Title: Transition to 3G Next Generation IP Networks Seminar

When: May 21st, 2009 – 3PM

Where: (New) Engineering Building, Room 3202

Presenter: Please join Richard Fisk and his academic advisor Dr. Pandula for this seminar.

Audience: All are welcome.

Abstract

With the advent of the Internet, subscribers have looked to their Internet Service Providers to provide them with a quality of service (QOS) and the necessary bandwidth that would enable the proper functioning of the latest applications. In the beginning most of the applications were not time sensitive and included applications such as general Internet browsing and email. In recent years subscribers demand for applications such as video downloads, voice over IP (VoIP) and IP television (IPTV) have made wire line ISP increase their bandwidth exponentially in order to keep up with subscriber demand. Up until recently *wireless* service providers could service their backbones with T-1 and E-1 backhaul connections as their subscribers primarily used voice services with fixed bandwidth. With the introduction of 3G technologies service providers have now enabled their subscribers with access to even more bandwidth and the ability to begin using the same types (if not the exact same) applications that *wire line* ISP subscribers had enjoyed for years.

This seminar looks to introduce and discuss the 3G standards bodies; the evolution from TDM to IP based wireless service provider networks; the network components for both the 3GPP and 3GPP2 architectures; each architectures technical interfaces; an overview of the quality of service (QOS) mechanisms necessary for both 3G wireless standards; the network security measures needed to operate these architectures; how deep packet inspection (DPI) has enabled operators to control their network architectures more finitely; and a brief introduction to the 4G Long Term Evolution architecture.