of appointing a task force to develop procedures to implement ACM badging.
* We are starting work to have the best paper awards at CHIIR and ICTIR, be official SIGIR awards, as well as the Best Short Paper award mentioned earlier.
* We will pilot the use of iThenticate (through ACM) to evaluate papers submitted to our conferences, and begin drafting a policy for how to use this tool to help us identify submissions that do not meet the standards regarding unique content.
* We are developing budgeting models to help us better understand the sustainability of our very generous student travel grant program and will continue to refine our procedures making the awards.

**Significant Papers**

The 2016 SIGIR Conference produced a number of significant papers. In addition to the award-winners listed in the next section, select papers that illustrate the breadth of SIGIR include:

* **Statistical Significance, Power, and Sample Sizes: A Systematic Review of SIGIR and TOIS, 2006-2015**. Tetsuya Sakai (Waseda University)
* **Learning to Respond with Deep Neural Networks for Retrieval-Based Human-Computer Conversation System**. Rui Yan (Baidu Inc.), Yiping Song (Baidu Inc.), Hua Wu (Baidu Inc.)
* **Learning to Rank with Selection Bias in Personal Search**. Xuanhui Wang (Google), Michael Bendersky (Google), Donald Metzler (Google), Marc Najork (Google)
* **A Context-aware Time Model for Web Search**. Alexey Borisov (Yandex & University of Amsterdam), Ilya Markov (University of Amsterdam), Maarten de Rijke (University of Amsterdam), Pavel Serdyukov (Yandex)
* **Fast First-Phase Candidate Generation for Cascading Rankers**. Qi Wang (New York University), Constantinos Dimopoulos (New York University), Torsten Suel (New York University)
* **Predicting Search User Examination with Visual Saliency**. Yiqun Liu (Tsinghua University), Zeyang Liu (Tsinghua University), Ke Zhou (Yahoo! Research), Meng Wang (HeFei University of Technology), Huanbo Luan (Tsinghua University), Chao Wang (Tsinghua University), Min Zhang (Tsinghua University), Shaoping Ma (Tsinghua University)

**Awards**

* During the last two years, we appointed a committee to identify *Test of Time* awardees from the time period 1978-2001. When the award guidelines were created, eligible papers were identified as those that were published in a window of time 10 to 12 years prior to the year of the award. This meant that the first year this award was given, 2014, eligible papers came from the years 2002-2004. A set of 30 papers were selected to receive a Test of Time Award. We prepared a special issue of *SIGIR Forum* to announce and celebrate these papers with commentary provided by leading IR scholars and paper reprints (see: [http://sigir.org/forum/issues/july-special-issue-2017/)](http://sigir.org/forum/issues/july-special-issue-2017/%29). We are in the process of having plaques created and shipped to all the authors who are still living, and will have a special awards ceremony at SIGIR 2017, which will mark the 40th Anniversary of SIGIR (we have additional awards for this as well).
* At SIGIR 2016, we made several awards:
	+ **best paper**: *Understanding Information Need: an fMRI Study*, Yashar Moshfeghi, Peter Triantafillou, Frank E. Pollick
	+ **best student paper:** *A Context-aware Time Model for Web Search*, Alexey Borisov, Ilya Markov, Maarten de Rijke, Pavel Serdyukov
	+ **best paper honorable mention** *Searching by Talking: Analysis of Voice Queries on Mobile Web Search*, Ido Guy
	+ **best paper honorable mention** *Discrete Collaborative Filtering*, Hanwang Zhang, Fumin Shen, Wei Liu, Xiangnan He, Huanbo Luan, Chua Tat-Seng
	+ **best paper honorable mention student paper** *Topic Modeling for Short Texts with Auxiliary Word Embeddings*, Haoran Wang, Chenliang Li, Zhiqian Zhang, Aixin Sun, Zongyang Ma
	+ **Test of Time Award** Accurately interpreting clickthrough data as implicit feedback, Joachims, Thorsten; Granka, Laura; Pan, Bing; Hembrooke, Helene; Gay, Geri, SIGIR 2005
	+ **Test of Time Award Honorable Mention** Retrieval evaluation with incomplete information, Buckley, Chris; Voorhees, Ellen M., SIGIR 2004

**Significant Challenges**

* We are working to unify our communication channels, but are still facing challenges and have more work to do in this area, including updating our website. This requires significant effort and it is hard for volunteers to have the time needed for such efforts.
* Growing membership and conference attendance. In part, advertising and branding should be part of the plan, but again, this is difficult to do because of the resources (mostly time) and expertise needed.
* Documenting policies and procedures which have traditionally been passed down orally.

**SIGITE FY’17 Annual Report**

**Submitted by: Steve Zilora, SIGITE Chair**

***Mission Statement***

SIGITE's mission is to provide a forum for the interaction of practitioners, educators and others in the field of Information Technology Education to exchange ideas and engage in activities that advance the knowledge of its members, the curriculum and teaching of information Technology and the development and transfer of innovative concepts and applications in teaching and pedagogy.

***Annual Conference***

The 17th Annual Conference on Information Technology Education, co-located with the 5th Annual Conference on Research in Information Technology, was hosted by University of Massachusetts and held in Boston, MA September 28 – October 1, 2016. There were 114 submissions of papers, posters, panels, workshops, and lightning talks. For SIGITE, 26 of 67 papers were accepted (39%); for RIIT 9 of 20 papers were accepted (45%). For the second year in a row we had more than 150 people attending the conference. Approximately 50% of these attendees completed a conference survey where 85% rated the conference Very Good or Excellent. Only 1% rated the conference Fair or Poor.

***Awards that were given out***

At the 2016 SIGITE/RIIT Conferences, two best paper awards were presented:

(*SIGITE 2016 Best Paper Award Winner*)

*A Capstone Design Project for Teaching Cybersecurity to Non-Technical Users*

Edward Sobiesk, Anya Estes, James Finocchiaro, Jean Blair, Justin Dalme, Michael Emana, Luke Jenkins and Johnathan Robison, United States Military Academy

(*RIIT 2016 Best Paper Award Winner*)

*MP4 Steganography: Analyzing and Detecting TCSteg*

Anthony Ramirez and Alfredo Fernandez, Illinois Tech Information Technology and Management

***Significant conference papers that have proven popular (as measured by download count):***

*The Impacts of Digital Transformation, Agile, and DevOps on Future IT Curricula*, by Charles Betz, University of St. Thomas; Amos Olagunju, St. Cloud University; Patrick Paulson, Winona State University.

# *What is Information Technology’s Role in Cybersecurity?*, by Jean Blair, United States Military Academy; Edward Sobiesk, United States Military Academy; Joseph Ekstrom, Brigham Young University; Allen Parrish, United States Military Academy.

***Significant programs that provided a springboard for further technical efforts***

The long-standing practice of the SIG was to have future conference chairs work through other roles (Sponsorship Chair, Program Chair) before becoming Conference Chair. While this approach carries significant benefits, a major downside is that each year the three key conference planning people were all new to their roles, software systems, and typical issues. We will continue this practice, but this past year we created a standing conference committee to provide continuity. These committee members will assist the “rising conference chairs” with their duties, resulting in smoother planning and execution of our annual conference.

The SIG played a key role in IT2017 Task Group providing four SIG members to serve in the group, hosting their meetings at our annual conference, and sponsoring a panel discussion at the conference.

We also made a concerted effort to include more student participation in our annual conference. Our efforts resulted in three students taking advantage of our scholarship program (as opposed to zero in the past several years).

*A brief description of the SIG’s volunteer development process.*

SIGITE continues to have an atmosphere of contribution amongst its members. Finding volunteers for various activities has never been a problem. We continue to use our standing and ad hoc committees as opportunities for members to “get a taste” of leadership.

*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.*

Attendance at our annual conference has been growing, but we still struggle with submissions, particularly for the Research in IT conference. We need to substantially increase the number of submissions in this area so that we can ensure a high-quality offering.

While our current membership is very active, the size of the SIG remains flat to slightly decreasing. We need to change that and grow the SIG. As part of this effort, we need to include community colleges and student groups.

Professional accreditation: we need more members involved in enhancing the communication/coordination flow between SIGITE, CSAB and ABET/CAC. More broadly, we need to establish a tighter relationship between the SIG and accrediting bodies.

**SIGLOG FY’17 Annual Report**

**Submitted by Prakash Panangaden**

SIGLOG’s flagship conference the ACM-IEEE Symposium on Logic in Computer Science was held in July 2016 in New York City, USA on the campus of Columbia University. The 2017 conference was held in June in Reykjavik, Iceland so there were two LICS conferences in this reporting period. I will give data for the 2016 conference only.

The office holders of SIGLOG are: Prakash Panangaden (chair), Luke Ong (vice-chair) Alexandra Silva (secretary) all of whom were on the original team at the time that SIGLOG was chartered in 2014 and were re-elected for terms running from 2016-2019. Amy Felty was elected as treasurer for the same term. We now have a gender-balanced executive.

**Awards**: This was the second year that the Church Award was given. It went to 6 researchers who worked in three groups and, remarkably all converged on similar ideas at around the same time. They are Samson Abramsky (Oxford University, UK), Radha Jagadeesan (DePaul University, Chicago, USA) and Pasquale Malacaria (Queen Mary College, London, UK) who developed what are now called AJM games, Martin Hyland (Cambridge University, UK) and Luke Ong (Oxford University, UK) who developed what are called Hyland-Ong games and Hanno Nickau (Oxford University, UK) who independently developed a formalism very similar to Hyland-Ong games.

The citation, in brief read as follows: The 2017 Alonzo Church Award for Outstanding Contributions to Logic and Computation is given jointly to Samson Abramsky, Radha Jagadeesan, Pasquale Malacaria, Martin Hyland, Luke Ong, and Hanno Nickau for providing a fully-abstract semantics for higher-order computation through the introduction of game models, thereby fundamentally revolutionising the field of programming language semantics, and for the applied impact of these models.

### The LICS Test-of-Time Award Winners in 2016 were as follows:

.[*Parosh A. Abdulla*](http://lics.siglog.org/archive/papers/A.html#ParoshAAbdulla)[*Karlis Cerans*](http://lics.siglog.org/archive/papers/C.html#KarlisCerans)[*Bengt Jonsson*](http://lics.siglog.org/archive/papers/J.html#BengtJonsson)[*Yih-Kuen Tsay*](http://lics.siglog.org/archive/papers/T.html#YihKuenTsay)
**General decidability theorems for infinite-state systems**[.](http://lics.siglog.org/archive/1996/AbdullaCeransJonsso-Generaldecidability.html)

[*Iliano Cervesato*](http://lics.siglog.org/archive/papers/C.html#IlianoCervesato)[*Frank Pfenning*](http://lics.siglog.org/archive/papers/P.html#FrankPfenning)

**A Linear Logical Framework**

The Kleene Award for the best student paper went to Steen Vester for his paper entitled “Winning cores in parity games.”

II. **Significant developments in Logic and Computation over the past year**:

One of the significant activities during this year was a 4 month thematic program held at the Simons Institute on the campus of the University of California, Berkeley. The program was organized by Samson Abramsky, Anuj Dawar, Phokion Kolaitis and Prakash Panangaden and ran from mid-August to mid-December 2016. There were 45 long-term participants (including some from Berkeley) with visits ranging from 1 to 4 months and 8 Simons Fellows who were in residence for the entire period.

The aim of this program was to bring together researchers from selected areas of logic in computer science, but at different ends of the spectrum from algorithms and complexity on the one hand and semantics.  The focus was on four different strands: finite and algorithmic model theory; logic and probability; logic and quantum mechanics; and logic and databases. The organizers hoped for two-way and three-way interactions between these four strands, which would both create bridges between the strands and advance the state-of-the-art in each of them. The program wa complemented by three workshops with themes that underlie all four strands: compositionality in computation; symmetry in computation; and uncertainty in computation. Several joint projects were initiated during the course of this thematic program and many papers appeared or are under active development.

A striking technical development in the field is work on connections between logic and discrete thinking on the one hand and analogue computation and differential equations on the other. A very significant thesis by Amoury Pauly called “Continuous-time computation models: from computability to computational complexity” won the Ackerman Award in June 2017.

