JEFF REARICK AWARDED THE 2018 IEEE COMPUTER SOCIETY HANS KARLSSON AWARD

Jeff Rearick, Senior Fellow at Advanced Micro Devices (AMD), has been awarded the 2018 IEEE Computer Society Hans Karlsson Award. He is recognized for “his vision, extraordinary skills and dedication in leading, shaping, and promoting the IEEE 1687 standard that provides access to embedded semiconductor instrumentation.”

At AMD, Rearick and his team are responsible for the Design-For-Testability strategy and roadmap for the company. Over the course of his career, he has worked on many aspects of integrated circuit testing, from hands-on testing of microprocessors, to test automation tools, to DFT architecture. His work includes the design and use of on-chip instruments for testing complex digital functions and analog/mixed-signal circuits such as high-speed I/Os and delay-locked loops.

Rearick extended his embedded test work by co-founding the IEEE SA IJTAG (Internal Joint Test Action Group), whose efforts became standardized in 2014 as IEEE 1687 (Access and Control of Instrumentation Embedded within a Semiconductor Device), for which he served as the editor. In recognition of the impact of that work, Rearick received the 2016 Bob Madge Innovation Award at the International Test Conference. He holds over 40 US patents, and has presented dozens of technical papers, invited addresses, and keynotes at various conferences. Rearick earned BSEE and MSEE degrees from Purdue University and the University of Illinois, respectively.

Rearick received a Special Recognition Award for his efforts in the development and first silicon demonstration of IEEE 1149.6 (AC Boundary Scan) and a Certificate of Appreciation for his role in IEEE 1804 (Fault Coverage and Accounting). He is a longstanding member of the IEEE Test Technology Standards Committee.

In addition to his standards work, Rearick has served on the program committee of the International Test Conference for 10 years and has contributed to the program committee of the European Test Symposium. He holds over 40 US patents, and has presented dozens of technical papers, invited addresses, and keynotes at various conferences. Rearick earned BSEE and MSEE degrees from Purdue University and the University of Illinois, respectively.

The award consists of a plaque and a $2000 honorarium, and is awarded annually to the most outstanding team leader in the field of computer engineering standards. It recognizes outstanding skill, and a dedication to diplomacy, team facilitation, and joint achievement in the areas where individual aspirations, corporate competition, and organizational rivalry would otherwise be counter to the common good.

The award was presented at the IEEE Computer Society’s annual awards ceremony on 6 June 2018 in Phoenix.

GOOGLE CO-FOUNDEERS SERGEY BRIN AND LARRY PAGE TO RECEIVE THE IEEE COMPUTER SOCIETY 2018 COMPUTER PIONEER AWARD

Sergey Brin and Larry Page, Google’s cofounders, have been selected to receive the IEEE Computer Society’s 2018 Computer Pioneer Award.

This award acknowledges significant contributions to early concepts and developments in the electronic computer field that clearly advanced the state of the art in computing. Brin and Page are being recognized “for the creation of the Google search engine and leadership in creating ambitious products and research initiatives.”

Together, Brin and Page developed the PageRank algorithm and used it to build Google’s search engine, which is now the most-used search engine in the world. Two heavily cited papers describe their early work:


Brin and Page co-founded Google and its parent company, Alphabet, and Brin currently serves as Alphabet’s president and Page as Alphabet’s chief executive officer.
Since their initial technical work, both have been heavily involved in steering Google and Alphabet’s technical portfolio of products and research projects, often making significant and convincing arguments to other Google engineers about why a particular project that seemed implausible or infeasible was actually achievable and worth pursuing. Examples include Google Street View (“Let’s add photos to maps so people can see what a street looks like in real life”), Google Books (“Let’s scan all of the world’s books and make their contents searchable”), Google’s self-driving car project (which began in 2009, much earlier than other commercial efforts in this area), and many others.

Fellows of the American Academy of Arts & Sciences, both Brin and Page have received the Marconi Foundation Prize and are members of the National Academy of Engineering.

Brin received degrees in mathematics and computer science from the University of Maryland and Page earned a degree in engineering from the University of Michigan.

