Charles Bachman (ME ’48) receives the National Medal of Technology and Innovation from President Obama

A graduate of the Michigan State University College of Engineering has received the National Medal of Technology and Innovation, one of the country’s highest honors for achievement and leadership in science and technology.

Charles W. Bachman, who earned a bachelor’s degree in mechanical engineering from MSU in 1948, received the medal from President Obama at a White House ceremony on Thursday, Nov. 20.

He was honored for his fundamental inventions in database management, software engineering and transaction processing for his work designing the first computer database.

“As a boy growing up in Michigan making soap box derby racers, I knew that all I wanted to do when I grew up was to build things,” Bachman said. “I wanted to be an engineer. And I wanted to make the world a better place.

“I hope that young people just starting out can look at an honor like this and see all of the new creative opportunities that lay before them today, and the differences they can make for their generation and for future generations,” Bachman added.

A native of Kansas and a World War II veteran, he spent his entire career as a practicing software engineer or manager in industry.

After graduating from MSU, he worked for Dow Chemical in Midland before moving to General Electric.

In 1983, he founded Bachman Information Systems, which developed a line of computer-aided software engineering products.

In 1996, Bachman’s company merged with Cadre Technology to form Cayenne Software. He served as president of the combined company for a year before retiring to Tucson, Ariz.

The National Medal of Technology and Innovation was created by statute in 1980 and is administered for the White House by the U.S. Department of Commerce’s Patent and Trademark Office. The award recognizes those who have made lasting contributions to America’s competitiveness and quality of life and helped strengthen the nation’s technological workforce.

Following the White House ceremony with President Obama, there was a gala celebrating the achievements and contributions to society by the pioneers in science and technology.

Read more on the 2014 medal recipients.

Charles W. Bachman

Charles W. Bachman was born in 1924, in Manhattan, Kansas, where his father—also named Charles W. Bachman—was head football coach at Kansas Agricultural College (now Kansas State). His mother, Grace Cary Bachman,
graduated from the University of Oklahoma before World War I. She returned to graduate school at Kansas State where she met and married the football coach. Coach Bachman (1892-1986) went on to be the head coach at The University of Florida in Gainesville and then on to Michigan State College, now Michigan State University. Coach Bachman was inducted into the College Football Hall of Fame in 1978. Young Charlie Bachman's interest in architecture began in East Lansing in 1937 when Alden B. Dow designed his parent's contemporary home. He went with his parents to Dow's design studio and was fascinated by the work.

Bachman began his undergraduate studies at Michigan State in 1943, then enlisted in the U.S. Army. He served in the Army Anti-Aircraft Artillery Corp 1943-1946, where he was first exposed to and used fire control computers for aiming US 90 mm guns. He was deployed March 1944 through February 1946 in New Guinea, Australia, and the Philippine Islands and his highest rank was Technical Sergeant. At the end of his World War II military service, he returned to complete his mechanical engineering program at Michigan State, where he was a member of the Phi Delta Theta fraternity. He graduated in 1948 with a bachelor's degree in Mechanical Engineering (Tau Beta Phi).

In 1949, Bachman married his college sweetheart, Connie Hadley. She was a graduate of Michigan State with a degree in art education. Her father, Thomas Erle Hadley, was also very committed to art and design. Hadley served as the head of the architectural department at the General Motors' Fisher Body Division, and during WWII, collaborated across the auto industry to work on the design of the Willow Run bomber factory in Detroit.

On their honeymoon, the couple drove to Spring Green, Wisc., to interview with Frank Lloyd Wright about joining the Taliesin Fellowship in Wisconsin. Instead, they chose to go to Philadelphia, where Bachman studied at the University of Pennsylvania. He graduated in 1950 with a master's degree in mechanical engineering from the Towne School. Because engineering courses were taught at night, he attended Wharton School of Business during the days and completed three quarters of the requirements for an MBA. His evolving engineering and computer science career led the couple to live in a variety of communities over the years, including: Philadelphia; Midland, Mich.; Stamford, Conn.; Paradise Valley, Ariz.; Lexington, Mass.; and Tucson. Bachman and his wife had four children, now adults. They are Chandini M. Bachman, Bethesda; Thomas H. Bachman, Phoenix; Sara Bachman Ducey, Bethesda; and Jonathan A. Bachman, Lexington, Mass. He also has five grandchildren and one great-granddaughter.

In a career spanning more than 50 years, Bachman has been an analyst, a developer, an architect, a standards leader, and entrepreneur in one of the fastest growing and competitive businesses in the world – computer software. He was employed in succession by Dow Chemical, General Electric, Honeywell Information Systems, and Cullinet.

In 1983 with his wife, Connie, and son, Jon, he launched his own business, Bachman Information Systems, Inc., which was subsequently listed on the NASDAQ. After he retired, he continued to consult and clients included the Cord Blood Registry System. The fundamental breakthrough work for which he received the National Medal of Technology and Innovation began in the GE Computer Department in New York City and Phoenix.

In addition to receiving the ACM Turing Award in 1973, Bachman is a Distinguished Fellow of the British Computer Society (BCS). U.S. Senator Edward J. Markey nominated Bachman for the National Medal of Technology and Innovation.

Today, Bachman lives in Lexington, Mass. He enjoys gardening and recently planted a memorial garden for his late wife, Connie (1927-2012). This is the seventh garden he has designed over the years; it is a spring garden full of daffodils, tree peonies, iris, poppies, rhododendrons and a yellow flowering magnolia tree.

He will celebrate his 90th birthday on Dec. 11.

Related Website: [Bachman biography by Editor Thomas Haigh](http://www.egr.msu.edu/news/2014/11/20/national-medal-me-grad)

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