

## **MANDATORY DISCLOSURE**

### **I. NAME & ADDRESS OF THE INSTITUTION:**

**Dr. V.R.K. WOMEN'S COLLEGE OF ENGINEERING & TECHNOLOGY**

AZIZ NAGAR, MOINABAD MANDAL, R.R.DISTRICT – 500075

TEL.NO. : 08413 – 235482

FAX NO. : 08413 – 235962

E-MAIL ID : [info@drvkwomenscollege.com](mailto:info@drvkwomenscollege.com)

### **II. NAME & ADDRESS OF THE PRINCIPAL:**

Mrs. SUJATHA THEODORE

Dr. V.R.K. WOMEN'S COLLEGE OF ENGINEERING & TECHNOLOGY

AZIZ NAGAR, MOINABAD MANDAL, R.R.DISTRICT – 500075

TEL.NO. : 08413 – 235482

FAX NO. : 08413 – 235962

E-MAIL ID : [principal@drvkwomenscollege.com](mailto:principal@drvkwomenscollege.com)

### **III. NAME OF THE AFFILIATING UNIVERSITY:**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY

KUKATPALLY, HYDERABAD – 500072.

### **IV. GOVERNANCE:**

❖ **Members of the Board**

- |                                  |  |
|----------------------------------|--|
| 1. Dr. Mohd Vizarath Rasool khan | - Chairman<br>Chief Promoter of Shadan Group of<br>Institutions,<br>Advisor, PCMB                                      |
| 2. Mr. Syed Azaz-ur-Rahman       | - Vice-Chairman<br>M.Tech. (CSE) from Bits Pillani<br>Vice – Chairman, Shadan Educational<br>Society,<br>Advisor, PCMB |
| 3. Mr. Saquib Rasool Khan        | - Secretary<br>Secretary, Nimra College of Engg. & Tech.<br>Vijaywada<br>Director of Shadan Group of Institutions      |
| 4. Mr. Aazib Rasool khan         | - Jt. Secretary  |
| 5. Mrs. Shadan Tahniath          | - Treasurer<br>Secretary & Correspondent of Shadan Group<br>of Institutions  |
| 6. Mrs. Sujatha Theodore         | - Principal  |

**❖ Members of Academic Advisory Body:**

- |                            |   |
|----------------------------|---|
| 1. Dr. Afzal Mohammad Khan | Former Vice-Chancellor,<br>Dr. Ambedkar university,   |
| 2. Mr. S.M.Jinnah          | Former Engineer in Chief,<br>Dept of irrigation, Govt of A.P.   |
| 3. Mr. Azaz-ur-Rahman      | M.Tech (BITS) Pillani, He has over 15 years<br>experience in the field of education.  |
| 4. Mr Md..Fayazuddin       | Principal Shadan College Hyderabad,<br>He has more than 15 years experience<br>in setting up Laboratories in engineering<br>colleges. |
| 5. Mrs.Sujatha Theodore    | Principal   |

Head of the EEE Department	: NAZNEEN SHAZIA
Head of the ECE Department	: K SUJATHA
Head of the CSE Department	: NAZIMA ARJUMAND

### **B.Tech IVyr I/II sem**

<b>S.No</b>	<b>Branch</b>	<b>Class Advisors</b>
1	CSE	Ms. Shadab Saba
2	ECE	Mrs. K.Sujatha
3	EEE	Mrs. Nazneen Shazia

### **B.Tech IIIyr I/II sem**

<b>S.No</b>	<b>Branch</b>	<b>Class Advisors</b>
1	CSE	Ms. Birjis Fatima
2	ECE	Ms Shabeena Begum
3	EEE	

### **B.Tech Ilyr I/II sem**

<b>S.No</b>	<b>Branch</b>	<b>Class Advisors</b>
1	CSE	Ms. Razia Begum
2	ECE	Ms. Masarath Fatima
3	EEE	

### **B.Tech Ist year**

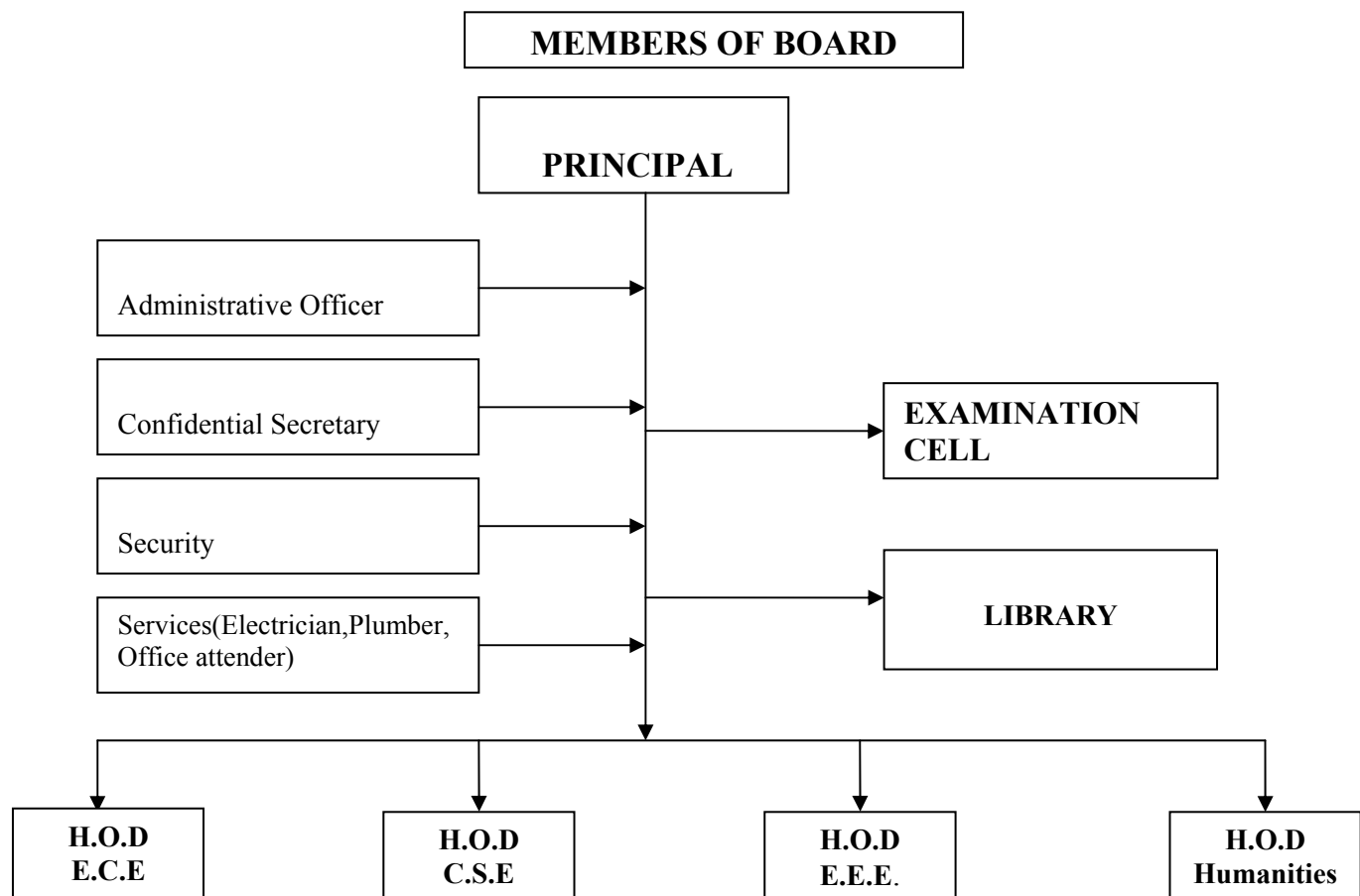
<b>S.No</b>	<b>Branch</b>	<b>Class Advisors</b>
1	CSE	Ms.Umma Tahera
2	ECE	Ms.Arshiya Noorian
3	EEE	Ms. K. Lavanya

