2012 MARKS 10TH ANNIVERSARY OF THE PROGRAM

Welcome to the first TSM newsletter!

Telecommunications and networking remains an exciting and thriving field as evidenced by the large number of students who join the Telecommunication Systems Management program (TSM) each year – and who also graduate from the program annually. Launched in 2002 with just four students, the TSM program now boasts nearly 250 graduates working in the telecom and networking industry across the U.S. and around the world.

Our program is a unique collaboration among three colleges at Northeastern (Engineering, Computer & Information Science, and Business Administration), and so a wide range of electives, both technical and business, is available to TSM students. Along with a flexible program structure, this permits students to adapt the program to their own needs. For example, a new engineer with limited real-world experience may prepare for the workplace through rigorous technical courses and gain insight into the telecom workplace through Northeastern’s world-renowned co-operative education program. On the other hand, working engineers (like Eric Tsinzo and Arthur Gjika – see below) taking the program on a part-time basis may focus on business courses that will allow them to develop in that direction.

As telecommunications continues to be a rapidly-changing technical field, the technical content of our courses continually adapts, covering topics such as LTE and WiMAX, distributed mobile apps and the IMS (IP Multimedia Subsystem). With our Boston location, we are able to tap the huge base of technical and business expertise in the region, bringing industry leaders such as Verizon’s Elliot Eichen to the TSM faculty.

As founding director of the TSM program, I continue to be amazed by the energy and enthusiasm of each group of TSM graduates as they enter or return to the workplace. Your feedback is essential to our ongoing success, so please don’t hesitate to contact me with your comments and suggestions.

KEEPPING UP WITH THE CHANGES — ARTHUR GJIKA, TSM STUDENT

As someone who has been working in wireless communications for the past 10 years, this is one of the most exciting times to be in the telecommunications industry. Innovations in connected devices, wireless networks and application development have opened up unimaginable possibilities in how all of us work, play and live.

With all of the exciting changes, the paradigm shift in business is moving away from communications as just a cost cutter or a road to greater efficiency, to one of creating competitive advantage. This is moving clients’ demands beyond just network reliability, to that of consultancy. Developers, manufacturers and carriers are investing much more in the areas of communications education to better meet this demand from clients, and this will be one of telecom’s new major differentiators.

As a senior sales trainer, much of my time is spent helping sales teams transition their clients into better communications technologies. This can be quite a challenge: “It’s getting harder to keep up with all the changes,” is a statement that I hear more and more from clients.

I always thought about continuing my education, and with the rate of growth in wireless, I felt now was the time. When I started looking at programs I wanted more than just a piece of paper; I wanted a program that would allow me to leverage my undergraduate degree and my years of experience, while at the same time would offer the right mix of business and technology-oriented courses. This balance is important because of the need to have informed conversations with executive leadership, technologists and sales teams that support a variety of verticals.

I could not be more impressed with the classes of the TSM program. The professors are not just theorists in their respective fields, but have decades of work experience which has helped shape the telecommunications industry into what it is today. This experience brings the classes to life and allows students to see beyond the minutia of the technology so they can piece together the entire telecom ecosystem.

This is so important because it will allow graduates to think predictively about communications technologies, and this is ultimately what clients and employers are looking for. Graduates can thus immediately add value to just about any organization.

Arthur Gjika is part-time student in the TSM program, anticipating to graduate in 2014. He holds a BS in Industrial Engineering and was a Balfour Scholar from Northeastern University, Class of 1998. He is currently employed as a senior sales trainer at Verizon Wireless in Waltham, Mass.
For industry professionals, the MS in Telecommunication Systems Management program offers a part-time evening option and video streaming versions. Learn more about our admissions process at www.coe.neu.edu/gse/admissions.

The Graduate School of Engineering Telecommunication Systems Program prepares students for careers in this exponentially growing, continuously developing industry. Among other factors, core business courses, expert faculty members and visiting professors from the industry make this program unique in our region.

We want to hear from you!