They met at Stanford University, where both were PhD students in the Computer Science Department. As a research project, they developed an algorithm that counted the number and quality of links to a webpage to determine a rough estimate of how important the website is. This was used to rank websites in the search engine they developed—which they named Google, as it was inspired by the mathematical term “googol,” to reflect their mission to organize the immense amount of information available on the Internet.

The Computer Pioneer Award was established in 1981 by the IEEE Computer Society Board of Governors to recognize and honor the vision of those whose efforts resulted in the creation and continued vitality of the computer industry. The award acknowledges outstanding individuals whose main contribution to the concepts and development of the computer field was made at least 15 years earlier.

Past recipients of the award include Frances Allen, Grady Booch, Edgar Codd, Douglas Engelbart, Edward Feggenbaum, Tony Hoare, Robert Kahn, Jack Kilby, Dennis Ritchie, and David Wheeler. Further information about the award, including a list of all past recipients, can be found at www.computer.org/web/awards/pioneer.

IEEE SECURITY & PRIVACY WINS 2018 APEX AWARD OF EXCELLENCE

IEEE Computer Society’s IEEE Security & Privacy, a leading publication in the security technology industry, has been awarded the 2018 APEX Award of Excellence in the “Magazines, Journals & Tabloids – Electronic” category.

APEX awards honor publication excellence through an international competition that recognizes outstanding publications, from newsletters and magazines to annual reports, brochures and websites.

Said one of the APEX 2018 judges, “This special issue addresses the mysterious (to many) issue of ‘post-quantum cryptography’—algorithms designed to enhance security against cyber-attacks. Those in the field are provided with a comprehensive summary of current and future challenges, and it goes into great detail covering all aspects of this new technology.”

CHANGES TO SOCIETY BYLAWS AVAILABLE ONLINE

The IEEE Computer Society Board of Governors recently approved the first reading of an amendment to the Society’s bylaws.

The amendment revises Article IX, Section 5, which covers the terms of Editors in Chief (EICs) of Computer Society periodicals to extend the first term for an EIC from two to three years, to allow the EIC more time to accomplish her or his goals before being considered for reappointment. If an EIC is reappointed, the second term remains as two years.

The proposed bylaws section is available for review at https://tinyurl.com/y8wove7v.

Additions are marked in highlighted text. Only relevant segments of the bylaws in question are reproduced. Changes to existing Society bylaws that receive first-reading approval by the Board of Governors are listed by title in Computer, with links to a website location hosting the actual documents. The documents remain accessible at this location until such time as the changes receive final approval. Members can send comments to Anne Marie Kelly (amkelly@computer.org) by close of business 30 September 2018.

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“IEEE Security & Privacy is honored to receive the 2018 APEX Award of Excellence,” said David M. Nicol, editor in chief and Franklin W. Woeltge Professor of Electrical and Computer Engineering, University of Illinois at Urbana-Champaign. “This award and its predecessor from last year prove the success of our ability to deliver high quality content, on highly relevant topics in a way that is accessible to experts and non-experts alike.”

The IEEE Security & Privacy July/August 2017 winning issue explores the topic of postquantum cryptography. Because of public-key cryptography’s relevance and quantum computers’ increasingly realistic threat to this technology, it is necessary to come up with practical and secure postquantum cryptography. This special issue aims to present the state of the art and the grand challenges in postquantum cryptography and to discuss the transition of real-world systems to the new technology.

According to the APEX 2018 panel of judges, this year’s competition was exceptionally intense. From over 1,400 entries evaluated, 100 APEX Grand Awards were presented in 12 major categories to honor the outstanding works in those categories, with 556 Awards of Excellence recognizing exceptional entries in 100 individual categories. More information can be found at www.apexawards.com/apexawards.htm.

IEEE Security & Privacy magazine offers peer-reviewed articles and research on the most critical cybersecurity technologies and topics impacting the world. It provides articles with both a practical and research bent by the top thinkers in the field along with case studies, tutorials, columns, and in-depth interviews and podcasts for the information security industry.