❖ **Frequency of the Board Meetings and Aademic Advisory Body:**

Board Meeting – Once in a Three months

Academic Advisory – Once in a month

❖ **Organizational Chart and Processes:**



### Organizational processes:

Like minded engineering colleges, have formed a Planning, Coordinating Monitoring and Control Board,(PCMB) with the following members

- 1) Mr. Kareemullah khan, Chairman PCMB. (Former engineer-in-chief. Govt. of A.P.)
- 2) Dr. Afzal Mohammed,Vice-chairman PCMB  
(Former Vice-Chancellor of Dr. Ambedkar University)
- 3) Mr. Mohd Ghousuddin Vice-Chairman PCMB (Former Engineer-in-Chief. Govt. of A.P)
- 4) Mr. Ahmedullah khan, Member PCMB (Former member, NAAC)
- 5) Mr. S.M. Jinnah, Member PCMB (Former Engineer-in-chief, Irrigation Dept. Govt. of A.P.)
- 6) Mr. Mohd Inam-ul-Haq, Member PCMB ( Former Chief Engineer, Govt. of A.P.)
- 7) Mr. Mohiuddin Ghatala, Member PCMB ( Former Chief Engineer, Govt. of A.P.)
- 8) Mr. Md. Mahmood Ali, Member PCMB ( Former Chief Engineer, Irrigation Dept. Govt. of A.P.)

The PCMB (web site : [www.pcmboard.org](http://www.pcmboard.org) ) takes care of the admissions process in the colleges attached to it. The PCMB also conducts a review meeting every half year, for improving the academic performance and infra structural facilities in colleges associated with the Board.

❖ **Nature and extent of involvement of faculty and students in academic affairs improvements:**

There is a continuous interaction between principal / faculty /students to find ways and means to improve academic performance of students. Regular feedback is obtained from students regarding performance of each faculty member. The feedback together with results obtained by each faculty member in his/her respective subjects taught, are used to evaluate performance of each faculty members. Corrective action where necessary is taken to improve performance of faculty.

Laboratories facilities / equipment are installed / upgraded in consultation with faculty members.

There is a class advisor for each class of each branch whose duties are as follows:

1. To get attendance details from all faculty and submit to the HOD of dept. on 1st of every month.
2. To collect internal exam marks from faculty members and submit to HOD of the Branch.
3. To maintain discipline of the respective class and inform any acts of indiscipline to the HOD/Principal.
4. To keep in close touch with students of their class and inform their problems to the HOD / Principal.
5. To coordinate with the examination cell and help them in seating arrangement .
6. Follow up fees payment.
7. Inform parents over phone / through a letter, performance of students with respect to academics and attendance especially in case of weaker students.
8. Ensure syllabus is being covered as per Teaching Schedule.
9. Allocate additional classes to those faculty members who are lagging behind schedule
10. Ensure teaching diaries are being written regularly by faculty

❖ **Mechanism/Norms & Procedure for democratic/good Governance:**

Systems and procedures have been defined for all key college activities.

**Example:** systems and procedures have been laid out for

<b>Library</b>	:	Timings: 8am to 4 pm Number of books to be issued at a time : 2, Penalty for late return of books Rules regarding reference book issuance against ID card.
<b>Discipline</b>	:	Attendance of faculty & Students is maintained Late entry of students to college – permissible limit, Behavior of students towards faculty, Behavior of faculty towards students
<b>Grievance redressal</b>	:	Grievance redressal cell exist and resolve the problems of the students.
<b>Internal/University Exams</b>	:	Rules to be followed strictly as per norms laid down by University.

❖ **Student Feedback on Institutional Governance / Faculty performance**

Feedback is taken twice in a semesters in respect of issues such as:

- Proficiency of lecturers
- Availability of books
- Facilities for sports and games
- Facilities for transport.

Principal,/HODs and Class Advisors are in regular touch with students Syllabus coverage to resolve the issues.

The feedback is reviewed and necessary steps taken to improve matters. For example: if unsatisfactory feedback is received about any faculty member, the HOD attends his lecture and if the grievance is found to be genuine, counseling is done to faculty member.

If in spite of this there is no improvement, the faculty member is replaced.

Similarly students' feedback in respect of extracurricular activities or availability of books, transport facilities etc are taken note of and deficiencies if any removed.

