ORLANDO SECTION MEMBER CELEBRATES 65 YEARS OF ACTIVE IEEE PARTICIPATION

Back in April 1954, Dave Flinchbaugh attended an Institute of Radio Engineers Conference and Exposition at the New York City Coliseum, wearing his Air Force Cadet blue uniform and eager to try out the latest radio and TV technology. He, and a few close friends were very involved with broadcast radio at WRUC, the Union College radio station, which claimed to be the first licensed AM station licensed in the USA, shortly after the turn of the century, in about 1904. Dave was a classical music disk jockey during the evening “study hours”, and he became a Night Manager after passing the required FCC examinations. He decided right then at the Expo to join the IRE/IEEE. For a B.S. Thesis, he built a transmission electron microscope and correlated the shape and form of single-domain magnetic nanoparticles to magnetic field strength and coercive force.

In early September of 1960, while working at the United Technologies Research Labs, Dave conducted electro-optical measurements and wrote a U.S. Patent Application for a dual wavelength mid-infrared laser system. He developed and patented a number of laser modulation techniques utilizing ultrasonic waves to provide AM, FM, Phase Modulation, and electronically controlled beam deflection for creating large screen image displays, for which he popularized the term “acousto-optic” modulation.

Dr. Dave took the examinations to become a Registered Florida Professional Electrical Engineer in 1974. In 1980, while developing the world’s first all-electric clean, computer-interfaced, precision, nuclear service robot, the “ROSA” (anthropomorphic Remotely Operated Service Arm), for Westinghouse Electric Corp. plus Mitsubishi, Siemens and Toshiba, he was also accepted as a PE in Pennsylvania. Under his consulting contract provisions, he sold his intellectual property rights for $1, but this technology has earned more than $10-Billion for the conglomerate companies indicated above.

Over the most recent 20 years, Dr. Dave Flinchbaugh, P.E., EMT-1, has concentrated on developing FDA-Certified medical systems to enhance the quality of life of quadriplegics, MS patients, stroke and burn victims, and others who must wear an indwelling urinary catheter in order to stay alive. His work has proven to reduce the fatal CAUTi (infection) rate by 90.9%, thus saving lives of all ages from premature death, preventable suffering, and large medical expenses. His non-invasive, passive, inexpensive invention known as the UroCycler Automatic Bladder Management System has received many prestigious awards and is considered to a major urinary medicine breakthrough. He also received the George F McClure Citation of Honor from the IEEE-USA for his humanitarian engineering achievements.

Dave has been an active member of the Orlando Section IEEE for 51 years and filed the paperwork jointly with Dr. Bill Horton to establish a local Sonics & Ultrasonic Society, jointly with Jorge Medina to activate our Consultants Network, and he obtained the necessary signatures and filed to create the Life Member Affinity Group as well as the Women in Engineering Affinity Group Charters. He still serves as the Orlando Section IEEE representative to the Florida Engineering Society (FES) in Tallahassee, and as the liaison representative to the International Council on Systems Engineering (INCOSE, Orlando Section, since 2010). His mobile contact number is 407-255-0881. He is also our IEEE Region 3 representative to the IEEE-USA Intellectual Property Committee in Washington, DC.