

**Annual Report of the ACM Awards Committee  
for the Period  
July 1, 2005 - June 30, 2006**

**1. BASIC INFORMATION**

**1.1 List of Committee Members and Terms of Office**

Calvin C. Gotlieb, Co-Chair	4/1/98-6/30/06
James Jay Horning, Co-Chair	7/02-6/30/06
Martin Abadi	8/04-12/31/06
Hal Abelson	12/03-12/31/09
Alfred V. Aho	2/01-12/31/05
David H. Bailey	12/31/08
Ruzena Bajcsy	1/04-12/31/07
Mary Gray Baker	11/04-12/31/07
Victor Basili	7/02-12/31/07
Michel Beaudouin-Lafon	8/04-12/31/07
Alan Berenbaum	12/03-12/31/05
Reinaldo Bergamaschi	12/31/09
Nina Bhatti	
Judith Bishop	6/03-12/31/06
Dines Bjørner	8/04-12/31/07
Ronald Boisvert	10/04-12/31/08
Stephen R. Bourne	12/31/10
Eric Brewer	3/05-
John Seely Brown	1/01-12/31/07
E.G. Coffman	6/03-12/31/06
Patrick Cousot	9/04-12/31/07
Carlos de Lucena	2/01-12/31/05
James W. Demmel	12/31/09
Adel S. Elmaghraby	6/02-12/31/05
Joan Feigenbaum	5/01-12/31/05
Christian Freksa	7/05-
Bernard Galler	2/01-12/31/05
Nicholas Georganas	12/03-12/31/07
Carlo Ghezzi	12/31/08
Adele Goldberg	12/31/09
Sandra Graham	3/05-12/31/06
James N. Gray	6/02-12/31/06
William D. Gropp	12/31/06
David Harel	1/05-12/31/09
Laura Hill	12/31/11
Charles H. House	4/01-12/31/06
Mary Jane Irwin	4/01-12/31/05

Hisao Kameda	2/01-12/31/05
Anna Karlin	10/04-12/31/07
Richard Karp	12/31/09
Randy Katz	10/04-12/31/06
David E. Keyes	12/31/07
Maria Klawe	8/04-12/31/08
Stuart Kurtz	5/02-12/31/06
Edward Lazowska	9/02-12/31/06
Robert M. Lefkowitz	12/31/08
Stephen R. Mahaney	10/04-12/31/08
Brien Maguire	6/03-12/31/05
Katherine McKeown	3/05-12/31/11
Renée J. Miller	12/03-12/31/06
Abbe Mowshowitz	12/31/07
Priya Narasimhan	8/04-12/31/08
John F. Nolan	12/31/09
Cherri M. Pancake	9/03-12/31/08
Prabhakar Raghavan	7/01-12/31/05
Anthony Ralston	12/31/07
Brian Randell	12/31/09
Susan Rodger	12/31/09
Barbara Ryder	9/04-12/31/07
Steve Scott	12/31/07
David Shmoys	
Edward Shortliffe	3/00-12/31/05
Gabriel (Gabby) Silberman	12/31/08
Barbara Simons	
Per Stenstrom	11/04-12/31/06
Sabine Susstrunk	12/04-
Valerie Taylor	8/04-12/31/08
David A. Thomas	12/31/09
Frank Tompa	8/04-12/31/07
Donald F. Towsley	12/03-12/31/07
Mike Ubell	1/04-
Jeffrey Ullman	11/04-12/31/07
Andries van Dam	12/31/08
Robert Walker	12/31/11
Michael Wellman	9/00-12/31/05
Mary Wheeler	
Telle Whitney	10/02-12/31/06
Stuart Zweben	7/02-12/31/07

## 1.2 Purpose of the Committee

The Awards Committee is responsible for the conduct of the currently existing award prizes, fellowships and other symbols of recognition of merit bestowed by ACM as a whole. This includes making appointments to the various award committees, soliciting nominees, selecting winners from among the nominees, and arranging for the formal conferring of the awards, and exploring possibilities of funding awards with outside organizations. The Policies and Guide for establishing an ACM award can be found on: <http://www.acm.org/awards/policies.html>

The Committee is further responsible for defining and updating the awards structure of ACM and its units, by recommending to Council, when appropriate, the establishment of new programs for the recognition of merit, or the modification or discontinuance of existing ones, with the goal of maintaining a balance among the awards recognizing different kinds of meritorious activities.