III. **Significant Programs:**

SIGLOG continued its effort to address issues related to the lack of diversity in the computer science research community. There were logic mentoring workshops in New York and Reykjavik associated with LICS. There was also the first Women in Logic workshop in Reykjavik. The situation is still far from ideal but we hope that issues are more out in the open. Sadly, there is pushback against these efforts by some members of the community. We clearly need to do more and not deny the existence of problems. SIGLOG supported a summer school in probabilistic programming languages in Portugal in May 2017; this was also supported by EATCS.

IV. **Innovative programs which provide service to our technical community**:

The SIGLOG newsletter continues to be a valuable source of review articles on topics across a whole range of topics. In recognition of this we are putting in place a web site where the technical articles can be read and also be commented upon in the spirit of many highly successful individual blogs.

V. **Summary of key issues**:

SIGLOG is stable for the moment but more effort needs to be put into growing the membership. Many people take advantage of SIGLOG contributions without being members. For example, the SIGLOG newsletter is freely available from the web site. We hope to become more proactive about supporting workshops that build the community and in sponsoring student participation in conferences and summer schools. We are actively cooperating with EATCS and EACSL in these efforts.

**SIGMETRICS FY’17 Annual Report**

**Submitted by Vishal Misra, SIGMETRICS Chair**

SIGMETRICS focuses on computer system performance, seeking to balance theoretical and practical issues. Members' interests typically include advancing the state of the art in addition to applying new performance evaluation tools and techniques in practice.

ACM Sigmetrics concluded another successful and very significant year in many ways. Some of

the highlights of the year were:

**Awards:**

Sigmetrics gives out a number of awards every year. This year the awards were:

**The SIGMETRICS Achievement Award**: **Dr. Sem Borst**, of Nokia Bell Labs and the Eindhoven University of Technology received the 2017 ACM SIGMETRICS Achievement Award in recognition of his sustained fundamental contributions to the theory and applications of performance analysis.

**The SIGMETRICS Rising Star Research Award**: **Prof. Sewoon Oh,** of UIUC (University of Illinois Urbana-Champaign) as the recipient of the **2017 ACM SIGMETRICS Rising Star Research Award** for his for seminal contributions in matrix factorization, statistical learning and non-convex optimization

**The SIGMETRICS Test of Time Award:** The 2017 test of time award went to **Bairavasundaram, Lakshmi N., Garth R. Goodson, Shankar Pasupathy, and Jiri Schindler** for their paper

"**An analysis of latent sector errors in disk drives**.", published in **SIGMETRICS 2007.**

**Conference and Workshops:**

The annual conference ACM Sigmetrics was successfully held in Champaign, Illinois at UIUC in June of this year and was well attended. Along with the main conference, a number of workshops were also organized.

• **MAMA 2017** The 18th Workshop on MAthematical performance Modeling and Analysis

• **GreenMetrics 2017**

• **Workshop on Critical Infrastructure Network Security**

4 well attended tutorials were also organized, on diverse topics

• **Stein's Method for Steady-State Approximations: Error Bounds and Engineering Solutions**

• **Security Economics: From Game Theory to Field Measurements**

• **Routing, Scheduling, and Networking in Data Centers**

• **Routing Money, Not Packets: A Tutorial on Internet Economics**

Next year’s conference will be held at UC Irvine.

**Rearchitecting the main conference: A brief report**

Last year the Sigmetrics executive board decided to explore moving the flagship conference to a journal/conference hybrid model. We submitted a proposal to ACM and got selected as the first conference to publish our proceedings as part of the Proceedings of the ACM series. The first conference under the new model was held this year.

From the year-1 milestone, we can describe the transition to a new reviewing process was overall a good move: First, this year proved that the new model is feasible (in terms of workload and organization, including a deadline with no physical TPC meeting). Second, the most important addition (a revision) was so far a success as (1) it was significant in growing the program of that year's conference and is expected to have an even larger effect next year, (2) it helped grow the acceptance ratio without sacrificing quality, (3) it did not have many side effects (no direct accept etc.). We are keeping the process quasi identical for next year to grow familiarity and trust.

**Challenges for the next 2-3 years**

The biggest challenge for the next 2-3 years is to ensure the success of the changed model for the conference. We are working with sister conferences and organizations (like IFIP Performance with whom we jointly hold a conference every 3 years) to make sure the transition happens smoothly. Another challenge for us is to increase the membership numbers. An effort in that direction is to increase our outreach to other communities. To that end, we are instituting “Sigmetrics Community Awards”, which will be given out to a paper at overlapping SIGs like Sigcomm, Sigmobile, and Sigarch. Additionally, the award winners of those papers will be invited to Sigmetrics every year to present their papers at a special session at the conference.

**Other Issues**

The finances, research activity and community involvement remains healthy for the SIG. The flagship conference generated over $11K in surplus this year and the reserves remain healthy. Like other SIGs, we are closely tracking the open access issues that are being explored by ACM.

SIGMIS FY’17 Annual Report

Submitted by: Janice C. Sipior, SIGMIS Past Chair

**Mission**

SIGMIS focuses on information systems and technologies and their management. SIGMIS promotes best-practice and research in the management of information systems and technologies and the use of these systems and technologies. As the oldest of ACM's SIGs, SIGMIS traces its beginning back to 1961, and for decades has been instrumental in defining and developing the field of management and information systems.

**Awards**

Beginning with ICIS (International Conference on Information Systems) 1995, SIGMIS became the sponsor of the ICIS MIS Doctoral Dissertation Award. In December 2016, the award was given to Julia M. Mayer, supervised by Quentin Jones, both of New Jersey’s Science and Technology University, USA, for the dissertation entitled “Mediating chance encounters through opportunistic social matching.”

Beginning at the 2004 SIGMIS CPR conference, SIGMIS initiated the “Magid Ibaria Outstanding Conference Paper of the Year Award.” This year at the 2017 SIGMIS CPR Conference, the recipients were Tenace Setor and Damien Joseph, both of Nanyang Technological University in Singapore, for their paper entitled “Executive Pay Before and After Technology IPOs: Who Receives More?”

**Papers**

SIGMIS held the SIGMIS CPR Conference June 21-23, 2017 in Bengaluru, India. The conference program is available from the SIGMIS CPR conference website at: http://sigmis.org/sigcpr2017/ or directly at: http://sigmis.org/CPR2017Program.pdf. Authors of the 31 papers and 11 posters totaled 87, representing 11 countries.

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 2017, the editorship transitioned to Co-Editors-in-Chief Stacie Petter of Baylor University and Tom Stafford of Louisiana Tech University, for a three year term. Xihui “Paul” Zhang, University of North Alabama, is the Managing Editor. Heidi Seward, Baylor University, is the Technical Editor. For information about *Data Base*, please visit the SIGMIS website at: http://sigmis.org/the-data-base/.

**Programs**

Since 2006, SIGMIS has held the Computers and People Doctoral Consortium. This year’s CPR Doctoral Consortium was held on Wednesday, June 21, 2017 at the SIGMIS CPR Conference June 21-23, 2017 in Bengaluru, India, with 11 participating doctoral students and 3 faculty mentors. 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 and 2014, these panels were transformed to an industry panel and a journal editor's panel. In 2015, the industry panel continued and a development panel was added. In 2016, these panels were not held, but the ACM Student Research Competition and Posters/Demo sessions were initiated. In 2017, an Industry/Academic Panel was held and a Poster Slam was added to the Poster Session. Attendees voted on the best poster, based on multiple criteria and selected "Privacy Protection Dashboard: A Study of Individual Cloud-Storage Users Information Privacy Protection Responses" by Surya Karunagaran. Also, there were two keynote speakers and an industry visit to the Infosys campus.

Beginning in 2001, SIGMIS has held a networking reception at the ICIS conference. The reception at ICIS 2016 was held Saturday, December 10, 2016 in Dublin, Ireland.

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 IS 2010 Curriculum Guidelines for Undergraduate Degree Programs in Information Systems, available at http://www.acm.org/education/curricula/IS%202010%20ACM%20final.pdf. On June 30, 2015, the first public deliverable of the Model Curriculum and Guidelines for Graduate Degree Programs in Information Systems 2016 was released for review and comments. A second draft was released in March 2016, and a comprehensive MSIS 2016 draft in July 2016. After the final round of revisions, the model was approved by ACM Education Board and Council in November 2016 and is available at http://www.acm.org/binaries/content/assets/education/msis2016.pdf.

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.

**Key Issues**

We initiated a Task Force at last year’s Business Meeting on Saturday, June 4, 2016 to address key issues we are facing. Among them are how to retain members and recruit new members, how to increase attendance and participation at our annual CPR conference, and how to improve the CPR conference acceptance rate.

The Task Force mentioned above reached out to the community. One initiative targeted our newsletter as a means to retain members and recruit new members. The “Preeminent Editorial Board” was initiated with thirteen international scholars selected to serve on this new board. Additionally, the number of international scholars who serve on the “Senior Editorial Board” was increased to thirty.

Our two new newsletter editors are actively promoting *The Data Base*. One of the editors invested resources from his university to man a Conference Exhibitor booth for the first time at ICIS 2016 to both promote the newsletter and solicit new members. SIGMIS also placed a full-page ad in the conference program to “Join Today!” and promoted this effort at the annual networking reception as well. Plans are underway to replicate this effort at the Association for Information System’s (AIS) Americas Conference for Information Systems in Boston in August 2017.

Our 2017 conference was held in Bengaluru, India to expand our volunteers and increase our membership reach. The Conference Committee was comprised of an entirely new set of volunteers, with the exception of one member. Among the 56 registrants, representing 10 countries, were 40 new SIGMIS members. A total of 88 papers, posters, and doctoral consortium participant submissions were received, an increase of 120% over last year, with an acceptance rate of 61.4%, down from 67.5% last year.

**SIGMM FY’17 Annual Report**

**Submitted by:** Shih-Fu Chang, SIGMM Chair

**Mission**: SIGMM provides an international interdisciplinary forum for researchers, engineers, and practitioners in all aspects of multimedia computing, communication, storage and application.

1. **Awards:**

SIGMM 2016 Technical Achievement Award was given to Prof. Dr. Alberto del Bimbo. The award was given in recognition of his outstanding, pioneering and continued research contributions in the areas of multimedia processing, multimedia content analysis, and multimedia applications, his leadership in multimedia education, and his outstanding and continued service to the community. He is also the current Editor-in-Chief of ACM Transactions on Multimedia Computing, Communications and Applications.

SIGMM 2016 Rising Star Award was given to Dr. Bart Thomee for his significant contributions in the areas of geo-multimedia computing, media evaluation, and open research datasets. Dr. Thomee has been credited for his contributions to creation and dissemination of the largest multimedia dataset widely used in the multimedia and computer vision community, YFCC100M: Yahoo Flickr 100 million image and video dataset, which was highlighted in the 2016 Feb issue of CACM.

In addition, SIGMM has presented other awards, including **TOMM Nicolas D. Georganas Best Paper Award and SIGMM** Outstanding PhD Thesis Award**.**

1. **Significant Papers:**

The SIGMM flagship conference ACM Multimedia 2016 presented the following awards plus other awards for best poster, grand challengs, etc.

Best paper award

Shengsheng Qian, Tianzhu Zhang, Changsheng Xu

Multi-Modal Multi-View Topic-Opinion Mining for Social Event Analysis

Best demo award

David Monaghan, Freddie Honohan, Amin Ahmadi, Troy McDaniel, Ramin Tadayon, Ajay Karpur, Kieran Moran, Noel O’Connor, Sethuraman Panchanathan

A Multimodal Gamified Platform for Real-Time User Feedback in Sports Performance

Open source software competition award

Marko Viitanen, Ari Koivula, Ari Lemmetti, Arttu Ylä-Outinen, Jarno Vanne, Timo D. Hämäläinen

Kvazaar: Open-Source HEVC/H.265 Encoder

Multimedia Systems (MMSys) 2017 presented the following Best Paper Award.

