TELECOMMUNICATIONS & NETWORKING (TCOM)

TCOM 601 Advanced Networking Modeling and Analysis
Traffic management and call admission: traffic characterization traffic shaping, admission control, statistical multiplexing, effective bandwidth. Scheduling: fair queuing, rate-controlled service disciplines. Buffer management: pushout, threshold, random early detection, sharing mechanisms (complete partitioning, complete sharing, hybrids), coupling buffer management and scheduling. Markov decision process and application in resource allocation (memory, bandwidth allocation). Switching: input queuing, output queuing, shared memory, combined input/output queuing. Maximum throughout in input queued switches, emulating output queuing with input queuing via speedup. Building larger switches: CIOS networks, banyan networks, etc. TCP modeling. Course not offered every year
Prerequisite: TCOM 501
Activity: Lecture
1 Course Unit

TCOM 770 TCOM Seminar
Course not offered every year
Activity: Seminar
1 Course Unit