VEL TECH MULTITECH
Dr.RANGARAJAN Dr.SAKUNTHALA
ENGINEERING COLLEGE

(An ISO 9001: 2008 Certified Institution)
(Owned by 'VEL Shree R. Rangarajan
Dr. Sakunthala Rangarajan Educational Academy)
(Approved by AICTE, New Delhi &
Govt. of Tamil Nadu and affiliated to Anna University)

SYLLABUS

WEEKLY SCHEDULE

VIII SEMESTER 2015-16

DEPARTMENT OF IT

IV YEAR DEGREE COURSE

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SEM: VIII **YEAR: IV**

ACADEMIC YEAR (2015-16)

Regulation 2008

S. No	WEEKS	DATE	
		FROM	TO
1	WEEK1	18.01.16	23.01.16
2	WEEK2	25.01.16	30.01.16
3	WEEK3	01.02.16	06.02.16
4	WEEK4	08.02.16	13.02.16
5	WEEK5	15.02.16	20.02.16
6	WEEK6	22.02.16	27.02.16
7	WEEK7	29.02.16	05.03.16
8	WEEK8	07.03.16	12.03.16
9	WEEK9	16.03.16	20.03.16
10	WEEK10	22.03.16	26.03.16
11	WEEK11	27.03.16	02.04.16
12	WEEK12	03.04.16	09.04.16
13	WEEK13	11.04.16	16.04.16
14	WEEK14	18.04.16	23.04.16
15	WEEK 15	25.04.16	30.04.16

CONTENTS

TEST SCHEDULE

S.No	SUB CODE	SUBJECT NAME	UNIT TEST I	UNIT TEST II	PRE MODEL EXAM	MODEL EXAM
1	CS2056	Distributed Systems	01.02.16	15.02.16	29.02.06	01.04.16
2	GE2021	Professional Ethics in Engineering	02.02.16	16.02.16	01.03.16	04.04.16

CS2056 DISTRIBUTED SYSTEMS

UNIT I
WEEK 1:
Characterization of Distributed Systems-Introduction-Examples- Resource Sharing and the Web-Challenges. System Models-Architectural- Fundamental. Inter process Communication-Introduction- API for Internet protocols- External data representation and marshalling-Client-server communication-Group communication Case study: Interprocess Communication in UNIX.

WEEK-2 Unit Test-1

UNIT II
Distributed Objects and Remote Invocation-Introduction Communication between distributed objects-

WEEK 3:
Remote procedure calls-Events and notifications-Case study: Java RMI.

WEEK 4:
Operating System Support-Introduction-OS layer-Protection.

WEEK 5:
Processes and threads- Communication and invocation OS architecture.

WEEK 6 Unit Test-2

UNIT III
Distributed File Systems-Introduction-File service architecture-Case Study:Sun Network File System-Enhancements and further developments.

WEEK 7:
Name Services-Introduction-Name Services and the Domain Name System-Directory Services-

WEEK 8:
Case Study: Global Name Service.

WEEK-9 Unit Test-3

UNIT IV
Time and Global States- Introduction-Clocks, events and process states.

WEEK 10:
Introduction-Clocks, events and process states-Synchronizing physical clocks-Logical time and logical clocks - Global states - Distributed debugging. Coordination and Agreement- Introduction- Distributed mutual exclusion

WEEK 11:
Elections Multicast communication-Consensus and related problems.**REVISION**

WEEK-12 Unit Test-4

UNIT-V
Distributed Shared Memory - Introduction - Design and implementation issues.

WEEK 13:
Sequential consistency and release consistency and Munin case study.

WEEK 14:
Other consistency models. CORBA Case Study - Introduction - CORBA RMI – CORBA services.

WEEK-15 Unit Test-5

WEEK-16 & 17 Model Exam

TEXT BOOK:

1. George Coulouris, Jean Dollimore, Tim Kindberg, , "Distributed Systems: Concepts and Design", 4th Edition, Pearson Education, 2005.

REFERENCES:

1. A.t S. Tanenbaum and M. V. Steen, "Distributed Systems: Principles and Paradigms", Second Edition, Prentice Hall, 2006.
2. M.L.Liu, “Distributed Computing Principles and Applications”, Pearson Addison Wesley, 2004.
3. Mukesh Singhal, “Advanced Concepts In Operating Systems”, McGrawHill Series in Computer Science, 1994.
4. Nancy A. Lynch, "Distributed Algorithms", The Morgan Kaufmann Series in Data Management System, Morgan Kaufmann Publishts and process states.

GE2021 PROFESSIONAL ETHICS IN ENGINEERING

UNIT I ENGINEERING ETHICS

WEEK 1:

Senses of 'Engineering Ethics' – Variety of moral issues – Types of inquiry - Moral dilemmas – Moral Autonomy – Kohlberg's theory – Gilligan's theory - Consensus and Controversy – Professions and Professionalism- Professional Ideals and Virtues – Uses of Ethical Theories

WEEK 2 Unit Test-1

UNIT II ENGINEERING AS SOCIAL EXPERIMENTATION

Engineering as Experimentation – Engineers as responsible Experimenters.

WEEK 3:

Research Ethics - Codes of Ethics – Industrial Standards.

WEEK 4:

A Balanced Outlook on Law –

WEEK 5:

The Challenger Case Study -REVISION

WEEK 6 Unit Test-2

UNIT III ENGINEER'S RESPONSIBILITY FOR SAFETY

Safety and Risk – Assessment of Safety and Risk –

WEEK 7:

Reducing Risk – The Government Regulator's Approach to Risk .

WEEK 8:

Risk Benefit Analysis –REVISION

WEEK 9 Unit Test-3

UNIT IV RESPONSIBILITIES AND RIGHTS

Collegiality and Loyalty

WEEK 10:

Respect for Authority – Collective Bargaining – Confidentiality – Conflicts of Interest.

WEEK 11:
Occupational Crime – Professional Rights – Employee Rights-REVISION

WEEK 12 Unit Test-4

UNIT V GLOBAL ISSUES
Multinational Corporations – Business Ethics

WEEK 13:
Environmental Ethics – Computer Ethics - Role in Technological Development – Weapons Development – Engineers as Managers – Consulting Engineers .

WEEK 14:
Engineers as Expert Witnesses and Advisors – Honesty – Moral Leadership - Sample Code of Conduct.

WEEK 15 Unit Test-5

WEEK 16 & 17 Model Exam

TEXT BOOKS:

1. Mike Martin and Roland Schinzinger, "Ethics in Engineering", McGraw Hill, New York, 2005.
2. Charles E Harris, Michael S Pritchard and Michael J Rabins, "Engineering Ethics – Concepts and Cases", Thompson Learning, 2000.

REFERENCES:

1. Charles D Fleddermann, "Engineering Ethics", Prentice Hall, New Mexico, 1999.
2. John R Boatright, "Ethics and the Conduct of Business", Pearson Education, 2003
3. Edmund G Seebauer and Robert L Barry, "Fundamentals of Ethics for Scientists and Engineers", Oxford University Press, 2001.
4. Prof. (Col) P S Bajaj and Dr. Raj Agrawal, "Business Ethics – An Indian Perspective", Biztantra, New Delhi, 2004.