

Approved January 30, 1986
Date

MINUTES OF THE HOUSE COMMITTEE ON COMMUNICATION, COMPUTERS AND TECHNOLOGY

The meeting was called to order by Representative Jayne Aylward at
Chairperson

3:30 ~~am~~ p.m. on January 28, 1986 in room 522-S of the Capitol.

All members were present except:

Representative Dean
Representative Roper (excused)

Committee staff present:

Lynne Holt, Legislative Research Department
James A. Wilson, III, Senior Assistant Revisor
Jean Mellinger, Secretary to the Committee

Conferees appearing before the committee:

Richard B. Hayter, Director, Engineering Extension, Kansas State University

Chairman Jayne Aylward opened the meeting. Representative Friedeman moved that the minutes of the January 22 meeting be approved. Representative Chronister seconded the motion. The motion carried.

Richard Hayter presented a proposal of the Kansas Industrial Extension Service (Attachment 1) which was developed about a year ago after the governor's budget recommendation so was held until this year. He gave an overview of what the program does, why they think it will benefit economic development in Kansas, and how it would be a partnership between KDED, the universities, and the industries of the state. Many companies are having difficulty in keeping up with technologies, and this program is a method to assist industries to adapt technologies either in their manufacturing process or design or through some technology transfer program.

Representative Friedeman asked in their flow chart responsibilities, how they yoke in the College of Engineering and the Cooperative Extension Service formally. Mr. Hayter said that he reported to the two offices, the Director of Cooperative Extension and the Dean of Engineering, but there is not an administrative link between the two. Representative Friedeman asked if the extension agents in the field have any responsibility to try to assist the Service in part of the primary responsibilities and was told they do and they are. Representative Friedeman said the word "extension" has a connotation of rural and suggested that it might be well to change titles. Mr. Hayter said they would certainly be ready to consider this.

Representative Chronister asked if he sees the outreach from the surrounding states of Oklahoma and Missouri as an attempt to help bring industry into their areas. Mr. Hayter said he didn't think there was any doubt about it and it also brings students to their universities.

Chairman Aylward suggested that maybe K-State's name should not be so much in the forefront. Mr. Hayter agreed. Chairman Aylward asked if he felt, with this even though administered out of K-State, that they would be able to cut out the duplicity in research and allow for coordination of research. Mr. Hayter said he thought it would present an opportunity to help identify research with an extension program. He doesn't know what duplicity there is among the universities so he isn't sure of that. Chairman Aylward asked him to go through his budget. He said the first year is all that is detailed which is where the governor selected his recommendation for \$60,000 for the first year. Mr. Hayter mentioned the personnel and stated that the travel item was large because he and the Engineering Specialist would be on the road the majority of the time visiting industries. In later years they might have several full-time faculty support individuals working on the program throughout the universities. Chairman Aylward asked about his comment that Texas A&M spends about \$15 million a year, part state money and part users' fees. He said a small amount of that money, at one time \$1 3/4 million, is state tax money. Chairman Aylward asked what some of the other states are providing but he didn't know.

Representative Chronister moved that the CCT Committee request a bill be drawn to fulfill the proposal that has been submitted to the Committee and that it tentatively be called the Kansas Technology Transfer Institute. Representative Helgerson seconded the motion. The motion carried.

Unless specifically noted, the individual remarks recorded herein have not been transcribed verbatim. Individual remarks as reported herein have not been submitted to the individuals appearing before the committee for editing or corrections.

CONTINUATION SHEET

MINUTES OF THE HOUSE COMMITTEE ON COMMUNICATION, COMPUTERS AND TECHNOLOGY,
room 522-S, Statehouse, at 3:30 ~~a.m.~~ p.m. on January 28, 1986.

Representative Sifers asked if he had said there were 270 extension agents in the state and was told that was right.

The meeting adjourned at 4:07 p.m.

The next meeting of the Committee will be at 3:30 p.m. on Wednesday, January 29, 1986.

