

Syllabus
Spring 2005
March 22, 2005

Date	Speaker	Topic / Paper
January 18	rek	Introduction Computer Networks History TCP Sliding Windows
January 25	rek rek	Congestion Control and Queuing TCP Congestion Control <i>“Random Early Detection Gateways for Congestion Avoidance”</i> by Floyd and Jacobson
February 1	rek rek	<i>“Tuning RED for Web Traffic”</i> by Christiansen et al. <i>“The War between Mice and Elephants”</i> by Guo and Matta
February 8	rek rek	<i>“Core-Stateless Fair Queueing: Achieving Approximately Fair Bandwidth Allocations in High Speed Networks”</i> by Stoica, Shenker and Zhang <i>“On Designing Improved Controllers for AQM Routers Supporting TCP Flows”</i> by Hollot et al.
February 15	Ashish Samant Feng Li Glenn McGuire	<i>“Promoting the Use of End-to-End Congestion Control in the Internet”</i> by Floyd and Fall <i>“Differential Congestion Notification: Taming the Elephants”</i> by Le et al. <i>“An Analysis of Internet Content Delivery Systems”</i> by Saroiu et al.
February 22	rek Mark Johnson Gary Woo	<i>Introduction to Wireless Networks</i> <i>“Classification of Access Network Types: Ethernet, Wireless LAN, ADSL, Cable Modem or Dialup”</i> by Wei et al. <i>“Link-level Measurements from an 802.11b Mesh Network”</i> by Aguayo et al.
March 1	Feng Li Jon Gretarsson	<i>“Real Media Streaming Performance on an IEEE802.11b Wireless LAN”</i> by Kuang and Williamson <i>“Comparison of Routing Metrics for Static Multi-Hop Wireless Networks”</i> by Draves, Padhye and Zill
March 8		Class Canceled due to Snow
March 15	Brad Bures Abraham Murray	<i>“Open Issues on TCP for Mobile Computing”</i> by Tsaoussidis and Matta <i>“The Dangers of Mitigating Security Design Flaws: A Wireless Case Study”</i> by Petroni and Arbaugh
March 22	Glenn McGuire	<i>“Mitigating Routing Misbehavior in Mobile Ad Hoc</i>

	<p>Yatin Manjrekar</p> <p>Mark Johnson</p> <p>Gary Woo</p>	<p><i>Networks</i>” by Marti et al.</p> <p><i>“Improving TCP/IP Performance over Third Generation Wireless Networks”</i> by Chan and Ramjee</p> <p><i>“SPEP: A Secure and Efficient Scheme for Bulk Data Transfer over Wireless Networks”</i> by Obanaik, Jacob and Ananda</p> <p><i>“TinySec: A Link Layer Security Architecture for Wireless Sensor Networks”</i> by Karlof, Sastry and Wagner</p>
March 29	<p>Ashish Samant</p> <p>Yatin Manjrekar</p>	<p><i>“Defending against Flooding-Based Distributed Denial-of-Service Attacks: A Tutorial”</i> by Chang</p> <p><i>“PacketScore: Statistics-based overload Control against Distributed Denial-of-Service Attacks”</i> by Kim et al.</p>
April 5	<p>Brad Bures</p> <p>Jon Gretarsson</p>	<p><i>“On the Effectiveness of Route-Based Packet Filtering for Distributed DoS Attack Prevention in Power-Law Internets”</i> by Park and Lee</p> <p><i>“Packet Leashes: A Defense against Wormhole Attacks in Wireless Networks”</i> by Chum, Perrig and Johnson</p>
April 12	Abraham Murray	<p><i>“Virtual Private Networks: An Overview with Performance Evaluation”</i> by Khanvilkar and Khokhar</p> <p>Project Presentations (20 minutes per Project)</p>
April 19		Oral Final Exams in FL135