

1. What are the major factors in your discipline that are currently shaping its long term, strategic evolution?

The field is undergoing continuous technological change; some major trends impacting the discipline include the following. There is a major move towards content/information centric networking rather than the traditional connection oriented networking between two peers. This is illustrated by the fact that streaming video traffic is now considered the dominant traffic in wireline networks. The widespread deployment of wireless networks and the increasing bandwidth available in the wireless area along with the explosion in mobile applications is leading to fundamental changes in the field as well. Other important trends are the commoditization of equipment, virtualization at various layers of the hardware and protocol stack, networking as a service (NaAS) and security as a service (SaAS), increasing use of data mining/analytics by service providers for real time management and security and a growing interest in green/sustainable networking.

2. What is the impact of these factors? Why are they so important? What difference do they make?

The rapid changes have led to a relatively health job market. In fact according to US Bureau of Labor Statistics, networking and telecommunications is projected as one of the ten fastest growing job segments over the next ten years. Informally the request for job applicants and the posting of openings as increased within the Telecom Program. However, the job market is predominately at the BS level and increasingly requiring US Citizenship. The current hot areas of the job market focus on network management, network security, wireless networking, application development (especially mobile) and network support for data centers.

3. How do these factors affect the future of SIS and your program?

These factors imply that the faculty must continue to evolve the curriculum with changes in course content and course offerings to reflect the state of the art.

At the graduate level in Telecom and IS, the majority of the student body are international students but job market is tilted heavily towards US citizens. This mismatch may lead to an enrollment drop if international students have problems locating positions.

4. How can the School respond most effectively to these factors?

Focus on expanding the BSIS program, improving the quality of the students and extending the program to four years in order to add the necessary depth.

Position staff to program – so that a full time staff member whose duties include in full or in part managing the Telecom Lab, advising MST students, responding to applicant inquiries, recruitment of students, placement of students and organization of internships.

Strategic use of adjuncts to provide courses on hot topics.

5. Who are the necessary partners that would need to be engaged in order to respond effectively?

Industrial/government lab partnerships for placement, internships, equipment/software donations and guest lecturers/adjuncts.

6. What would an effective response look like and what difference would it make?

An effective response would result in new/revised course offerings, organized internship program, and greater percentage of US citizens in graduate program.