All ACM awards must be approved by the ACM Awards Committee. Approval by ACM Council is required before any proper name may be attached to any such award or prize. This authority may not be delegated. Subunit-wide awards, excluding Named Awards, generally do not require ACM Council approval.

The Committee will provide advice to subunits of ACM regarding any award programs conducted by them. Subunits engaging in award activities should consult with the Awards Committee concerning the nature and balance among the programs of ACM and its subunits.

The Committee will maintain contact, and as appropriate, exchange information with other professional or technical organizations concerning their awards programs.

## 1.3 Committee Organization

The Awards Committee is a standing committee of Council, reporting through the President. The ACM Awards Committee consists of the ACM President, the CEO/Executive Director (ex-officio), the Co-Chairs of the Awards Committee, the current chairs of the individual ACM award selection committees, and the ACM SIG Chairs Liaison with the Awards Committee.

### *A.M. Turing Award*

2005 Chair - Jim Gray; 2006 Chair – Ruzena Bajcsy  
ACM's most prestigious technical award is accompanied by a prize of \$100,000. It is given to an individual selected for contributions of a technical nature made to the computing community. The contributions should be of lasting and major technical importance to the computer field. Financial support of the Turing Awards is provided by the Intel Corporation.

2005 Recipient: Peter Naur, Copenhagen University

### *Distinguished Service Award*

2005 Chair – Nicholas Georganas; 2006 Chair – Valerie Taylor  
Awarded on the basis of value and degree of service to the computing community. The contributions should not be limited to service to the Association, but should include activities in other computer organizations and should emphasize contributions to the computing community at large.

2005 Recipient: Mary Jane Irwin, Penn State University

### ***Outstanding Contribution to ACM Award***

2005 Chair – E.G. Coffman; 2006 Chair – Barbra Ryder

This award is given to individuals who are selected on the value and degree of service to ACM.

2005 Recipient: Don Gotterbarn, East Tennessee State University

### ***Software System Award***

2005 Chair – Judith Bishop; 2006 Chair – Frank Tompa

Awarded to an institution or individual(s) recognized for developing a software system that has had a lasting influence, reflected in contributions to concepts, in commercial acceptance, or both. The Software System Award carries a prize of \$10,000 which is provided by IBM.

2005 Recipients: *The Boyer-Moore Theorem Prover*  
Robert S. Boyer, University of Texas, at Austin  
J Strother Moore, University of Texas, at Austin  
Matt Kaufmann, University of Texas, at Austin

### ***Grace Murray Hopper Award***

2005 Chair – Telle Whitney; 2006 Chair – Patrick Cousot

Awarded to the outstanding young computer professional of the year, selected on the basis of a single recent major technical or service contribution and includes a prize of \$15,000; financial support of the award is provided by Google. The candidate must have been 35 years of age or less at the time the qualifying contribution was made.

2005 Recipient: Omer Reingold, Weizmann Institute, Israel

### ***Karl V. Karlstrom Outstanding Educator Award***

2005 Chair – Randy Katz; 2006 Chair – Jeff Ullman

Awarded annually to an outstanding educator who: is appointed to a recognized educational baccalaureate institution; is recognized for advancing new teaching methodologies, or effecting new curriculum development or expansion in computer science and engineering; or who is making a significant contribution to the educational mission of the ACM. Those who have been teaching for ten years or less will be given special consideration. A prize of \$5,000 is supplied by the Prentice-Hall Publishing Company.