## V. PROGRAMMES:

❖ Name of the Programmes approved by the AICTE:

1. ELECTRICAL & ELECTRONICS ENGINEERING

2. ELECTRONICS & COMMUNICATION ENGINEERING

3. COMPUTER SCIENCE ENGINEERING

❖ Name of the Programmes accredited by the AICTE: - NIL-

❖ For each programme the following details are to be given:

Name : B.TECH. (EEE, ECE & CSE)

No. of seats : 60

Duration : 4 Years

Cut of Marks/Rank for admission during the last three years:

Academic Year	EEE	ECE	CSE
2008-2009	243842	270029	270035
2007-2008	121005	99121	10211
2006-2007	105655	95565	99524

Fee : Rs. 30,200/-

Placement Facility : Tie up with Placement Agencies.

Campus Placement in Last three years :

Academic Year	EEE	ECE	CSE
2008-2009	4	20	26
2007-08	5	25	20
2006-07	12	30	37

## VI. FACULTY

### ❖ BRANCH – WISE LIST FACULTY MEMBERS.

#### LIST OF THE TEACHING STAFF

S.No	Name	Qualification & Specification	Designation
<b>COMPUTER SCIENCE ENGG</b>			
1	Ms.Sujatha Theodore	M.TECH,(PhD)	Professor
2.	Ms. Nazima Arjumand	M.Tech (CSE)	Assc. Professor
3	Ms.Kaneez Fatima	B.Tech. (CSIT.)	Lecturer
4	Ms. Shadab Saba	B.Tech. (CSE.)	Lecturer
5	Ms. Umama Tahera	B.Tech. (CSE.)	Lecturer
6	Ms. Fatima Farah	B.E (CSE)	Lecturer
7	Ms Khadija Sultana	B.Tech. (CSE.)	Lecturer
8	Ms Birjis Fatima	B.Tech. (CSE.)	Lecturer
9	Ms Asma Fasih	B.Tech. (CSE.)	Lecturer
10	Ms Nazia Fatima Ansari	B.Tech. (CSE.)	Lecturer
11	Ms Razia Begum	B.Tech. (CSE.)	Lecturer
12	Ms. Syeda Khudsiya	B.Tech. (CSE.)	Lecturer
13	Ms. Afsha Jabeen	B.Tech. (CSE.)	Lecturer
<b>ELECTRONICS &amp; COMMUNICATION ENGG.</b>			
1	Mrs. K.Sujatha	M.Tech.	Asst. Professor
2	Mrs. K. Udaya Lakshmi	M.Tech	Asst. Professor
3	Mrs Liny John	M.Tech	Lecturer
4	Ms T. Shara	M.Tech.	Lecturer
6	Ms. Lubna Mujeeb	B.Tech.	Lecturer
7	Ms. Nayela Jaffer	B.Tech.	Lecturer
8	Ms Tamkanath Kausar	B.Tech.	Lecturer
9	Ms Shabeena Begum	B.Tech.	Lecturer
10	Mrs Shaheena Kamrani	B.Tech.	Lecturer
11	Ms Farhana Begum	B.Tech.	Lecturer
12	Ms Arshiya Noori	B.Tech.	Lecturer
13	Ms Masarath Fatima	B.Tech.	Lecturer

ELECTRICAL & ELECTRONICS ENGG.			
1	Ms Udaysree Jala	M.Tech.	Asst. Professor
2.	Sk. Tamanna Fatima	M.Tech	Asst. Professor
3	Ms L. Jayavani	M.Tech.	Lecturer
4	Ms G. Mary Kamala	M.Tech.	Lecturer
5	Ms Nazneen Shazia	B.Tech.	Lecturer
6	Ms Jarina Begum	B.Tech.	Lecturer
7	Ms. Qudsiya Masrath	B.Tech.	Lecturer
8	Ms Tajvar Sultana	B.Tech.	Lecturer
9	Ms K. Lavanya	B.Tech.	Lecturer
10	Ms. Shela Nayeem	B.Tech	Lecturer
11	Ms. Aatika Fatima	B.E.	Lecturer
12	Ms Nadia Zareen	B.Tech.	Lecturer
BASIC SCIENCE & HUMANITIES			
1	Mrs.Soma Mukhopadhyay	Ph.D.(Professor& H.O.D)	Professor
2	Mr.Mirza Naveed Ahmed	M.Tech	Asst. Professor
3	Ms.Zarina Begum	M.Sc.(Mathematics & Scientific Computing)	Asst. Professor
4	Ms. Raisa Begum	MHRM,M.Com	Lecturer
5	Ms.Teena	M.Sc (Applied Maths)	Lecturer
6	Ms. Emma Sarkar	M.A. M.Phil (English)	Lecturer
7	Ms. Farzana Begum	M.A (M.Phil)	Lecturer
8.	Mrs. Mahboob Unnisa	M.A	Lecturer
9	Ms Jayalalitha	B.tech	Lecturer
10	Ms. Herathunnisa Shaik	B.tech	Lecturer
<u>LIBRARY</u>			
1	Ms K.N. Sudha Madhuri	M.A., M.Lisc, PGDLAN	Librarian
2	Ms VaraLakshmi	M.A., M.Lisc	Asst. Librarian

**Permanent Faculty : Student Ratio**

**EEE : 1 : 12.00**

**ECE : 1 : 12.00**

**CSE : 1 : 12.00**

**Number of Faculty Employed and left during the last three years:**

## VIII. FEE:

Details of fee as approved by State Fee Committee for the Institution:  
Rs. 30,200/-

Time Schedule for payment of fee for the entire programme: Yearly.

## IX. ADMISSION

- ❖ No. of seats sanctioned with the year of approval: 180 (2008-09)
- ❖ No. of students admitted under various categories each year in the last three years:

YEAR	Sanctioned Intake	TOTAL
2008-2009	180	128
2007-2008	180	79
2006-2007	180	104

### Admission Procedure:

The admission are based on the rank obtained in EAMCET (State Govt. Quota) EAMCET is conducted by JNTU, Kukatpally, Hyderabad. ([www.jntu.ac.in](http://www.jntu.ac.in))

Details for admission against management seats are available on [www.pcmboard.org](http://www.pcmboard.org).

### List of applicants:

List of Candidates who have applied along with percentage and rank card is available on [www.pcmboard.org](http://www.pcmboard.org).

