HEAD LINES
By Howard P. Johnson

ABET Reflections

Recently, the Des Moines Register and the Ames Tribune published articles about the accreditation of engineering programs at Iowa State. Selected parts of the reports from the Accreditation Board for Engineering and Technology (ABET) were released by the Board of Regents. It was not encouraging. Some of you have called or written to express your surprise. About half of the programs at ISU were given three-year accreditation instead of the usual six years. This is the first time that this has happened at Iowa State.

Other AE departments across the country have experienced similar reviews. In 1978, about 70% of AE departments received six-year accreditation; in 1982-83, about 30%.

Why did we receive the shorter term of accreditation? You no doubt have read about the capital, equipment, and faculty needs in your engineering journals and newspapers. These needs have affected engineering programs for many years but have become more serious in recent years. Also, in my opinion, programs are under more severe scrutiny by ABET.

The Agricultural Engineering program at ISU has been critiqued in prior reviews for inadequate facilities. Other items mentioned were lack of modern equipment, low faculty salaries, the inbreeding of faculty, and inappropriate social sciences and humanities courses. Facilities and equipment certainly deserve attention. Faculty salaries are about midpoint for all U.S. AE departments; we have moved down some. I'm sensitive to the "inbreeding of faculty" comment, because the single criterion used is where the faculty member received the Ph.D. No consideration is given to industry experience, other schools attended, faculty improvement leaves, and short-term overseas experience. We have hired the best people who apply, as interpreted by departmental committees, faculty, and deans. The social science-humanities questions, related to the nature of the courses (some music or English courses are not approved), have been answered by stringent selection of approved courses.

We were complimented on our computer-aided design courses. Young faculty are taking the lead in computer use, and older faculty are "retreading."

Next year I will prepare an accreditation report again. Some criticisms will be met; others related to facilities and major equipment await support from the legislature and friends of Iowa State.

Remodeling Davidson Hall

Capital improvements in the University are supported in the legislature by two routes—the Governor's budget (routed through the Regents) and the expressed interest of Iowans (and others) to their legislators. Remodeling projects as well as new buildings have been included in capital-improvement projects in recent years. Davidson Hall remodeling is on the Regents' capital improvements list for 1985-93.

Present cost of the planned renovation is about 4.5 million dollars. Most of the support must come through legislation; however, legislative support is partly dependent on interest expressed by alumni, Iowans, and industry. An extensive list of names of people and industries who show an interest in a project impresses the legislature. We are in the process of building that list.

A local legislator asked me whether I felt that it was my responsibility to promote awareness and solicit support for remodeling. I responded by saying that it may not be my job, but that I felt there were no alternatives if the remodeling is to be completed in a reasonable time. Thus a solicitation letter was sent to the faculty. We have seven in the department who have become members of the Marion Club (minimum of $1,000 contribution or pledge) by their contribution to the Davidson Hall Renovation Fund. Many others have contributed. Several gifts have been contributed as a result of the last Davidson Dialogue.

Approaching alumni and friends for financial support is part of the work of the ISU Achievement Foundation. I'm sure you have received "Excellence in the Eighties" letters. To assure your expression of support for remodeling Davidson Hall, we ask that you designate your gifts to Davidson Hall Renovation Fund 528C. Don't forget to inform your company of your gift; many companies have a policy of matching employee gifts.

Whether your contribution is at the "Order of the Knoll" level, the Marion Club level, or less, the gifts will support the Davidson Hall project if included in the attached envelope. Add your name to the list of contributors which will appear in a brochure on Davidson Hall to be published next January. Agricultural Engineering at ISU will be a part of "Excellence in the Eighties."

Student Placement

Ag Engineering (AE) student placement continues to be excellent. The ISU Placement Office report showed that 95% of AE students were placed a week before graduation. Only Computer Engineering (98%
placed). Engineering Operations (100% placed), and Surveying (100% placed) had a higher percentage of students placed.

Companies and agencies hiring AE students this year included Sunstrand, Timken, Allis Chalmers, Turner in Conservation Service, Morton Buildings, General Motors, International Harvester, Ford Tractor, Caterpillar, IBM, and ISU (graduate students).

