Throughout its history, Columbia Electrical Engineering (EE) has been at the forefront of the creation of technology and our modern technological world. The department’s story is tightly interwoven with that of the New York City area, long a center for innovations in electrical science, telecommunications, and computing. Early contributions of the department and its faculty include key developments in radio, circuits, and signal processing. Today the department continues to grow and innovate in a broad variety of technologies.

The faculty help guide interdisciplinary research with many others across the university. Among the many current topics of research are novel devices, biological interfaces, mixed-signal circuits, advanced audio and video signal processing, and computer networking.

1889 Columbia’s civil engineering school (the School of Mines) is reorganized, with the establishment of an electrical engineering department under Prof. Charles M. Schwab.

1906 Prof. Thomas Hidden Searle succeeds Schwab as head of the electrical department.

1913 Prof. Edwin Howard Armstrong '13 joins the faculty and pursues a patent for the superhet.

1917 Prof. G. L. Brown leaves to work for General Electric.

1919 Prof. Howard H. Odum introduces a four-student Advisory Committee in electrical engineering.

1929 Prof. Charles Michels becomes the first student to receive a BS degree in Electrical Engineering.

1943 During World War II, the faculty and students support the war effort.

1949 Prof. A. Zelinsky receives a PhD in engineering and becomes the first student to receive a PhD in EE.

1952 John R. Ragazzini and Lotfi A. Zadeh publish the first paper on the z-transform method converting time domain signals into complex frequency domain representations.

1953 Prof. A. Michael Slocum receives a PhD in electrical engineering and becomes the first student to receive a PhD in EE.

1957 John R. Ragazzini and Lotfi A. Zadeh publish the first paper on the z-transform method converting time domain signals into complex frequency domain representations.

1964 Robert Bashir ’63 demonstrates a technology with applications in signal processing, and computer networking.

1976 Prof. Thomas C. Look develops a new course on the fundamentals of any aspect of electronic circuits and systems for a class of 40 students.

1984 Edmond M. Ates is named the first computer engineering professor.

1990 Batchelor Professor Dimitris Anastassiou leads a Columbia team that establishes a new field: communications theory.

2002 In 2002, and, in 2011, Batchelor Professor and Department Chair Prof. Christine Kocurek heads a Center on the Internet of Things, wins the Vodafone Americas Foundation Wireless Innovation Award and the IEEE Communications Society’s Communications and Information Theory Society’s (CISS) Technical Achievement Award.

2007 Prof. Vahid Tarokh is appointed the first Chair of Computer Engineering.

2009 The Department partners with the Department of Computer Science to create an undergraduate program in Computer Engineering.

2012 Prof. Sevag Gharibian wins the Atlantic City Beach Technologies Award, in the category of Computer Engineering.

1882 Shortly after establishing his company's first telegraph station in New York City, Edison receives a telegraphic message from President Ulysses S. Grant.

1905 Prof. Edwin Howard Armstrong '13 invents the superheterodyne radio receiver.

1917 As the U.S. enters World War I, Michael I. Pupin 1883CC teaches in wireless communications in the New York City area, long a center for innovations in electrical science, telecommunications, and computer networking.

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For more information about the department, see: ee.columbia.edu