### Result of admission under management seats / Vacant seats:

All details are available on [www.pcmboard.org](http://www.pcmboard.org) & [www.eamcet.dte.org.in](http://www.eamcet.dte.org.in)

### Information on infrastructure and other resources available

### LIBRARY

S.No	Course(s) B.TECH	Number of titles of the books	Number of volumes	Journals	
				National	International
1	CSE	724	<b>3340</b>	<b>28</b>	<b>16</b>
2	ECE	500	<b>2959</b>		
3	EEE	509	<b>3000</b>		
4	HUMANITIES & SCIENCES	638	<b>1455</b>		
	TOTAL	2371	<b>10,754</b>		

**e-library facility** :SONET . is providing online international journals.

# LABORATORIES

## ELECTRICAL & ELECTRONICS LAB

<b>ELECTROMECHANICS LAB</b>		
<b>AVAILABLE EQUIPMENTS IN ELECTROMECHANICS LAB (I &amp; II)</b>		
<b>S.No</b>	<b>NAME OF THE EQUIPMENT</b>	<b>QUANTITY</b>
<b>1</b>	MAIN PANNEL BOARD & D.C CONTROLLED RECTIFIER	1
<b>2</b>	<b>DC MACHINES</b>	
	(1) DC SHUNT MOTOR AND DC SHUNT GENERATOR SET WITH 3POINT STARTER.	1
	MOTOR : 5HP, 220V, 1500rpm	
	GENERATOR : 3.7 KW, 220V, 1500rpm	
	(2) DC SHUNT MOTOR AND DC SERIES GENERATOR SET WITH 3POINT STARTER.	1
	MOTOR : 5HP, 220V, 1500rpm	
	GENERATOR : 3.7 KW, 220V, 1500rpm	
	(3) DC SHUNT MOTOR AND DC COMPOUND GENERATOR SET WITH 3POINT STARTER.	1
	MOTOR : 5HP, 220V, 1500rpm	
	GENERATOR : 3.7 KW, 220V, 1500rpm	
	(4) DC SERIES MOTOR AND DC SERIES GENERATOR SET WITH 2POINT STARTER ( TWO IDENTICAL MACHINES).	1
	MOTOR : 3KW, 220V, 1500rpm	
	(5) DC SHUNT MOTOR AND DC SHUNT GENERATOR SET WITH 3POINT STARTER. ( TWO IDENTICAL MACHINES)	1
	MOTOR : 3KW, 220V, 1500rpm	
	(6) DC SHUNT MOTOR WITH 3 POINT STARTER 5HP, 220V, 1500rpm	1
	(7) DC COMPOUND MOTOR WITH 4 POINT STARTER 5HP, 220V, 1500rpm	1
<b>3</b>	<b>INDUCTION MOTORS AND ALTERNATORS</b>	
	(1) SQUIRREL CAGE INDUCTION MOTOR 3 Phase,7.5HP, 415V, 1440rpm,50Hz	1
	(2) SLIPRING INDUCTION MOTOR 3 Phase,5HP, 415V, 1440rpm,50Hz	1
	(3) INDUCTION MOTOR 1 Phase,3HP, 230V, 1440rpm,50Hz	1
	(4) DC SHUNT MOTOR & 3Phase ALTERNATOR SET MOTOR : 5HP,220V, 1500rpm	1

	ALTERNATOR : 3.5KW, 415V,1500rpm	
	(5) SYNCHRONOUS MOTOR WITH AUTO STARTER	1
	5HP, 415V,1500rpm	
<b>4</b>	<b>TRANSFORMERS</b>	
	(1) 1-PHASE TRANSFORMER 3KVA,230/115V,50Hz	3
	(2) SCOTT CONNECTED TRANSFORMERS	1
	3KVA,230/115V,50Hz (0%,50%,86.6%,100%)	
	(3) SINGLE PHASE AUTO TRANSFORMER	3
	(0-300V),20A	
	(4) 3 PHASE AUTO TRANSFORMER	3
	(0-600V) 20A	
<b>5</b>	<b>RHEOSTATS &amp; LOADS</b>	
	(1) REHOSTATS	17
	(200 Ohm/ 2A) (18 Ohm/8A)	
	(2) LOADING REHOSTATS	4
	230V/20A/ 5KW, 10 STEPS	
	(3) 3 PHASE RESISTIVE LOAD	1
	10A/440V,5 STEPS	
<b>6</b>	VOLTMETERS (MC & MI)	25
<b>7</b>	AMMETERS (MC & MI)	27
<b>8</b>	WATT METERS (LPF & UPF)	8
<b>9</b>	TACHOMETER (DIGITAL& ANALOG)	9
<b>10</b>	POWER FACTOR METER	2
<b>11</b>	PHASE SEQUENCE INDICATOR	1

<b><u>ENGINEERING WORKSHOP LAB</u></b>		
<b><u>AVAILABILITY OF EQUIPMENTS</u></b>		
<b>S.No</b>	<b>NAME OF THE EQUIPMENT</b>	<b>QUANTITY</b>
	<b>CARPENTRY</b>	
	CROSS-HALF LAP JOINT	
	T-BRIDLE JOINT	
	DOVETAIL JOINT	
1	TENON SAW	
2	FIRM CHISEL	
3	MORTISE CHISEL	
4	MARKING GUAGE	
5	TRY SQUARE	
6	STEEL RULE	
7	JACK PLANE	
8	PENCIL	
9	MALLET	
10	CARPENTRY BENCH VICE	

<b>FITTING</b>		
	T-FITTING	
	SQUARE FITTING	
	STEPPED FITTING	
1	SCRIBER	
2	DOT PUNCH	
3	STEEL RULE TRY SQUARE	
4	FLAT FILE, SQUARE FILE	
5	BALLPEN HAMMER, BENCH VICE	
6	HACK SAW	

HOUSE WIRING		
	ONE LAMP CONTROLLED BY ONE SWITCH	
	TWO LAMPS CONTROLLED BY ONE SINGLE SWITCH	
1	CUTTING PLIER, SCREQ DRIVER, POCKET KNIFE, HAND DRILL, BALL PEN HAMMER,	
2	FILAMENT LAMP, TWO PLUG SOCKET, SCREWS, P.V.C. PIPE, 3 WAY JUNCTION BOX, P.V.C. INSULATED COPPER CONDUCTOR	
	STEEL METAL WORK	
	HOLLOW CYLINDER, TRAY	
1	STRIKE, STRAIGHT SNIP, STEEL RULE, SCRIBBER, TRI SQUARE, MALLET	
2	DIVIDER, FLAT FILE, HAND GROOVER, BALL PEN HAMMER	
	WELDING	
	BUTT JOINT	
	T – JOINT	
1	WOODEN PIECE	
2	CHISLLER (ELECTRODES)	
3	HACKSAW BLADE	
4	CHIPPING HAMMER	