2005 Recipient: Stuart Russell, University of California, Berkeley

### ***Paris Kanellakis Theory and Practice Award***

2005 Chair – Renée J. Miller; 2006 Chair – Anna Karlin

The Kanellakis award honors specific theoretical accomplishments that have had a significant and demonstrable effect on the practice of computing. This award is accompanied by a prize of \$5,000 and is endowed by contributions from the Kanellakis family, and financial support which has been provided by ACM's SIGACT, SIGDA, SIGMOD, SIGPLAN, the SIG Project Fund, and individual contributions.

2005 Recipients: Gerard J. Holzmann, NASA/JPL.  
Laboratory for Reliable Software  
Robert P. Kurshan, Cadence Design Systems  
Moshe Y. Vardi, Rice University  
Pierre Wolper, University of Liege, Belgium

***Doctoral Dissertation Award***

2005 Chair – Edward Lazowska; 2006 Chair – Don Towsley  
Presented annually to the author(s) of the best doctoral dissertation(s) in computer science and engineering and is accompanied by a prize of \$5,000. The winning dissertation is published by Springer.

2005 Recipient: Benjamin Liblit, University of Wisconsin-Madison  
(Dissertation nominated by University of California, Berkeley)

2005 Honorable Mention: Olivier Dousse, Deutsche Telekom Laboratories  
(Dissertation nominated by Ecole Polytechnique Federale de Lausanne, Switzerland)

***ACM/IEEE CS Eckert-Mauchly Award***

2005 Chair – Tom Conte; 2006 Chair - Alan Berenbaum  
Administered jointly by ACM and IEEE Computer Society. The award of \$5,000 is given for contributions to computer and digital systems architecture where the field of computer architecture is considered at present to encompass the combined hardware-software design and analysis of computing and digital systems. The award is presented at the annual ISCA (International Symposium on Computer Architecture) conference.

2005 Recipient: Robert P. Colwell

2005 Recipient: James Pomerene, IBM - Retired

***ACM/AAAI Allen Newell Award***

2005-6 Chair - John Seely Brown  
The Allen Newell Award is presented to an individual selected for career contributions that have breadth within computer science and other disciplines. This endowed award is supported by the American Association for Artificial Intelligence (AAAI), and by individual contributions.

2005 Recipient: Jack Minker, Professor Emeritus, University of Maryland

***ACM Eugene L. Lawler Award for Humanitarian Contributions within Computer Science and Informatics***

2004-05 Chair – Nina Bhatti  
The Lawler Award recognizes an individual or a group who have made a significant contribution through the use of computing technology. The amount of this biennial award is \$5,000, and it is financially supported by individual contributions.

2005 Recipients: *Nakuru Local Urban Observatory Project*  
Albrecht Ehrensperger, Centre for Development and Environment

Solomon Mbuguah, Municipal Council of Nakuru  
Ernest Siva, Municipal Council of Nakuru

***The SIAM/ACM Prize in Computational Science and Engineering***

This biennial, endowed award recognizes an individual(s) for outstanding research contributions to the field of computational science and engineering. The contribution(s) for which the award is made must be publicly available and may belong to any aspect of computational science in its broadest sense. The award includes a certificate and a cash prize of \$5,000. Financial sponsorship is provided by SIAM (Society for Industrial and Applied Mathematics).

This award was presented at the SIAM Conference on Computational Science and Engineering (CSE05) in February 2005, in Orlando, Florida, to Achi Brandt, Weizmann Institute of Science.

***ACM Fellows***

2005 Chair – Charles H. House; 2006 Chair – Victor Basili

The ACM Fellows Program was established by ACM Council in 1993 to recognize and honor outstanding ACM members for their achievements in computer science and information technology and for their significant contributions to the mission of the ACM. The ACM Fellows serve as distinguished colleagues to whom the ACM and its members look for guidance and leadership as the world of information technology evolves. Thirty-four new Fellows were inducted at the ACM Awards Ceremony on May 20, 2006 at the Westin St. Francis Hotel, in San Francisco, which brings the total number of ACM Fellows to 553. The 2005 Fellows are:

