City of Desert Park Department of Public Safety

Block Parties Scheduled

Seasonal Fire Danger

Exercise 16

CHILD HEALTH FAIR SCHEDULED



The 5th annual Desert Park Children's Health Fair entitled Take Time to Feel Fine! will be held on Saturday, August 15 from 10 a.m. - 5 p.m. at Meadow Park Center.

The Fair will focus on the health and safety of the whole child, from dental care to immunization to the importance of play time. Over 40 children's activity booths will be sponsored by local child care centers and medical professionals, as well as organizations such as the Tooth Mobile, the Desert Park Police Department, and the county Health Department.

The Fair will also feature three inflatable fun jumpers, a gymnastics demonstration, free tooth brushes, coloring books, and bicycle helmets.

The Fair is part of the Desert Park Month of the Child celebration, which strives to raise awareness of the needs of children. The Fair is an annual tradition that gives families time to learn and play together without spending money.



Desert Park Community College is pleased to announce this year's Desert Park Summer Youth Resource Guide. It is full of information about summertime programs for children, youths, and families. It is published by the Desert Park Human Services Division. Activity categories include Creative Arts, Camping, Services for Kids with Special Needs, Support Services for Families, Desert Wilderness Appreciation, Rocks and Flowers, and Fun Stuff to Learn in Desert Park

Claude Shannon

Claude Elwood Shannon (April 30, 1916 – February 24, 2001), an <u>American electronic engineer</u> and <u>mathematician</u>, is known as "the father of <u>information theory</u>".

Shannon is famous for having founded information theory with one landmark paper published in 1948. But he is also

credited with founding both digital computer and digital circuit design theory in 1937, when, as a 21-year-old master's student at MIT, he wrote a thesis demonstrating that electrical application of Boolean algebra could construct and resolve any logical, numerical relationship. It has been claimed that this was the most important master's thesis of all time.

Shannon was born in Petoskey, Michigan. His father, Claude Sr (1862–1934), a descendant of early New Jersey settlers. was а businessman and for a while, Judge of Probate. His mother, Mabel Wolf Shannon (1890–1945), daughter of German immigrants, was a language teacher and for a number of years principal of Gaylord High School, Michigan. The first sixteen years of Shannon's life were spent in Gaylord, Michigan, where he attended public school, graduating from Gaylord High School in 1932. Shannon showed an inclination towards mechanical things. His best subjects were science and mathematics, and home at he constructed such devices as models of planes, a radio-controlled model boat



and a telegraph system to a friend's house half a mile away. While growing up, he worked as a messenger for <u>Western Union</u>. His childhood hero was <u>Thomas Edison</u>, who he later learned was a distant cousin. Both were descendants of <u>John Ogden</u>, a colonial leader and an ancestor of many distinguished people.

In 1932 he entered the <u>University of</u> Michigan, where he took a course that

> introduced him to the works of George Boole. He graduated in 1936 with two bachelor's degrees, one in electrical engineering and one in mathematics, then began graduate study at the Massachusetts Institute of Technology (MIT), where he worked on Vannevar differential Bush's analyzer, an analog computer.

While studying the complicated ad hoc circuits of the differential analyzer, Shannon saw that Boole's concepts could be used to great utility. A paper drawn from his 1937 master's thesis, A Symbolic Analysis of Relay and Switching Circuits, was published in the 1938 issue of the Transactions of the American Institute of Electrical Engineers. It also earned Shannon the Alfred Noble American Institute of American Engineers Award in 1940. Howard Gardner. Harvard of University, called Shannon's thesis "possibly the most important, and also the most famous, master's thesis of the century."

<u>Victor Shestakov</u>, at Moscow State University, had proposed a theory of electric switches based on Boolean logic a little bit earlier than Shannon, in 1935, but the first publication of Shestakov's result took place in 1941, after the publication of Shannon's thesis.

In this work, Shannon proved that Boolean algebra and binary arithmetic could be used to simplify the arrangement of the electromechanical relays then used in telephone routing switches, then turned the concept upside down and also proved that it should be possible to use arrangements of relays to solve Boolean algebra problems. Exploiting this property of electrical switches to do logic is the basic concept that underlies all electronic digital computers. Shannon's became the foundation work of practical digital circuit design when it became widely known among the engineering electrical community during and after World War II. The theoretical rigor of Shannon's work completely replaced the *ad hoc* methods that had previously prevailed.

Flush with this success, Vannevar Bush suggested that Shannon work on his dissertation at <u>Cold Spring Harbor</u> <u>Laboratory</u>, funded by the Carnegie Institution headed by Bush, to develop similar mathematical relationships for <u>Mendelian genetics</u>, which resulted in Shannon's 1940 <u>PhD</u> thesis at MIT, <u>An</u> <u>Algebra for Theoretical Genetics</u>.

In 1940, Shannon became a National Research Fellow at the Institute for Advanced Study in Princeton, New Jersey. At Princeton, Shannon had the opportunity to discuss his ideas with influential scientists and mathematicians such as Hermann Weyl and John von Neumann, and even had the occasional encounter with worked Albert Einstein. Shannon freely across disciplines, and began to shape the ideas that would become information theory.¹