<b>POWER ELECTRONICS LAB</b>		
<b>AVAILABILITY OF EQUIPMENTS</b>		
<b>S.No</b>	<b>NAME OF THE EQUIPMENT</b>	<b>QUANTITY</b>
1	STUDY OF SCR FIRING CIRCUITS	1 KIT
2	PARALLEL INVERTOR	1 KIT
3	JONE'S CHOPPER	1 KIT
4	SINGLE PHASE CYCLO-CONVERTER	1 KIT
5	SINGLE PHASE FULLY CONTROLLED CONERTER	1 KIT
6	SINGLE PHASE HALF CONTROLLED CONERTER	1 KIT
7	STUDY OF COMMUTATION CIRCUITS CLASS A,B,C,D,E,F,	1 KIT
8	3 PHASE HALF CONTROLLED CONVERTER	1 KIT
9	SERIES INVERTER	1 KIT
10	AC VOLTAGE REGULATOR	1 KIT
11	GATE FIRING CIRCUITS OF SCR (R,RC & UJT)	1 KIT
12	REGULATED POWER SUPPLY (0-30V),2A	4
13	1 PHASE CENTER TAP TRANSFORMER	1
14	ISOLATING TRANSFORMER (1 PHASE & 3 PHASE)	3
15	CRO (25M Hz)	7
16	SERVO STABILIZER (5KVA)	1

<b>CONTROL SYSTEM LAB</b>		
<b>AVAILABILITY OF EQUIPMENTS</b>		
<b>S.No</b>	<b>NAME OF THE EQUIPMENT</b>	<b>QUANTITY</b>
1	PROCESS CONTROL SIMULATOR	1 KIT
2	PLC TRAINER	1 KIT
3	SYNCHRO TRANSMITTER AND RECEIVER PAIR	1 KIT
4	TEMPERATURE CONTROL SYSTEM	1 KIT
5	D.C. MOTOR SPEED CONTROL (DEMOSTRATION UNIT)	1 KIT
6	A.C SERVO MOTOR SPEED TORQUE CHARACTERISTICS	1 KIT
7	D.C SERVO MOTOR SPEED TORQUE CHARACTERISTICS	1 KIT
8	STUDY OF LEAD LAG COMPANSATING NETWORKS	1 KIT
9	LINEAR SYSTEM SIMULATOR	1 KIT
10	SPEED CONTROL MODULE	1 KIT

**BASIC ELECTRICAL ENGG. / ELECTRICAL TECHNOLOGY /  
ELECTRICAL CIRCUITS LAB**

**AVAILABILITY OF EQUIPMENTS**

<b>S.No</b>	<b>NAME OF THE EQUIPMENT</b>	<b>QUANTITY</b>
1	REGULATED POWER SUPPLY (DIGITAL 0-30V)	10
2	CRO	10
3	FUNCTION GENERATORS	10
4	DECADE RESISTANCE BOXES	10
5	DECADE INDUCTANCE BOXES	10
6	VOLTMETERS (DIGITAL 0-20V)	10
7	VOLTMETERS (DIGITAL 0-2V)	10
8	VOLTMETERS (DIGITAL 0-200mV)	10
9	VOLTMETERS (DIGITAL 0-200V)	10
10	AMMETERS (DIGITAL 0-200mA)	10
11	AMMETERS (DIGITAL 0-2mA)	10
12	AMMETERS (DIGITAL 0-20mA)	10
13	AMMETERS (DIGITAL 0-20microA)	10
14	AMMETERS (DIGITAL 0-200microA)	10
15	AMMETERS (DIGITAL 0-2A)	10
16	LCR METERS	2
17	AF OUTPUT POWER METERS	3
18	BREADBOARDS	10
19	MULTIMETERS	10
20	TIME RESPONSE OF 1st ORDER RC,RL CIRCUIT-KITS	3
21	TWO PORT NETWORK PARAMETERS (Y&Z) – KITS	3
22	MAXIMUM POWER TRANSFER THEOREM – KITS	3
23	GENERATION OF NON-LINEAR WAVEFORM FOR SQUARE WAVE (CLIPPING & CLAMPING CIRCUIT) – KITS	3
24	SERIES & PARALLEL RESONANCE KITS	3
25	SUPER POSITION & RECIPROCITY THEOREM KITS	3
26	THEVENINS & NORTONS THEOREM KITS	3
27	RESPONSE OF LOW & HIGH PASS FILTER – KITS	3

<b>ELECTRICAL MEASUREMENTS LAB</b>		
<b>AVAILABILITY OF EQUIPMENTS</b>		
<b>S.No</b>	<b>NAME OF THE EQUIPMENT</b>	<b>QUANTITY</b>
1	SCHERING BRIDGE	1 KIT
2	ANDERSON BRIDGE	1 KIT
3	CROMPTON POTENTIOMETER	1 KIT
4	KELVIN BRIDGE	1 KIT
5	LOADING RHEOSTAT (1 PHASE, 2.5KW,230V,10A)	2
6	LOADING RHEOSTAT (50 OHM,5A)	1
7	LOADING RHEOSTAT (15 OHM,5A)	1
8	CAPACITIVE LOAD (3 PHASE, 10A,440V)	2
9	INDUCTIVE LOAD ARRANGEMENT (3 PHASE,10A,440V,50Hz)	1
10	ENERGTY METER (0-240V,5- 10A,1PHASE,750 rev/kwh)	1
11	CHOKE COIL (1 PHASE , 230V, 0.42A)	1
12	POWER FACTOR METER	1
13	INDUCTIVE LOAD (1 PHASE, 10A,220V)	1
14	PHASE SHIFTING TRANSFORMER (500 VA,440V-440V,3PHASE)	1
15	CURRENT TRANSFORMER (5 VA, 10/5A)	1
16	PRECISION CURRENT TRANSFORMER (5-20A,5VA)	1
17	LINEAR VARIABLE DIFFERENTIAL TRANSFORMER (LVDT)	1
18	CAPACITIVE PICK UP	1
19	STRAIN GAUGE	1
20	1 PHASE AUTO TRANSFORMER (0-260V, 2A, 5A, 10A)	3
21	VOLTMETERS	9
22	AMMETERS	9
23	WATT METERS	6
24	1 PHASE TRANSFORMER (230/115V)	1
25	STOP WATCH	1

