

Birla Institute of Technology & Science, Pilani (Rajasthan) India
Second Semester: 2009-2010
Laboratory Handout: CS C461/ IS C461

Date: 01/01/2010

In addition to part-II (Course handout) this portion gives you the details of structured laboratory sessions which will span over the entire semester complementing what is taught during the regular lecture sessions.

Course No. : CS C461/ IS C461
Course Title : Computer Networks
Instructor-in-Charge : RAHUL BANERJEE
Instructor : Avinash Gautam <*In-Charge: Laboratory Sessions*>

1. Objective and Scope of Structured Labs: The laboratory sessions are designed in such a way that they will make students appreciate what is taught to them in regular lectures and also see how computer networks work in reality by applying their knowledge to do practical stuff.

2. Lab Practice/ Reading Material: Practice material in form of lab-sheets and other references will be posted on course webpage.

3. Tools used in Labs:

- *Network Simulator - NS-2*
 - *Download link - <http://sourceforge.net/projects/nsnam/files/>*
- *Protocol Analyzer - Wireshark 1.2.5 (Most recent and stable release)*
 - *Download link - <http://www.wireshark.org/download.html>*
- *Command line utilities - Ping, Netstat, Tracert*

Lab No.	Objective	Date
1.	Configure a wired Ethernet LAN	TBA
2.	Configure a Wireless LAN using Wifi, involving the following learning <ul style="list-style-type: none"> ➤ How to make an ADHOC network? ➤ How to make an infrastructure WLAN? ➤ Frequency survey (an introduction) 	TBA
3.	Demonstration of Wireshark, involving the following learning <ul style="list-style-type: none"> ➤ Dissect and analyze the contents of a PDU ➤ TCP dump (if time permits) 	TBA
4.	Demonstration of NS-2 (with brief information on the NS-3)	TBA
5.	Simulate any one protocol of student's own choice using NS2	TBA
6.	Simulation of any one routing protocol using NS2	TBA
7.	Simulation of one transport layer protocol using NS2	TBA
8.	Configure Http Server, Ftp Server & an Application Proxy	TBA
9.	Configure DNS and DHCP Server	TBA
10.	Configure a Mail Server	TBA