Thomas E. Anderson, University of Washington  
Dines Bjørner, Technical University of Denmark  
Stephen R. Bourne, El Dorado Ventures  
Rodney Brooks, Massachusetts Institute of Technology  
Surajit Chaudhuri, Microsoft Research  
Keith D. Cooper, Rice University  
David L. Dill, Stanford University  
Christophe Diot, Thomson Paris Research Lab.  
Michel Dubois, University of Southern California  
Michael J. Franklin, University of California, Berkeley  
Ophir Frieder, Illinois Institute of Technology  
Robert Harper, Carnegie Mellon University  
Maurice Herlihy, Brown University  
Phokion G. Kolaitis, IBM Almaden Research Center  
Vipin Kumar, University of Minnesota  
T.V. Lakshman, Bell Labs., Lucent Technologies  
Brad A. Myers, Carnegie Mellon University  
David M. Nicol, University of Illinois, Urbana-Champaign  
Krishna V. Palem, Georgia Institute of Technology  
Thomas Reps, University of Wisconsin, Madison/GrammaTech, Inc.  
Lui Sha, University of Illinois, Urbana-Champaign  
Mikkel Thorup, AT&T Labs. - Research  
Eli Upfal, Brown University  
Umesh Vazirani, University of California, Berkeley

Vijay V. Vazirani, Georgia Institute of Technology  
Roy Want, Intel Corporation  
Gerhard Weikum, Max-Planck Institute for Informatics  
Uri C. Weiser, Intel Corporation  
Daniel S. Weld, University of Washington  
Michael P. Wellman, University of Michigan, Ann Arbor  
Jennifer Widom, Stanford University  
Walter Willinger, AT&T Labs. - Research  
David A. Wood, University of Wisconsin, Madison  
Hui Zhang, Carnegie Mellon University

### ***Intel International Science and Engineering Fair (ISEF)***

2005 Chair -- Sandra Graham; 2006 Chair – Abbe Mowshowitz

ISEF is administered by Science Service and is for students in the 9th through 12th grades. ACM's first place award is \$1,000, second place is \$500, and third place is \$300, the honorable award winners (a maximum of 3) receive a prize of \$200. All receive complimentary Student subscriptions memberships (Portal Package) for the duration of their undergraduate studies. The 2006 ISEF was held in May 2006, in Indianapolis, Indiana, and ACM was represented by its judges Sandra Graham and Abbe Mowshowitz.

The 56<sup>th</sup> Intel ISEF ACM winners are:

First Place Winner (\$1,000): Nat Piyapramote, Sarasit Phithayalai School, Banpong, Ratchaburi, Thailand: *Statistical-based Adaptive Binarization for Document Imaging*

Second Place Winner (\$500): Alex Buchanan, Myers Park High School, Charlotte, North Carolina: *Stereovision Correspondence Using Wavelet Based Dynamic Programming*

Third Place Award (\$300): Liu Liu, Shanghai Datong High School, Shanghai, China: *Facool: Convenient Internet Face Retrieval System*

Honorable Mention (\$200): Vidya Ganapati, Sunset High School, Portland, Oregon: *Building a Power-Optimized MIPS Pipeline.*

Huseyin Gurkan, Galatasaray High School, Istanbul, Turkey: *Musical Instrument Recognition on Monophonic Musical Phrases.*

Justin M. Solomon, Thomas Jefferson Higher School for Science and Tech, Virginia *Three-dimensional Face Recognition from Video: Facial Surface Reconstruction and Analysis Using Tensor Algebra and Differential Geometry.*

### **Recognition of Service Certificates**

#### **Headquarters Staff**

The Recognition of Service Certificate Program is the responsibility of Headquarters Staff to issue certificates to those eligible volunteers who have completed service to ACM of at least one year in an elective or appointed position and who have received endorsement of their superiors in the ACM volunteer organization; 386 certificates were issued in FY'06.

