Peter Barnes
Electrical Engineer/Professor

Inducted: 2004
Years at GCI & VS:
1953 - 1957

Peter Barnes was born in the UK and immigrated to Canada with his parents in 1951. In 1952 the Barnes family moved from Hamilton to Galt. Peter attended GCI&VS and he graduated at the top of his class in 1957. While at high school he played on the basketball team and was active in the cadet corps attending camps at Ipperwash and Banff, Alberta.

He entered the University of Waterloo in 1958 graduating in 1963 with a degree in Engineering Physics with an emphasis in Electrical Engineering. His professors at Waterloo convinced him to pursue a M.Sc. in physics and Peter was persuaded by his thesis advisor to enroll in the new PhD program at Simon Fraser University.

Master of Science

After completing his studies in 1969, Peter was employed by Bell Telephone Laboratories in Murray Hill, New Jersey, the research facility of AT&T. In 1978 he was promoted to supervisor of a group of scientists who developed the semiconductor lasers which were used in the first all optical transatlantic telephone link.

In 1984 Peter left Bell Laboratories to become the Professor of Physics at Auburn University, in Auburn, Alabama. This endowed chair was established to create a nationally recognized program in electronic materials with strong coupling to the Electrical Engineering Department so that fundamental research in materials and their properties could be incorporated into new devices. Dr. Barnes established a $2,000,000 laboratory staffed with many graduate students and post doctoral fellows.

In 1984, Dr. Barnes was a Visiting Scientist at Kratos Analytical in Manchester, England where he acted as a resident consultant in the design of surface analytical equipment capable of analyzing the top few atomic layers of materials. In 1993 he was a Distinguished Visiting Scientist, at Sandia National Laboratories, in Albuquerque, New Mexico where he worked on the electrical transport properties across the metal-semiconductor interface for applications of high speed devices.

Although intending to end his career at Auburn, colleagues at Clemson University convinced Dr. Barnes to move to Clemson as the new Department Head in 2001. Recognizing that American students lack international experience, one of his first tasks was to establish a study abroad program in Italy where Clemson University Undergraduate Physics Majors will interact with scientist's from all over Europe at the largest synchrotron in Europe in Trieste, Italy.

Tree-est

Dr. Barnes is considered an expert in the growth and characterization of single crystal semiconductor materials and electrical transport at the metal semiconductor interface. He has presented many invited talks and workshops in the USA, Germany, Italy and the UK. He has become highly regarded internationally in his field.