If you are an industry professional or student who is interested in this program, or if you are an organization that has co-op or career opportunities to offer to our students and graduates—

Email us at telecom@coe.neu.edu

SPOTLIGHT— ELLIOT EICHEN: VISITING PROFESSOR & INDUSTRY PROFESSIONAL

Elliot Eichen, adjunct faculty member at Northeastern University since 2003 and director for Product Design and Development in the Corporate Technology division at Verizon Communications, teaches the popular course IP Telephony to Telecommunication Systems Management students. He has also taught a course in one of the leading trends in the market place, Mobile Phone App Development.

According to Eichen, all real-time communications, including video, wireless, wireline and voice, have migrated from a circuit paradigm, “pretty much unchanged from the early days of Alexander Graham Bell,” to a packet paradigm over the last decade. “This change in fundamental/underlying technology has had, and will continue to have, a global impact on how people all over the world work, play, and communicate – from video chat services, to the political impact of Twitter, to the ability to carry a worldwide IP network in the palm of your hand, such as smartphones, 4G,” says Eichen.

Eichen delivers two primary objectives in the IP Telephony class. On a broader scale he helps students understand the basic concepts inherent in a real-time packet communication system independent of specific protocols, media types, codec choices, or network architectures. More specifically, Eichen provides students with a substantive background in the currently accepted dominant protocols and media types, codec choices and network architectures. An IP Telephony lab with donated equipment from leading network vendors and service providers (such as Cisco, Acme Packet, Polycom, Verizon) provides valuable hands-on experience and reinforces the broad and narrow objectives of the course.

In his role as director in Corporate Technology at Verizon Communications in Waltham, Mass., Eichen is involved in the research and development of new products and their impact. In the Corporate Technology division, sitting above Verizon’s various lines of business (FiOS, wireless, business), his group builds products and services with a two-to-three-year time frame to release, while also contributing to longer term research that provides Verizon with a better understanding of what is important and real in a three-to-ten-year window. This includes the impact of changes in technologies on Verizon’s networks and services. Eichen states, “Working in a world-class communications carrier environment gives me a pretty good perspective on what’s important – both the technology and business impact.” A highly functional solution for Fixed Mobile Convergence, including a smartphone docking station, is one of the many products that he developed with his colleagues. (www1.coe.neu.edu/~eeichen/docking_stations.pdf)

Over several years, a number of divisions of Verizon Communications have welcomed many students from the TSM program for cooperative education. Verizon has also offered career placement post-graduation to some students.

To read more information about Elliot Eichen, visit the following link www1.coe.neu.edu/~eeichen/.

ALUMNI PORTRAIT: ERIC TSINZO, ’08

Eric Tsinzo, a 2008 graduate of the Telecommunication Systems Management program, is employed as senior engineer within the Trading Floor Engineering group at Fidelity Investments. Eric is currently working on several projects of great scope as well as the certification, implementation and project management of trading voice systems for new international trading floors.

Prior to his studies at NU, Eric earned an undergraduate degree in computer engineering from Wentworth Institute of Technology and had worked at Fidelity Investments for seven years as a senior telecom field engineer, where he had plateaued in his advancement and skill development. “I was in a senior position but had realized that there was no more room for growth within it,” Eric says. “I realized that I needed to add something within my career that would help me leap into something new with a lot more room for growth. This is the point where I decided to apply for the TSM program.”

During his studies in the program, the hiring manager of Fidelity Investments raised interest in Eric’s educational advancement and encouraged him to apply for an open position within the Trading Floor Engineering group, which he ended up being offered.

While transitioning into his new role, applied knowledge from his studies immediately influenced his performance. “I found that the knowledge and skills that I gained within the courses came to be of great use as I relied on them to perform at a higher caliber,” Eric says. “Within several months, I was leading a large scale project to enhance voice trading capabilities.”

Greatly beneficial to Eric’s advancement was the TSM program’s broad and interdisciplinary range of courses. Engineering supported technologies, providing business analyses of technology, working with financial aspects such as analyzing quotes and purchasing of major and minor capital expenditures, redesigning operational support processes among various organizations, and communicating and providing presentations to the heads of their trading floors and executive management are some of Eric’s exciting job responsibilities in his role at Fidelity Investments.