Title: A Scalable and Privacy-Aware IoT Service for Live Video Analytics

Authors: Junjue Wang (Carnegie Mellon University), Brandon Amos (Carnegie Mellon University), Anupam Das (Carnegie Mellon University), Padmanabhan Pillai (Intel Labs), Norman Sadeh (Carnegie Mellon University), and Mahadev Satyanarayanan (Carnegie Mellon University)

This paper presents OpenFace, a new open-source face recognition system that approaches state-of-art in accuracy. Integrating OpenFace with inter-frame tracking, the authors build RTFace, a mechanism for denaturing video streams that selectively blurs faces according to specified policies at full frame rates enabling privacy management for live video analytics. It provides a secure approach for handling retrospective policy exceptions. Finally, this paper presents a scalable, privacy-aware architecture for large camera networks using RTFace.

Intern. Conf. in Multimedia Retrieval (ICMR) 2017 presented the following Best Paper Award.

"Embedding Watermarks into Deep Neural Networks", Yusuke Uchida (KDDI Research, Inc., Japan), Yuki Nagai (KDDI Research, Inc., Japan), Shigeyuki Sakazawa (KDDI Research, Inc., Japan), and Shin'ichi Satoh (National Institute of Informatics, Japan)

The article proposes to use a digital watermarking technology to protect intellectual property or detect intellectual property infringement of trained models. It formulates a new problem: embedding watermarks into deep neural networks. It also defines requirements, embedding situations, and attack types for watermarking to deep neural

networks. Then, it proposes a general framework to embed a watermark into model parameters using a parameter regularizer. The proposed approach does not hurt the performance of networks into which a watermark is embedded and does not disappear even after fine-tuning or parameter pruning; the watermark completely remains even after removing 65% of parameters were pruned.

1. **Significant and Innovative Programs**

This year’s ACM Multimedia was co-located with the European Conference on Computer Vision (ECCV) with joint workshops and tutorials in the weekend before the main conference. This joint initiative with ECCV has created a lot of positive synergy. ACM Multimedia 2016 also featured the 2nd SIGMM Rising Stars Symposium, promoting vision and achievements of 6 rising stars including 4 women researchers in multimedia.

1. At ACM MMSys this year we expanded the original dataset track to an “Open Dataset and Software Track” to encourage sharing of software code.   As ACM developed Reproducibility Badges in 2015, we incorporate the Artifact Available Badge, one of the four badges, and form a separate committee to review whether a paper deserves the badge. This year we are happy to see our initiative has good success: 10 papers from the Open Dataset and Software Track and 3 papers from the main track are badged with ACM Artifact Available Badge.

At ICMR2017, apart from the regular paper tracks, it also included open-source software, technical demonstrations, brave new ideas papers, doctoral symposium papers, and special session papers. The last day was the industry day, with industry keynote talks given by leading companies: Tencent, HERE, Toutiao, and a panel session highlighting valuable leads to which multimedia information systems are most valuable to industry.

1. **Events or Programs that Broaden Participation**
2. To develop the pipeline of new leaders, we have taken an active approach and organized two high-profile Rising Stars Symposia in 2015 and 2016 with the specific goal of promoting young rising members. Each invited speaker (total 18 so far) was invited to share his/her research achievements and vision for multimedia in a plenary session (500 attendees), with travel cost covered by SIGMM. The responses have been extremely positive. It helps these members expand their visibility, and importantly helps SIGMM develop a larger pool of future volunteers. We are also very pleased to see 4 of the 6 Rising Stars in 2016 are female.
3. This year we expanded our efforts to reach out to members (especially young members) in the community. Specifically, we have expanded our social media communication team. One novel idea we are experimenting is to invite conference attendees to post on twitter or Facebook about papers, demos, talks that they think are most thought provoking and forward looking. The contributors with the most active and informative coverage will be selected by the editors and rewarded with free registration to the conference next year.
4. This year we also continued the annual Women Researchers in Multimedia lunch forum at the flagship conference ACM Multimedia to promote discussion and action for strengthening diversity in multimedia. The event is open to all participants for free. It highlights remarks by leading women researchers sharing their vision, experience, and best practices, and discussion of strategic actions for strengthening diversity in the community. Going forward, continued efforts need to be made to strengthen aspects such as committee members, conference keynote speakers, etc.
5. In an effort to further promote our activities in China and neighboring areas in Asia, we are discussing with our China chapter and considering a proposal of consolidating two existing active multimedia focused conferences in Asia and putting it under the official sponsorship and governance of SIGMM. If successful, this will further broaden participation by the large pool of researchers in this region. But careful mechanisms need to be enforced to ensure top quality, diversity, and sustainability.
6. **Issues for SIGMM in the next 2-3 years**
* SIGMM needs to continue maintaining strengths in both technical depth and breadth. We have specifically called for foundational contributions as well as real world high-impact applications utilizing multimedia technologies. To further identify the long-term vision and action plans, we have organized a SIGMM retreat in 2015 and this year past SIGMM Chair (Shih-Fu Chang) co-organized a US NSF workshop focusing on challenges and directions for multimedia in the next 10 years. A report will be published shortly.
* (this point has been reported in SIG Vitality Review Report)

Recently we found out a significant portion of our conference proceedings were not indexed by Thomson Web of Science (except the most recent one or two years in 2015 or 2016). Earlier years such as ACM Multimedia before 2015 (similarly for ICMR and MMSys) cannot be found. This has major negative effect on our members since our conference publications will not be recognized for promotion review in some countries and the recorded citation measures in these indexes are significantly lower than the actual numbers. This puts the conferences of SIGMM in major disadvantage when competing with other conferences which have their proceedings more extensively indexed. We understand these indexes are managed by external groups. But it will be very useful if ACM can help negotiate with the external party to resolve the issue.

**SIGMOBILE FY'17 Annual Report**

**Submitted by: Suman Banerjee, SIGMOBILE Chair**

The purpose of ACM SIGMOBILE is to promote research and development by bringing together researchers and practitioners and fostering interest in the mobility of systems, users, data, and computing. SIGMOBILE will address the above spectrum of topics, sharing one common theme - mobility. The group's technical scope reflects the emerging symbiosis of portable computers and wireless networks, addressing the convergence of mobility, computing and information organization, its access, services, management and applications.

In the past few years, mobile computing is a fast moving, topical, and exciting area of computer science and engineering. Supporting the mobile computing and wireless networking research community, SIGMOBILE sponsors multiple successful conferences and workshops (MobiCom, MobiSys, MobiHoc, SenSys, UbiComp, WUWNet, PerDis, and HotMobile) 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 700 members.

SIGMOBILE’s Executive Committee (EC) in this period comprised of:

* 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)

SIGMOBILE held an election in this year which led to the following new EC to be elected:

* Chair: Prof. Marco Gruteser (Rutgers University)
* Vice Chair: Prof. Jason Flinn (University of Michigan, Ann Arbor, USA).
* Secretary: Prof. Giovanni Pau (LIP6, France)
* Treasurer: Prof. Falko Dressler (University of Paderborn, Germany)

**Awards**

SIGMOBILE has a number of awards that it bestows of community members every year. In addition to the Outstanding Contributions Award (OCA) for career-long achievements, the Rockstar award for early career achievements, a Distinguished Service Award for service to the community, the Test of Time award for papers that had a significant influence in the community, and various best paper awards at the leading conferences, SIGMOBILE launched a new award this year --- ACM SIGMOBILE Doctoral Dissertation Award for best PhD work in the field. In addition, SIGMOBILE also recognizes some of the best work in the current year, as identified by a selection committee, which are considered the Research Highlights of SIGMOBILE.

Some of the notable award winners are mentioned below.

Outstanding Contributions Award: Prof. Norman Abramson (University of Hawaii)

Rockstar Award: Prof. Shyamnath Gollakota (University of Washington Seattle)

Doctoral Dissertation Award: Vamsi Talla (Advisor: Prof. Shyam Gollakota) and Pengyu Zhang (Advisor: Prof. Deepak Ganesan)

The SIGMOBILE Test of Time award was announced for the second year which were identified by a committee chaired by Dr. Venkat Padmanabhan. The winners are:

#### “[Performance Analysis of the IEEE 802.11 Distributed Coordination Function](http://dl.acm.org/citation.cfm?id=2313210),” Giuseppe Bianchi

#### “The Cricket Location-Support System,” **Nissanka Priyantha, Anit Chakraborty, Hari Balakrishnan**

#### “Sensing Techniques for Mobile Interaction,” Ken Hinckley, Jeff Pierce, Mike Sinclair, Eric Horvitz

#### “[Analysis of a Campus-wide Wireless Network](http://dl.acm.org/citation.cfm?id=570659),” David Kotz and Kobby Essien

#### “Energy-Efficient Computing for Wildlife Tracking: Design Tradeoffs and Early Experiences with ZebraNet,” Philo Juang, Hidekazu Oki, Yong Wang, Margaret Martonosi, Li-Shiuan Peh, Daniel Rubenstein

**Innovative programs**

SIGMOBILE is delighted at the significant transformation of its quarterly publication, GetMobile, whichis a revamped version of the ACM SIGMOBILE Mobile Computing and Communications Review, (MC2R).Each issue of GetMobile consists of a set of regular sections curated by a committed group of editors and has won a lot of praise from the broad community for improved quality of content and articles.

SIGMOBILE has recently launched the SIGMOBILE YouTube channel through which we provide video-recorded talks from our major conferences and workshops. This content is publicly available and anyone can now watch the talks from our conferences at their convenience, even if they were not able to attend the conference itself. There is clearly a significant following this channel has generated, with more than 21,000 views in 2015, with an average of 3.7 hours of viewing activity daily. Many of our viewers seem to be from diverse countries, including Asia, South America, and Africa, thereby allowing us to reach many more constituents than our conferences and workshops currently does.

SIGMOBILE, in partnership with SIGCOMM, introduced a new event this year, called the Wireless Industry Days, with the goal of allowing greater engagement with our related industry. It was organized as a workshop and was held in the Bay area (co-located with a large industry-focused event) with the goal of allowing leading researchers to present their results to participants from industry. This was an interesting experiment of reaching out in new ways beyond the confines of our core conferences and workshops.

SIGMOBILE also introduced the availability of technical papers in the mobile friendly ePub format which allows readers to better browse such materials on their phones and tablets. We have setup an arrangement by which any SIGMOBILE event can ensure that camera-ready papers can be easily converted into the ePub format and is made available through the ACM Digital Library. This reflects our commitment to keep up with the changing needs of the community and the ways in which we consume content in the modern world.

SIGMOBILE also routinely provides financial support to various community activities. They include CRAWDAD --- a community resource hosted at Dartmouth University that archives research datasets; and Networking Networking Women (N^2 Women) is a community of researchers who foster connections among the under-represented women in computer networking and related research fields.

SIGMOBILE recently celebrated its 20th anniversary at through its various conferences.

**Challenges and considerations facing the community**

**Identifying community projects that SIGMOBILE can fund:** SIGMOBILE has created the Mobile Computing Community Research (MCRC) fund to support activities of broad community interest (such as CRAWDAD and N^2Women). However, we need to work harder to identify other projects that this community can and should support.

**Greater industry engagement:** We believe that SIGMOBILE can engage even better with the significant mobile and wireless industry that is having such a significant impact in the world today. We have taken some initial steps, e.g., the Wireless Industry Days workshop, the revamped GetMobile publication with a broader appeal. But much more can and should be done, and we need to look for better and greater ways of engaging with our broader industry.

**Conference co-locations:** SIGMOBILE today sponsors multiple major conferences --- MobiCom, MobiHoc, MobiSys, SenSys, UbiComp, along with two newer additions, PerDis and WUWNet. Each conference has slightly different focus, has thrived over the years, and is considered a premier venue in the field. However, sometimes there is a concern that too many conferences may dilute a community and there maybe need for periodic co-locations and greater coordination. This is an issue that require further introspection.

**Summary**

Mobile computing and wireless networking are among the fastest growing fields within computer science and engineering, and as a result SIGMOBILE continues to be a strong, successful, well-supported organization. The SIG’s conferences and workshops are well attended, creating a wealth of publications for the ACM digital library and the SIG’s members. The community continues to create significant impact both technically and to the broader society through research, education, and other activities.