Starting salaries for engineers from ISU were up this spring, averaging $2,100/month. This is up about $80/month over the previous three semesters when starting salaries averaged $2,000.

Fifteen Ag Mechanization students graduated spring semester. Grads were employed by International Harvester, M & W Gear Co., Cargill, National Agri-Underwriters, Pig Improvement Committee (PIC), by family businesses, and by graduate schools at various universities. Three Ag Mech students were still interviewing at the time of this writing.

LABORATORY ADDITIONS

Tillage Lab

USDA-ARS Soil and Water Conservation Research Unit has nearly completed construction of a 5,000-square-foot steel frame building at the Agricultural Engineering Research Center located west of Ames. The building will house the research unit's equipment plant and soil samples, and will have a separate room for a 100-foot-long soil bin. The soil bin replaces the small bin in Davidson Hall and will be used for studies on the effect of tillage on soil properties. It can also be used for evaluation of planting and tillage systems under controlled conditions. When combined with the use of growth chambers, the bin will permit the evaluation of tillage systems and plant production under controlled conditions from tillage to harvest. The bin can also be used as an undergraduate engineering laboratory, as well as for graduate research.

Environmental Lab

A 1,000-square-foot environmental laboratory has been developed in the north shed behind Davidson Hall. The lab will be used primarily for teaching, but there will also be room for graduate student research on environment. The lab will house a new 8'x8'x20' agricultural fan testing chamber. The chamber will give students hands-on experience in developing fan curves. Students will also use the lab for testing air inlets, psychrometric studies, and for special topics related to environmental problems.

MWPS Buys Computer Graphics Unit

After many years of Fortran data processing and four years of highly productive computer text processing, the Midwest Plan Service (MWPS) now has the ability to "crunch" drawings.

Earlier this summer, MWPS Illustrators and engineers started learning how to manipulate illustrations and plans on an AutoControl graphics unit. This unit has an Apollo computer of about the power of a VAX 780, full 3D software, thumbwheels, 240-key menu pad, and a feedback and text monitor. With the system's hardware and software updated late in 1983, MWPS has the latest in graphics technology and power.

With this system, MWPS is much better equipped to develop and edit drawings for its publications on farmstead engineering. Estimates suggest drafters will work 3 to 10 times faster than before. Errors from redrawing will nearly vanish, and reviewers will have cleaner, more complete illustrations to work from.

Student Honors and Recognition

During the past year, AE students have continued to place in National Paper Competition in ASAE.

Alan Gaul (AE '83) placed first in the 1984 National ASAE Student Paper Competition and second in the 1984 Mid-Central ASAE Student Paper Competition with his paper, "Variation of Physical Properties in Gravity Separated Soybeans." This entitles him to compete in the K. K. Barnes runoff competition in Nashville, TN, at the summer ASAE meeting.

Alan Jacobson (AE '83) placed third in the 1984 National ASAE Student Paper Competition and first in the 1984 Mid-Central ASAE Student Paper Competition with his paper, "Performance of Electronic Moisture Meters in Oil-Variety Sunflower Seeds." He is also entitled to be in the K. K. Barnes runoff competition this summer.

Congratulations to Dr. Carl Bern for advising these students.

Chang H. Choi was the recipient of the Reverend P. T. Taiganides Award as the outstanding graduate student in Agricultural Engineering at ISU for 1983-84. Choi is completing an M.S. degree and will pursue studies leading to a Ph.D. degree. He received his B.S. degree from Seoul National University in 1978. Choi has coauthored four papers this past year and is general secretary of the Korean Student Association.

Faculty Member Honored

Dr. John Lafren, professor and USDA collaborator, has received special recognition for his research contributions. Lafren is a member of the research team that was awarded the USDA's highest recognition--the Distinguished Service Award--by U.S. Secretary of Agriculture, John Block, in a June 12 ceremony in Washington, D.C.

The team received the award for its development of a mathematical model called EPIC (Erosion-Productivity Impact Calculations) to determine the effects of erosion on soil productivity for all major land resource areas in the United States.

