



**Department of Computing
and Information Sciences**

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March 16, 1992

Dr. James Coffman
Office of the Provost
Anderson Hall



F.Y.I.

Dear Provost Coffman,

For 20 years this Department has resided in the College of Arts and Sciences, working desperately to achieve our goals within a College whose resources are inadequate and whose emphases are counterproductive to the nurturing of a young and vital discipline which is essential to the future of KSU. This letter documents the desire of the faculty of the Department of Computing and Information Sciences to investigate other organizational strategies for our discipline within Kansas State University. Our goals are simple. First, we must continue and improve our instructional programs at the BA, BS, MS, and PhD levels. Second, we intend to continue to be the central repository of informatics knowledge at KSU. Third, we must contribute to the "computing and information literacy" of all students at KSU. Fourth, we must focus on research in "core" computing and information sciences to contribute to the national knowledge base in informatics. Fifth, we hope to continue to develop new collaborative research and teaching programs in computational engineering and sciences, interdisciplinary programs which promote collaborative work with all the science and engineering departments. Sixth, computing technology is important to the economic development of Kansas; we seek to contribute to this effort. Finally, we must maintain and enhance all three research and teaching paradigms in the computing sciences: theory, experimentation, and engineering.

Our needs to accomplish the above goals are: first, a critical mass of research and teaching faculty; second, adequate instructional and research computational laboratories; third, support from an administrative structure which promotes the above goals and believes that Computing and Information Sciences must contribute in all the above areas; and fourth, recognition by central administration that these goals are essential to the future of KSU and that these goals must be accomplished within the Department of Computing and Information Sciences.

After due consideration to preserving our identity as a core discipline vital to the future of KSU, the faculty of CIS has voted unanimously to investigate a move to the College of Engineering. This administrative reorganization is not unusual. In recent years the Computer Science Departments at Stanford and North Carolina State have made this move. No merger with any other Engineering department is proposed. Furthermore, it is essential that all current CIS programs and responsibilities be retained in their current form within the CIS Department. There are a variety of issues to be resolved in this process of preparing for such a reorganization. I list some of them in the attachment. If such a reorganization is accomplished I am sure others will arise.

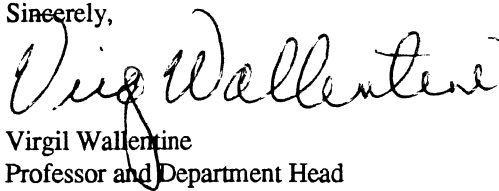
The reasons for such a change are as follows:

- 1) Residence in Engineering would strengthen the traditionally good CIS connections with industrial sources and thereby improve opportunities for collaborative efforts in Engineering to acquire extramural support for our instruction and research equipment. The Engineering Fee is an additional potential source of support for our computer- and software-intensive discipline.

- 2) Undergraduate instruction in CIS is strongly engineering oriented. Further, industry recruiters feel CIS graduates should have some applications background in an Engineering discipline. This would allow our students to work with Engineering undergraduate students, who are among the best students at KSU. Finally, the CSAB accreditation team that reviewed our BS in Computer Science in Fall 1991, (unanimously) recommended that we move the Department to Engineering.
- 3) Graduate education is listed as a major mission in the College of Engineering and CIS would add solid MS and PhD programs to Engineering. CIS also intends to develop a Master's degree in Software Engineering. Additionally, CIS has a strong national outreach graduate education program (AT&T Summer On Campus and NTU) which is consistent with the goal of technical education for professional engineers.
- 4) A strong CIS program in Engineering would further distinguish KSU Engineering as a stronger college, thus making a significant impact during the development of the Regents' Role and Aspiration document for KSU.
- 5) CIS brings a solid, internationally recognized research program to Engineering. This would enhance opportunities to integrate computing theory and technology into interdisciplinary engineering research and development.
- 6) Software engineering (a solid research area in CIS) is a major factor in the development of new products in numerous industries in Kansas. This would provide support for the economic development efforts in the College of Engineering. Interdisciplinary teams of engineers and computing scientists are important assets in the pursuit of improved economic output in Kansas.

