

Noyce, father of the computer, dies in Austin



Robert N. Noyce

Robert N. Noyce, 62, the co-inventor of the integrated circuit, died of a heart attack in his Austin, Tex. home Sunday morning.

A Grinnell College graduate and former trustee of the college, Noyce was often called the father of the computer revolution because of his role in the

ground-breaking invention in the 1950s.

Funeral arrangements are pending.

Reports said Noyce's death surprised those close to him, since he led an athletic life and had no history of heart difficulty. He was pronounced dead at 10 a.m. Sunday at Seton Medical Center in Austin.

He was one of the first winners of the Academy of Engineering's Charles Stark Draper Prize for engineering achievement earlier this year.

Working separately in the late 1950s, Noyce and Jack Kilby invented the semiconductor chip and virtually created the information age.

Born Dec. 12, 1927 in Burlington, Iowa, he spent his boyhood in Grinnell, where he graduated from Grinnell High School, the valedictorian of his class. Noyce was a Phi Beta Kappa grad of Grinnell College in 1949, majoring in physics and mathematics.

Noyce earned his Ph.D. in physics from the Massachusetts Institute of Technology in 1953.

His mentor, Professor Grant O. Gale, in 1948 was given one of the first transistors by its inventor, John Bardeen, a friend who did research at Bell Laboratories. Gale taught one of the first academic courses in solid state physics available anywhere to 18 Grinnell physics majors.

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Noyce

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including Noyce.

Noyce made the basic discoveries leading to the invention of the integrated circuit, the fundamental component that made the computer revolution possible. His design was the first to propose using silicon, which immediately set an industry standard. In fact, Noyce became a pioneer of northern California's Silicon Valley, still the heart of high technology.

Along with Gordon E. Moore, he founded Intel Corporation, the country's major computer chip manufacturer in 1968. In 1988, he was appointed chief executive officer of SEMATECH, a consortium of U.S. computer manufacturers. With an annual budget of more than \$200 million, the Austin-based SEMATECH is a joint government and private effort to keep U.S. computer design at the vanguard

of world technology.

Prior to founding Intel, he was a project engineer and group leader in physics at Philco Corporation in Philadelphia, director of research at the Schockley Transistor Corporation in Mountain View, Calif., and director of research and general manager of Fairchild Semiconductor in Mountain View.

Noyce was awarded the National Medal of Technology by President Reagan in 1987, and the National Medal of Science from President Carter in 1980. He was inducted into the National Inventors Hall of Fame in 1983, the same year he was cited by Esquire Magazine as one of "50 Americans who made a difference in the last 50 years." He was elected to the U.S. Business Hall of Fame last year.

Noyce held numerous patents, including the basic patent relating to metal interconnect schemes, the key contribution to integrated circuit technology.

A member of the Grinnell

College board of trustees since 1962, Noyce served as chairman from 1966 to 1970. He had donated millions to the college, said President George Drake.

He was a member of the University of California's board of regents.

Noyce is survived by his wife, Ann Bowers; four children; and 12 grandchildren.

Memorial Contributions may be made to the American Institute of Learning, an Austin organization that promotes public education, said a spokesman for the family.

Donaldson Co. tells increase on dividends

Directors of Donaldson Company, Inc. announced a 16 percent increase in the company's regular cash dividend.

The quarterly dividend, pay-

Memorial set for Noyce

H-R August 18 1990
A memorial service set for 4:15 p.m. Tuesday, Sept. 4, will honor Robert N. Noyce a 1949 Grinnell College graduate and co-inventor of the integrated circuit.

Noyce died of a heart attack June 3 at his home in Austin, Texas. He was 62.

The memorial will be held in Merrick Chapel on the college campus, and it is open to the public.

Speakers at the service will include George Drake, president of the college; Carolyn Bucksbaum, a trustee; Grant O. Gale, professor emeritus of physics and Noyce's mentor; and Stanley R. Barber, who graduated with Noyce in 1949.

Grinnell College Executive Vice President Waldo Walker and Faculty Dean Charles Duke also will offer remembrances.

Music will be by college organist Marys Boote and the Grinnell Singers, under the direction of Tom Stunt-Remmerim.