

*Syllabus* : Unix network measurement and analysis tools, Wireshark, Socket interface and programming, RPC, RMI, HTML, HTTP, CGI, XML, Client-server programming using TCP and UDP sockets, implementation of ARQ techniques, implementation of subset of TCP stack at user level, implementation of simplified versions of application layer protocols such as SMTP/HTTP/FTP etc., Assignments using Network Simulators.

*Texts* :

1. W. R. Stevens, UNIX Network Programming, Volume 1: Networking APIs: Sockets and XTI, 2nd Ed, Prentice Hall, 1998.
2. S. S. Panwar, S. Mao, J. Ryoo, and Y. Li, TCP/IP Essentials: A Lab-based Approach, Cambridge Press, 2004.