**SIGMOD FY’17 Annual Report**

**Submitted by: Donald Kossmann, SIGMOD Chair**

**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 June 2016, the conferences were held in San Francisco, USA. In May 2017, the conferences were held in Chicago, USA. The conferences’ value was enhanced by an extensive collection of co-located workshops including the SIGMOD New Researcher Symposium and the ACM SIGMOD Student Research Competition.

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 2016 and 2017 conferences, but also in the planning of these conferences for 2018 (Houston, USA), and 2019 (Amsterdam, Netherlands). 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 Massachussetts, Amherst) heads a team of twelve associate editors. In 2016, we started publishing a special issue of SIGMOD Record per year called “Research Highlights”. It contains adapted versions of

the best conference papers published by the database community. These papers are rewritten for a more general computer science audience. Furthermore, a technical perspective is written by a senior member of the community for each of these papers. A significant fraction of these papers are published in the “Research Highlights” column of CACM.

**Awards**

SIGMOD sponsors several awards each year that recognize excellence in the database community. In 2017, these awards were given to the following researchers:

*SIGMOD Edgar F. Codd Innovations Award*: Goetz Graefe (Google, USA).

*SIGMOD Systems Award (sponsored by Microsoft):* SQLite.

*SIGMOD Contributions Award*: Yannis Ioannidis (University of Athens, Greece).

*SIGMOD Jim Gray Doctoral Dissertation Award (sponsored by Microsoft)*: Peter Bailis (Stanford University, USA). Honorable Mention: Immanuel Trummer (EPF Lausanne).

*SIGMOD Programming Contest:*

 First Place: *Jan Böttcher, Timo Kersten, Moritz Kaufmann, Andreas Kipf (TU Munich)*

Second Place: *Xupeng Li, Xuecan Yan, Yiru Chen, Bin Cui (Peking University)*

**cree (Peking Universi***Xupeng Li, Xuecan Yan, Yiru Chen, Bin Cui*

***Takuto Ikuta, Takanori Hayashi, Yosuke Yano,***

*SIGMOD Test-of-Time Award*: “Fault-tolerance in the Borealis Distributed Stream Processing System”, Magdalena Balazinska, Hari Balakrishnan, Samuel Madden, and Michael Stonebraker. ACM SIGMOD Conference, 2005.

*SIGMOD 2017 Best Paper Award*: “Wander Join: Online Aggregate via Random Walks”, Feifei Li (University of Utah), Bin Wu, Ke Yi (HKUST, China), Zhao (Shanghai Jiao Tong University, China).

*PODS Alberto O. Mendelzon Test-of-Time Award*: “Provenance Semirings”, Todd J. Green, Grigoris Karvounarakis, and Val Tannen. PODS’07

*PODS 2017 Best Paper Award*: “Dichotomies in Ontology-Mediated Querying with

the Guarded Fragment”, André Hernich, Carsten Lutz, Fabio Papacchini, and Frank Wolter

*PODS 2017 Best Student Paper Award*: “Tight Space-Approximation Tradeoff for the

Multi-Pass Streaming Set Cover Problem”, Sepehr Assadi.

Shortest Paths and Distances with

Differential Privacy

**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. In 2016, we relaunched the website in order to incorporate more information and improve readability and searchability.

*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 commited 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. 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 over the past years and is now stabilizing at a low level (compared to conference attendance). 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. Over the years, the number of papers that have participated in this program has declined. We are now trying to revive these efforts and advertise repeatability again as part of our calls for papers of our major conferences. This revival involves a new SIGMOD Most Reproducible Paper Award (sponsored by IBM) to incentivize authors to invest into repeatability. The ACM repeatability policy that was recently put into effect will also help these efforts.

*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 and graduate students from various institutions around the world to attend the 2013 SIGMOD/PODS conferences as part of the ACM SIGMOD Student Research Competition.

*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). ). SIGMOD has made an agreement with ACM TODS to offer poster presentation slots at the SIGMOD Conferences to papers accepted at TODS that are not extensions of conference papers.

**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. This is largely thanks to the efforts of our corporate-sponsorship chairs who have been able to secure sponsorship funds for the SIGMOD conference. For SIGMOD 2017, we were able to attract almost $200,000 in sponsorship. Given this financial commitment from industry, SIGMOD has 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. The SIGMOD/PODS 2017 has generated a significant defict due to the relocation from Rayleigh to Chicago. We expect this conference series to be profitable again in future years.

**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 the more general scientific community in Computer Science.

**SIGOPS FY’17 Annual Report**

**Submitted by: Robbert van Renesse**

SIGOPS addresses a broad spectrum of issues associated with operating systems research and development. Although many of the members are drawn from industry, academic and government professionals are also represented in the membership.

**Overview**

This was the second year for Robbert van Renesse (Cornell) as Chair, Shan Lu (University of Chicago) as Vice Chair, Kaoutar El Maghraoui (IBM Research) as Treasurer, and Håvard Johansen (University of Tromsø, Norway) as Information Director. As will be clear from the material below, SIGOPS is a highly active organization. In addition, the two main chapters of SIGOPS, EuroSys and ChinaSys, are both very active. Eurosys organizes a large conference annually and ChinaSys organizes two large meetings per year. We are excited to hold our flagship conference, SOSP, for the first time in Asia. SOSP 2017 will be held in Shanghai. Professional SIGOPS membership dues remain at $10, and student membership is just $5 per year.

SIGOPS publishes a quarterly newsletter, *Operating Systems Review (OSR)*, which focuses on specific research topics or research institutions, manages an electronic mailing list, and maintains a web site: <http://www.sigops.org/>. Jeanna Matthews and Tom Bressoud have retired as co-editors of Operating System Review. These posts have been taken over by Mark Silberstein (Technion) and Chris Rossbach (UT Austin). They are planning issues for mid-July and mid-December in 2017. In order to help with the mechanics involved in this publication, we have added a new position: SIGOPS Publication Director, a role now filled by Kishore Pusukuri of LinkedIn.

SIGOPS encourages participation in conferences and career building activities for young members of the community. For example, substantial funding was provided this year as travel grants for students to attend conferences and diversity workshops, with many of these grants targeted at women and underrepresented minorities. As of May 2017, we supported the following with student travel grants: PODC 2016, APSYS 2016, CRA Grad Cohort Workshop, and SOCC 2016. A total of $29,950.80 has been spent on travel grants so far. For the 2016 fiscal year, the list is: SOCC 2015, CRA Grad Workshop, APSYS 2015, ASPLOS 2016, EUROSYS 2015, and VEE 2016. A total of $44,043.62 was spent on travel grants.

SIGOPS started providing sponsorship for childcare services at major systems conferences in the past year to promote diversity. At OSDI’16, SIGOPS sponsored an onsite childcare program that was used 6 kids from 4 families, costing about $10,000; at EuroSys’17, SIGOPS sponsored an onsite childcare program that was used by 2 kids from 2 families, costing about $1,000. At the coming SOSP’17 in China, we plan to sponsor childcare grants that conference participants can apply. Although we are still experimenting different ways to provide such services, we already got positive feedback from the community about this initiative.

We have taken over the popular HotOS workshop from USENIX. HotOS XVI was held May 7-10 at Whistler in Canada, and the workshop featured 64 attendees (among which 21 students and 18 industrial attendees) and 2 invited speakers. Industrial sponsorship reached a $21K record for this workshop. The workshop ran with a small surplus. Given these promising results, we are certainly looking at doing it again next year.

**Awards**

* The SIGOPS Dennis M. Ritchie Doctoral Dissertation Award 2016 committee was run by Nickolai Zeldovich (MIT), Andrew S. Tanenbaum (VU, Amsterdam), and Yuanyuan Zhou (UCSD). The award went [Vijay Chidambaram](http://www.cs.utexas.edu/~vijay/)’s ["Orderless and Eventually Durable File Systems"](http://research.cs.wisc.edu/adsl/Publications/vijayc-thesis15.pdf), advised by Andrea Arpaci-Dusseau and Remzi Arpaci-Dusseau at University of Wisconsin–Madison. [Charles M. Curtsinger](http://www.cs.grinnell.edu/~curtsinger/)’s ["Performance Analysis and Debugging"](http://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1687&context=dissertations_2), advised by Emery D. Berger of the University of Massachusetts at Amherst got an Honorable Mention.
* The Mark Weiser Award 2016 was awarded to Antony Rowstron of Microsoft Research Cambridge. The committee consisted of Stefan Savage (UCSD), Margo Seltzer (Harvard), and Peter Druschel (MPI-SWS).
* The 2016 ACM SIGOPS Hall of Fame award went to Fay Chang, Jeffrey Dean, Sanjay Ghemawat, Wilson C. Hsieh, Deborah A. Wallach, Mike Burrows, Tushar Chandra, Andrew Fikes, and Robert E. Gruber. [Bigtable: A Distributed Storage System for Structured Data](http://dl.acm.org/citation.cfm?id=1267323) In 7th USENIX Symp. on Operating Systems Design and Implementation (OSDI '06), November 2006. The committee consisted of Tom Anderson, Rich Draves, Jason Flinn, Frans Kaashoek, Kimberly Keeton, Hank Levy. Jeff Mogul. Timothy Roscoe, Amin Vahdat, and Robbert van Renesse.
* The SIGARCH/SIGPLAN/SIGOPS ASPLOS Influential Paper 2017 went to "Automatically characterizing large scale program behavior", Timothy Sherwood, Erez Perelman, Greg Hamerly, Brad Calder (University of California at San Diego) from ASPLOS 2002.

**Conferences**

* The 26th Symposium on Operating Systems Principles (SOSP 2017) is to be held in Shanghai. It is 100% sponsored by SIGOPS. The General Co-Chairs are Haibo Chen (Shanghai Jiao Tong) and Lidong Zhou (Microsoft Research). The PC Co-Chairs are Peter Chen (UMich) and Lorenzo Alvisi (Cornell). The Steering Committee consists of Dilma Da Silva, Mike Dahlin, Peter Druschel, Steven Hand, Hank Levy, and Ethan Miller. Andrew Birrell who served on the committee passed away December 2016.
* The 13th Eurosys Conference (Eurosys 2017) was held in Belgrade in April. Sponsored by SIGOPS and Eurosys.
* The 22nd ACM International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS 2017) was held in Xi’an, China in April. ASPLOS is sponsored 25% by SIGOPS, 50% by SIGARCH, and 25% by SIGPLAN.
* The 12th ACM SIGPLAN/SIGOPS international Conference on Virtual Execution Environments was collocated with ASPLOS in Xi’an. VEE is sponsored 50% by SIGPLAN and 50% by SIGOPS.
* The 35th Annual ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing (PODC 2016) was held in Chicago in July. PODC is sponsored 50% by SIGOPS and 50% by SIGACT.
* The 7th ACM Symposium on Cloud Computing (SOCC 2016) was held in Santa Clara, CA, in October. SOCC is sponsored 50% by SIGOPS and 50% by SIGMOD.
* The 14th ACM Conference on Embedded Networked Sensor Systems (SenSys 2016) was held in Stanford, in November. Sensys is sponsored 10% by SIGOPS, SIGARCH, SIGMETRICS and SIGBED, 30% by SIGMOBILE, and 30% by SIGCOMM.
* The 7th SIGOPS Asia-Pacific Workshop on Systems(APSys) was held in August in New Delhi, India. APSys is 100% sponsored by SIGOPS.
* The 10th ACM International Systems and Storage Conference (SYSTOR) was held in Haifa in May 2017. It is 100% sponsored by SIGOPS.
* The 16th ACM SIGOPS Workshop on Hot Topics in Operating Systems (HotOS 2017) was held in Whistler, BC, in May 2017. It is 100% sponsored by SIGOPS. (Until now it was organized by USENIX.)
* We sponsored the 2017 CRA-W Grad Cohort Workshop, held in Washington D.C. in April 2017, at the Bronzelevelsponsorship. A record 550 women graduate students attended, representing over179 institutions in North America and 65% with their citizenship elsewhere.   A total of 100 of these masters and PhD students are working in SIGOPS areas, with 18 in core OS, 48 in Networking and 32 in Distributed Systems.
* In-cooperation events included USENIX events OSDI 2016, FAST 2017, and NSDI 2017.

