ITE6009	**NETWORK PROGRAMMING**	v.1.1			
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Pre-Req.: Nil		3	0	0 0	3

Objectives :
1. To understand the basics of network programming.
2. To establish connection and data transfer between sockets using TCP and UDP protocols
3. To introduce the principles and practices of secured socket programming.

Expected Outcome :
On completion of this course, student should be able
  1. To accomplish network programming tasks.
  2. Implement socket programming using TCP and UDP protocol

Module	Topics	L Hrs	SLO
1	**NETWORK PROGRAMMING**: Streams – InetAddresses – HTTP - Examples.	4	2
2	**URL:** URLs and URIs – URL Connection	4	7
3	**SOCKETS FOR CLIENTS:** Using Sockets – Constructing and connecting sockets – Getting information about a socket – Setting socket options	7	2
4	**SOCKETS FOR SERVERS:** Using Server sockets – Constructing Server sockets – Server socket options – Examples	7	7
5	**SECURED SOCKETS - I:** Secure Communications - Creating Secure Client Sockets - Choosing the Cipher Suites - Event Handlers - Session Management - Client Mode - Creating Secure Server Sockets.	7	7
6	**SECURED SOCKETS - II:** Event Handlers - Session Management - Client Mode - Creating Secure Server Sockets.	7	7
7	**UDP:** UDP Protocol-UDP clients and Servers- Datagram Packet Class – Datagram Socket class – Socket options - Examples	7	7
8	**Contemporary Issues**	2	
Total Lecture Hours # Mode: Flipped Class Room, [Lecture to be videotaped], Use of physical and computer models to lecture, Visit to Industry Min of 2 lectures by industry experts		**45**	

Text Book
  1. Elliotte Rusty Harold "JAVA Network Programming" Fourth Edition, O'Reilly, 2014.
     Reference Book
  1. David Reilly, "Java Network Programming and Distributed Computing", Addison-Wesley, 2012.

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