A Proposal to Establish the
KANSAS INDUSTRIAL EXTENSION SERVICE


submitted to

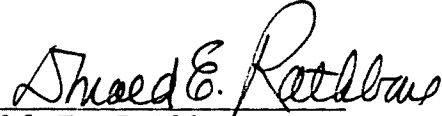
Kansas Department of Economic Development
6th Floor
503 Kansas Avenue
Topeka, KS 66603


submitted by
Kansas State University
College of Engineering
Manhattan, KS 66506


January 10, 1985

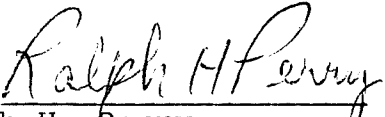
Endorsements:

Signature: 
Name: Richard B. Hayter
Title: Director, Engg. Extension
Telephone: (913) 532-6026

Signature: 
Name: Donald E. Rathbone
Title: Dean of Engineering
Telephone: (913) 532-5590

Signature: 
Name: Fred D. Sobering
Title: Director, Coop. Ext.
Service
Telephone: (913) 532-5820

Signature: 
Name: William H. Johnson
Title: Director, Engg. Exp.
Station
Telephone: (913) 532-5844

Signature: 
Name: Ralph H. Perry
Title: Comptroller JAN 16 1985
Telephone: 532-6207

Attachment 1
1/28/86 Hs. CCT

KANSAS INDUSTRIAL EXTENSION SERVICE

Executive Summary

Technology developments are moving so rapidly that it is difficult for many industries to adopt them. However, these industries must incorporate new (or existing) technology in their products to remain competitive.

A number of neighboring states actively assist industry by providing a tie to their universities. Unfortunately a formal link between Kansas Universities and industry does not exist.

A Kansas Industrial Extension Service, KIES, was established in 1964 by the Board of Regents to provide a tie between industry and higher education. The responsibility for operation of this Service was assigned to Kansas State University "...in keeping with the land-grant university's traditional responsibility in this field." The service has attempted to function without funding for the past several years.

In 1983, the Governor's Task Force on High Technology Development recommended that the "Board of Regents should favorably recognize any arrangement between university and industry which would be of economic benefit to Kansas as a whole." It is proposed that KIES again receive state funding. The program should be operated as a partnership between the Kansas Colleges of Engineering and the Kansas Department of Economic Development. The details of this partnership will be developed during the first year. Formal agreements between Kansas State University and the other Kansas Colleges of Engineering are not anticipated the first year, but opportunities for informal cooperation will be sought. Wichita State University has chosen not to participate at this time, but the opportunity for them to do so will always be available.

Services will be provided by two mechanisms; individual assistance and continuing education. An advisory council of industrial, state, and university representatives will provide guidance in the formation of KIES as well as assure that services do not compete with free enterprise.

The level of need of Kansas industries is presently unknown. Therefore, a gradual implementation of KIES over a four-year period will assist in defining the scope of the program. The first year of KIES operation will serve two purposes; planning and service. In its second year, the universities will begin a coordinated educational and assistance program using existing faculty, a fraction of whose time will be supported by KIES. Kansas State University will continue to coordinate the program, but the service will be cooperative in delivery.

Although many of the educational programs conducted by KIES will generate income, it will not necessarily provide the stable funding base necessary for sustained operation. State support requested for the first year of operation is \$58,951. When fully operational, it is anticipated that the program budget will be \$440,000 which will include a mix of funds from state, federal, and industry.

KANSAS INDUSTRIAL EXTENSION SERVICE

Introduction

Present Situation: The rate of technology development is outstripping the ability of many industries to adopt it; particularly those industries which do not develop their own technology. The economic stability of these industries rests on their ability to incorporate new (or existing) technology in their product design and manufacturing processes. As recently noted by Battelle Memorial Institute, "...the U.S. is technology rich but implementation poor. To be more competitive U.S. industry merely needs to implement available technology....The competition is not just the company down the road; 'but includes' Japan, Mexico, Brazil, and other countries."

Kansas has been quite successful in attracting new industries as well as assisting those presently located in the state. However, there is an ever increasing need to adopt new technologies to remain competitive in the national and international marketplace. Although there is considerable technical expertise in the Regents' Colleges of Engineering, a formal tie between the universities and industry does not exist.

A study prepared by the U.S. General Accounting Office concludes that "...linkages between university and industry can

not only enhance technological innovation but can also stimulate regional economic development." A congressional Office of Technology Assessment report notes that "...industrial extension services benefit existing local businesses by increasing the rate of innovation diffusion and increasing their access to facilities, equipment, and expertise."

