Two Presented Technical Achievement Awards

The Computer Society presented Technical Achievement Awards to S. Sitharama Iyengar, professor and chair of the department of computer science at Louisiana State University, and K.H. (Kane) Kim, professor of computer engineering and computer science at the University of California at Irvine.

Iyengar established his reputation on his research in the design and analysis of efficient data structuring techniques for image processing and compression. Kim's areas of expertise are fault-tolerant distributed and parallel computer systems, and real-time software systems.

S. Sitharama Iyengar

The director of the Robotics Research Laboratory since its inception in 1986, Iyengar's research interests include autonomous intelligent systems and high-performance algorithms for parallel and distributed processing. He has authored or coauthored more than 220 scientific publications and several textbooks that discuss data structures for image processing and pattern recognition, autonomous navigation, and distributed sensor networks. He received an MS from the Indian Institute of Science in 1970 and a PhD from Mississippi State University in 1974.

A decorated lecturer and LSU distinguished faculty member, Iyengar has received a teaching fellowship from the California Institute of Technology's Jet Propulsion Laboratory, and the Williams Evans Fellowship from the University of Otago, New Zealand. He has served as a visiting professor at the Oak Ridge National Laboratory and the Indian Institute of Science. As an IEEE Computer Society Distinguished Visitor, he spoke on the state of the art in distributed sensor networks, which combine disparate signals from infrared sensors, microwave radars, and laser radars to provide data for defense professionals, among others.

S. Sitharama Iyengar, Technical Achievement Award winner

Kane Kim, Technical Achievement Award winner

Iyengar's research projects have received support from the US Office of Naval Research, NASA, the US National Science Foundation, the Jet Propulsion Laboratory, the US Navy, the US Department of Energy, and the US Army.

A past guest editor for *IEEE Transactions on Software Engineering*, *IEEE Transactions on Knowledge and Data Engineering*, and *IEEE Transactions on Systems, Man, and Cybernetics*, Iyengar is a Fellow of the IEEE. His 1995 Fellow citation reads, "for contributions to data structures and algorithms for image processing and robotics."

Kane Kim

Over the past 25 years, Kane Kim has conducted research on methods for dependable computing and object-oriented software engineering. Kim originated the Distributed Recovery Block technique and several other basic approaches for cost-effective design of ultrareliable fault-tolerant, real-time, distributed and parallel computer systems. The primary developer of the TMO (time-triggered message-triggered object) structuring scheme (also called RTO.k), Kim is also credited with developing the DREAM kernel, a prototype OS kernel providing guaranteed timely services.

In the mid-1980s, Kim founded the University of California at Irvine's DREAM Laboratory, which conducts research in distributed real-time ever-

Partnership Encourages Cross-Society Participation

As operations in the computing field become more global, the Computer Society's web of activities continues to expand across national lines. Building on an already strong presence in Asia, the Society last year began a partnership with the Information Processing Society of Japan. Japanese members of each society will receive dues discounts and translated materials from the other organization. In addition, the societies will work together through joint events and products such as conferences, history observations, standards activities, and the development of educational materials. Iwao Toda, president of IPSJ, noted that, "As IT infrastructures such as the Internet become more and more pervasive, joint activities of worldwide academic and professional societies will become more important." Toda indicated that the partnership is advancing well. "A Steering Committee meeting for a new international conference on Internet applications and infrastructures, held in November, which I personally attended, was a good example of the enthusiastic progress of this partnership."

This and other Computer Society partnerships underscore IEEE collaborative efforts with professional societies around the world. The IEEE recently signed agreements with the Institution of Electronics and Telecommunication Engineers in India, the Gesellschaft für Informatik and VDE Verband der Elektrotechnik Elektronik Informationstechnik e.V. in Germany, and jointly with the Institution of Engineers, Australia, and the Institution of Electrical Engineers based in the United Kingdom. In addition to dues discounts, publication exchanges, and conference cosponsorships, these agreements include provisions to accommodate visiting members and propose activities to teach math and science to children, improve technology awareness in the general public, and improve the image of engineers and the profession.

available microcomputing. Under Kim's direction the Dream Lab, equipped with three advanced parallel and distributed computing testbeds, evaluated TMO-structured real-time system engineering and other techniques for fault tolerance in distributed and parallel real-time computer systems.

