

In Remembrance of Walter Burnside

P.H. Pathak, R.J. Burkholder, J.L. Volakis, and T.-H. Lee

Walter D. “Denny” Burnside passed away on 18 April 2022. He was born in Youngstown, Ohio, in 1942 and moved from Niles, Ohio, to Columbus, Ohio, to attend The Ohio State University (OSU). He graduated with combined B.S. and M.S. degrees in 1968 and a Ph.D. degree in 1972, all from the Department of Electrical and Computer Engineering (ECE). After his Ph.D., he continued to work at the OSU Electro-Science Lab (ESL) as a research scientist and later joined the OSU faculty as an associate professor of ECE, in 1980. He became a full professor in 1985, and in 1994, he became the director of the ESL. He served in an outstanding fashion in that capacity until his retirement from OSU, in 2002, and continued his association with the university as a professor emeritus. While at OSU, he won many awards from the university, ESL, IEEE and Antenna Measurement Techniques Association. He also won the Distinguished Public Service Award from NASA, which is the highest form of recognition for a nongovernment employee.

Prof. Burnside’s innovative thinking led to several world-class contributions. Among them was the development of electromagnetic tool sets, in the early 1980s, for predicting the radiation



Walter D. “Denny” Burnside.

patterns of antennas on aircraft, spacecraft, and other complex platforms. This research was based on the newly introduced high-frequency ray methods. These tool sets are widely used by NASA and government agencies as well as several aerospace companies. Also, Prof. Burnside was instrumental in the development of the well-known, state-of-the-art indoor compact range reflector and anechoic chamber designs. These measurement techniques have become world standards for accurate antenna and radar cross-section characterizations and for imaging applications. Prof. Burnside’s innovations did not stop after his retirement from OSU. In 2010, he founded NeWave Sensor Solutions, a radio-frequency identification (RFID)

innovation small business. While working at OSU, he created a novel RFID antenna, which he patented along with Prof. Robert Burkholder, that formed the basis of the start-up. The company was featured on the cover of *Retail CIO Outlook* in February 2019.

Prof. Burnside was regarded by OSU–ESL students, researchers, and colleagues as one of the most innovative and brilliant researchers/teachers. He has made a lasting impact on every one of his mentees and coworkers. He was known for always being available to answer students’ questions and for solving difficult or complex technical problems that he or his students encountered. He was a humble and kind person; he was always very friendly and ready to help. Heartfelt comments from a couple of Denny’s other very close colleagues at OSU–ESL attest to his truly superlative character. Prof. Inder “Jiti” Gupta said that “Denny freely shared his knowledge with me and everybody else at ESL, and in spite of being a technical giant, he was a very humble man.” Dr. Ronald Marhefka noted that “Denny always impressed me with his intelligence, focus on work excellence, ethics, and pleasant demeanor.” Prof. Burnside leaves behind a loving family, namely, his wife, Gloria Jean Burnside, and three children as well as five grandchildren. He will be missed by all who knew him.