A number of states actively assist industry through their extension programs. Iowa State University, for example, recently reorganized their Engineering and Management Institute which served Iowa industries for 25 years to what is now Industrial Engineering Extension. They offer the industries of Iowa extensive educational opportunities. Texas A&M University has operated an Engineering Extension program since 1948 serving more than 50,000 individuals annually with over 2000 course offerings. Similarly, Wisconsin's Engineering Extension served 18,000 professionals last year. The Industrial Research Extension Center at the University of Arkansas provides information on technical issues to both public and private sectors.

Historical Perspective: The Kansas Industrial Extension Service, KIES, was established in 1964 by the Board of Regents to provide a link between industry and higher education. The responsibility for operation of the Service was assigned to Kansas State University "...in keeping with the land-grant university's traditional responsibility in this field." The Service was to provide technical assistance to Kansas industry from the resources within the Regents' Schools of Engineering. The "State

Technical Services Act" of 1965 provided the necessary funding for the initiation of the Service. Even though State funding for the service has not existed for a number of years, Kansas State University has attempted to serve the needs of industry, and has maintained KIES as the outreach component of the College of Engineering.

In 1983 the Governor's Task Force on High Technology Development recommended that the "Board of Regents should favorably recognize any arrangement between university and industry which would be of economic benefit to Kansas as a whole." In addition they stated that "A major coalition of Wichita State University, Kansas State University, and University of Kansas should be developed which cooperates, shares opportunities and competes with out-of-state universities in the high technology academic arena rather than with one another."

Proposed Activity

To facilitate expedient delivery of new technology to both new and existing industries and to assist in attracting high technology industries to Kansas, it is proposed that the Kansas Industrial Extension Service again receive state funding. As the intent of such a program is to enhance the economic position of Kansas industries, it is suggested that this program be operated as a partnership between the Regents' Colleges of Engineering and the Kansas Department of Economic Development with funding coming

by contract from KDED to the Regents for its operation. The details of this partnership will be developed during the first year of operation. Although formal agreements between Kansas State University and the Colleges of Engineering at the University of Kansas and Wichita State University are not anticipated until the second year, opportunities for immediate informal cooperation will be sought. Wichita State University has elected not to participate at this time, but the opportunity will always be available to do so.

Services will be provided by two mechanisms; individual assistance and continuing education. Considerable individual, technical assistance can be provided without competing with private consultants; however KIES must be ever conscious of potential conflicts, and avoid them wherever possible. One mechanism for assuring that services do not compete will be the advisory council which will later be described. Continuing education will range from single lectures to extensive conferences depending on the subject and need of the clientele. Presentations will be made both on and off campus, and will be presented live as well as electronically.

Individual assistance will range from simple responses to requests for printed technical information to site visits by KIES engineers. Small industries may not have a convenient source of technical literature; whereas KIES will have access to technical libraries and can assist in providing the necessary information. Site visits to firms in Kansas will provide an engineering

service previously available only to firms with sufficient capital to afford consulting services or staff engineers. Typical services may include assistance with plant safety, manufacturing processes, effluent control, scrap and waste management, limited assistance with product design, and assistance in adopting new technologies in existing plants. Strict guidelines will be established to assure that these services will not compete with consultants.

It is anticipated that the majority of services provided by KIES will be educational. Topics and delivery format for educational programs will be developed in response to queries made of industries as well direction offered by the advisory council. The audience will be threefold; engineers in need of maintaining a state-of-the-art knowledge in their field, technicians requiring retraining, and industry seeking to improve their position in the free market place.

The present intent is to not limit services based on size of the business or type of industry, but to be available to all industries regardless if their product is service, sales, food, mineral or energy production, or manufacturing. The technical resources available within the Colleges of Engineering are extensive as are the types and needs of Kansas Industry.

Four Year Action Plan

As the level of need of Kansas industries is presently unknown, a gradual implementation of KIES over a four year period will assist in defining the scope of the program.

Year One: The first year of KIES operation will serve two purposes; planning and service. With a limited staff of a full time engineer and publication and clerical support, the Director of Engineering Extension at Kansas State University will survey the needs of industry in Kansas and the resources available at the participating Regents' Schools of Engineering. Numerous discussions will be held with industrial leaders as to how best the universities could provide technology transfer. In addition, similar discussions will be held with university and Regents officials to determine the optimum organization for creating the university/industry link. An advisory council of industrial, state, and university representatives will be formed to provide guidance in the formation of the Kansas Industrial Extension Service. The advisory council will provide direction critical to the success of the Service. Not only will it guide the formation of KIES, but will also suggest program needs of industry and appropriate delivery mechanisms. Throughout this first year, revenue sources to supplement state funding will be investigated.

