Distinguished Educator Award:

This award was inspired by the untimely death of Prof. F.J. Rosenbaum (1937–1992), an outstanding teacher of microwave science and a dedicated AdCom Member and contributor. The award recognizes a distinguished educator in the field of microwave engineering and science who best exemplifies the special human qualities of Fred Rosenbaum who considered teaching a high calling and demonstrated his dedication to the Society through tireless service. This year's recipients are **Peter Asbeck** and **Andreas Cangellaris.**

Peter Asbeck
"For outstanding contributions as a teacher, mentor, and role model for students in the microwave profession"

Peter Asbeck (M'75-SM'97-F'00) is the Skyworks Chair Professor in the Department of Electrical and Computer Engineering at the University of California, San Diego. He attended MIT, where he received the B.S. and Ph.D. degrees in 1969 and in 1975, from the Electrical Engineering Department. He worked at the Sarnoff Research Center, Princeton, New Jersey; at Philips Laboratory, Briarcliff Manor, New York; and at Rockwell International Science Center, Thousand Oaks, CA, where he was involved in the development of high-speed devices and circuits using III-V compounds and heterojunctions. In 1991, Dr. Asbeck joined the University of California at San Diego, where he pursues teaching and research, leading a group of 10-12 graduate students and post-docs investigating microwave characteristics and applications of high speed transistors.

Dr. Asbeck and his group have done pioneering work in the development of heterojunction bipolar transistors based on GaAlAs/GaAs, GaInP/GaAs, and InAlAs/InGaAs/InP materials, and have investigated the physics, fabrication and applications of these devices. They have contributed to the development of GaN HFETs, including exploration of the role of polarization effects in the nitrides. Another focus of their research has been microwave power amplifiers and techniques to improve PA efficiency, linearity and bandwidth. They have published extensively on Doherty amplifiers, envelope tracking power amplifiers, switching-mode amplifiers and digital predistortion techniques for handset and base-station applications, and more recently, on mm-wave amplifiers. Research by Asbeck and his group has led to more than 400 publications and 17 patents.

The more than 40 Ph.D. and M.S. graduates of his group have gone on to positions in industry and academia in the U.S., Japan, Korea, China, Taiwan and Thailand, and are continuing to contribute extensively to the microwave community.

Dr. Asbeck is a Fellow of the IEEE and a member of the National Academy of Engineering. He has served as Distinguished Lecturer of the Microwave Theory and Techniques Society and of the IEEE Electron Device Society, and as a member of the Defense Science Research Council. He was the founding chairman of the IEEE Topical Workshop on Power Amplifiers for Wireless Communications (now Power Amplifier Symposium), and has been active on technical program committees of IMS, RFIC, CSIC, IEDM, DRC and other conferences. He received the 2003 IEEE Sarnoff award for his work on heterojunction bipolar transistors.