1994 Distinguished Educator Award

Paul D. Coleman

The creation of this award was inspired by the untimely death of Professor F. J. Rosenbaum (1937–1992), an outstanding teacher of microwave science and a dedicated MTT-S Adcom member and contributor. This award is to be presented to a distinguished educator in the field of microwave engineering and science who exemplifies the special human qualities of the late Fred J. Rosenbaum, who considered teaching a high calling and demonstrated his dedication to MTT-S through tireless service.

The award consists of a plaque and an honorarium of $1,000. The awardee must be a distinguished educator, recognized, in general, by an academic career. It is desirable for the candidate to have received other teaching awards. The effectiveness of the educator should be supported by a list of graduates in the field of microwave science, who have become recognized in the field. Relevant letters of support are encouraged. The candidate shall also have an outstanding record of research contributions, documented in archival publications. The candidate shall have a record of many years of service to MTT-S.

The 1994 recipient is Dr. Paul D. Coleman, Professor Emeritus at the University of Illinois. Professor Coleman was a member of the first MTT-S Adcom, in 1953, together with colleagues Clavier, King, Mumford, and Southworth. He has produced more than 50 PhD students, many of whom are now leaders in the microwave community. Rather than printing a list and omitting someone, it is befitting to point out that one of them is the late Dr. Rosenbaum, who would certainly applaud our choice of Professor Coleman for the award.

One of his prominent students, who is now a well known professor as well, says: “His teaching style was unique. He has always believed in the apprenticeship for graduate training on the one-on-one basis so that a lasting impact is given to a young mind. This style has been carried over to many of his students who entered a teaching career.”

Paul D. Coleman (A’45, M’55, F’62, LF’84) received the B.A. degree under Paul J. Ovrebo in 1940 and an honorary Dr. Sc. degree in 1978 from Susquehanna University, the M.S. degree in physics under D. Rank in 1942 from Penn State University, and the Ph.D. in physics under J.C. Slater from MIT in 1951.

From 1942 to 1952 he was with the U.S. Air Force at Wright Field, Dayton, Ohio, and with the Cambridge Air Research Center where he was engaged in countermeasures, aircraft antenna, broad band impedance matching, and millimeter waves, for which he received a Meritorious Civilian Award from General T. Spatz. His Ph.D. thesis was on the generation of microwaves via megavolt electronics using a magnetic wiggler.

In 1951 he came to the University of Illinois as a professor of electrical engineering and established the Electro-Physics Laboratory. His research interests have been in megavolt electronics, electron beam interaction (i.e., Cerenkov radiators), harmonic generation, millimeter and sub millimeter wave techniques, quantum electronics, molecular and chemical lasers, non linear optics, far IR optical properties of materials, resonant tunneling, pyroelectric and MOM detectors, and Landau level semiconductor lasers.

Dr. Coleman is a Fellow of APS, OSA and a member of AAAS. He was on the founding committee of MTT in 1952, chairman of IEEE Quantum Electronics Council, Associated Editor of IEEE-JQE, member of the Hoover Medal Board of Award, and treasurer of IEEE DRC for over twenty years. He received the IEEE Centennial Medal in 1984. He has directed nearly fifty Ph.D. and seventy-five M.S. degrees in EE and physics and published one hundred fifteen papers in refereed journals. Dr. Coleman became an emeritus professor of ECE in 1988 but is still active in graduate research and on the golf course.

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