#### **1.4 Awards Committee Meeting**

The Awards Committee meeting was held Thursday, May 19, 2006, at the Westin St. Francis Hotel in San Francisco. Fourteen people attended the meeting, including several outgoing/incoming subcommittee chairs: David Bailey (Gordon Bell Prize); Nina Bhatti (Lawler

Award); Judith Bishop (Software System Award); Calvin C. (Kelly) Gotlieb (Awards Committee Co-Chair); Jim Gray (Turing Award); Laura Hill (Distinguished Engineer/Scientist/Member); Jim Horning (Awards Committee Co-Chair); Chuck House (Fellows Committee); Randy Katz (Karl V. Karlstrom Outstanding Educator Award); Renee Miller (Paris Kanellakis Theory and Practice Award); Abbe Mowshowitz (ISEF); Pat Ryan (ACM COO); Valerie Taylor (Distinguished Service Award); Robert A. Walker (Senior Member); John White (ACM CEO).

Highlights of the meeting follow:

#### Report from the ACM Awards Committee Co-Chairs

The Award program has been receiving a higher profile within ACM as evidenced by increased recognition with the following awards:

- The Gordon Bell Prize has been added to ACM's award program. The Gordon Bell Prizes are awarded each year to recognize outstanding achievement in high-performance computing.
- This year President David Patterson honored three winners with the ACM Presidential Award -- Andy Bechtolsheim, Jan Cuny, and Ed Lazowska, for their many and wide-ranging contributions to the field.
- ACM Council approved two new Advanced Grade Levels this year, that of Senior Member, and Distinguished Engineer/Scientist/Member. Both grade levels require that candidates are ACM Professional Members and have been for the past 5 years prior to the deadline.

The self-nominating category of Senior Members are required to have 10 years of professional experience and demonstrated performance that sets them apart from their peers. Three endorsements from colleagues are required – the endorsers are not required to be ACM Members. Distinguished Members, who may self-nominate or be nominated by another ACM Professional Member, are required to have 15 years of professional experience and have had a significant accomplishment in, or impact on, the computing field. Four to eight endorsements are required.

It is expected that 7%-10% of the membership might qualify for the Distinguished grade level, and 25% for the Senior grade.

For the Distinguished grade level, Laura Hill, Chair of the Distinguished Engineer/Scientist/Member Committee, put forth a proposal to change the requirement to having two instead of four ACM Professional Members participate. The rationale for this is that most managers are not ACM Members thereby making it difficult for candidates to comply with this requirement. In addition, this is to encourage nominations by others since the expectation is that although many engineers would be honored by being nominated, they may be reluctant to nominate themselves.

The ACM Executive Committee had unanimously recommended approval of this change to the criteria for Distinguished Member program so as to reduce the ACM membership requirement.

The Awards Committee by a voice vote also voted to approve this change. These recommendations were forwarded to Council and were approved.

Three named SIG awards were discussed at the meeting, and the Awards Committee's recommendation to Council was to approve all three awards, which they subsequently did.

#### *SIGMETRICS Kenneth C. Sevcik Outstanding Student Paper Award*

SIGMETRICS has proposed to honor its late colleague Ken Sevcik by naming the SIGMETRICS Conference Outstanding Student Paper Award in his memory.

*SIGSAM Richard Dimick Jenks Memorial Prize for Excellence in Software Engineering applied to Computer Algebra*

Several Award Committee members questioned the name of the award and felt that the name is too long and there is overlap with the two areas. Their recommendation was that SIGSAM consider shortening the name.

The Awards Committee, by a vote of 8 For, 0 Opposed, 3 Abstentions, recommended that Council approve the award. The abstentions were based on the name.

*SIGBED/SIGSOFT Frank Anger Award*

The Frank Anger Award was proposed by SIGBED and SIGSOFT. Anger was program director at NSF, and there was tremendous support for the award from these communities. The award would include student travel stipends of up to \$2,000 each for two students, one named by each SIG, to attend the flagship conference of the other SIG. The intention of the award is to improve the mutual awareness of the two research communities to the opportunities and challenges emerging in complimentary research areas.

