|  |  |  |
| --- | --- | --- |
| **S.No** | **CONTENT** | **Page No** |
|  | **Preface** |  |
|  | **Authorization** |  |
|  | **Time Table**  |  |
|  | **Syllabus** |  |
|  | **Course Description(Introduction, About the course)**  |  |
|  | **Student Name List** |  |
|  | **Department PEOs and Pos** |  |
|  | **Course Plan** |  |
|  | **Assignment Questions** |  |
|  | **Question Bank (important 2 marks and 16 marks Questions with answers)** |  |
|  | **Last 5 year University Questions** |  |
|  | **Study Material**  |  |
|  | **Short Answer Test / OHT / Weekly Test Questions** |  |
|  | **Assignment Mark list with sample Assignment**  |  |
|  | **Innovative Ideas and Assignments if any**  |  |
|  | **Mark list for All tests** |  |
|  |  **Result Analysis for all Tests**  |  |
|  | **Sample Answer script for all tests(Low, Medium, High)** |  |
|  | **Tutorial topics with proof if any** |  |
|  | **Seminar topics and details if any**  |  |
|  | **Lecture Noting**  |  |
|  | **Contents beyond syllabi** |  |
|  | **Table of Specification** |  |
|  | **Question Papers Mapping with course outcomes** |  |
|  | **Course Assessment Report** |  |
|  | **Log book** |  |

**E.G.S PILLAY ENGINEERING COLLEGE, NAGAPATTINAM**

**DEPARTMENT OF COMPUTER APPLICATIONS**

**PREFACE**

**Sub.Code & Name : MC7404&NETWORK PROGRAMMING**

**Year & Sem : II / IV**

**Staff Name : Ms.K.LAKSHMIPRIYA Asst.Prof./CSE**

**Batch : 2014 – 2017**

**Regulation : Anna University, Chennai, R-2013**

Network programming involves writing programs that communicate with other programs across a computer network. One program is normally called the *client* and the other the *server*. Most operating systems provide precompiled programs that communicate across a network--common examples in the TCP/IP world are Web clients (browsers) and Web servers, and the FTP and Telnet clients and servers--but this book describes how to write our own network programs.

Chapter 2 concurrent server we cover the fork function. When we describe how to handle the SIGCHLD signal with our concurrent server , we describe many additional features of Posix signal handling (zombies, interrupted system calls, etc.). the Posix interface. (We say more about the Posix family of standards.)

This includes not only the Posix.1 standard for the basic Unix functions (process control, signals, etc.),  covering IP versions 4 (IPv4) and 6 (IPv6). That is, the problems are not with the API functions such as accept and select, but the problems arise from a lack of understanding of the underlying network protocols. For example, I have found that once a student understands TCP's three-way handshake and four-packet connection termination, many network programming problems are immediately understood.

**E. G. S. PILLAY ENGINEERING COLLEGE**

**NAGAPATTINAM – 611 002**

**AUTHORIZATION**

This is to certify that this is an authorized course file of ……………………………………………………………………………….. for …………………………………………………………………being handled by …………………………………………………………………………………… during the odd semester of the academic year 2014-2015.

HOD PRINCIPAL

Place: EGSPEC, Nagapattinam.

Date:

**E. G. S. PILLAY ENGINEERING COLLEGE**

**NAGAPATTINAM – 611 002**

**Time Table**

**Staff Name: K.LAKSHMIPRIYA M.E., Asst.Prof/CSE**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 9.00-9.50 | 9.50-10.40 |  | 10.55- 11.45 | 11.45-12.35 | LUNCH | 13.1514.05 | 14.05- 14.55 | BREAK | 15.05- 15.55 | 15.55- 16.45 |
| Mon |  |  |  |  |  |  |  |  |  |
| Tue |  |  |  |  |  |  |  |  |  |
| Wed |  |  |  |  |  |  |  |  |  |
| Thu |  |  |  |  |  |  |  |  |  |
| Fri |  |  |  |  |  |  |  |  |  |