**Exciting Initiatives**

* We are putting on another Diversity Workshop co-located with SOSP 2017.
* SOSP 2017 will also feature a day of tutorials for people new to SIGOPS, and, for the first time, a Student Research Competition.
* We are working on granting ChinaSys members automatic membership to SIGOPS.
* We are organizing a biennial SIGOPS Summer School, the first one to be held in August 2018 in Norway, and the next one to be held in China in 2020.

**SIGPLAN FY ’17 Annual Report**

**Submitted by: Michael Hicks, SIGPLAN Chair**

**1. Awards that were given out:**

Robin Milner Young Researcher Award

2016 Stephanie Weirich, University of Pennsylvania

Citation:

Stephanie Weirich has made deep and sustained contributions to programming language research in the areas of functional programming, dependent types, and proof assistants. She has been one of the main investigators of type inference for Generalized Algebraic Data Types (GADTs), and, with collaborators at Microsoft Research, she helped put this technology into practice in the widely used GHC Haskell implementation. Weirich, with collaborators at Penn and Cambridge, also initiated and led the POPLMark challenge, a highly visible and influential effort to promote the use of proof assistants for formalizing and checking the theory of programming languages. She has also greatly contributed to the understanding of dependent types in practical programming languages, and is now involved in an effort to bring the benefits of dependent types to Haskell. Finally, Weirich has made substantial contributions to the programming languages community, notably with her involvement in the Programming Languages Mentoring Workshop (PLMW), which has blossomed into a highly successful workshop that is held several times a year at venues including POPL, PLDI, ICFP, and SPLASH; Weirich was one of the original organizers of PLMW at POPL 2012, and continues to serve on the workshop’s steering committee.

John Vlissides Award, given to a doctoral student participating in the OOPSLA Doctoral Symposium showing significant promise in applied software research.

2016 Silvia Grewe, Technische Universität Darmstadt

Advisors: Sebastian Erdweg and Mira Mezini

Citation:

Silvia Grewe’s work aims to provide better automation of type soundness proofs for new languages, thus lowering the barrier to developing sound general-purpose and domain-specific languages. Theorem-proving systems are increasingly adept at automating proofs, and soundness proofs based on progress and preservation seem especially ripe for automation due to patterns that appear in the proofs, but theorem-proving systems currently lack tactics to directly support such proofs. Silvia is working to extract proof patterns and integrate them into theorem provers to make automation more effective and accessible.

Programming Languages Achievement Award

2016 Simon Peyton-Jones, Microsoft Research

Citation:

Simon Peyton Jones is widely known as an essential force behind the design, implementation, evolution, and remarkable success of the Haskell language and the Glasgow Haskell Compiler for more than twenty years. His role as a primary designer of the Haskell language and the GHC implementation of Haskell has produced a platform for hundreds of researchers and many more developers. Indeed, GHC is unparalleled for achieving what might otherwise be seen as an engineering impossibility: the leading implementation of an increasingly popular programming language for both research experimentation and serious industrial use. While the rise of Haskell and GHC – and its influence on other languages – is the shared result of a vibrant community of many, it is also fair to describe it as inextricable from Simon’s career.

Among Simon’s technical contributions to language design is leading work in monadic I/O, type classes, generalized abstract data types, composable transactional memory, generic programming via “scrap your boilerplate”, advances in type inference, and more. His work on functional-language implementation has been no less influential and wide-ranging, with a compiler design based on a typed intermediate language and optimizations expressed via declarative rewriting. In making Haskell a practical language, he collaborated to design and implement novel approaches to concurrency, foreign function interfaces, space profiling, and nested data parallelism.

Beyond all these technical advances and many more, Simon is widely recognized as a visionary leader in the field, an articulate writer, an extraordinarily effective speaker, an agent of change in computing education, a generous collaborator, and a peerless mentor. His remarkable contributions to the field of programming languages arise from technical sophistication, impeccable taste, boundless enthusiasm, and charismatic leadership.

Distinguished Service Award

2016 Phil Wadler, University of Edinburgh

Citation:

Phil Wadler has been a tireless promoter of Programming Languages for over two decades. He has served in numerous heavy-service roles, including PC Chair of large conferences (such as ICFP and POPL), founding editor and editor-in-chief of the Journal of Functional Programming, member and later Chair of the SIGPLAN executive committee, PL area editor for the Journal of the ACM, and many more. In his ceaseless efforts to popularize deep concepts, Phil has given talks at several developer conferences, mentoring workshops, and summer schools; has never shied away from less glamorous service assignments (such as editing the Functional Programming column of SIGPLAN Notices or moderating the Types electronic forum); and has written two introductory books, on Functional Programming and on Java Generics. Phil is also responsible for the introduction of Functional Pearls as a paper class, since then regularly adopted by ICFP and POPL.

2015

Programming Languages Software Award

2016 V8 Javascript Engine

Citation:

V8 is an open-source JavaScript engine developed at Google that revolutionized the use of JavaScript, firmly establishing it as a platform both in the browser and on the server. V8’s success is in large part due to the efficient machine code it generates; because JavaScript is a highly dynamic object-oriented language, many experts believed that this level of performance could not be achieved. V8, whose principal architect is Lars Bak, relies on more than 20 years of research in compilation and implementation techniques initially developed for Beta, Self, and Sun’s Hotspot JVM. These techniques include hidden class recovery in a classless language (based on profiled executions of the JS programs) followed by on-the-fly in-place inline caching. V8’s garbage collector is also very high quality, important for (e.g.,) graphically intensive interactive web apps. V8’s techniques have influenced other major JS engines, contributing to the JavaScript-as-a-platform revolution. Its performance breakthrough has had a major impact on the adoption of JavaScript, which is nowadays used on the browser, the server, and probably tomorrow on the small devices of the internet-of-things.

John C. Reynolds Doctoral Dissertation Award

2017 Winner: Ramana Kumar, Cambridge University for Self-compilation and Self-verification

Advisors: Mike Gordon and Magnus Myreen

2017 Honorable mention: Zachary Kincaid, University of Toronto for Parallel Proofs for Parallel Programs

Advisor: Azadeh Farzan

Most influential paper (MIP) designations are awarded to papers presented at the POPL, PLDI, ICFP, and OOPSLA conferences held 10 years prior to the award year. A designated committee judges papers according to their influence over the past decade.

ICFP 2006: Simon Peyton Jones, Dimitrios Vytiniotis, Stephanie Weirich, and Geoffrey Washburn for Simple unification-based type inference for GADTs

OOPSLA 2006: Stephen M. Blackburn, Robin Garner, Chris Hoffmann, Asjad M. Khan, Kathryn S. McKinley, Rotem Bentzur, Amer Diwan, Daniel Feinberg, Daniel Frampton, Samuel Z. Guyer, Martin Hirzel, Antony Hosking, Maria Jump, Han Lee, J. Eliot B. Moss, Aashish Phansalkar, Darko Stefanović, Thomas VanDrunen, Daniel von Dincklage, Ben Wiedermann for The DaCapo benchmarks: Java benchmarking development and analysis

POPL 2007: Dachuan Yu, Ajay Chander, Nayeem Islam, Igor Serikov for JavaScript Instrumentation for Browser Security

PLDI 2007: Nicholas Nethercote and Julian Seward for Valgrind: a framework for heavyweight dynamic binary instrumentation

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

Two SIGPLAN-published papers were selected to appear in Communications of the ACM as Research Highlights.

Predicting Program Properties from “Big Code”

Veselin Raychev (ETH Zürich), Martin Vechev (ETH Zürich), Andreas Krause (ETH Zürich)

Originally published at POPL'15

Provably Correct Peephole Optimizations with Alive

Nuno P. Lopes (Microsoft Research), David Menendez (Rutgers University), Santosh Nagarakatte (Rutgers University), John Regehr (University of Utah)

Originally published at PLDI'15

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

SIGPLAN has moved forward with plans to develop a new journal, Proceedings of the ACM on Programming Languages (PACM PL). This series will include the proceedings of OOPSLA, ICFP, starting in 2017, and POPL, in 2018. We have an advisory board, including Phil Wadler as EIC, with a web page up at http://pacmpl.acm.org/ PACMPL issues will be published as Gold Open Access (OA) for the first three years, thanks to support from SIGPLAN.

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

As a service to the technical community, and to coordinate deadlines between conferences, SIGPLAN has put together a calendar of programming languages events, at http://sigplan.org/Calendar/

SIGPLAN has also recently gathered together all of its proceedings made available via ACM's OpenTOC service into one place, at http://sigplan.org/OpenTOC/

**5. Events or programs that broadened participation either geographically, or among under-represented members of our community and;**

The Programming Language Mentoring Workshop (PLMW) is now co-located with all four main SIGPLAN conferences: PLDI, SPLASH/OOPSLA, POPL, and ICFP. It is an opportunity to bring more students (with a special emphasis on women and minorities) into our community; it targets senior undergraduates and junior graduate students.

Our efforts to produce PACMPL should help researchers in Asia, Eastern Europe, Africa, and South America, which tend to overlook the rigorous review of SIGPLAN conference papers.

SIGPLAN also offers $100,000 per year in travel support for attendance by authors (primarily students) at SIGPLAN conferences.

SIGPLAN provided $25,000 in student support for this year's 50th anniversary of the Turing Award celebration.

Finally, SIGPLAN directly supports (with donations) CRA-W grad cohort, to encourage increased participation of women in computer science. It has also supported Oregon Programming Languages Summer School, which draws a large student population from around the world (see https://www.cs.uoregon.edu/research/summerschool/summer17/), and PLISS whch also attracted students worldwide, a notably large percentage of whom were female (see https://pliss2017.github.io/).

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

The SIGPLAN Executive Committee (EC) has been working on a number of issues involving the management of conferences and conference publications. These include:

- Environmental costs of conference-based publishing. SIGPLAN formed ad hoc committee on mitigating the effects of climate change, chaired by Benjamin Pierce, with Crista Lopes and Michael Hicks as members. The committee put together a report outlining the problem that frequent conferences demand frequent air travel, which impacts climate change. The committee has put together a preliminary report at https://docs.google.com/document/d/1VLIjocofEzDkjFBvHj3i7YeW9h14weWkG7DRw2e7f70/edit?usp=sharing The report makes many suggestions about changes that could be more climate friendly. The committee has also developed new software for computing the CO2 footprint of a conference. This will go live for use in conference planning and reporting later in 2017.

- Technical review. SIGPLAN has formed an ad hoc committee to recommend best practices for empirical evaluations in PL research. This effort is meant to complement our ongoing efforts support artifact evaluation (AE), to make for more reproducible and reusable research processes and results. The committee is chaired by Steve Blackburn, with Emery Berger, Michael Hicks, and Matthias Hauswirth as core members. The committee's goal will be to put together a short document that provides helpful advice for authors and reviewers.

- Open Access. We carried several surveys and town halls regarding open access publishing, and found that this was very important to our members. These surveys were a driver to make PACMPL Gold OA. We will continue to support OpenTOC and explore open access models.

**SIGSAM FY’17 Annual Report**

**Submitted by: Ilias S. Kotsireas, SIGSAM Chair**

**SIGSAM Mission statement:**
SIGSAM provides members with a forum in which to exchange ideas about the practical and theoretical aspects of algebraic and symbolic mathematical computation. Its scope of interests includes design, analysis and application of algorithms, data structures, system and languages.

**Communication:**SIGSAM facilitates communication amongst not only its members, but also the wider symbolic computation research community. The primary vehicles for this are the SIGSAM website ([www.sigsam.org](http://www.sigsam.org/)) and the sigsam and issac mailing lists. The wider sigsam-friends mailing list has an audience of 1967, and the issac-announce mailing list has an audience of 2804. These mailing lists are used to announce a wide range of events and items of interest to the larger research community. The SIGSAM website’s redesign continued in 2016-2017. It is now responsive to different devices, so that it adapts appropriately to phones and tablets. The website provides a wide range of information to the community, including SIGSAM activities & info (e.g. awards, elections, bylaws, committees). The SIGSAM website now also hosts the ECCAD workshop series website and the International Workshop on Parallel Symbolic Computation (PASCO) workshop series website. All of this is managed by the excellent work of SIGSAM Information Director Matthew England (U.K.).