Limited educational and individual assistance will be offered during the first year of operation. Conferences such as the recent "Robotics in Manufacturing" held at Kansas State University will be conducted. Where possible, programs will be offered as a cooperative effort with the University of Kansas and

Wichita State University should they choose to participate. However, funding limitations in the first year will restrict involvement to programs which generate income from registration fees. In addition lecturers will be made available to industry to assist in their educational programs. These services will be somewhat self supporting in that fees for educational programs will be charged to cover costs of faculty not supported by KIES.

As industry learns of the services of KIES, requests for individual services will increase. During the first year, these services will be limited because of limited staffing. However, as is presently the case, Kansas State University will attempt to provide the necessary assistance with the resources available.

Year Two: KIES will begin implementation of the plan developed during the first year of operation. The universities will begin a coordinated educational and assistance program using existing faculty, a fraction of whose time will be supported by KIES. Kansas State University will continue to coordinate the programs as directed by the 1964 Board of Regents, but the service will be cooperative in delivery. Staffing will probably include the full time coordinator/specialist and clerical personnel similar to the first year plus, approximately two fractional appointment faculty from each of the universities who will serve as extension specialists in their respective fields.

Educational programs will range from in-plant lectures to major conferences and will address both high technology

applications as well as well as other technical concerns of Kansas industry. The educational programs will be taught at the applied level, and all programs will be evaluated for relevancy and quality of instruction.

Years Three and Four: Depending on availability of state and extramural funding, the KIES should be fully operational by the third or fourth year. It is anticipated that the program would be a three-way partnership between state, federal, and industrial sources.

When fully staffed, it is anticipated that the Kansas Industrial Extension Service would have three full time engineering extension specialists at Kansas State University including the state coordinator, a full time specialist at Kansas University and possibly Wichita State University, and approximately three part time specialists at each school.

Funding and Organization

Funding: The General Accounting Office report previously cited also noted that "sustained sources of funding" are one of the essential factors in maintaining a successful collaborative arrangement between universities and industry. Although many of the educational programs conducted by KIES will generate income, it will not necessarily provide the stable funding base necessary for sustained operation.

State support will assure that a university/industry tie is maintained on a continuing basis. Opportunities for federal support will continue to be investigated. The potential for federal funding, on a state matching basis, looks promising. However, the establishment of KIES should not rest on federal funds because of the uncertainty of continuing availability of these funds.

The contract that is suggested for the first year by this proposal would be between the Kansas Department of Economic Development and the Kansas State University College of Engineering. One of the tasks during the first year of KIES will be to determine the most effective contractual arrangements for future years.

Organization: Engineering Extension is a joint effort of the College of Engineering and the Cooperative Extension Service at Kansas State University. It has responsibility for the operation of the Kansas Energy Extension Service and the Kansas Industrial Extension Service (as it presently exists). In addition it coordinates the off campus credit course offerings of the College of Engineering.

Engineering Extension will also be administratively involved in the operation of the Kansas Industrial Extension Service as it is here proposed.

Budget Detail
Kansas Industrial Extension Service
July 1, 1985 - June 30, 1986

	KDED	KSU	TOTAL
Personnel			
Director, Engineering Extension(0.3)		\$15894	\$15894
Engineering Specialist/Coordinator	\$36120		36120
Clerical (0.2)	1704		1704
Tech Editor (0.1).	2550		2550
Graphic Artist (0.1)	2148		2148
Fringe Benefit (19.0%).	8079	3020	11099
Supplies.	600		600
Printing.	2300		2300
Communication	1700		1700
Repair and Service	250		250
Travel.	<u>3500</u>		<u>3500</u>
SUBTOTAL	58951	18914	77865
Indirect Costs (31.0% MTDC)		24138	24138
TOTAL	\$58951	\$43052	\$102003

Anticipated Budgets
for Future Years - KDED & Others
(for information only
and not part of contract)

FY 87	\$139,400
FY 88	\$314,300
FY 89	\$433,700