

Russell Harrison Varian

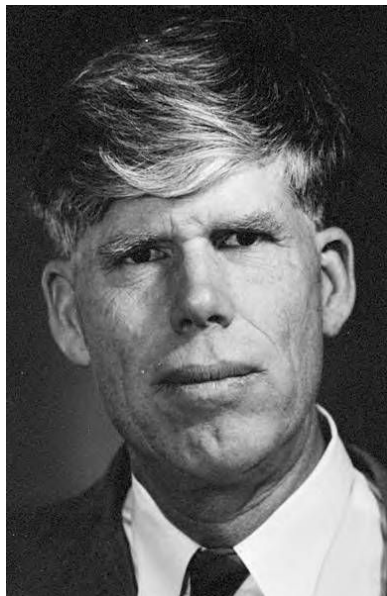
(1898–1959)

Category: Technology

Criteria: groundbreaker

SMC Connection: Worked in San Carlos

Text: Russell H. Varian was son of Irish parents that immigrated to the United States in 1894. He was born in Washington, D.C., and moved with his family to California in 1914. Varian got a master's degree in physics from Stanford in 1927 and pursued a career in electronics. During the late 1930s Russell formed a partnership with his brother Sigurd Fergus Varian and a fellow physicist William W. Hansen to develop a klystron, an invention that would have many important applications in fields such as communications, medical and scientific research. In 1948, the brothers with some other talented Stanford University researchers formed Varian Associates, headquartered in San Carlos, California.



Innovator image: Russell Varian, ca 1950's, Palo Alto Historical Association photograph collection

Date on timeline: 1948

Sigurd Fergus Varian

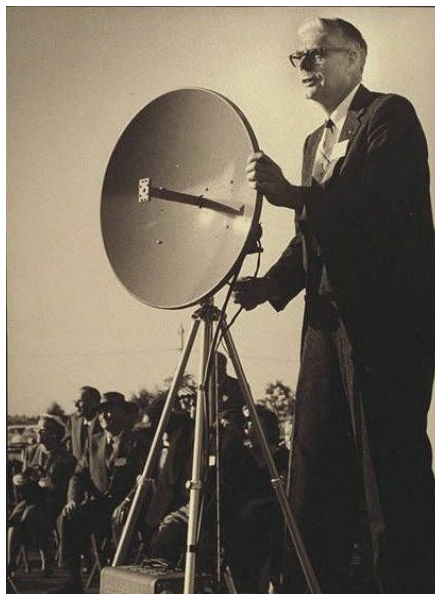
(1901-1961)

Category: Technology

Criteria: groundbreaker

SMC Connection: Worked in San Carlos

Text: Son of Irish immigrants, Sigurd F. Varian was born in Syracuse, New York. He was a self-taught engineer and took many jobs in the field until the early 1920s when he became a professional pilot, eventually joining Pan American World Airways. From 1935 to 1939, Sigurd worked at Stanford with his brother Russell Harrison Varian alongside the physicist William W. Hansen to develop a technology, a klystron electronic tube, that would improve air navigation, communications and scientific research. In 1948, the brothers and a few fellow Stanford University researchers founded the company Varian Associates in San Carlos, California.



Innovator image: Sigurd Varian opening a new Varian building, Palo Alto Historical Association photograph collection

Date on timeline: 1948

VARIAN

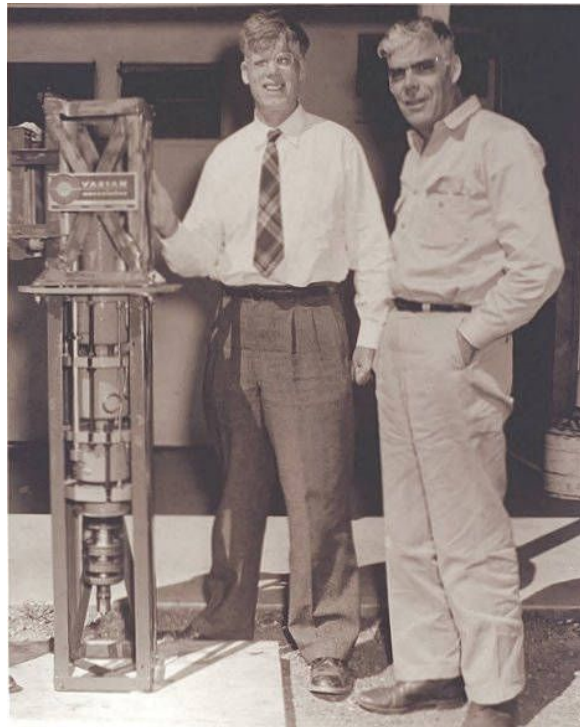
(1934-Present)

Category: Technology

Criteria: groundbreaker

SMC Connection: Located in San Carlos

Text: When the brothers Russell and Sigurd Varian got together with Stanford faculty members in the late 1930s, they were looking to develop a radio-based technology that could efficiently detect airplanes and warn of possible bombing raids during the World War II. After years of research, the brothers together with William W. Hansen invented the Klystron tube. Klystron is an electronic vacuum tube used to amplify or generate microwaves in communications, radars, medical X-ray machines and, nowadays, scientific research applications such as particle accelerators.



