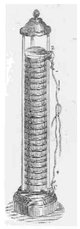
IEEE

Celebrating 125 Years
of Engineering the Future

1799

Volta's Electrical Battery Invention

Alessandro Volta develops first electrical battery, the Voltaic Cell. It consisted of two plates of different metals immersed in a chemical solution. Volta's development of the first continuous and reproducible source of electrical current was an important step in the study of electromagnetism and in the development of electrical equipment.



1838

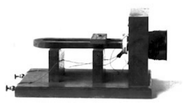
Demonstration of Practical Telegraphy

Samuel Morse and Alfred Vail first demonstrated publicly crucial elements of their telegraph system, using instruments that Vail had constructed during the previous months. Electrical pulses, transmitted through two miles of wire, caused an electromagnet to ink dots and dashes (grouped to represent letters and words) on a strip of paper.

1876

First Intelligible Voice Transmission over Electric Wire

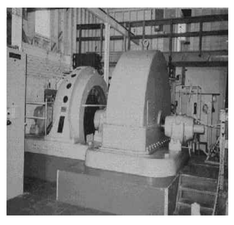
Alexander Graham Bell called out to his assistant Thomas Watson, "Mr. Watson, come here! I want to see you."



1893

Mill Creek No. 1 Hydroelectric Plant

The Mill Creek hydroelectric generating plant began operating on 7 September 1893. This powerhouse was foremost in the use of three-phase alternating current power for commercial application and was influential in the widespread adoption of three-phase power throughout the United States.



1895

Marconi's Early Wireless Experiments

Guglielmo Marconi carried out some of the first wireless experiments. He first transmitted a signal over a few meters and later, following one and a half months of careful adjustments, over a distance of up to one and a half kilometers. This was the beginning of Marconi's pivotal involvement in wireless radio.

1901

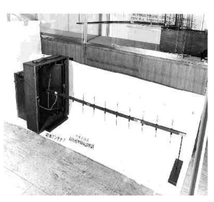
Transmission of Transatlantic Radio Signals

A radio transmission of the Morse code letter 'S' was broadcast using equipment built by John Ambrose Fleming. At Signal Hill in Newfoundland, Guglielmo Marconi, using a wire antenna kept aloft by a kite, confirmed the reception of these first transatlantic radio signals. These experiments showed that radio signals could propagate far beyond the horizon, giving radio a new global dimension for communications in the twentieth century.

1924

Directive Short Wave Antenna

Professor Hidetsugu Yagi and his assistant, Shintaro Uda, designed and constructed a sensitive and highly-directional antenna using closely-coupled parasitic elements. The antenna, which is effective in the higher-frequency ranges, has been important for radar, television, and amateur radio.



1940

MIT Radiation Laboratory

The MIT Radiation Laboratory, operated on this site between 1940 and 1945, advanced the allied war effort by making fundamental contributions to the design and deployment of microwave radar systems. The laboratory's 3900 employees made lasting contributions to microwave theory and technology, operational radar, systems engineering, long-range navigation, and control equipment.

1945

1951

Manufacture of Transistors

The commercial manufacture of transistors began here in October 1951. Smaller, more efficient, and more reliable than the vacuum tubes they replaced, transistors revolutionized the electronics industry.

1973

Pioneering Work on Electronic Calculators

A Sharp Corporation project team designed and produced several families of electronic calculators. The integration of CMOS-LSI and LCD devices onto a single glass substrate yielded battery-powered calculators. These achievements made possible the widespread personal use of hand-held calculators.

1997

Development of 802.11 Standard

A network access technology for providing connectivity between wireless stations and wired networking infrastructures.

2008

Montgomery College IEEE Chapter

The mission of the IEEE MC Student Chapter is to provide a gateway for prospective engineers at Montgomery College to become part of an international engineering community as well as gain invaluable knowledge and experience.

Innovation

Teamwork

Creativity

Leadership

Montgomery College
endless possibilities

Source: IEEE Global History Network