**Communications in Computer Algebra:**The ACM Communications in Computer Algebra (CCA) is a quarterly publication of the ACM sponsored by SIGSAM. The CCA has been published since 1965, though previously as the SICSAM Bulletin and the SIGSAM Bulletin. It includes formally reviewed articles, timely communications and announcements, as well as traditionally publishing the abstracts of ISSAC posters and software demos. It is published quarterly in the ACM Digital Library, and twice a year double-issues are published in print for members. The current Editor is Dr. Wen-shin Lee from the University of Antwerp in Belgium, who continues to do an outstanding job. Associate Editors are Massimo Caboara (Italy), Shaoshi Chen (China), Jean-Guillaume Dumas (France), Laureano Gonzalez-Vega (Spain), Kosaku Nagasaka (Japan) and Michael Wester (USA).

**Elections:**
Elections were held to choose new ACM/SIGSAM officers. Jeremy Johnson, former chair of SIGSAM, served as chair of the nominating committee, obtaining an excellent slate of candidates. The newly elected officers are: Chair – Christopher Brown (USA), Vice-Chair - Lihong Zhi (China), Secretary – Clement Pernet (France), Treasurer Daniel Roche (USA). The new officers took office on 1 July 2017. Ilias Kotsireas moved to the position of Past Chair, and previous Past Chair Jeremy Johnson stepped down from the Executive Committee after many years of service to SIGSAM. Those in institutional positions will remain in their positions for the coming year. They are: Information Director – Matthew England, CCA Editor Wen-Shin Lee, Chief Tweeter - Alexander Konovalov, and Book Review Editor - Georg Regensburger.

**Conferences and Events:**

1. The East Coast Computer Algebra Day (ECCAD) decided last year to place itself under the aegis of SIGSAM. Thus, this the organization of this year’s meeting, ECCAD ‘17, was overseen by SIGSAM. It was hosted by Wolfram Research at their headquarters building in Champaign, Illinois on Saturday, 29 April, 2017. Speakers for this year’s event were paid an honorarium from SIGSAM and a special fund that is being established by SIGSAM in memoriam of noted computer algebra research community member Werner Krandick.
2. The International Symposium on Symbolic and Algebraic Computation (ISSAC) is typically either sponsored by ACM and SIGSAM or put on “in cooperation”. ISSAC 2017, which was hosted July 25-28 2017 at the University of Kaiserslautern, was “in cooperation”. ISSAC 2018, which will be held July 16-19 at the City University of New York, in New York city, will be sponsored by ACM and SIGSAM.

**Awards:**The primary SIGSAM awards are the Jenks Memorial Prize, ISSAC Distinguished Paper award, and ISSAC Distinguished Student Author award. The Jenks Memorial Prize is a biannual award, and 2016 was an “off” year. The next award will be given out in late 2017.

ISSAC Distinguished Paper Award: awarded to Dmitry Lyakhov, Vladimir Gerdt and Dominik Michels for *Algorithmic Verification of Linearizability for Ordinary Differential Equations.*

ISSAC Distinguished Student Author Award: awarded to
- Xuan Vu for *Computing Canonical Bases of Modules of Univariate Relations*, with Vincent Neiger, and
- Thomas Picatte for *Reconstruction Algorithms for Sums of Affine Powers*, with Ignacio Garcia Marco and Pascal Koiran.

**SIGSAM Finances:**The attached financial report was prepared by Agnes Szanto (SIGSAM Treasurer). It shows an opening balance on 1 July 2016 of $83,750, and a closing balance on 30 June 2017 of $80,860. This means a net loss of $2,890. As detailed in report, this was primarily due to arrangements for ISSAC 2016, which was the first ISSAC in 10 years with a significant budget shortfall. The risk inherent in these arrangements was deemed acceptable given the $8K gained by SIGSAM from ISSAC 2015. None the less, SIGSAM is financially robust, with a balance of over $80K, which is well above what is minimally required. In particular, this balance is high relative to the expenses of the conferences and events we sponsor. Currently SIGSAM has 174 members. Increasing membership will be a key concern for the incoming SIGSAM officers to address.

**SIGSIM FY’17 Annual Report**

**Submitted by: Margaret Loper, SIGSIM Chair**

***The Mission of SIGSIM is to become the world-wide leader in providing professional services on modeling and simulation. SIGSIM actively seeks to meet this objective in a variety of ways, including: sponsorship of both the Winter Simulation Conference (WSC) and the SIGSIM Conference on Principles of Advanced Discrete Simulation (SIGSIM PADS).***

**Awards**

* SIGSIM Distinguished Contributions Award was given at the 2016 Winter Simulation Conference to Professor Pierre L'Ecuyer, from the Université de Montréal
* WSC PhD Colloquium Award was given to Tom Warnke, from the University of Rostock for his paper “A DSL for Continuous-Time Agent-Based Modeling and Simulation”
* SIGSIM-PADS PhD Colloquium Award was given to Oliver Reinhardt, from University of Rostock, Germany for his paper “A Domain-Specific Modeling Language for Simulating Linked Lives”
* 8 Travel Awards (up to $1k in expenses) to PhD students to attend WSC 2016 in Washington, DC (Dec 2016)
* 5 Travel Awards (up to $1k in expenses) to PhD students to attend the ACM SIGSIM-PADS Conference in Nanyang Technological University, Singapore (May 2017)

**Significant Papers**

* 2017 SIGSIM-PADS Best Paper Award “Efficient Parallel Simulation over Social Contact Network with Skewed Degree Distribution” by Yulin Wu (Nanyang Technological University); Xiangting Hou (Nanyang Technological University); Wenjun Tan (Nanyang Technological University); Wentong Cai (Nanyang Technological University); Zengxiang Li (Agency for Science, Technology and Research)

**Significant Programs**

* Increased student travel awards for SIGSIM-PADS and WSC conferences
* Continual expansion of MSKR: [www.sigsim.org](http://www.sigsim.org) (Balci, Editor in Chief)

**Innovative Programs**

* SIGSIM Digest started 08/14: www.modelingforeveryone.com (Fishwick, Chair). Current Subscribers: 59 individual + SIGSIM email list, # of posts: 240
* Twitter feed started 02/15, Current Followers: 155
* M&S education material is linked from the MSKR, including access to courseware, videos, and M&S area resources (e.g., books, journals, conferences)

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

* Held 2017 SIGSIM PADS conference in Singapore

**Summary of the key issues that SIG membership will have to deal with in the next 2-3 years**

1. Increasing the registration for the annual SIGSIM-PADS conference

Attendance at the conference has been inconsistent (’13 – 66, ’14 - 43, ’15 – 54, ’16 – 65). There are several solutions to consider: (1) allow “invited papers” from known contributors, or groups that we’d like to involve in SIGSIM who are in other, technically-related, societies (2) more international venues may attract a broader set of attendees (3) advertise the conference outside of the traditional SIGSIM-PADS attendees to gain visibility with new M&S researchers. The goal is to be extremely proactive for the 2017-18 conferences to ensure steady growth in conference attendance.

1. Growing the membership of SIGSIM

Our retention rate is 78.5%, but we consistently lose members each year. It appears that the first-year retention is the hardest for us – we keep at most 50% of new members. Our two-year retention is better at 80+%. We have made a push into social networking, but it doesn’t appear to be attracting new members or an effective retention mechanism. Our social networking chair would like someone that is more familiar with the new social media platforms to take over and grow this activity. As a community, I think we continue to look inward when advertising conferences like SIGSIM-PADS. We may be able to attract new members by reaching out to other SIGs and new M&S communities that are emerging. We have also been traditionally focused on discrete event simulation – we might consider broadening our engagement with other types of M&S researchers.

**SIGSOFT FY’17 Annual Report
Submitted by Nenad Medvidovic, SIGSOFT Chair**

*SIGSOFT seeks to improve our ability to engineer software by stimulating interaction among practitioners, researchers, and educators; by fostering the professional development of software engineers; and by representing software engineers to professional, legal, and political entities.*

ACM’s SIGSOFT had another excellent year, both technically and financially in 2016-2017. This report provides a summary of key SIGSOFT activities over the past year.

**AWARDS GIVEN OUT**

SIGSOFT’s awards program recognizes the many achievements of the software engineering community (see <http://www.sigsoft.org/> for the most recent awardees). A number of the awards, including our prestigious service, research, and education awards, were presented again this year at the International Conference on Software Engineering (ICSE 2017) in Buenos Aires, Argentina.

* The **ACM SIGSOFT Outstanding Research** **Award** was presented to Daniel Jackson from the Massachusetts Institute of Technology, USA, “for foundational contributions to software modeling, the creation of the modeling language Alloy, and the development of a widely used tool supporting model verification.”
* The **ACM SIGSOFT Influential Educator Award** was presented to Bertrand Meyer from Politecnico di Milano, Italy, Innopolis University, Russia, University of Toulouse, France, and ETH Zurich, Switzerland, “for his contributions to the advancement of the research and practice of software engineering.”
* The **ACM SIGSOFT Distinguished Service Award** was presented to Laura Dillon from Michigan State University, “for outstanding leadership and service to the software engineering research community and to broadening participation in computing.”
* The inaugural **ACM SIGSOFT Early Career Research Award** was presented to Christian Bird from Microsoft Research, USA, “for outstanding contributions in the area of software engineering as an early career investigator.”
* The **ACM SIGSOFT Outstanding Doctoral Dissertation Award** was given to Srdjan Krstic, for his Ph.D. dissertation titled “Trace Checking of Quantitative Properties.” The dissertation was completed at Politecnico di Milano, Italy, under the guidance of Professor Carlo Ghezzi.
* We recognized the new ACM Senior Members, Distinguished Members, and Fellows from the SIGSOFT community. In particular, the new **Distinguished Members** are Joanne Atlee, Tevfik Bultan, Sebastian Elbaum, and Shing-Chi Cheung. The new **ACM Fellow** is Daniel Jackson.
* The **ACM** **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. This year, the award went to the paper “Principled design of the modern Web architecture” by Roy T. Fielding and Richard N. Taylor, published in Proceedings of the 22nd International Conference on Software Engineering (ICSE 2000).
* The Impact Paper Award is in addition to the **Most Influential Paper Awards**, also known as “test of time awards”, which are given to papers that have appeared at a particular conference. ICSE is the SIGSOFT co-sponsored conference with the longest track record of awarding Most Influential Papers. This year, the award went to the ICSE 2007 paper Feedback-Directed Random Test Generation by Carlos Pacheco, Shuvendu K. Lahiri, Michael D. Ernst, and Thomas Ball.
* Many of SIGSOFT’s sponsored meetings this year also presented **Distinguished Paper Awards**. SIGSOFT allows up to 10% of the accepted papers to be selected for this award. The list of awarded papers is maintained on SIGSOFT website’s Awards page.

**SIGNIFICANT PAPERS ON NEW AREAS**

Software engineering has traditionally been an interdisciplinary area, branching into a range of different application domains as well as other research areas in computer science, such as human-computer interaction, mobile computing, artificial intelligence, distributed systems, more recently big data and machine learning, and so on. This is because every facet of computing, as well as many other scientific and engineering disciplines, depend on software. Advances in these other areas mentioned above—from big data, to the cloud, virtualization, deep learning, mobile computing, formal methods, computer security, etc., with applications in autonomous vehicles, robotics, medicine, and countless other areas—require corresponding software engineering methods, tools, and techniques. This is reflected in the types of papers that increasingly appear in software engineering venues sponsored by SIGSOFT. Such papers tend to combine advances in multiple areas into solutions to specific problems. As examples, we highlight two such papers, the first a recipient of the SIGSOFT Distinguished Paper Award at the Symposium on the Foundations of Software Engineering, held in November 2016 in Seattle, USA (FSE 2016), and the second a recipient of the same award at the International Conference on Software Engineering, held in May 2017 in Buenos Aires, Argentina (ICSE 2017):

* “*Multi-Representational Security Analysis*” by Eunsuk Kang, Aleksandar Milicevic, and Daniel Jackson presented a technique for end-to-end security analysis by composing multiple models of a system, including early (e.g., design) models.
* “*Decoding the representation of code in the brain: An fMRI study of code review and expertise*” by Benjamin Floyd, Tyler Santander, and Westley Weimer showed how functional magnetic resonance imaging (fMRI) can be used to study code comprehension by software developers.

