

## Yusuf Sarwar



Since his early days as a college student, Yusuf Sarwar has always envisioned becoming a researcher in information and communication technology.

Communication technology, initiated by the invention of the telephone in the 20<sup>th</sup> century (and later escalated by the packet switched network and semiconductor revolutions in 1960s), has brought drastic changes to people from all walks of life. Today's Internet, fixed and mobile phones, IP telephony, radio and satellite communication, cable TV, VoIP (and emerging applications like e-commerce, telemedicine, distance learning, remote

sensing) all are direct contributions of this technology. Information technology has recently gone through a dramatic evolution compared to other engineering arenas such as transportation, chemical processing, and in many cases it, has helped other technologies to flourish.

Brought up in the port city Chittagong in Bangladesh, Yusuf attended a local school and college and then moved to the capital, Dhaka, to pursue his bachelor's and master's programs in Computer Science and Engineering from Bangladesh University of Engineering and Technology (BUET) in 2004 and 2006. He graduated *summa-cum-laude* and was awarded a gold medal for his academic achievements. He then joined the BUET faculty and taught for three years before travelling to the U.S. in fall 2007 to undertake a doctoral program at the University of Illinois at Urbana-Champaign under a Fulbright Science and Technology Grant.

In his doctoral research, Yusuf has explored the emerging arena of cyber-physical computing system -- a technology that aims to utilize computing power in almost everything we see in our physical world. Cyber-physical computing can be used in houses, vehicles and even in our clothes and shoes. Due to Moore's Law (a computer chip doubles in strength every 18 months), this powerful computing paradigm will become a reality in the near future, helping people to better understand the surrounding physical and natural world. The motto Yusuf has been guided by during his research in the U.S. has been, "Technology for the people." After completion of his Fulbright Program, Yusuf hopes to bring his knowledge of information and communication technology back to Bangladesh where he understands what the underlying challenges are and where he is highly motivated to continue his investigation in this field.