



Department of Computer Applications National Institute of Technology-Tiruchirappalli

1. COURSE OUTLINE TEMPLATE													
Course Title	Distributed Technology Lab												
Course Code	CA706	No. of Credits	2										
Department	Computer Applications	Faculty	Dr.S.R.Balasundaram Mr.K.Vignesh										
Pre-requisites Course Code	CA726												
PAC-Chairman	Dr.Michael Arock												
Other Course Teacher(s)/Tutor(s) E-mail	blsundar@nitt.edu vigneshk@nitt.edu	Telephone No.	9994291420 0431-2504652 9940033292										
Course Type	Core course												
2. COURSE OVERVIEW													
Distributed Technology how the client and server and communicate and uses of various technologies with Java													
3. COURSE OBJECTIVES													
→ To learn the various distributed objects and technologies													
4. COURSE OUTCOMES (CO)													
→ 1. Graphical Client and Multimedia Eco Server → 2. Synchronization with shared data and threads → 3. Sending and Receiving Objects (Object Serialization) → 4. Middleware Applications													
5. COURSE OUTCOME (CO)	Aligned Programme Outcome (PO)												
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	
Graphical Client and Multimedia Eco Server	H												
Synchronization with shared data and threads	H	H	H										
Sending and Receiving Objects (Object Serialization)		H	H	H									
Middleware Applications	H												

6. COURSE TEACHING AND LEARNING ACTIVITIES

Week	Lab Hours	Topic	Mode of Delivery
1	Tuesday	Write a Java program for Data Conversion like any base to any base conversion, integer to character conversion and vice versa Give a table of : Source data value, Final Data value for 5 different types of data values.	PC
2	Tuesday	Write a Java program to implement all basic operations of a Super market. Model it with the help of UML Diagrams. Implement using necessary classes and OOPs Concepts like Inheritance, Polymorphism etc.	PC
3	Tuesday	Write a java program to implement powerpoint presentation using data structures like Vector, ArrayList etc. Compare the Vector, ArrayList and any other based on performance	PC
4	Tuesday	Write a java program to implement "Game of Life" using AWT or Swing. <ul style="list-style-type: none"> • Dynamically Initialize a grid with size of n*n like 3*3, 5*5 etc. • Any live cell with fewer than two live neighbors dies, as if caused by under population. • Any live cell with two or three live neighbors lives on to the next generation. • Any live cell with more than three live neighbors dies, as if by overpopulation. • Any dead cell with exactly three live neighbors becomes a live cell, as if by reproduction. Different initial grid values with grid values after 3, 7, 11 iterations	PC
5	Tuesday	Write a Java program for Simple client and server chat application.	PC
6	Tuesday	Write a Java program for Multithreaded client and server chat application.	PC
7	Tuesday	Write a Java program for Multithreaded client and server chat application.	PC
8	Tuesday	Write a Java program to perform Object Serialization	PC
9	Tuesday	Write a Java program for database connectivity	PC
10	Tuesday	Write a Java program for Remote Method Invocation.	PC

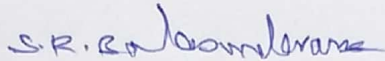
7. COURSE ASSESSMENT METHODS

S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
1	Model	9 th week	60 Minutes	40%
2	Semester	10 th week	60 Minutes	60%
			Total	100


8. ESSENTIAL READINGS : Textbooks, reference books, etc

1. M. L. Liu, "Distributed Computing Principles and Applications", Pearson Education 2004
2. Mark Hansen, "SOA using JAVA Web Services", Prentice Hall 2007
3. Crichlow, "Distributed Systems: Computing over Networks", PHI 2009
4. Tanenbaum, Sten, "Distributed Systems - Principles and Paradigms", PHI 2006
5. Puder, "Distributed Systems Architecture - A Middleware Approach", Science & Technology Books 2005.
6. Lynch, "Distributed Algorithms" Science & Technology Books 1996.
7. David Reilly & Michael Reilly, "Java Networking and Distributed Computing", Addison Wesley, 2002.
8. Jim Farley, "Java Distributed Computing", O'Reilly Media; 1st edition, 1998.

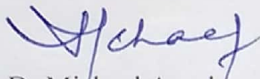
For Senate's Consideration



Dr.S.R.BalaSundaram
Course Faculty



Mr.K.Vignesh
Course Faculty



Dr.Michael Arock
PAC - ChairPerson



Dr.S.R.BalaSundaram
Head of the Department