

## INTERDISCIPLINARY Ph.D. PROGRAM

University of Missouri-Kansas City

School of Graduate Studies

Discipline-Specific Information: **Telecommunications &  
Computer Networking**

Doctoral research in Telecommunication and Computer Networking (TCN) emphasizes fundamental understanding of problems in today's telecommunications/computer networks and networks of the future, leading to the development of network architecture, new routing algorithms and protocols, new performance evaluation models for networks, new protocols development, and network security.

### Discipline-specific admissions requirements

PhD applicants should have a GPA of 3.5 or above and GRE quantitative percentile in the mid-80's or higher. Most applicants have an MS in Computer Science or Electrical Engineering but in exceptional cases, we carefully consider applicants with just baccalaureate in Computer Science or Electrical Engineering, or graduate degrees in related fields. It is expected that the applicants already have at least an undergraduate level course in networking or data communications.. All applications will receive careful and diligent consideration. Our admission decision is based on looking at the whole student and his/her experience (more than the numbers), and the willingness of a faculty to be the interim advisor.

The TOEFL, with a score of 213 or above (550 in the old system), is required for international applicants whose native language is not English.

### Suggested compatible co-disciplines

Computer Science & Informatics, Electrical & Computer Engineering, Mathematics, or Engineering.

### Application review and timetable

Application packets for doctoral study in Telecommunication and Computer Networking can be requested from the Graduate Programs Office (<http://www.umkc.edu/sgs>) or International Student Affairs Office (<http://www.umkc.edu/isao>). We encourage prospective applicants to download the application form directly from <http://www.umkc.edu/admissions/idx-0101app.html>, or use the on-line application. The deadline for applicants requesting financial support should be received before February 1 for Fall applicants. All applications require complete transcripts, GRE scores (and TOEFL for international applicants), a personal narrative (why wanting to pursue PhD), and three letters of recommendation.

### Support available

Only a selected number of newly admitted students receives teaching or research assistantship awards prior to their arrival on campus. However, currently, *all* full-time doctoral students (in good academic standing) receive financial support as graduate teaching or research assistants. Students are also eligible to compete for a wide range of additional campus-wide full fellowships and complementing support awards.

### Doctoral faculty with current research interests

We have excellent faculty who are active in research. Faculty have very strong publications records, have been funded by NSF, DARPA, and industry.

**Cory Beard**, Associate Professor (Ph.D., University of Kansas). Network Resource Management, Queuing Theory, Application of Telecommunications to Disaster Recovery Operations.

**Baek-Young Choi**, Assistant Professor (Ph.D. University of Minnesota-Twin Cities). Network Traffic/Performance/Security : Monitoring, Measurement, Diagnosis, Characterization, Analysis and Modeling; Real-Time and Fault-Tolerant Systems; QoS; Sensor/Wireless Networks

**Deep Medhi**, Professor (Ph.D., University of Wisconsin-Madison). Survivable Network Design and Architecture, Dynamic Routing, Network Management.

**Ken Mitchell**, Associate Professor (Ph.D., University of Missouri-Kansas City), Teletraffic modeling, Linear Algebra Queueing Theory; Congestion control and traffic management in Wireless networks.

**Jerry Place**, Associate Professor (Ph.D., University of Kansas). Communications network design and analysis, Telecommunications architecture and networks, Optical networks, Simulation.

The following faculty members have secondary affiliations in this discipline: Lein Harn (computer and network security), Vijay Kumar (databases, mobile computing), Yugyung Lee (semantic web, medical informatics and peer-to-peer computing), EK Park (software engineering, optical networking), Xiaojun Shen (algorithm), Khosrow Sohraby (teletraffic analysis, wireless and mobile communication), Appie van de Liefvoort (queueing theory, network performance modeling).

If your interests match ours and you want to devote the coming years to earn your Ph.D. degree, please apply.

For more information or to schedule a campus visit with faculty in this discipline, contact:

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