We have decided to highlight these two papers as a way of demonstrating the breadth of topics that are commonly covered in SIGSOFT-sponsored conferences today.

**INNOVATIVE PROGRAMS**

Over the past several years, SIGSOFT has introduced a number of programs to aid and expand our membership. Some representative examples are as follows. Our student-members receive discounted membership rates and significantly discounted registration fees at all SIGSOFT-sponsored conferences. Most of our conferences offer Doctoral Symposia where students are mentored by experienced Software Engineering professors. The SIGSOFT Webinar series has become quite popular; in the past year, which had a lighter slate than usual that included only 4 webinars we still had a total of 1,486 attendees both live and on-demand. We recently introduced the Early Career Award that recognizes individuals at early stages in their careers; the past year was the inaugural year of the Early Career Award. SIGSOFT provides travel support to conferences for dozens of graduate and undergraduate student-members as well as support to defray the costs of childcare for all members of our community (faculty qualify as well), through the Conference Aid Program for Students (CAPS); as of this year, CAPS will be extended to help defray travel costs of a certain number of post-doctoral researchers.

To broaden SIGSOFT’s reach and membership, SIGSOFT has established national chapters in India (ISoft) and China (CSoft). Each chapter has a liaison on the SIGSOFT EC, in addition to our long-standing International Liaison. As part of the support for these two communities specifically, SIGSOFT sponsors travel for a total of four SIGSOFT Distinguished Paper Award winning authors to present their work at ISoft’s and CSoft’s flagship national events (two at each event). The success of this program is reflected in this year’s decision by the organizers of ISEC 2017, ISoft’s premier event, to fund the attendance and presentation of two additional SIGSOFT Distinguished Paper Award winners. Furthermore, SIGSOFT has sponsored travel for two speakers at each of the three annual Warm-up Workshops organized to expose the Latin American software engineering community to ICSE, which was held in Buenos Aires in 2017. SIGSOFT is currently in discussions with the organizers of ICSE 2017 to sponsor a post-mortem event for the Latin American software engineering community.

**KEY ISSUES FACING SIGSOFT**

While SIGSOFT is stable and strong, there are several challenges we continue to face:

* SIGSOFT’s membership numbers have been stable despite a large growth of software engineering worldwide. We will aim to address this, with a particular focus on practitioners. To this end, we already have a couple of programs in place, but we will need to better utilize SIGSOFT’s Industry Liaison.
* We will continue to work on establishing a long-term working relationship with our Indian, Chinese, and South American colleagues, as well as expanding the reach of SIGSOFT into Africa. While we have had some success in this regard, there is significant room for further growth.
* The typical conference registration fees place a significant burden on the research funds of many members of our community. SIGSOFT has tried to alleviate this burden through the CAPS program. We will work on developing ways of reducing the fees more directly. SIGSOFT is currently working on developing a model to return conference surpluses to future editions of the same conference, in a way that will directly apply to reduced registration fees.
* We recognize that traditional ways of reaching our membership are no longer sufficient. To address that, we will work on increasing SIGSOFT’s presence on social media. In addition to the elected SIGSOFT Executive Committee Member-at-Large who serves in the role of Social Media Chair, we have recently appointed a Deputy Social Media Chair in order to increase and improve our presence in this area.

**SIGSPATIAL FY'17 Annual Report**

**Submitted by: Mohamed F. Mokbel, SIGSPATIAL Chair**

**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 workshops 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), affordable so that it can continue to be of good value to its attendees and be competitive price-wise with related 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.

2016 was the ninth year of SIGSPATIAL and its main activity was its flagship conference (ACM SIGSPATIAL) that was held in San Francisco, California (October 31 - November 3, 2016). ACM SIGSPATIAL GIS 2016 was the twenty fourth 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 ninth time that the conference was held under the auspices of the new ACM Special Interest Group on Spatial Information (SIGSPATIAL). The conference program attracted 326 attendees (including 131 students and 93 from industry). 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 253 paper submissions over three tracks: Research, Vision, and demos. The research paper track attracted 216 research paper submissions, of which 40 were accepted as full papers and 42 were accepted as poster papers. The Vision track, which we have tried for the second time, sponsored by the Computing Community Consortium (CCC), has received 13, of which five is accepted, while the demonstrations track received 24 submissions, of which 24 were accepted. The research and demo tracks were reviewed by a program committee of 130 members, including three chairs, 21 meta-reviewers (Senior PC). Each paper was reviewed by at least three reviewers and one meta-reviewer. The meta-reviewers receive the reviews from program committee members, and lead a discussion among the members to reach to a decision for each paper. The Vision track has a separate small reviewing committee that includes only very senior member of the community. The chairs oversee the whole process and reach to a conclusive decision for each paper in consultancy with the meta-reviewers. These numbers of submissions and program committee members 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- Balaji Prabhakar, Stanford University and Chief Scientist at Urban Engines, for a talk titled "A Big Data System for Things That Move".

2- Yin Wang, Tech Lead of Maps at Facebook, for a talk titled "Scaling Maps at Facebook".

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. This year, for the first time, the conference has started the ACM Student Research Competition (SRC), which took place during the workshop day and the first day of the conference. Awards for SRC were delivered during the conference banquet.

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, discussions of some new initiatives, and soliciting feedback from members.

The conference was preceded by a workshop day with the following eleven workshops:

1. BIGSPATIAL 2016: The Fifth ACM SIGSPATIAL International Workshop on Analytics for Big Geospatial Data

 General Chairs: Varun Chandola (University at Buffalo, USA) and Ranga Raju Vatsavai (North Carolina State University, USA).

2. EM-GIS 2016: The Second ACM SIGSPATIAL International Workshop on the Use of GIS in Emergency Management

 General Chairs: Danhuai Guo (Chinese Academy of Sciences, China) and Yi Liu (Tsinghua University, China).

3. GIR 2016: The Tenth ACM SIGSPATIAL International Workshop on Geographic Information Retrieval

 General Chairs: Ross Purves (University of Zurich, Switzerland) and Chris Jones (Cardiff University, UK).

4. ISA 2016: The Eighth ACM SIGSPATIAL International Workshop on Indoor Spatial Awareness

 General Chairs: Muhammad Aamir Cheema (Monash University, Australia) and Mohammed Eunus Ali (Bangladesh University of Engineering and Technology, Bangladesh).

5. IWCTS 2016: The Ninth ACM SIGSPATIAL International Workshop on Computational Transportation Science

 General Chairs: Gautam S. Thakur (Oak Ridge National Laboratory, USA), Nicole Ronald (Swinburne University of Technology, Australia), and Stephan Winter (University of Melbourne, Australia).

6. IWGS 2016: The Seventh ACM SIGSPATIAL International Workshop on GeoStreaming

 General Chairs: Farnoush Banaei-kashani (University of Colorado Denver, USA), Chengyang Zhang (Amazon, USA), and Abdeltawab Hendawi (University of Virginia, USA).

7. LBSN 2016: The Ninth ACM SIGSPATIAL International Workshop on Location-Based Social Networks

 General Chair: Mohamed Sarwat (Arizona State University, USA).

8. MELT 2016: The Sixth International Workshop on Mobile Entity Localization and Tracking in GPS-less Environments

 General Chair: Egemen Tanin (University of Melbourne, Australia).

9. MobiGIS 2016: The Fifth ACM SIGSPATIAL International Workshop on Mobile Geographic Information Systems

 General Chairs: Chi-Yin Chow (City University of Hong Kong, Hong Kong) and Shashi Shekhar (University of Minnesota, USA).

10. SIGSPATIAL PhD 2016: The Third ACM SIGSPATIAL PhD Symposium

 General Chairs: Ahmed Eldawy (University of California, Riverside) and Erik Hoel (ESRI, USA).

11. UrbanGIS 2016: The Second International ACM SIGSPATIAL Workshop on Smart Cities and Urban Analytics

 General Chairs: Juliana Freire (New York University, USA) and Claudio T. Silva (New York University, USA).

This year's conference was generously co-sponsored by NSF, Oracle, Facebook, ESRI, Google, Microsoft, Amazon, Morgan & Claypool, and Springer, 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 2017 ACM SIGSPATIAL GIS Conference that will be held in Redondo Beach, CA on November 7-10, 2017 with 11 workshops on November 6. It has already secured sponsorship from Google, ESRI, Lyft, Facebook, Oracle, NVIDIA, Microsoft, IBM, Ordnance Survey, and Morgan & Claypool. SIGSPATIAL has also applied for support from the National Science Foundation (NSF) in the amount of around \$25K and plan to use these funds to offer 25-30 student travel grants.

**2. SIGSPATIAL PUBLICATION INITIATIVES**

The first issue of ACM Transactions on Spatial Algorithms and Systems (ACM TSAS) has appeared in August 2015. Since hthen, it has appeared quarterly, with the latest issue on August 2017. The Editorial Board of ACM TSAS includes Hanan Samet (University of Maryland College Park, USA) as the Editor-in-Chief, four Senior Associate Editors: Ralf Hartmut Güting (University of Hagen, Germany), Dinesh Manocha (University of North Carolina at Chapel Hill, USA), David Mount (University of Maryland College Park, USA), and Peter Widmayer (ETH Zurich, Switzerland), and 30 Associate Editors.

In 2014, we have revamped the structure of the SIGSPATIAL Special Newsletter and have appointed a new editor, Chi-Yin Chow (City University of Hong Kong, Hong Kong). The newsletter appear three times a year in March, July, and November. Starting from July 2014, each issue has become a special issue concerned with one evolving topic of interest to the research community. The newsletter editor recruits prominent associate editors for each issue. The associate editor invites selected articles to the topic of interest for the special issue. With the latest issue of July 2017, the SIGSPATIAL Special Newsletter become a reference to SIGSPATIAL community for new emerging topics.

**3. AWARDS**

The Computing Research Association‘s Computing Community Consortium (CCC) sponsored awards for the top three Vision papers under their Blue Sky Ideas Conference Tracks. The prizes were given out in the form of travel reimbursement awards totaling \$1,000, \$750, and \$500 for first, second, and third place, respectively.

First Best Vision Paper Award went to:

Autonomous Car and Ride sharing: Flexible Road Trains

Niels Agatz (Erasmus University Rotterdam), Ana Bazzan (Universidade Federal do Rio Grande do Sul), Ronny Kutadinata (The University of Melbourne), Dirk Christian Mattfeld (University of Braunschweig), Monika Sester (Leibniz University Hannover), Stephan Winter (The University of Melbourne), and Ouri Wolfson (University of Illinois at Chicago).

Second Best Vision Paper Award went to:

BigGIS: A Continuous Refinement Approach to Master Heterogeneity and Uncertainty in Spatio-Temporal Big Data

Patrick Wiener (Karlsruhe University of Applied Sciences),

Manuel Stein (University of Konstanz),

Daniel Seebacher (University of Konstanz),

Julian Bruns (FZI Research Center for Information Technology),

Matthias T. Frank (FZI Research Center for Information Technology),

Viliam Simko (FZI Research Center for Information Technology),

Stefan Zander (FZI Research Center for Information Technology), and

Jens Nimis (Karlsruhe University of Applied Sciences)

Third Best Vision Paper Award

A Vision for Micro and Macro Location Aware Services

Abdeltawab Hendawi (University of Virginia), Mohamed Khalefa (University of Alexandria), Harry Liu (University of Washington Tacoma), Mohamed Ali (University of Washington Tacoma), and John Stankovic (University of Virginia).

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

paper presentation.

Best Demo Award:

CDO: Extremely High-Throughput Road Distance Computations on City Road Networks.

Shnagfu Peng (University of Maryland) and Hanan Samet (University of Maryland).

Best Demo Award Runner-up:

A Spatial Column-Store to Triangulate The Netherlands on the fly.

Romulo Gonclaves (NLeSC), Tom van Tilburg (Geodan), Kostis Kyzirakos and Foteini Alvanaki (CWI), Panagiotis Koutsourakis (MonetDB Solutions), Ben van Werkhoven and Willem van Hage (CWI).

