



2012 BOARD OF DIRECTORS ELECTION NAE NOMINEE



Dr. Ben G. Streetman

**Dean Emeritus of the Cockrell School of
Engineering**

**Dula D. Cockrell Centennial Chair Emeritus
in Engineering**

The University of Texas at Austin

Dr. Ben G. Streetman is Dean Emeritus of the Cockrell School of Engineering at The University of Texas at Austin and holds the Dula D. Cockrell Centennial Chair in Engineering, Emeritus. He was a Professor of Electrical and Computer Engineering (1982-2010) and was the founding Director of the Microelectronics Research Center (1984-96) before being appointed Dean (1996-2008). His teaching and research interests center on semiconductor materials and devices. After receiving his Ph.D. from The University of Texas at Austin (1966), he was on the faculty (1966-1982) of the University of Illinois at Urbana-Champaign. He returned to The University of Texas at Austin in 1982.

In 1989 Dr. Streetman received the Education Medal of the Institute of Electrical and Electronics Engineers (IEEE). In 1987 he was elected to membership in the National Academy of Engineering and in the same year received the AT&T Foundation Award of the American Society for Engineering Education (ASEE). In 1981 he received the Frederick Emmons Terman Medal of the ASEE, and in 1996 received the Heinrich Welker medal at the International Conference on Compound Semiconductors. In 1980 he was elected Fellow of the IEEE, and in 1990 was chosen as one of the twelve first Fellows of the Electrochemical Society. In 2001 he was elected Fellow of the American Academy of Arts and Sciences.

Dr. Streetman is a Distinguished Graduate of the UT College of Engineering and Distinguished Alumnus of UT Austin. He has served on the NAS/NAE/IOM Government-University-Industry Research Roundtable Council (GUIRR), the Science and Technology Advisory Council for ALCOA, the Research Advisory Committee for United Technologies and on several other panels and committees in industry and government. He was a member of the Board of Directors for National Instruments, Zixit and Global Marine. He is the author of the book Solid State Electronic Devices (Prentice Hall, 1972, 1980, 1990, 1995, 2000, 2005), which has been translated into Japanese,

Korean, Chinese and Polish. He has published more than 280 articles in the technical literature. Thirty-four students of Electrical Engineering, Materials Science and Physics have received their Ph.D.'s under his direction.

Education:

The University of Texas	Ph.D.	Electrical Engineering	1966
The University of Texas	M.S.	Electrical Engineering	1963
The University of Texas	B.S.	Electrical Engineering	1961

Academic and Research Positions:

The University of Texas	Professor	1982-2010
University of Illinois	Professor	1974-1982
University of Illinois	Associate Professor	1970-1974
University of Illinois	Assistant Professor	1966-1970
Oak Ridge National Laboratory	Graduate Fellow	1964-1966

Technical Specialties:

Semiconductor materials and devices
Molecular Beam Epitaxy; Multilayer heterojunctions in III-V compounds
Radiation damage and ion implantation in semiconductors
Deep-level impurities and defects; Luminescence

Honors and Awards

National and International Awards:

IEEE Aldert van der Ziel award presented at the International Semiconductor Device Research Symposium (ISDRS) (2005)

Citation: "For his outstanding career achievements in the solid state device technical area, and his contributions to education through his widely used textbook."

Fellow, American Academy of Arts and Sciences (2001)

Citation: "For major contributions to semiconductor materials and devices, including ion implantation and heterostructures grown by molecular beam epitaxy."

Third Millennium Medal, IEEE (2000)

Citation: "In recognition and appreciation of valued services and outstanding contributions."

Heinrich Welker Medal, awarded at the 1996 ISCS in St. Petersburg, Russia

Citation: "For seminal contribution to the development of ion implantation techniques for both device fabrication and the study of the properties of nitrogen in ternary alloys, and for pioneering work on microcavity emitters and detectors."

Fellow, Electrochemical Society (1990), one of 12 honored in the first year of the program

Citation: "For pioneering research on semiconductor materials and devices; for development of implantation, encapsulation, and annealing techniques widely used in compound

semiconductor device fabrication; for advancements in multilayer heterostructures and for outstanding contributions to education."

Education Medal, IEEE (1989)

Citation: "For leadership in engineering education at the undergraduate and graduate levels, for the contribution of a textbook used worldwide and for creative research in solid-state electronics."

Member, National Academy of Engineering (1987)

Citation: "For outstanding contributions to ion implantation of semiconductors and to engineering education through teaching and authorship of a widely used basic text."

AT&T Foundation Award, ASEE (1987)

Citation: "For outstanding contributions to engineering education by creating innovative teaching materials and laboratories for undergraduates and graduate students, writing a basic undergraduate textbook which is used worldwide, developing interdisciplinary research programs, finding new approaches to solid state materials and devices and guiding a large number of doctoral students to successful research careers."

Frederick Emmons Terman Award, ASEE (1981)

Citation: "In recognition of his outstanding contributions to electrical engineering education through teaching, course development, and guidance of graduate students; for his textbook, Solid State Electronic Devices, which has received world-wide acceptance in the electronics field; for his numerous research papers published annually; for his contributions to the understanding of ion implantation and radiation damage of compound semiconductors and for his strong interaction with industry on research and engineering problems."

Fellow, IEEE (1980)

Citation: "For contributions to the understanding of ion implantation and radiation damage in compound semiconductors."

Local Awards:

Distinguished Alumnus Award, UT Austin (1998)

Dads' Association Centennial Teaching Fellowship (1996-97)

General Dynamics Award for Excellence in Engineering Teaching (1991)

Distinguished Graduate, UT Austin College of Engineering (1990)

Distinguished Citizens Award, Capital Area Council, Boy Scouts of America (1989)

shared with: William Goetzmann, Barbara Jordan, George Kozmetsky,
Rolando Hinojsa-Smith and Steven Weinberg.

Engineering Foundation Faculty Award, UT Austin (1987)