



**IEEE Electron Devices Society**

*Awards*

*to be*

*presented at the*

*2010 IEEE International  
Electron Devices Meeting*

**San Francisco, CA ◆ 6 December 2010**





## **EDUCATION AWARD**

The EDS Education Award was established in 2006 by the IEEE Electron Devices Society.

The Award is presented annually and is intended to recognize distinguished contributions to education within the fields of interest of the IEEE Electron Devices Society.

## **PREVIOUS AWARD WINNERS**

2006	Mark S. Lundstrom
2007	Meyya Meyyappan
2008	Robert W. Dutton
2009	David L. Pulfrey





# 2010 EDUCATION AWARD RECIPIENT

## SORAB K. GHANDHI

*“For pioneering contributions to semiconductor and microelectronics education”*



**SORAB (SOLI) GHANDHI**, Professor Emeritus at Rensselaer Polytechnic Institute (RPI), received his BS from Benares Hindu University in 1947, and his MS and Ph.D from the University of Illinois in 1948 and 1951 respectively. After graduation, he joined the Electronics Laboratory of the General Electric Company (GE) to work in the new field of transistors.

His first teaching experience involved participation in a company-wide course on transistors. This convinced him that the acquisition of new knowledge made sense, only if it could be passed on for the benefit of others. Richard Shea, his group leader, firmly supported this concept, and they ended up writing *Principles of Transistor Circuits* in 1953, with Shea as the editor. This was followed by *Transistor Circuit Engineering* in 1957.

Soli joined RPI in 1963 as a Professor of Electrophysics. Here, he introduced microelectronics into the graduate curriculum and wrote *The Theory and Practice of Microelectronics* in 1968, followed by *Semiconductor Power Devices* in 1977. His final two books were *VLSI Fabrication Principles: Silicon and Gallium Arsenide* in 1983, followed by a completely revised edition in 1994.

In 1970, Soli started the world's first university program on the Organometallic Epitaxy of compound semiconductors, and conducted research in the growth and characterization of III-V and II-VI materials and devices. This work resulting in over 180 papers with his students.

Soli's aim at RPI has been to help students acquire knowledge in all aspects of semiconductors. This includes research, which is the quintessential one-on-one form of education. He is most proud of the fact that he was awarded the Distinguished Teaching Award by his students at RPI in 1975. His "secret of success" is simple. First, you must love your subject, and be enthusiastic about it. Next, you must know the material cold. Finally, you should impart both your knowledge, as well as your enthusiasm, to the students.

Soli considers the reviewing of papers, and the editing of professional journals and special issues, to be an essential means of furthering the goals of engineering education. To this end, he served as an Editor of the *Solid State Electronics Journal* for a number of years.

He shares a love for Western classical music and Mesoamerican archeology with his wife Cecille. And finally, he would like to thank her and his children, Khushro, Rustom and Behram, for their support, and his students and colleagues for their forbearance.

