

Syllabus
December 1, 2014

Date	Speaker	Topic / Paper
September 2	rek	Introduction, Course Requirements TCP Sliding Windows
September 9	rek rek rek	Review Performance Metrics Congestion Control and Queuing TCP Congestion Control
September 16	rek rek	#1 Random Early Detection Gateways for Congestion Avoidance by Floyd and Jacobson #2 Tuning RED for Web Traffic by Christiansen et al.
September 23	Vasilios Mitrokostas rek	#3 The War between Mice and Elephants by Guo and Matta #4 Core-Stateless Fair Queueing: a Scalable Architecture to Approximate Fair Bandwidth Allocations in High Speed Networks by Stoica et al.
September 30	rek Keith Craig	#5 Congestion Control for High Bandwidth-Delay Product Networks by Katabi et al. TCP Vegas; TCP Compound; TCP Cubic #6 Network Border Patrol: Preventing Congestion Collapse and Promoting Fairness in the Internet by Albuquerque et al.
October 7	Brian Card rek rek	#7 Cloud Control with Distributed Rate Limiting by Raghavenet al. Wireless Primer #8 Characterization of 802.11 Wireless Networks in the Home by Yarvis et al.
October 14	Tianxiong Yang Lening Li	#9 Observing Home Wireless Experience through WiFi APs by Patro et al. #10 The Impact of Channel Bonding on 802.11n Network Management by Deek et al.
October 22		No Class

October 28	Tianyang Wang rek Brian Card	#11 Towards MIMO -Aware 802.11n Rate Adaptation by Pefkianakis et al. Routing Primer #12 A Performance Comparison of Multi Hop Wireless Ad Hoc Network Routing Protocols by Brock et al.
November 4	rek Keith Craig	#13 Defending against Flooding-Based Distributed Denial-of-Service Attacks: A Tutorial by Rocky Chang #14 Mitigating DNS DoS Attacks by Ballani and Francis
November 11	rek Lingling Sun Tianxiong Yang	Cellular Networking Primer #15 A Survey on Security for Mobile Devices by La Polla et al. # 16 A Close Examination of Performance and Power Characteristics of 4G LTE Networks
November 18	Vasilios Mitrokostas rek	#17 Understanding Bufferbloat in Cellular Networks by Jiang et al. Wireless Sensor Network Primer
December 2	Lening Li Tianyang Wang Lingling Sun	#18 Secure Routing in Wireless Sensor Networks: Attacks and Countermeasures by Karlof and Wagner #19 Ultra-Low Duty Cycle MAC with Scheduled Channel Polling by Ye et al. #20 The ContikiMAC Radio Duty Cycling Protocol by Dunkels
December 9	rek	The Internet of Things Student Project Presentations
December 16	5:30 – 9:00 p.m. FL135	Oral Final Exam