New Faculty Spotlight

Dr. Paul Clauer was appointed to the AE faculty this past year. Clauer received his B.S. and M.S. degrees from Oklahoma State University in 1971 and 1972 and his Ph.D. from Iowa State in 1983.

Before coming to Iowa State, Clauer worked for International Harvester and Caterpillar Tractor Company. Clauer spent the month of June each of the last three years consulting in Frankfurt, Germany, for Batelle Research Institute on the use of computers in design. During his last trip, he also visited research stations in Belgium and Germany.

Clauer also coauthored a book, "Design of Agricultural Machinery," which was published this year.

Faculty News

Gerry Klime, USDA research engineer in grain storage and processing, retired from USDA-ARS Feb. 3, 1984. He and his wife lived in Ames for the past 15 years. They will be moving to Austin, TX, for retirement.

Leo Soderholm, USDA collaborator in electrical power and processing, was promoted to
State University, receiving the B.S. degree in Agricultural Engineering in 1924 and the A.E. Professional degree in 1941. He and his wife, Lorene, made their home in Ames, IA.

Alumni Briefs

Thanks to all you alums who sent back news of your careers, activities, and families! There isn't room to print everything you told us, but we'll try to give everyone from the graduating classes of 1920 through 1969 a mention. Next newsletter, we'll include more recent AE and Ag Mech grads.

If you'd like to contact any of the people listed here, write or call us at Agricultural Engineering Department, 102 Davidson Hall, Iowa State University, Ames IA 50011, 515/294-1434, and we'll put you in touch.

(All of the following are agricultural engineering graduates; degree(s) are listed with year of graduation. Cities listed are the alum's home address.)

1920-1929
Verne R. Hillman, BS'20, retired in 1961, Cedar Rapids, IA; J. Dewey Long, BS'22, retired consulting ag engineer, Fredonia, KS; Lyall R. Mitchell, BS'29, retired Soil Conservation Service area conservationist, Fairfield, IA.

1930-1939
Earl D. Anderson, BS'31, MS'32, agricultural advisory service and semi-retired, Parker, CO; Charles E. Loudon, BS'32, retired, Canton, TX; Garland D.

Former Dept. Head Dies
Former AE Department Head Hobart Beresford died Feb. 25, 1984, after an extended illness. Beresford was a Professor Emeritus of Agricultural Engineering. He retired in 1962 after serving as professor and department head for 16 years. From 1924 to 1927, he was an assistant professor at the University of Idaho; in 1927-28, he was an agricultural engineer with the Idaho Power Company. In 1936, he worked for the U.S. government on rural housing projects.

Beresford was born Dec. 6, 1896, in Vinton, IA. He attended Iowa

Do We Have It Right?
Moved? Been promoted, taken a new job? Help us keep up with your progress and let us share your news with your classmates in future issues of our newsletter by completing this reply form.

Where you live:
Name
Year graduated
Home Address State Degree received Zip
City State Zip
Phone

What you do:
Business Title/Profession Phone
Company/Institution
Division/Address
City State Zip

News about you: (community service, board memberships, professional honors, career activities, family information)

Return to: Howard P. Johnson
Agricultural Engineering Department
Iowa State University
Ames, IA 50011

THANKS!
Kite, MS'32, retired from VPI's AE Extension Service in 1969, Blacksburg, VA; Weldon O. Murphy, BS'36, part-time architectural draftsman and retired from Case Co., Racine, WI.

Donald K. Strutters, BS'38, MS'41, retired from Ford Motor Co. in 1970, Richardson, TX; Harold J. Thompson, BS'38, MS'39, retired from USDA, Fredericksburg, MD; Henry D. Martin, BS'39, retired Army weapons engineer, Rock Island, IL; Vernon G. Moss, BS'39, retired, Columbus, MO; Fred M. Crawford, MS'39, retired electrical contractor, Fred M. Crawford Elec. Service, Columbia, MO; James W. Martin, MS'39, retired University of Idaho AE department head, Moscow, ID.

