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**Daktronics' Kurtenbach First industry rep to receive honorary doctorate from Regents**



CAPTION: Al Kurtenbach, co-founder of Daktronics, Inc., will be given an honorary doctorate for public service by the Board of Regents at South Dakota State University fall commencement Dec. 15.

BROOKINGS, S.D. — Daktronics co-founder Aelred J. “Al” Kurtenbach, a groundbreaker in industry, will join a club of one when he receives an honorary doctor of public service degree from the South Dakota Board of Regents at South Dakota State University’s winter commencement Dec. 15.

The regents have only awarded five other honorary doctorates of public service, and they all went to retiring university presidents, including Peggy Gordon Miller, who stepped down as SDSU president on Dec. 31, 2006.

Kurtenbach is being honored for his work in advancing scientific research on South Dakota campuses.

The one-time SDSU electrical engineering faculty member also will give the graduation address — “Knowledge, Workers and Tomorrow’s Economy.”

His passion in this area goes a long way in explaining why Kurtenbach is receiving the honorary doctorate. The regents selected Kurtenbach for his dedication to bringing federally funded research to South Dakota.

From its formation in 1986 until 2006, Kurtenbach, of Brookings, chaired Research Excellence: A Critical Hallmark (REACH).

REACH is a statewide steering committee for the National Science Foundation’s Experimental Program to Stimulate Competitive Research (EPSCoR). EPSCoR was created by the National Science Foundation to more broadly distribute the wealth of federal dollars going to research.

South Dakota’s first NSF EPSCoR project in 1987 had a total budget of \$1.8 million. By 2007, that amount reached \$10.4 million.

Changing minds

Much of that growth has come in the last five years as the state’s political climate and focus have changed.

Kurtenbach said, “People now are talking about research and the value of research. When I started with this 20 years ago the talk of doing research in South Dakota was ridiculed.”

Jim Rice, head of the Department of Chemistry and Biochemistry at SDSU and director of the South Dakota EPSCoR office since 2001, said, “Al understands that we’re going to have to provide different kinds of career opportunities if we’re going to retain students in South Dakota. That’s always been a goal of his.”

“Daktronics is rightly proud that many of its employees are South Dakota graduates. He practices what he preaches. If we want to have a knowledge-based, technology-based economy, we’re going to have to provide career opportunities for the people who graduate from our state’s universities.”

#### Advancing doctoral programs

Kurtenbach said, “In the past, people thought it was the natural resources that made a state wealthy. But really in the society we’re living in now, it is knowledgeable workers, what they carry between their ears and how they are able to enhance their skills, that make a state prosperous.

“We all start in South Dakota with our parents and schools doing a good job, but we didn’t have any program after people got their bachelor’s degree. There wasn’t much opportunity for them to do cutting-edge research after graduation.”

That has changed throughout South Dakota higher education, including at SDSU, which now has 11 doctoral programs.

Tad Perry, executive director of the regents, said, “Aelred Kurtenbach is prime example of someone who knows what education can do for a community and a state. He has been tireless in articulating the need for educating our students, in promoting the value of education and in the need to change South Dakota’s research culture.”

#### Growing a company

Research dollars provide some initial economic impact, but their greater affect is felt when research work leaves the lab and enters the production floor.

Kurtenbach was an associate professor in the SDSU Electrical Engineering Department in 1968, when he used his free time to work with fellow faculty member Duane Sander to develop biomedical instruments and electronic voting systems for state legislatures.

The success they found while working in a garage was enough for them to incorporate Daktronics on Dec. 9, 1968.

In 1969, their first year of production, six employees produced \$2,352 in sales. In 1970, the first electronic voting system was installed in the Utah Legislature. The introduction of the Matside® wrestling scoreboard in 1971 started Daktronics’ move toward becoming a world leader in the scoreboard industry.

Today, Daktronics employees 3,200 people with sales of \$433 million in Fiscal Year 2007 ending in April.

“Our business has grown because of breakthroughs in display technology and computer technology. I know some of the improvements in light-emitting diodes were discovered in the California universities,” which undoubtedly received federal research funds, Kurtenbach said.

#### Perseverance bears fruit

Rice notes that Kurtenbach has taken advantage of the prominence he has gained as a result of Daktronics to promote the goal of using science to advance economic development in South Dakota.

In his position as chairman of the REACH Committee, Kurtenbach helped EPSCoR develop partnerships with virtually every university in the state, create a larger, broader scientific community in South Dakota, and engage state government and the private sector in the effort.

Kurtenbach noted it took three tries in the mid-1980s before South Dakota EPSCoR gained federal funds.

“In 1987, after significant discussion and team building, South Dakota developed a true statewide approach that was acceptable to the National Science Foundation and was funded. This initiated a great period for South Dakota, which continues to bear fruit.

“The goal (of the REACH Committee) was to increase the quality of the scientific research that could be done in South Dakota and focus on sustainability. We have reached out to undergraduate students from all the schools in the state and to some researchers.

“SDSU, USD and South Dakota School of Mines and Technology are the primary research campuses in the state. We wanted to achieve greater cooperation between researchers on those campuses and get the depth in the areas of research,” Kurtenbach said.

The current \$10.4 million EPSCoR Research Infrastructure Improvement award is evidence of the success of that approach.

Kurtenbach’s qualities

What has made Kurtenbach successful?

According to Rice, “It’s vision. It’s passion. Al is charismatic. He’s articulate. He’s not afraid to be a spokesman and a leader. You have to have all of that. Bottom line, he’s a very talented individual.”

Perry adds, Kurtenbach “has given the state his dedication to his beliefs and his leadership talent in advancing the competitiveness of our universities... Dr. Kurtenbach is a very special friend to education.”

Hence his honorary doctorate, which Kurtenbach calls “a perfect honor for me.”

It’s certainly not the only honor for Kurtenbach. He was named Entrepreneur of the Year in 2000 for manufacturing in a national contest sponsored by Ernest & Young, was tabbed for the South Dakota Hall of Fame in 1992, chosen by the College of Engineering as a Distinguished Engineer in 1990, and received the Alumni Association’s non-alumnus award for service to South Dakota in 1986.

Kurtenbach also served as co-dean for the College of Engineering from January 2000 to July 2001.

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