

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI**

COURSE PLAN – PART I			
Course Title	Network Programming Laboratory		
Course Code	CS608	No. of Credits	2
Course Code of Pre-requisite subject(s)	Computer Networks		
Session	Jan. 2018	Section (if, applicable)	-
Name of Faculty	Dr.C.Mala Dr.B.Nithya	Department	CSE
Email	<a href="mailto:mala@nitt.edu">mala@nitt.edu</a> <a href="mailto:nithya@nitt.edu">nithya@nitt.edu</a>	Telephone No.	0431-2503208 0431-2503214
Name of Course Coordinator(s) (if, applicable)	-		
E-mail	-	Telephone No.	-
Course Type	Laboratory Course		
<b>Syllabus (approved in BoS)</b>			
Do refer the link: <a href="https://www.nitt.edu/home/academics/departments/cse/programmes/mtech/curriculum/semester_2/network_programming_laboratory/">https://www.nitt.edu/home/academics/departments/cse/programmes/mtech/curriculum/semester_2/network_programming_laboratory/</a>			
<b>COURSE OBJECTIVES</b>			
<ul style="list-style-type: none"> <li>• Create client and server applications using the "Sockets" API and the implementation of Data link layer protocol and TCP layer</li> <li>• Ability to conduct computer communication network simulations. Development of computer network simulation and modelling techniques using NS/OPNET simulation software.</li> </ul>			
<b>COURSE OUTCOMES (CO)</b>			
<ul style="list-style-type: none"> <li>★ Technical knowhow of the various components such as VM, IP Tables and Traffic Analyzer and its importance in communication</li> <li>★ Ability to invoke simulated studies of Wired and Wireless Networks through network simulation</li> </ul>			
<b>COURSE PLAN – PART II</b>			
<b>COURSE OVERVIEW</b>			
This course emphasizes various network elements, their usages in communications and simulated study of Wired and Wireless network performance.			

<b>LIST OF EXPERIMENTS</b>		
<b>S.No</b>	<b>Exercises related to the following</b>	
1	Socket Programming	
2	Implementation of FTP and Web Server	
3	Installation of Virtual Machines and Servers (DHCP and DNS server)	
4	IP Tables & Linux firewalls	
5	Installation of Packet/ Traffic Analyzer & Analyzing TCP and UDP traffic	
6	Installation of Network Simulator & Basic Programming in NS	
7	Simulating MAC Layer Protocol ( Wired & Wireless Networks)	
8	Simulating Network layer/ Transport Layer protocol (Wired & Wireless Networks)	
9	XML documents	
10	Dot Net and J2EE technologies.	
<b>COURSE ASSESSMENT METHODS</b>		
<b>S.No.</b>	<b>Mode of Assessment</b>	<b>Marks</b>
1	Regular Lab Class Assessments ( Min. Assessments: 10)	50
2	Model Exam	20
	Re-Model Exam	20
3	Semester Lab Exam	30
	<b>Total</b>	100
<b>COURSE EXIT SURVEY (mention the ways in which the feedback about the course shall be assessed)</b>		
<ul style="list-style-type: none"> <li>➤ Feedbacks are collected before final examination through MIS or any other standard format followed by the institute.</li> </ul>		
<b>COURSE POLICY (preferred mode of correspondence with students, policy on attendance, compensation assessment, academic honesty and plagiarism etc.)</b>		
<b><u>MODE OF CORRESPONDENCE (email/ phone etc)</u></b>		
E-mail		
<b><u>ATTENDANCE</u></b>		
<ul style="list-style-type: none"> <li>➤ Minimum 75% is mandatory to write the end semester examination.</li> <li>➤ Medical Certificate / On Duty Certificate should be submitted immediately after rejoining.</li> </ul>		

**COMPENSATION ASSESSMENT**

- Re- Model Exam will be conducted for the Absentees.

**ACADEMIC HONESTY & PLAGIARISM**

- Avoid usage of electronic devices during the class or test or exam.
- The students are expected to come out with their original solution for the problems given in the assignment. If found to copy from internet/other students, marks will be reduced.

**ADDITIONAL INFORMATION**

The students can get their doubts clarified at any time with their faculty member with prior appointment.

**FOR APPROVAL**

1. CHS  
2. Amr

Course Faculty \_\_\_\_\_ CC-Chairperson S. Sankum HOD 31/01/18