Innovator image: Russell and Sigurd Varian with the Klystron tube, Palo Alto Historical Association photograph collection

Date on timeline: 1948

VARIAN

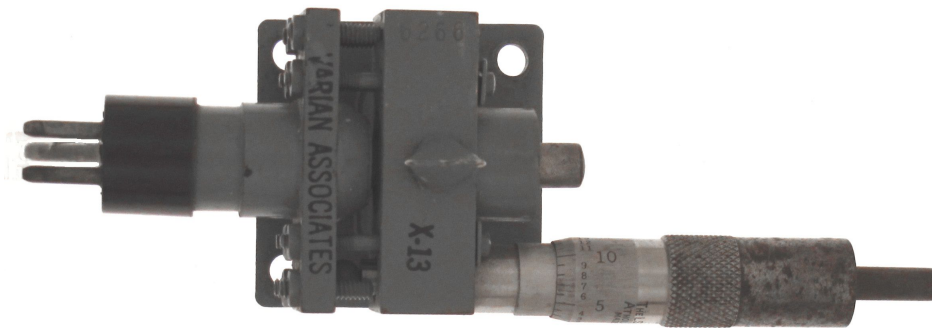
(1934-Present)

Category: Technology

Criteria: groundbreaker

SMC Connection: Located in San Carlos

Text: On April 20, 1948, the Varian brothers founded Varian Associates. By that time, they had six employees. The company was founded with the main purpose to manufacture and commercialize Klystron tubes and their first commercial model, the X-13, came out the following year. During its first years of operation in San Carlos, Varian Associates also developed other technologies that contributed to the field of magnetic resonance used in today's medical industries.



Innovator image: X-13 Klystron tube, n6jv.com collector's website

Date on timeline: 1948

VARIAN

(1934-Present)

Category: Technology

Criteria: groundbreaker

SMC Connection: Located in San Carlos

Text: In 1953, Varian Associates established its headquarters in Palo Alto at Stanford Industrial Park, a location that was the birthplace of many important tech-companies that later constituted what became known as the Silicon Valley. The company thrived in those years, and in 1965 they joined forces with EIMAC, a San Bruno company that had been manufacturing electric vacuum tubes for almost twenty years. With EIMAC as a new division of the company, Varian Associates doubled in size, and the sales increased significantly.



Innovator image: Aerial view of the first Varian building in Stanford Industrial Park, 1952, Palo Alto Historical Association photograph collection

Date on timeline: 1948

VARIAN

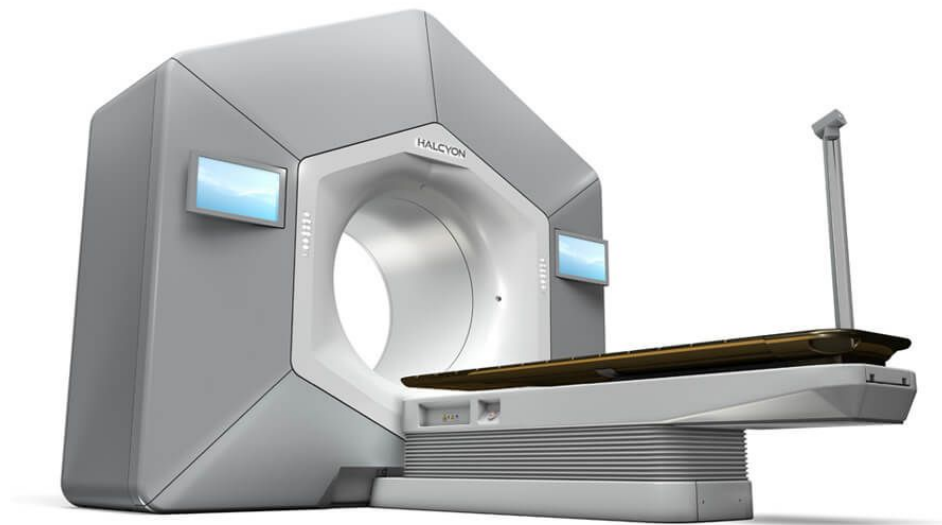
(1934-Present)

Category: Technology

Criteria: groundbreaker

SMC Connection: Located in San Carlos

Text: Varian Associates' line of technological products continued to grow and won many awards for its advances in technology. In 1999, the company changed its name to Varian Medical Systems and through the years contributed largely with medical research and care of patients by developing industrial machines that generate high-energy X-rays, CT scanning tubes, systems for radiotherapy and radiosurgery for cancer treatments and, more recently, a software that supports knowledge sharing among oncology professionals.



Innovator image: Varian Halcyon™ system for image-guided volumetric intensity modulated radiotherapy (IMRT), Varian website

Date on timeline: 1948

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Klystron

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