1940-1949

Donald R. Evans, BS'40, farmer, Omaha, NE; Melvin J. Happe, BS'41, retired in 1982 as vice president of Engineering, Worldwide, Sperry Rand Holland, Pinehurst, NC; Paul E. Masters, BS'41, retired from Walding Engineering Dept. of American Bridge in 1977, Cape Coral, FL, and Joliet, IL; Donald E. Schwendemann, BS'41, president, Reif Baker Corporation and subsidiary manufacturing companies, Algonac, MI; Eugene T. Smith, BS'47, president, Warren County Brenton Bank & Trust, Indianapolis, IA; Amin Aly Ibrahim, MS'47, PhD'50, professor emeritus, Alexandria University, Chetwy, Alexandria, Egypt; Richard L. Wilcox, BS'48, administrative assistant, Delavan Corp., Adel, IA.

Wesley W. Gunkel, MS'48, professor in AE Dept., Cornell University, Ithaca, NY; Gerald Berryhill, BS'49, chief engineer at Filtertek, Inc., Harvard, IL; Morton W. Bittinger, BS'49, MS'51, consulting engineer, Ft. Collins, CO; Wayne W. Ducommun, BS'49, retired as Soil Conservation Service area engineer in 1983, Sioux City, IA; Donald L. Pederson, BS'49, farmer, Grinnell, IA; Ralph L. Toren, BS'49, partner in McLaughlin Water Engrs., Denver, CO; John Gustaf Palmquist, MS'49, instructor in University of Regina engineering labs. Regina, Saskatchewan, Canada.

1950-1959

Merrill L. Blaskey, BS'50, general manager, consumer affairs, Northern States Power Co., Brooklyn Park, MN; John R. Long, BS'50, state engineer, USDA Soil Conservation Service, Casper, WY; Elmer M. Alderman, BS'52, retired staff engineer and now consultant for Caterpillar Tractor Co., Peoria, IL; William E. Davidson, BS'52, manager, special technical programs, General Electric Co., Milford, CT; Absalom West Snell, MS'52, associate director, South Carolina Agricultural Experiment Station, Clemson University, Clemson, SC; Kermit C. Mills, BS'53, chief of environmental engineering, Water Dept., N.R.&E.P. Cabinet, KY, Lexington, KY.

Wayne Brown, BS'54, general supervising engineer, Caterpillar Tractor Co., Aurora, IL; Wendell Ver Ploeg, BS'55, manager, product evaluation and technical services, tractor operations, Ford Motor Co., West Bloomfield, MI; Curtis A. Johnson, MS'55, retired professor emeritus, University of Massachusetts, Orlando, FL, and Haydenville, MA; Glen R. Peterson, BS'56, pilot for United Airlines and farm owner/manager, Elgin, IL; Leon Wirt, BS'56, supervising engineer, Caterpillar Tractor Co., Joliet, IL; Frank Buckingham, BS'59, free-lance writer and equipment consultant, Agri-Business Writing, Springfield, IL; Robert L. Scharf, BS'59, MS'61, PhD'65, director, National Tillage Machinery Laboratory/ARS/USDA, Auburn, AL.

1960-1969

Erwin E. Luebbe, BS'60, quarry superintendent, United States Gypsum Co. and farmer, Fort Dodge, IA; Warren J. Mellem, BS'60, chief of hydrology and hydrology, Missouri River Division, Corps of Engineers, Omaha, NE; Cefrino L. Pollar, MS'62, president, Alpha Machinery and Engineering Corp., Manila, Philippines.

Jerry R. Wehrspann, BS'63, general manager, Papio Natural Resources District, Omaha, NE; Michael S. Lemes, BS'64, vice president, McFarland-Johnson Engineers, Inc., Turtle Creek, PA; William A. Mullen III, MS'66, chief, drinking water branch of Region 10 Environmental Protection Agency, Seattle, WA.

In Memoriam

Charles Nicholson, BSAE'17, died April 1984; Leonard Fletcher, BSAE'15, died March 1984; Earl Dudley, BSAE'17, died October 1983; and Lawson Shanks, NSAE'31, died August 1983.