<b>HYDRAULICS &amp; HYDRAULIC MACHINERY LAB</b>		
<b>S.NO</b>	<b>NAME OF THE EQUIPMENT</b>	<b>QUANTITY</b>
<b>1</b>	<b>Centrifugal pump (single stage) test rig with all accessories.</b>	
	1.2 hp kirloskar motor (single stage)	1
	2. Tank	2
	3. Energy meter	1
	4. Control panel	1
	5. M.S stand	1
	6. Gauge glass scale	1
<b>2</b>	<b>Reciprocating pump with all accessories</b>	
	1.Tank	2
	2. 1hp kirloskar motor	1
	3. Energy meter	1
	4.Control panel	1
	5. M.S stand	1
<b>3</b>	<b>Pipe friction apparatus with all accessories</b>	
	1.Tank	2
	2. Manometer with stand	1
	3. Gauge glass scale	1
	4. ½ hp kirloskar pump	1
<b>4</b>	<b>Calibration test rig for venturimeter</b>	
	1. Tank	2
	2. ½ hp kirloskar pump	1
	3. Manometer with stand	1
	4. Gauge glass scale	1
<b>5</b>	<b>Calibration test rig for orifice meter</b>	
	1. Tank	2
	2. ½ hp kirloskar pump	1
	3. Manometer with stand	1
	4. Gauge glass scale	1

<b>6</b>	<b>Impact of jet on vanes with all accessories</b>	
	1. Weights 500,300,200,150,100 gms each	1
	2. Gauge glass scale	1
	3. Pump	2
	4. Tank	1
	5. Vanes (900,1350,1800)	3
<b>7</b>	<b>Centrifugal (multistage) test rig with all accessories</b>	
	1.Tank	2
	2.5 hp kirloskar motor	1
	3.Energy meter	1
	4.Control panel	1
	5.Guage glass scale	1
<b>8</b>	<b>Pelton Turbine Test rig with all accessories</b>	
	1.Tank	1
	2.Manometer with stand	1
	3.15 hp Kirloskar motor with pump	1
	4.Control panel	1
<b>9</b>	<b>Francis Turbine Test rig with all accessories</b>	
	1.Tank	1
	2.Manometer with stand	1
	3.15 hp kirloskar motor with pump	1
	4.Control panel	1

## List of Experimental Setups

Name of the Laboratory: **ENGINEERING WORKSHOP LAB.** 1 year (EEE)

1. CARPENTRY
  - I) Cross – Half Lap Joint
  - II) T-Bridle Joint
  - III) Dovetail Joint
2. FITTING
  - I) T-Fit
  - II) Square Fit
  - III) Stepped Fit
3. HOUSE WIRING
  - I) One lamp Controlled by one switch
  - II) Two lamp controlled by single switch
  - III) Two lamp Controlled by two two-way switches
  - IV) A Staircase wiring circuit
  - V) A Godown wiring
  - VI) A wiring circuit of fluorescent lamp
4. SHEET METAL WORK
  - I) Hollow Cylinder
  - II) Tray
  - III) Funnel
5. WELDING
  - I) Butt Joint
  - II) Lap Joint
  - III) Corner Joint
  - IV) T-Joint

Name of the Laboratory: **BASICS ELECTRICAL ENGG.** 1 year (CSE)

- 1) Verification of maximum power transfer theorem
- 2) Verification of superposition and reciprocity theorem.
- 3) Verification of nortons & thevenins theorem.
- 4) Evaluation of two port Network parameters (Z&Y).
- 5) Frequency response of high pass & low pass RC filters.
- 6) Time response of high pass & low pass RC filters.
- 7) Magnetization characteristics of DC shunt generator . Determination of critical field resistance and critical speed.
- 8) Load test on DC shunt generator . Determination of characteristics.
- 9) Load test on DC series generator . Determination of characteristics.
- 10) Brake test on DC shunt motor . Determination of performance curves.
- 11) Swinburne's test on DC shunt machine . Predetermination of efficiencies.

Name of the Laboratory: **Hydraulics & Hydraulic Machinery Lab**

2<sup>nd</sup> yr. 1<sup>st</sup> Sem

- 1) Impact of jets on vanes
- 2) Performance test on pelton wheel
- 3) Performance test on single stage centrifugal pump
- 4) Performance test on multistage centrifugal pump
- 5) Performance test on reciprocating pump
- 6) Calibration of venturimeter
- 7) Calibration of orifice meter
- 8) Determination of friction factor for a given pipe line

Name of the Laboratory: **ELECTRICAL CIRCUITS LAB**

2<sup>nd</sup> yr. 1<sup>st</sup> sem

6. Verification of maximum power transfer theorem
7. Verification of superposition and reciprocity theorem.
8. Verification of nortons & thevenins theorem.
9. Evaluation of two port Network parameters (Z&Y).
10. Frequency response of high pass & low pass RC filters.
11. Time response of high pass & low pass RC filters.

**LIST OF EXPERIMENTS OF ELECTROMACHANICS – I LAB**

2yr-II sem

1. Magnetization characteristics of DC shunt generator . Determination of critical field resistance and critical speed.
2. Load test on DC shunt generator . Determination of characteristics.
3. Load test on DC series generator . Determination of characteristics.
4. Load test on DC compound generator. Determination of characteristics.
5. Hopkinson's test on DC shunt machines. Predetermination of efficiency.
6. Field's test on DC series machines . Determination of efficiency.
7. Brake test on DC shunt motor . Determination of performance curves.
8. Brake test on DC compound motor. Determination of performance curves.
9. Swinburne's test on DC shunt machine . Predetermination of efficiencies.
10. Speed control of DC shunt motor.