**Theory: Practical: Total:**

MC7404 - NP - Network Programming

 **HOD/MCA**

**E.G.S PILLAY ENGINEERING COLLEGE, NAGAPATTINAM**

**DEPARTMENT OF COMPUTER APPLICATIONS**

**COURSE DESCRIPTION**

**Sub. Code & Name : MC7404 NETWORK PROGRAMMING**

**Year & Sem : II / IV**

**Staff Name : Ms.K.Lakshmipriya Asst.Prof./CSE**

**COURSE DESCRIPTION**

Covers application layer protocol and how applications use the transport layer; principles and practice of network programming; the client-server model; concurrent processing; introduction to sockets and related functions client and server software design with examples; principles, issues and challenges in e-mail and web application protocols; security protocols; and network life system concepts. Basic networking constructs, including routers, switches, and hostsSome programming experience, as well as experience with tools such as WireShark and NS2, Routing algorithms in the Internet; link-state routing and distance-vector routing; broadcast and multicast routing algorithms. Multi-Protocol Label Switching; requirements, introduction to labels, signaling protocols.Traffic Engineering; Requirements, deployment, prioritizing traffic.Link layer technologies; mulitple access protocols; local area networks; Ethernet and the CSMA/CD protocol.Wireless and mobile networks; introduction, 802.11, mobility management, mobile IP.

Brief overview of TCP/IP protocol stack, TCP and some network watching tools (ifconfig, netstat, tcpdump, etc) ,Elementary UDP sockets,Elementary TCP sockets,Signal handling (for network programming),A walk-through of some introductory examples,I/O multiplexing with *select()* system call,Name and address conversion,The *simpella* protocol,Non-blocking I/O.

Overview of advanced network programming,IPv4 vs IPv6,Daemon processes,Broadcasting & multicasting,Raw sockets,Accessing the datalink layer

**E.G.S PILLAY ENGINEERING COLLEGE, NAGAPATTINAM**

**DEPARTMENT OF COMPUTER APPLICATIONS**

**STUDENT NAME LIST**

**(BATCH 2014-2017)**

|  |  |  |
| --- | --- | --- |
| **S.NO** | **REGISTER NO** | **STUDENTS NAME** |
|
| 1 | 820814621001 | CHRISTY R |
| 2 | 820814621002 | ISWARYA M |
| 3 | 820814621003 | IYSWARYA T |
| 4 | 820814621004 | JAMES G |
| 5 | 820814621005 | KAYALVIZHI B |
| 6 | 820814621007 | MENAKA R |
| 7 | 820814621008 | NATHIYA N |
| 8 | 820814621009 | PRAVEENCHAKRAVARTHI |
| 9 | 820814621010 | RAGUMAN P |
| 10 | 820814621011 | RAJA RAJESHWARI |
| 11 | 820814621012 | SANGAVI M |
| 12 | 820814621014 | SEETHA P |
| 13 | 820814621015 | VEERARAGAVAN R |
| 14 | 820814621016 | VINITHA K |
| 15 | 820814621301 | ANUPRIYA.P |
| 16 | 820814621302 | ANUSUYA.G |
| 17 | 820814621303 | ANUSUYA.P |
| 18 | 820814621304 | ARUN.S |
| 19 | 820814621305 | DEERAN SANJAY R |
| 20 | 820814621306 | DHIVYA. K |
| 21 | 820814621307 | DIVYABHARATHI |
| 22 | 820814621308 | ELAYARAJA S |
| 23 | 820814621309 | GANESHKUMAR.D |
| 24 | 820814621310 | GAYATHRI.R |
| 25 | 820814621311 | GAYATHRI.T |
| 26 | 820814621312 | JAYALAKSHMI.C |
| 27 | 820814621313 | KEERTHIKA.A |
| 28 | 820814621314 | KIRUTHIKA.K |
| 29 | 820814621315 | MAHALAKSHMI M |
| 30 | 820814621316 | MAHALAKSHMI.V |
| 31 | 820814621317 | MAHESHWARI.M |
| 32 | 820814621318 | MAHESWARI R |
| 33 | 820814621319 | MANIPRIYA M |
| 34 | 820814621320 | MATHUBALA S |
| 35 | 820814621321 | MOHAMMED NASEEF.M |
| 36 | 820814621322 | MOHAMEED RAFEEQ.A |
| 37 | 820814621323 | MOHANAPRIYA.S |
| 38 | 820814621324 | MURUGAVVEL S |
| 39 | 820814621325 | NANCY PRAVEENA.P |
| 40 | 820814621326 | NIVETHA V |
| 41 | 820814621327 | PRAGATHIESWARAN.P |
| 42 | 820814621328 | PUNITHA.M |
| 43 | 820814621329 | RAJALAKSHMI.A |
| 44 | 820814621330 | RAJASRI R |
| 45 | 820814621331 | RAJESHWARI.V |
| 46 | 820814621332 | RAJESHWARI.S |
| 47 | 820814621333 | RAMYA.B |
| 48 | 820814621334 | RAMYA.N |
| 49 | 820814621335 | RAMYA.V |
| 50 | 820814621336 | RENUKADEVI. K |
| 51 | 820814621337 | RUBINAJESRIN NISA H |
| 52 | 820814621338 | SATHYA NARAYANAN.M |
| 53 | 820814621339 | SINDHU.K |
| 54 | 820814621340 | SIVASAKTHI.S |
| 55 | 820814621341 | SOWMIYA K |
| 56 | 820814621342 | SRUTHY.S |
| 57 | 820814621343 | SUNDARAVALLI.S |
| 58 | 820814621344 | SUVETHA R |
| 59 | 820814621345 | TAMILSELVI.M |
| 60 | 820814621346 | THILAGAVATHI S |
| 61 | 820814621347 | THIRUKUMARAN |
| 62 | 820814621348 | VAIDHEKI.M |
| 63 | 820814621349 | VANMATHI.S |
| 64 | 820814621350 | VETRISELVI.V |
| 65 | 820814621351 | VIGNESHWARI.M |
|  |