**The ACM Awards Banquet**

The annual ACM Awards Banquet was held as a stand-alone event on Saturday, May 20, 2006 at the Westin St. Francis Hotel in San Francisco. The reception immediately preceding the banquet was hosted by the Intel Corporation.

In the banquet audience of almost 200 people were 15 of the 34 new Fellows as well as most of the ACM award winners. ACM's President Dave Patterson was the Master of Ceremonies. Among the corporate representatives were: Andrew Chien, Vice President in the Corporate Technology Group and Director of Research at Intel, for the Turing Award; ACM's VP Stuart Feldman, VP-CS, IBM Research, representing IBM for the Software System Award; and Nils Nielsen, Stanford University and former AAI President, representing AAI for the Allen Newell Award; Alan Eustace, VP of Research and Systems Engineering at Google, for the Grace Murray Hopper Award; Tracy Dunkelberger, Executive Editor-CS, Prentice Hall, for the Karlstrom Award.

The winners and their coaches of the 30<sup>th</sup> World Finals of the ACM International Collegiate Programming Contest (ICPC) which took place in San Antonio, Texas, April 9-13, 2006, also attended. IBM was represented by Brenda Chow, IBM Toronto. The members of the 2006 winning team from Saratov State University, Saratov, Russia, are: Igor Kulkin, Ivan Romanov, and Roman Alekseenkov. Their Coach is Professor Michael Mirzayanov, and their Co-Coach is Professor Antonina Fedorova.

In addition, the following winners of the ACM Student Research Competition Grand Finals were recognized:

Graduate Category: First Place: Danny Dig, University of Illinois at Urbana Champaign; Second Place: Yaling Yang, University of Illinois at Urbana Champaign; Third Place: David Janzen, University of Kansas

Undergraduate Category: First Place: Yuki Mori, University of Tokyo; Second Place: Scott Hale, Eckerd College; Third Place: Jeffrey Adair, Hiram College

Microsoft Research, the financial sponsor of SRC, was represented by Mark Lewin, of Microsoft's University Relations Group.

**ACM Presidential Awards**

The ACM Presidential Awards are awarded to leaders of IT whose actions and achievements serve as paragons for our field. The 2006 winners are Andreas Bechtolsheim, Janice Cuny, and Edward Lazowska.

Andreas Bechtolsheim, Sun Microsystems, was recognized "for showing us how to overcome extraordinary financial success to remain one of the world's best computer engineers, and for sharing his time, talent, and wealth to give dozens of startups a chance to succeed."

Janice Cuny, University of Oregon, was recognized “for showing us how to help underserved populations as a computer scientist, a parent, a teacher, a civil servant, and a citizen.”

Edward Lazowska, University of Washington, was recognized “for showing us how to advocate effectively for IT research and advanced education.”

#### Athena Lecturer Award

ACM’s Committee on Women in Computing (ACM-W) selected Deborah Estrin as the first recipient of the Athena Lecturer Award. Dr. Estrin is the Jon Postel Chair in Computer Networks in the Department of Computer Science at the University of California, Los Angeles, and is the founding director of the NSF’s Science and Technology Center for Embedded Network Sensing.

This award celebrates women researchers who have made fundamental contributions to Computer Science.

The Athena Lecture will take place at MobiCom 2006 Conference in Los Angeles in September 2006.

#### Recruitment Plans for New/Younger Members

The Awards Committee Co-Chairs continue to seek recommendations from the outgoing award subcommittee chairs for members to replace those whose terms are expiring. In addition to seeking new members whose expertise falls within the criteria for the various awards, the expectation for diversity was typically implied. The request for recommendations in the future will be more explicit in seeking a more diversified representation over the collection of subcommittees, including taking into account age, gender, and international representation.

In addition to its efforts to achieve a greater diversity within the award subcommittees, the Awards Committee will seek the assistance of the SIG Chairs to help ensure that the award nominations reflect the diversity in the ACM membership.