A Fellow of the IEEE since 1989, Kim's Fellow citation reads, "for contributions to the field of fault-tolerant distributed computing." An active volunteer in the Computer Society, he founded the Society's Workshop on Object-Oriented Real-Time Dependable Systems (WORDS) and International Symposium on Object-Oriented Real-Time Distributed Computing (ISORC) conference series. His other positions within the Society include past chair of the Technical Committee on Distributed Processing and founding Editorial Board member of *IEEE Transactions on Parallel and Distributed Systems*. Kim cofounded KOCSEA, the Korean Computer Scientists and Engineers Association in America, in 1982 and served as that association's president in 1991.

He received a BS in 1969 from Seoul National University, an MA in 1972 from the University of Texas at Austin, and a PhD in 1974 from the University of California at Berkeley.

Iyengar and Kim were presented their awards at a ceremony during the November 1998 Board of Governors meeting in Los Angeles. Iyengar's citation reads, "for outstanding contributions to data structures and algorithms for image processing and signal/sensor fusion problems." Kim's award was given in recognition of "outstanding contributions to the scientific foundation for both real-time fault-tolerant computing and real-time object-oriented distributed computing."

The IEEE Computer Society Technical Achievement Award is given for exemplary and innovative contributions to the fields of computer and information science and engineering or computer technology. The award recognizes achievements that took place usually within the past 10 years, but not more than 15 years in the past. Nominations are accepted until mid-September. For more information on the Technical Achievement Award or any Computer Society honors, see http://computer.org/awards/awards.htm. ❖

Seven Added to Computer Society Golden Core

In 1996, the Computer Society initiated the Golden Core program to recognize outstanding contributions from Society members or staff. The charter year welcomed 455 people to the program. Seven more individuals were named for 1998, bringing the total of Golden Core members to 524.

Current Computer Society members or long-standing staff are eligible for Golden Core recognition if they have received one of the Society's top five service awards or have served as either Society president, Executive Committee member, Board of Governors member, or staff member with five years tenure. The awards that qualify an individual for Golden Core recognition are the Meritorious Service Award, the Outstanding Contribution Award, the Distinguished Service Award, the Richard E. Merwin Award, and the Harry Hayman Award.

The names of the following honorees will be added to the Golden Core Member master list.

Deborah M. Cooper
James H. Cross II
Francis C.M. Lau
Jeffrey D. Yetter
Sunil R. Das
William Mann
Rabindra K. Roy

Golden Core membership is just one of nine Computer Society awards programs that recognize service efforts. The Golden Core program, which is administered and funded by the Awards Committee, annually presents honorees with a pin and a plaque. See http://computer.org/awards/awards.htm for more on Society technical, service, or education honors.

IEEE Top Honor Winner Named

In recognition of his contributions to power engineering systems, Charles Concordia was named the 1999 IEEE Medal of Honor winner. The Medal of Honor, given by the Institute of Radio Engineers since 1917 and by the IEEE since its formation in 1963, is the most prestigious of the Institute's 40 individual awards, recognizing pioneering work in engineering.

Concordia's citation reads, "for outstanding contributions in the area of power system dynamics which resulted in substantial improvements in planning, operating, and security of extended power systems." Concordia, a consulting electric power engineering lecturer in Venice, Florida, was the founding chair of the American Institute of Electrical Engineers' Subcommittee on Large-Scale Computing in 1946. This subcommittee formed the basis of the IEEE Computer Society.

Given 78 times over the past 82 years, the Medal of Honor recognizes only those who have attained preeminence in engineering. Previous honorees include George H. Heilmeier, Robert M. Metcalfe, Lotfi A. Zadeh, William Shockley, Robert N. Noyce, Claude E. Shannon, F.E. Terman, and Guglielmo Marconi. Consisting of a gold medal, bronze replica, certificate, and $35,000 honorarium, the medal is sponsored by the IEEE Foundation.

IEEE RECOGNIZES 13 OTHER LEADERS

Two corporations and 13 engineers from Canada, the Netherlands, Japan, and the US have also been recognized for

Continued on page 82