

**Issues Surrounding a Possible Administrative Move of CIS to Engineering
September, 1991**

For several years KSU's central administration has been suggesting that, in one form or another, CIS should move to the College of Engineering. **The faculty of CIS feel it is now time to discuss the issues surrounding making the CIS Department a full-fledged department in the College of Engineering.**

In general, we feel the change of administrative structure would be beneficial for CIS for the following reasons.

1. We believe there will be better coordination of engineering and CIS research and development projects; this will produce a more competitive faculty for extramural funding.
2. We can achieve better integration of undergraduate instruction of computing concepts in Engineering disciplines, while continuing the service computing courses for the entire University.
3. Better coordination of computer science, information systems, computer engineering, and software engineering curricula will be possible.
4. In Engineering we expect to receive better support for computing equipment and software through industrial grants and through the Engineering Equipment Fee. A base OOE budget from Arts and Sciences has never (since the formation of the Department) been allocated to convert us from a "pencil and paper" discipline to the computational laboratory discipline we are.
5. Much of industry views the computing sciences as engineering disciplines and we believe that improved support from industry for research, development, and instruction would be forthcoming from the changed perception of industry. Further, the Dean of Engineering has excellent connections in industry and this can only be positive for CIS. In the past, all of this work has been done by the CIS Department Head and a Dean is more effective.
6. The College of Engineering would show improved support and respect for the design and engineering paradigms of research and instruction in the computing sciences.
7. We expect to see improved undergraduate students through support for more scholarships in Engineering.
8. CIS has great potential for contributing to the economic development of Kansas and Engineering would provide a vehicle for this involvement.
9. Finally, we have been through 20 years of "benign neglect" within the College of Arts and Sciences. It is time to try a new organization which truly believes computing is a discipline that is valued in KSU graduates and which believes that computing sciences is a vital discipline by itself and an enabling discipline for many other areas of study.

While the CIS faculty envision the benefits of such a reorganization, the following issues must be addressed prior to any official change of administrative structure.

1. CIS faculty must retain curricular control of its programs in the areas of Computer Science, Information Systems, and Software Engineering. We must retain all current degree programs and we intend to introduce an M.S. in Software Engineering. There can be no imposition of traditional engineering courses without the approval of the CIS faculty.
2. In tenure and promotion processes, quantity and quality of publications, research projects, and teaching techniques are to be judged against the standards of our peers in the computer science discipline.
3. CIS must be given the resources to teach computing courses for the entire University.
4. The theory, experimental science, and engineering paradigms of research and instruction in computing sciences are essential for the maturation of our discipline. It is fundamental that we retain all three paradigms in the CIS Department.

5. Computational Engineering and Science (CES) is viewed as an area for expansion in CIS, an area in which computing scientists can participate in interdisciplinary research teams with researchers from across the campus and in industry.
6. CIS intends to become a Top 45 department in the computing sciences in the US and a critical mass of research faculty is necessary to achieve this goal. CIS needs an additional seven faculty positions, some of which are senior positions, to build a minimal critical mass of faculty researchers
7. Instructional computing labs in CIS must be supported adequately. This means that every student enrolled in each CIS course number 300-900 must have adequate computing labs and software to spend a minimum of 7 hours a week in a lab. This converts into a need for 115 workstations for the Department of CIS. We currently have less than 50 workstations. It is assumed that Computing and Network Services will provide the computing facilities to support the approximately 1200 students per semester in computing literacy courses.
8. Research computing labs are not currently supported. The workstation needs are included in 7 above. However, CIS researchers need a parallel processor and a dedicated research network to support a critical mass of faculty and graduate students in the area of parallel and distributed systems, and to support the development of CES research teams which cross department and college boundaries.
9. Differential teaching and research loads are essential to capitalize on the talents of those faculty who are better researchers and those who are better teachers.
10. Teaching loads averaging three courses per academic year are an accepted standard in PhD-granting computer science departments nationwide. While this may be less than other Engineering departments, it is the only way to build a solid research faculty.
11. CIS needs to collect the (Engineering) lab/student fee to partially support teaching labs.
12. CIS desperately needs a graduate studies secretary to handle the more than 1000 applications we receive each year.
13. CIS currently has a temporary budget of over \$250,000 for GTAs who teach introductory computing literacy courses. Allocation of these funds within Engineering does two things: it supports a strong GTA workforce for instruction and research, and it keeps all budgeting for CIS within one college.
14. Associate and Full Professor salary scales must be improved to be competitive with our peers at PhD-granting Computer Science Departments in the Top 45.
15. It is essential that CIS faculty retain control of admissions policies and academic programs for the CIS graduate programs, within the guidelines of the Graduate School.
16. CIS class sizes must be judged against the norms of our peer (PhD-granting) Computer Science departments.