Course: ENPM 602 – Data Networks
Semester: Spring 2017
Day(s): M
Time: 7:00 PM – 9:40 PM
Location: Instructor: C. Ravishankar
Phone: 301 548 1943
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Course Description

Prerequisites: ENEE324; or students who have taken courses with comparable content may contact the department

Method of Communication with students outside classroom: e-mail, phone or in-person after or before class

Emergency protocol: e-mail

Course Schedule: Every Monday between 7:00 PM and 9:40 PM

Statement of Course Goals: Principles of network design, packet switching, OSI Reference Model; wireless data networks, parity and cyclic redundancy check codes; retransmission request protocols; multi-access communication, local area networks; Quality of Service, Markov chains and queuing models for delay analysis; IP addressing, routing algorithms and protocols; TCP/UDP and higher layer protocols; Mobile IP and IP Multicast.

Required/Recommended Textbooks

- Required? (Y/N): Recommended
Course Outline

- Layered Protocol Architectures - OSI Model
- Digital Transmission Fundamentals
- Error Detection and Correction
- Link Layer Protocols - ARQ methods
- IEEE LAN and MAC Protocols
- Packet Switching Protocols
- Routing Algorithms
- Markov Chains and Queueing Models
- TCP/IP
- Quality of Service (QoS) handling in data networks
- Wireless Data Networks - GPRS (2.5G), 3G, 4G, and Wireless LAN
- Mobile IP and IP Multicast