Parallel computing researcher David Kuck has been named winner of the 2011 IEEE Computer Society Computer Pioneer Award “for pioneering parallel architectures including the Illiac IV, the Burroughs BSP, and Cedar, and for revolutionary parallel compiler technology including Parafrase and KAP Tools.”

Kuck is one of the most influential figures in parallel computing, especially in creating productivity tools for parallel programming. Over the past four decades, he has influenced a wide range of areas including architecture design and evaluation, compiler technology, programming languages, and algorithms. His influence has been both theoretical and practical.

At the University of Illinois, Urbana-Champaign, Kuck created the Center for Supercomputing Research and Development. CSRD was extraordinarily influential in developing parallel computing technology (from hardware to algorithms) in the era of vectorization and SMPs. As founder and director of Kuck and Associates, and later as an Intel Fellow, his work subsequently influenced industry. Every compiler in use today incorporates techniques he pioneered, targeting parallelism in its many forms and managing locality. In this era of multicore and many-core architectures, as well as petascale supercomputers, this work is now more important than it has ever been.

As an outgrowth of his compiler work, Kuck initiated efforts that led to the development of OpenMP, the most common solution for incorporating threads into scientific applications.

Kuck is a member of the National Academy of Engineering and is a fellow of the IEEE, ACM, and the American Association for the Advancement of Science. He has received the Charles Babbage Outstanding Scientist Award and the 1993 IEEE Computer Society/ACM Eckert-Mauchly Award.

**COMPUTER PIONEER AWARD**

The IEEE Computer Society Computer Pioneer Award was established in 1981 to recognize and honor the vision of those people whose efforts resulted in the creation and continued vitality of the computer industry. The award is presented to outstanding individuals whose main contribution to the concepts and development of the computer field was made at least 15 years earlier. The recognition is engraved on a bronze medal specially struck for the Society.

To learn more about Computer Society awards, including the Computer Pioneer Award, visit www.computer.org/awards. 

David Kuck’s Parafrase system was the spark that initiated vectorization research.

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VMWare’s Greene and Rosenblum Win Computer Entrepreneur Awards

DIANE GREENE

Industry innovator Diane Greene, whose efforts contributed to the birth and development of practical virtualization platforms, was recently named winner of the 2011 IEEE Computer Society Computer Entrepreneur Award.

Greene received the award “for creating a virtualization platform that profoundly revolutionized modern computing.”

Greene serves on the board of Intuit, the MIT Corporation, and the Peninsula Open Space Trust. She works actively with several private technology companies and is on the Stanford School of Engineering advisory board. Greene was a cofounder and the CEO of VMware from 1998 to 2008, leading the company through an IPO and to a $2 billion capitalization. Prior to VMware, she was the founding CEO of VXtreme, which was sold to Microsoft in 1997 as the basis for its media player. Earlier, Greene held engineering management and development positions at SGI, Tandem, and Sybase.

Greene’s academic honors include mechanical engineering, naval architecture, and computer science degrees from the University of Vermont, Massachusetts Institute of Technology, and the University of California, Berkeley, respectively. Greene also won the 1976 women’s national double-handed dinghy championship.

MENDEL ROSENBLUM

VMware cofounder Mendel Rosenblum recently received the 2011 IEEE Computer Society Entrepreneur Award “for creating a virtualization platform that profoundly revolutionized modern computing.”

Rosenblum is an associate professor of computer science and electrical engineering at Stanford University. His research interests include system software, distributed systems, and computer architecture.

He has published research in the areas of disk storage management, computer simulation techniques, scalable operating system structure, virtualization, computer security, and mobility. Rosenblum received a BA in mathematics from the University of Virginia and an MS and PhD in computer science from the University of California, Berkeley.

As VMware’s chief scientist for the company’s first decade, Rosenblum helped design and build virtualization technology for commodity computing platforms. He was the 1992 recipient of the National Science Foundation’s National Young Investigator Award and the 1994 recipient of an Alfred P. Sloan Foundation research fellowship. He was a cowinner of the 1992 ACM Doctoral Dissertation Award and the 2002 ACM/SIGOPS Mark Weiser Award for creativity and innovation in operating systems research. In 2009, Rosenblum was a cowinner of the ACM System Software Award. He is a member of the National Academy of Engineering and an ACM Fellow.

COMPUTER ENTREPRENEUR AWARD

The IEEE Computer Society established the Computer Entrepreneur Award in 1982 to recognize and honor the technical managers and entrepreneurial leaders who are responsible for the growth of some segment of the computer industry. The efforts must have taken place more than 15 years earlier, and the industry effects must be generally and openly visible.

To learn more about Computer Society awards, including the Computer Entrepreneur Award, visit www.computer.org/awards.
Thousands of software development practitioners have advanced their career opportunities by qualifying as Certified Software Development Professionals or Certified Software Development Associates through IEEE Computer Society certification. In early 2011, 59 more top computing professionals passed the exacting exams for earning CSDP or CSDA status.

The CSDP is the only software development certification that has all of the components of a professional certification, including exam-based testing to demonstrate mastery of a body of knowledge, extensive experience requirements for the performance of the professional work being certified, and continuing professional education standards as measured and relevant to the BOK. The CSDA credential is a software development certification that is intended for recent software engineering graduates or entry-level software development professionals.

The CSDA and CSDP exam specifications were developed through a job analysis process that provided an industry-accepted, systematic procedure for identifying/validating the performance domain of a job and the knowledge and skills that are necessary for a software development professional to perform his or her job.

New CSDP and CSDA holders are named below.

**CSDP**

A
- Alaa Alwani
- Rajesh Ananthanarayanan

B
- Jacob W. Beningo
- Robert Binder

C
- Gregory Blank
- Bradley E. Braun
- Dwayne Budzak
- Anthony Candarini
- Michael Cox
- Maurice Curtin

D
- Anastasia R. Davis
- Susan Demkowicz
- Keshav Deshpande
- Alan Durston
- Richard Fairley
- Susan L. Frank

E
- Heinz Kabutz
- Yegor V. Kosyanchuk

F
- Hemant Mahapatra
- Betty J. Mills
- Arturo Frappe Munoz
- Nick T. Mushovic
- Dan Pilcher
- Timothy Procter
- Yutaka Sato
- Thom Schoeffling
- Manojkumar Singal
- David Southard
- Leon H. Tabak
- Joe Templin
- Douglass Thomas
- Michael E. Toler
- Judd Trayling
- Christine Vladic

G
- Wendy Wallick
- Jeffrey Walters
- Michael Werling

**CSDA**

A
- John Morrison
- Andrew Muyanja
- Nigel Noronha
- Terry Olson
- James O. Onyango
- Jefferson Sean Orr
- Thomas Owens
- Daniel Perret
- Michael L. Richards
- Shaopeng Shi
- Chelsea Stenner
- Tao Sun
- Patrick Un
- Hairong Wu

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