**Sub. In charge Class Coordinator HOD**

**E.G.S Pillay Engineering College – Nagapattinam**

**Department of Computer Applications**

**Vision**

 Our vision is to produce eminent software professionals with innovative thinking in the field of Computer science and uplift the socio-economic status along with social responsibility.

**Mission**

The department of computer applications focuses on making industry ready IT professionals and entrepreneurs by imparting quality computer education and inspiring continuing education along with interpersonal skills.

**Programme Educational Objectives (PEOs)**

1. **Preparation:** To prepare the students with required mathematical, managerial and computing knowledge for a successful career meeting the requirements of Industry**.**
2. **Core Competence:** To provide students with a strong foundation in the computing and computer applications fundamentals necessary to formulate, analyze, solve and test the software solutions.
3. **Breadth:** To develop an ability to analyze the requirements, understand the technical specifications, design, test and document the relevant software to provide novel engineering solutions.
4. **Professionalism:** To inculcate in students professional and ethical attitude, effective communication skills, leadership, teamwork skills, multidisciplinary approach and an ability to relate engineering issues to broader social context.
5. **Learning Environment:** To create awareness and prepare the students to engage in life-long learning and to remain up to date in their profession.

**Programme Outcomes (POs)**

1. Understand and Apply mathematical foundation, computing and domain knowledge for the conceptualization of computing model of problems.
2. An ability to analyze a problem and to identify the computing requirements, design, implement and evaluate computer-based system, components and processes to meet the specific needs of applications.
3. An ability to design and develop web solutions with necessary graphical user interface.
4. Use Current techniques and tools necessary for complex computing practices.
5. Understand and commit to cyber regulations and responsibilities in professional computing process.
6. Recognize the need for and develop the ability to engage in continuous learning as a computer professional.
7. Understand the methodologies of testing the application software.
8. Understand the management principles with computing knowledge to carryout live projects.
9. Communicate effectively with the computing community as well as society.
10. Function effectively in a team to accomplish a common goal.
11. An ability to think creatively with an attitude for research and development.
12. Expertise in developing application software and associated documentation.