While this issue has been in informal and formal discussion for many years, it is now time to make some decisions because it is of critical importance in the CSAB accreditation process. Thank you for your consideration of this request.

Sincerely,



Virgil Wallentine
Professor and Department Head

Enc

cc: Dean Peter Nicholls
Dean Donald Rathbone

Conditions and Issues to be Resolved Prior to Moving CIS to Engineering

Conditions

1. All current degree programs in CIS (BS and BA in Computer Science and in Information Systems, MS in Computer Science, and PhD in Computer Science, joint with KU) must be retained in their current form in the Department of Computing and Information Sciences. All courses currently in the CIS inventory must be retained in CIS. Additionally, the CIS faculty must retain curricular control over these programs and courses.
2. The current CIS 1991-92 base budget for faculty salaries, classified salaries, and OOE must remain with the CIS Department (\$949,209/yr.). Also, the temporary GTA budget must be made into a permanent line item in the CIS budget (\$277,000/yr.). CIS must retain the GTA status for these student employees. Support for the temporary half-time graduate studies secretary (\$11,000/yr.) must be made a permanent budget item. Finally, the CIS summer school budget (average \$46,182/yr.) must remain with the CIS department. These budget figures are for FY92. Any budget increases allocated for FY93 must be retained in the CIS Department as well.
3. Budget support for instructional and research computing facilities in the CIS Department must be established minimally at the average level of one-time allocations for each of the last four years (\$73,000/yr.). This is one of the major issues remaining to be resolved for CSAB accreditation.
4. The CIS faculty must retain control over standards for promotion, tenure, and hiring practices. That is, we must continue to be judged by peer computer science standards in these areas.
5. The CIS Department Head must retain control over assignment of teaching and research duties.
6. The Computer Science Accreditation Board must remain the accrediting agency for the BS in Computer Science, not ABET.
7. All current equipment and technical support in the CIS Dept. will be retained in Nichols Hall in the CIS Department. If a move of the CIS Department from Nichols to Durland can be accomplished at some time in the future, then it may become feasible and cost-effective to share computing and software facilities across Engineering departments. Such a move would also enhance collaborative research and teaching efforts.
8. Computing facilities which support the service courses, CIS 110 and 200 must be provided by Computing and Network Services. This is the current mode of operation.

Issues to be resolved

1. We request that a high priority be placed on building a critical mass of research and teaching faculty in the areas of programming languages, distributed and parallel systems, software engineering, and data systems. Further, it is essential to KSU's progress that CIS faculty participate in interdisciplinary research groups in Computational Engineering and Science. Issues of support for the development of these thrusts must be addressed.
2. We submit that a discussion of the centrality of computing sciences to the mission of KSU must ensue.

3. We request that the Engineering Fee apply to CIS in the same manner it applies to all other departments in Engineering.
4. We request the Dean of Engineering place high priority on raising the average of faculty salaries of Associate and Full Professors to a level equal to the average of our peer Computer Science PhD-granting institutions.
5. We request that the Dean of Engineering seek funds to renovate the space in the basement of Nichols Hall being vacated by Farrell Library to accommodate CIS needs.
6. We request that the University establish a Kansas State University Research Institute for Computational Engineering and Science. This organization would promote interdisciplinary research between computing sciences faculty and all other science and engineering faculty. It would also house research computing facilities and personnel. Finally, it would serve as the incubator for new graduate degree programs in CES.
7. Finally, the CSAB accreditation team report in Fall 1991 indicated CIS needed more support for faculty travel for professional development; thus, we request an increase of \$5000 in base OOE to support faculty travel and professional development. We also request an additional \$1000 per year in OOE to retain our accredited status, if granted.