Best Poster Paper Award:

Scalable 3D Spatial Queries for Analytical Pathology Imaging with MapReduce.

Yanhui Liang, Hoang Vo (Stony Brook University), Ablimit Aji (Hewlett Packard Labs), Jun Kong (Emory University) and Fusheng Wang (Stony Brook University) -

Best Poster Paper Award Runner Up:

Mining City-Wide Encounters in Real-Time.

Anthony Quattrone (University of Melbourne), Lars Kulik (University of Melbourne), and Egemen Tanin (University of Melbourne).

Best Fast Forward Poster Paper Presentation:

Spatio-Temporal Modeling of the Topology of Swarm Behavior with Persistence Landscapes.

Padraig Corcoran (Cardiff University) and Christopher B. Jones (Cardiff University).

Best Fast Forward Poster Paper Presentation Runner Up:

Spatio-Temporal Sentiment Hotspot Detection Using Geotagged Photos.

Yi Zhu (University of California at Merced) and Shawn Newsam (University of California at Merced).

Winners of the ACM Student Research Competition Graduate Category:

-- First place: Ashwin Shashidharan (North Carolina State University).

-- Second place: Chenggang Lai (University of Arkansas).

-- Third place: Wenlu Wang (Auburn University).

Winner of the ACM Student Research Competition Undergraduate Category:

-- First place: Aaron San Jose, and Eduardo Hernandez - University of California, Merced.

**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 number of workshops that it sponsored in 2016. In 2017, SIGSPATIAL was proactive in soliciting workshop proposals and designated its Treasurer, John Krumm, as the Workshops Chair. He has successfully created a uniform framework for them with a program of 11 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 2017 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 2016.

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 seven years of existence.

This year, we have secured a set of new first-time sponsors, including Lyft. We plan to take advantage of this to widen the scope of our corporate sponsors.

**7. ELECTIONS and OFFICERS**

SIGSPATIAL held its elections for officers in Summer 2017. The elected officers for the three year term running from July 1, 2017 through June 30, 2020 are:

Chair: Cyrus Shahabi, University of Southern California, USa

Vice-Chair: Goce Trajcevski, Northwestern University, USA

Secretary: Egemen Tanin, University of Melbourne, Australia

Treasurer: John Krumm, Microsoft Research, USA

According to the SIGSPATIAL bylaws, the past SIGSPATIAL chair is also a member of the EC.

Past Chair: Mohamed Mokbel, University of Minnesota, USA

The SIGSPATIAL EC has appointed the following two more officers:

Newsletter Editor: Andrea Züfle, George Mason University, USA

Webmaster: Ibrahim Sabek, University of Minnesota, USA

**SIGUCCS FY’17 Annual Report**

**Submitted by: Mathew Felthousen, Chair**

*Mission: SIGUCCS* (Special Interest Group for University and College Computing Services) *focuses on issues surrounding the support, delivery and management of information technology services in higher education. These include, but are not limited to: network management, technology systems support, end user services (including training, documentation, consulting), operations, administrative and academic programming services, database management, curricular support, audio-visual services, and educational technology issues. Our primary goal is to provide a forum for the professional development of members through the annual conference, online forums, webinars, publications, and other services.*

SIGUCCS has been an ”association of professionals who support and manage the diverse aspects of information technology services in higher education institutions” (SIGUCCS Bylaws, Article 1) for over 50 years. For the past 40+ years SIGUCCS has held at least one conference annually. This was the final year for the Executive Committee members of: Mat Felthousen (Chair), Melissa Bauer (Vice Chair/ Conference Liaison), Beth Rugg (Secretary) Allan Chen (Treasurer), Laurie Fox (Information Director) and Kelly Wainwright (Past Chair). Beth Rugg also served as the Professional Development Coordinator. Lisa Brown was appointed as the Communications Awards Chair. The Chair of the Marketing Committee remained incorporated into the Information Director role, and was held by Laurie Fox.

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 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>).

## Professional Development

SIGUCCS’ is committed to the professional development of its members. Professional development is accomplished in several ways: through the annual conference, semi-monthly webinars and our unique mentoring program.

During the annual conference, in addition to the many learning opportunities during the conference, we offered three “deeper dive” pre-conference workshops focused on leadership development and management. 40 people signed up for these workshops, 21% of overall conference attendance. Since many of our attendees are new to SIGUCCS, the conference and their careers, these workshops provided an opportunity not typically available to front-line staff. For mid-career and senior leaders, these workshops provided small, intimate opportunities for learning and sharing with colleagues across the nation.

We continued to offer our semi-monthly webinars with great success. Between September 2016 and June 2017, we offered 7 webinars on a variety of technical, management and leadership topics. Since we are an all-volunteer community, we identify well reviewed conference presentations, and working with the presenter, deliver the content as a webinar. This approach minimizes the management of the program and the content development time of the presenters. It also gives national exposure to presenters, an experience highly regarded and valued by the individuals and their supervisors.

We have developed a very successful mentoring program that pairs mentors and mentees together for 9 months. Our 4th cohort (approximate 36 people) successfully completed the program. An advisory team oversaw this experience and provided support for the “teams” demonstrating the exceptional commitment of our members to this organization. Very few organizations have been able to put together successful programs like ours. We know it is successful because of the high graduation rate and individual feedback.

## Awards and Grants *(*[*http://www.siguccs.org/awards.shtml*](http://www.siguccs.org/awards.shtml)*)*

The SIGUCCS Awards Programs have been in place for nearly two decades. On January 1, 2017, Bob Haring-Smith became Chair of the SIGUCCS Awards Selection Committee and Greg Hanek remained Past Chair. Parrish Nnambi stepped down from the committee prior to the normal conclusion of his term, meaning so we did not follow the typical rotation of the committee’s membership as described at <http://www.siguccs.org/awards_committee.shtml>. Two new members, Jacquelynn Gaines and Jim Yucha, replaced Parrish Nnambi, and Leila Shahbender who completed her service to the committee at the end of 2016.

**Penny Crane Award for Distinguished Service** (<http://www.siguccs.org/phil-isensee.shtml>): The Penny Crane Award for Distinguished Service was first awarded in 2000, and recognizes an individual’s significant and/or multiple contributions to SIGUCCS, the IT profession, and/or higher education over an extended period of time. Phil Isensee was the recipient for 2016.

**Hall of Fame** ([http://www.siguccs.org/halloffame2016.shtml)](http://www.siguccs.org/halloffame2016.shtml%29) The Hall of Fame awards were first awarded in 2000, and recognize nominated individuals who have contributed their time and energies to benefit SIGUCCS. Debbie Fisher, retired from The Citadel, Naomi Fujimura, Kyushu University, emeritus, and Takashi Yamanoue, Fukuyama University won for 2016.

**Conference attendance grants** (<http://www.siguccs.org/grants.shtml>): The SIGUCCS Grant Program has been in place since the Fall 2008 conference, and provides partial support annually for individuals at institutions of higher education to participate in the SIGUCCS Conference. The three awardees of this grant for the SIGUCCS 2016 Annual Conference were:

Robert Morris, Mount Mary University
Theresa Duhart, Highline Community College
Rebekah Cowin, Washington University in St. Louis

**Communications Awards:** We have held the Communications Awards competition since 1996, in conjunction with our Conference. A description of these awards and the 2016 winners can be found at: <https://siguccs.hosting.acm.org/Conference/2016/index.php/awards/>. The SIGUCCS Communication Awards had 102 entries in 2016. 18 awards were presented for a rate of 18%. The same categories as last year were offered. And each category had enough entries to allow for judging this year.

14 of the awards were “Best of Category”. Only 4 “Awards of Excellence” were given. “Awards of Excellence” can be given in categories were there are sufficient entries to warrant additional outstanding contributions in that field.

Awards for “Best of Category” were presented to University of Colorado – Boulder (2), Bucknell University, University of Michigan (2), James Madison University, The George Washington University, University of Cape Town, University of Arkansas, Texas A&M (2), University of Notre Dame, Washington University in St. Louis, and New York University, Steinhardt School of Culture, Education, and Human Development.

“Awards of Excellence” went to University of Michigan (2) and University of Massachusetts, Amherst (2).

“Best of Category” and “Award of Excellence” winners were offered the opportunity to present their entries at the poster session. Many of this year’s awards winners were able to attend and present, including University of Colorado – Boulder, Texas A&M, New York University, Steinhardt School of Culture, Education, and Human Development, Washington University in St. Louis, University of Arkansas, University of Michigan, and The George Washington University.

All winners were acknowledged and certificates presented during the General Session on Tuesday at this year’s conference. This session was immediately prior to the poster session. Pictures of all winners were also taken with their awards following the general session. All winners were invited to the Awards reception that evening.

**Conferences**

The SIGUCCS 2016 Annual Conference  <http://siguccs.hosting.acm.org/Conference/2016/> was the first ever combined Management Symposium and Service and Support Conference.  The Embassy Suites in Denver, CO was the host for this event, held November 6-9 and attended by 209 attendees along with several guests and exhibitors.

The theme was “Choose Your Adventure” and attendees were encouraged to plan an adventure in one of the 4 “treks,” (1) Professional Development & Career Advancement, (2) Service Development & Management, (3) Teaching & Learning with Technology, and (4) Training, Documentation & Communication.

The Opening Plenary Speaker was David Rendall, author of 3 books, including Freak Factor. His topic was [*Dead Leaders: Lessons from the Lives and Violent Deaths of the World’s Most Influential People*](https://www.createspace.com/299630). “

The Closing Plenary Speaker was Manley Feinberg, an author, musician and outdoor adventure photographer, as well as a mountain climber who has had adventures in 25 countries.

The conference committee eliminated the gala event this year and opted instead for several networking opportunities throughout the conference, many hosted by our corporate contributors.

Preparations are underway for the 2017 conference to be held in Seattle, WA, October 1 – 4. The theme for the conference is Connect|Discover to encourage attendees to network with colleagues from different institutions, as well as attend sessions and workshops that directly relate to their professional responsibilities.

Planning has begun for the 2018 conference, to be held in Orlando, FL at Disney’s Coronado Springs Resort October 7-10, 2018. The core committee has been selected, and the site visit is expected to be held in August or October.

## SIGUCCS Marketing

The Marketing Committee exists to advance the SIGUCCS organization. This includes: assisting conference committees in promotion activities, assisting in the promotion of programming, such as webinars, and developing and advancing the SIGUCCS brand. The committee's responsibilities also include oversight and coordination of communications sent to the website, social media, newsletter, and mailing lists.

Our social network communities continue to be active:
Twitter: (<http://twitter.com/siguccs>) 314 followers

Facebook Page: (<http://facebook.com/siguccs>) 149 page likes

Facebook Group: (<https://www.facebook.com/groups/siguccsfolks/>) 242 members

LinkedIn: (<https://www.linkedin.com/grp/home?gid=1675517>) 5,490 members

Slack: (<https://siguccs.slack.com/>, logon required) 189 members

The newsletter is available at <http://www.siguccs.org/wp/>

Beginning in the spring of 2016 the Executive Committee decided to retain the services of a marketing firm to help us with promoting SIGUCCS as a whole, and the annual conference in particular. The firm Allison & Lejano was chosen through an RFP process, and they engaged with our community in several ways, including individual interviews and attending our conference. The firm worked closely with the 2016 conference committee to adjust the marketing strategies and help establish a clear identity for the conference. At the conclusion of their work the firm provided SIGUCCS with a report outlining several areas for the 2017-2020 Executive Committee to consider for implementation.

## Election

SIGUCCS held an election this spring for the 2017-2020 term of the Executive Committee. The winners were Laurie Fox (Chair), Dan Herrick, Kristen Dietiker, Lisa Brown, and Chris King. Appointed positions are established after the term begins.

## Issues

SIGUCCS is continually evaluating whether we are meeting the needs of our constituency. With the drop in attendance at our conferences starting in 2009 after the economic downturn, we continue to explore ways to reach IT organizations in more than 4500 institutions of higher education. The Executive Committee has endeavored to make SIGUCCS a yearlong experience, with frequent webinars, the yearlong mentor/mentee program, and expanding use of communications through social media. The recommendations from the Allison & Lejano marketing report will be carefully considered and implemented with the goal of increasing participation overall.