Name of the Laboratory: **ELECTRICAL TECHONOLOGY LAB 2 year 2sem (ECE)**

1. Verification of maximum power transfer theorem
2. Verification of superposition and reciprocity theorem.
3. Verification of nortons & thevenins theorem.
4. Evaluation of two port Network parameters (Z&Y).
5. Frequency response of high pass & low pass RC filters.
6. Time response of high pass & low pass RC filters.
- 7 Magnetization characteristics of DC shunt generator . Determination of critical field resistance and critical speed.
8. Load test on DC shunt generator . Determination of characteristics.

9. Load test on DC series generator . Determination of characteristics.
10. Brake test on DC shunt motor . Determination of performance curves.
11. Swinburne's test on DC shunt machine . Predetermination of efficiencies.

**Name of the Laboratory : Electromechanics Lab-II**

3<sup>rd</sup> yr. 1<sup>st</sup> sem

- 1) O.C & S.C. tests on single phase transformer
- 2) Sumpners test on a pair of single phase transformer
- 3) Scott connection of transformers
- 4) No load & blocked rotor tests on three phase induction motor
- 5) Regulation of a three-phase alternator by synchronous impedance.
- 6) V & inverted V curves of a three-phase synchronous motor
- 7) Equivalent circuit of a single phase induction motor
- 8) Speed control of 3-phase slipping induction motor.
- 9) Brake test o three phase induction motor
- 10) Determination of  $x_d$  and  $x_q$  of a salient pole synchronous machine.

**Name of the Laboratory : Control Systems Lab**

3<sup>rd</sup> yr. 1<sup>st</sup> sem

- 1) characteristics of synchronous
- 2) effect of feed back on DC servo motor
- 3) Time response of second order system
- 4) effect of P,PD, PI, PID controller on a second order systems
- 5) lag & lead compensation – magnitude & phase plot
- 6) characteristics of AC servo motor
- 7) temperature controller using PID

***LIST OF EXPERIMENTS OF ELECTRICAL MEASUREMENTS (EM) - LAB 3rd yr-II sem***

1. Callibration and testing of 1 phase energy meter.
2. Kelvin Double Bridge.
3. LVDT and capacitive pick-up.
4. Callibration of Dynamometer type power factor meter.
5. Schering Bridge and Anderson Bridge.
6. Measurement of 3phase reactive power factor with 1phase watt meter.
7. Resistance strain wage.
8. Measurement of parameters of a choke coil using 3- Voltmeter and 3- Ammeter method.
9. Crompton DC potentiometers.

## **LIST OF EXPERIMENTS OF POWER ELECTRONICS - LAB 3rd yr-II sem**

1. Study of Characteristics of SCR, MOSFET & IGBT
2. Gate firing circuits for SCR's.
3. Single phase AC Voltage Controller with R and RL Loads
4. Single Phase fully controlled bridge with R and RL Loads
5. Forced Commutation circuits {Class A, B, C, D, E, & F}
6. DC Jones chopper with R and RL Loads
7. Single Phase parallel inverter with R and RL Loads
8. Single Phase Cycloconverter with R and RL Loads
9. Single Phase Half controlled Converter with R load
10. Single Phase series inverter with R and RL loads.
11. Three Phase half controlled bridge converter with R-Load

Name of the Laboratory: **Simulation of electrical Systems Lab**  
4<sup>th</sup> yr. 1<sup>st</sup> sem

- 1) Pspice simulation of transient response of RLC circuits
  - A) response to pulse input
  - B) response to step input
  - C) response to sinusoidal input
- 2) Pspice simulation of single phase full converter using RL & E loads & single phase AC voltage controller using RL & E loads
- 3) Pspice simulation of resonant pulse commutation circuit and buck chopper
- 4) Pspice simulation single phase inverter with PWM control
- 5) Pspice simulation of D.C. circuit using Pspice.
- 6) Transfer function analysis of D.C. circuit using Pspice
- 7) Plotting of bode plots, root locus and Nyquist plot for the transfer function of system upto 5<sup>th</sup> order using MAT lab.
- 8) Power flow solution and transient stability evaluation of power system.
- 9) Transfer function analysis of a given circuit using MATLAB
- 10) Analysis of three phase circuit representing the generator transmission line & load. Plot three phase currents & neutral current using PSPICE.

**INDUSTRY ORIENTED MINI PROJECT  
SEMINAR  
PROJECT WORK**

**IVTH YEAR 2SEM**

## ELECTRONICS & COMMUNICATION LAB

### List of Major Equipment/Facilities:

<b>EDC LAB</b>		
<b>S.NO</b>	<b>NAME OF THE EQUIPMENT</b>	<b>QUANTITY</b>
1	OSCILLOSCOPE	12
2	POWER SUPPLIES	15
3	FUNCTION GENERATORS	12
4	MULTI METERS	15
5	STABILIZERS	1
6	DECADE R,L,C BOX	12
7	BREAD BOARDS	20
8	RECTIFIER WITHOUT FILTER HW & FW	3
9	RECTIFIER WITH FILER HW & FW	3
10	UJT CHARACTERSTCS	4
11	FET CHARACTERSTCS	3
12	MEASURMENTS OF H-PARAMETER IN CB,CE, CC CONG.	3
13	CE AMPLIFIER	4
14	CC AMPLIFIER	3
15	SINGLE STAGE RC COUPLED AMPLIFIER	2
16	FET AMPLIFIER COMMON SOURCE	3
17	FET AMPLIFIER COMMON DRAIN	3
18	WEIN BRIDGE OSCILATOR	3
19	RC PHASE SHIFT OSCILATOR	2
20	FEEDBACK AMPLIFIER CURRENT SERIES	3
21	FEEDBACK AMPLIFIER VOLTAGE SERIES	3
22	COLPITS OSCILATOR	3
23	HARTELY OSCILATOR	3
24	SCR CHARACTERSTICS	3

<b>ECA LAB</b>		
<b>S.NO</b>	<b>NAME OF THE EQUIPMENT</b>	<b>QUANTITY</b>
1	MULTISIM SOFTWARE	1
2	BREAD BOARDS	4
3	TWO STAGE RC COUPLED AMPLIFIER	2
4	CLASS A, CLASS AB POWER AMPLIFIER	2
5	CLASS B PUSH PULL AMLIFIER	2
6	CLASS B COMPLEMEMNTARY SYMMETRY	2
7	CLASS C TUNED VOLTAGE AMPLIFIER	2
8	CLASS C POWER AMPLIFER	2
9	SERIES RPS TRAINER	2
10	SHUNT RPS TRAINER	2
11	DYNAMIC DEMODULATOR	1
12	AF OUTPUT POWER METER	2

