



*Ken Kennedy*

# KEN KENNEDY

1945–2007

Elected in 1990

*“For pioneering contributions to the field of  
optimizing compiler construction and parallel processing.”*

BY MOSHE Y. VARDI

**K**ENNETH (“KEN”) W. KENNEDY, John and Ann Doerr University Professor of Computational Engineering, Department of Computer Science, Rice University, died on February 7, 2007, in Houston at the age of 61. His research on software paved the way for the widespread use of computers in science and engineering.

Ken graduated *summa cum laude* from Rice University in 1967 and returned four years later, after earning one of the first doctorates in computer science awarded by New York University (NYU). Internationally known for his expertise in programming-language implementation and high-performance computing, two new disciplines he was introduced to during his graduate studies at the NYU Courant Institute of Mathematics in the late 1960s and early 1970s, Ken always credited his Ph.D. adviser, Jack Schwartz, with opening his eyes to the possibilities of high-performance computing.

Ken was elected a member of the National Academy of Engineering in 1990. He founded the Department of Computer Science at Rice in 1984, the interdisciplinary Computer and Information Technology Institute (CITI) in 1987, the Center for Research on Parallel Computation (CRPC) in 1989, and the Center for High Performance Software Research (HiPerSoft) in 2000.

Ken Kennedy had a well-earned reputation for leadership. In 1997, he was chosen co-chair of the President's Information Technology Advisory Committee (PITAC). The panel's 1999 report, which recommended that U.S. leaders increase spending for computing research by more than \$1 billion, was a catalyst for increasing support from numerous federal agencies for research on information technologies (IT). For this accomplishment, the Computing Research Association awarded Ken and a colleague, Bill Joy, its Distinguished Service Award.

In 1988, Ken led a group of computer scientists from seven leading research institutions in putting together a proposal for the establishment of a National Science Foundation (NSF)-funded Center for Research on Parallel Computation (CRPC), one of the first NSF science and technology centers. CRPC later evolved into HiPerSoft, which Ken directed from its inception. HiPerSoft was the administrative home at Rice of several multi-institutional projects, including the Virtual Grid Application Development Software Project, an NSF-sponsored collaboration involving seven universities, and the Los Alamos Computer Science Institute, a consortium of five universities and the Los Alamos National Laboratory.

Remembered at Rice for his love of students and of teaching, Ken was a Ph.D. adviser to 38 students and a mentor to many more. He continued to teach undergraduate courses long after he became prominent in his field. In 2002, he was promoted to the highest academic rank at Rice, University Professor. At the time of his death, he held joint appointments in computer science and in electrical and computer engineering.

In 2003, the Association of Computing Machinery Special Interest Group on Programming Languages (ACM SIGPLAN) published a volume containing the 50 most influential papers published in the *ACM Conference on Programming Language Design and Implementation* between 1979 and 1999. Few researchers had more than one paper in that collection. Ken had five, and three of his former students had two or more.

For more than two decades, Ken's research was focused on the development of high-level programming tools for parallel and distributed computer systems. As a result of his efforts, supercomputers became much more accessible to scientists and engineers. His contributions to the field were recognized by his peers when he was awarded the 1999 Lifetime Achievement Award from ACM SIGPLAN.

Ken authored more than 200 technical articles and wrote two books. He was a fellow of the ACM, the American Association for the Advancement of Science, the Institute of Electrical and Electronics Engineers (IEEE), and the American Academy of Arts and Sciences. In recognition of his achievements, he received the 1995 W. W. McDowell Award, the highest research award given by the IEEE Computer Society.

Mr. Kennedy is survived by his wife, Carol Quillen; his stepdaughter, Caitlin Lohrenz; his father, Brig. Gen. Kenneth Kennedy, Sr.; and a sister, Susan Kennedy.