



LEON K. KIRCHMAYER

1924–1995

Elected in 1979

“For contributions in the fields of electric power system control, economic simulation, and planning and dispatch.”

BY FREDERICK J. ELLERT
WITH CONTRIBUTIONS BY OLGA T. KIRCHMAYER

Leon K. Kirchmayer, a world renowned expert in power-system simulation, planning, operation, and control, died on November 12, 1995, at the Ellis Hospital in Schenectady, New York, at the age of 71. Prior to his retirement from the General Electric (GE) Company in 1984, Kirch (as he was known to his many friends around the world) was the manager of advanced system technology and planning in the Electric Utility Systems Engineering Department of GE. He and his wife, Olga, lived in Rexford, New York.

Born on July 24, 1924, Kirch was the eldest of three children born to Henry and Clara Kirchmayer in Milwaukee, Wisconsin. His father was a mechanic, and his grandparents were immigrants from Bavaria, Germany. Kirch and his wife, Olga, have two children. Their son, Kenneth, has a degree in industrial and management engineering and is employed as a manager at GE's jet engine plant in Ohio. Their daughter, Karen, has a bachelor's degree in accounting and an MBA, with an emphasis on management information systems.

Kirch and his wife were avid sailors, skiers, hikers, swimmers, and dancers throughout their married life until 1984, when Kirch had an attack of severe arrhythmia that left him comatose. He

and Olga then embarked on an intensive 12-year program that led to a remarkable recovery. Kirch responded to the arduous demands of rehabilitation with a strong, positive attitude, great determination, a sense of humor, cooperation, and a determination to meet the difficult challenges facing him.

Kirch graduated from Marquette University with a bachelor's degree in electrical engineering in 1945; he received the Engineering Professional Achievement Award from Marquette in 1991. He pursued graduate studies at the University of Wisconsin at Madison and received a master's degree in electrical engineering in 1947 and a doctorate in electrical engineering in 1950. He received a Distinguished Service Citation from the University of Wisconsin in 1972.

In 1948, he joined the Analytical Engineering Section of GE in Schenectady, New York, and for the next eight years he did pioneering work on the economical operation, planning, and control of large electric utility power systems. His work is still the basis for contemporary methods of operation. He also led the development of analytical methods of predicting power system responses and was instrumental in the development of techniques for calculating losses in large interconnected power systems. He published more than 20 technical papers dealing with these important matters.

In 1956, Kirch was promoted to the position of manager of investigations into power systems operation. In that position, he developed advanced mathematical and computer techniques for improving electric utility system operations. In 1958, he became the manager of the System Generation Analytical Engineering Operation, and, from 1963 to 1977, manager of the System Planning and Control Section. Over that 21-year period, he published 72 technical papers and two books dealing with the economical operation of power systems. In 1977, he became the manager of the Advanced System Technology and Planning Section, a position he held until he retired from GE. He published another five technical papers in the last phase of his career, bringing the total to more than 100, a truly astounding accomplishment. He also held four patents dealing with the computer control of power systems.

Kirch was elected to several honor societies, including Sigma Xi, Tau Beta Pi, Eta Kappa Nu, and Pi Mu Epsilon. In 1954 he received the Eta Kappa Nu Recognition for Outstanding Young Engineer Award. In 1966 he received the Engineer of the Year Award presented by the Schenectady Professional Engineering Society. Most important, he was elected to membership in the prestigious National Academy of Engineering in 1979.

Throughout his outstanding career, Kirch was actively involved in the work of many committees in various technical societies, including Institute of Electrical and Electronic Engineers (IEEE), American Society of Mechanical Engineers (ASME), National Society of Professional Engineers, Operations Research Society of America, and International Council on Large Electric Systems (CIGRE). He was also active in the formation of the IEEE Systems, Man, and Cybernetics Society. His many contributions to these organizations were recognized by his election to the grade of fellow of both IEEE and ASME, the IEEE and ASME Centennial Awards in 1984, and the prestigious IEEE Lamme Medal in 1988. The IEEE Leon K. Kirchmayer Award was established in 1997 in recognition of his many accomplishments. In 2003 it was replaced by the IEEE Leon K. Kirchmayer Graduate Teaching Award.

Kirch's work was also recognized internationally. He received the Bernard Price Memorial Award from the South African Institute of Electrical Engineers, was a guest speaker at the India Institute of Electrical Engineers in 1979, and was a member of the IEEE Power Engineering Society delegation to China in 1978.

Dr. Kirchmayer is survived by his wife, Olga Temoshok Kirchmayer, whom he married on December 2, 1950; a son, Kenneth L. Kirchmayer of Cincinnati, Ohio; a daughter, Karen C. Demuth of Dayton, Ohio; a sister, Carol Kirchmayer Destland of West Bend, Wisconsin; and five grandchildren.