<b>IC APPLICATIONS LAB</b>		
<b>S.NO</b>	<b>NAME OF THE EQUIPMENT</b>	<b>QUANTITY</b>
1	CATHODE RAY OSCILLOSCOPE	10
2	POWER SUPPLIES	10
3	FUNCTION GENERATORS	10
4	MULTI METERS	10
5	STABILIZER	1
6	I.C.TESTER	2
7	OP-AMP TRAINER	2
8	BALNCING MODULATOR DSB-SC GENERATOR	2
9	ACTIVE FILTTER TRAINER USING OP-AMP	2
10	RC PHASE SHIFT OSCILATOR USING 741 OP-AMP	2
11	WEIN BRIDGE OSCILATOR USING 741 OP-AMP	3
12	SCHMITT TRIGGER USING OP-AMP	2
13	ANALOG AND DIGITAL IC TESTER	2
14	INTEGRATOR & DIFFERENTIATOR USING 741	3
15	ASTABLE USING 555 IC	3
16	MONOSTABLE USING 555 IC	3
17	FUNCTION GENERATORS USING 741 IC	3
18	VOLTAGE REGULATOR USING 723 IC	3
19	INVERTER TRANSFER CHARACTERSTICS	3
20	STUDY OF LOGIC GATES	3
21	STUDY OF FLIP FLOP	3
22	7490 COUNTER	3
23	HALF ADDER AND FULL ADDER AND SUBTRACTOR	3
24	BCD TO 7-SEGMENT DECODER USING IC 7447	3
25	VOLTAGE REGULATOR DEMONSTRATOR	3
26	VOLTAGE CONTROLLED OSSILATOR	3
27	PLL- 565 IC	3
28	D/A CONVERTER KIT	3
29	A/D CONVERTER KIT	3

<b>PULSE AND DIGITAL CIRCUITS LAB</b>		
1	LINEAR WAVE SHAPING	3 KIT
2	NON LINEAR WAVE SHAPING	3 KIT
3	TRANSISTOR AS A SWITCH	3 KIT
4	STUDY OF LOGIC GATES	3 KIT
5	STUDY OF FLIP FLOP	3 KIT
6	SAMPLING GATES	2 KIT
7	MONO STABLE MULTI VIBRATOR	3 KIT
8	BI STABLE MULTI VIBRATOR	3 KIT
9	SCHMIT TRIGGER	3 KIT
10	UJT RELAXATION OSCILATOR	3 KIT
11	BOOT STRAP	3 KIT
12	FUNCTION GENERATOR	10
13	DIGITAL MULTI METER	10
14	DUAL TRACE CRO	10

<b>DIGITAL COMMUNICATIONS LAB</b>		
<b>S.NO</b>	<b>NAME OF THE EQUIPMENT</b>	<b>QUANTITY</b>
1	PAM KITS	2
2	PWM	2
3	PPM	2
4	PCM	2
5	TDM	2
6	DELTA MODULATION & DEMODULATION	2
7	FSK	2
8	DIFFERENTIAL PSK	2
9	PSK	2

<b>ANALOG COMMUNICATIONS LAB</b>		
<b>S.NO</b>	<b>NAME OF THE EQUIPMENT</b>	<b>QUANTITY</b>
1	A.M	3
2	F.M	3
3	BALANCING MODULATOR TRAINER	3
4	PLL	3
5	POWER SUPPLY	5
6	OSCILLOSCOPE	10
7	DIGITAL MULTI METER	5
8	FREQUENCY COUNTER	2
9	FUNCTION GENERATORS	5
10	MIXER CHARACTER STICS	3
11	RECIEVER MESUREMENTS	3
12	PRE-EMPHASIS AND DE-EMPHASIS TRAINER KIT	3
13	SSB SYSTEM TRAINER KIT	3
14	SYNCHRONOUS DETECTOR TRAINER KIT	3
15	FREQUENCY MULTIPLIER & SYNTHESIZER	3
16	SQUELCH CIRCUITS	3
17	DIODE DETECTOR CHARACTERISTICS	3
18	DIGITAL PHASE DETECTOR	3
19	ACG CHARACTERISTICS	3
20	FIBER OPTICS ANALOG	3

<b>E-CAD LAB</b>		
<b>S.NO</b>	<b>NAME OF THE EQUIPMENT</b>	<b>QUANTITY</b>
	CPLD-84 TRAINER	2
2	VIRTEX BASED FPGA TRAINER	2
3	ADAPTER	4
4	DOWNLOADING CABLE	4
5	VLSI DESIGN SOFTWARE	1

<b>DSP &amp; MICROPROCESSOR LAB</b>		
<b>S.NO</b>	<b>NAME OF THE EQUIPMENT</b>	<b>QUANTITY</b>
1	DSP Kits( TMS 320C 6711) With parallel peripheral interfaces, Power supplies 5V, I/P, O/P, Connectors.	5
2	Personal Computers	20
3	Stabilizer ( 5KVA )	1
4	Softwares (i) Code composer studio C6711 simulation	2
	(ii) DSK software C6711 for real time applications	
	(iii) Mat Lab. 6.5	
5	8086 MICRO P KITS	10
6	INTER FACING STUDY CARDS	3
7	8279 [KCD]	3
8	8259 [KCD]	3
9	8251 [ USART]	5
10	8255 [PPI]	4
11	A TO D & D TO A CONVERTERS	1
12	STEPPER MOTOR INTER FACING	1
13	8031/8051 MICRO CONTROLLER	5
14	RS-232 CABLE	3
15	REAL TIME CLOCK	1
16	AD-590 TRANSDUCE	1
17	TRAFFIC LIGHT CONTROL SYSTEM	1

<b>MICROWAVE &amp; OPTICAL COMMUNICATION LAB</b>		
<b>S.NO</b>	<b>NAME OF THE EQUIPMENT</b>	<b>QUANTITY</b>
1	5 KVA SERVO STABLIZER	1
2	MICRO WAVE BENCHES	4
3	OPTICAL FIBER KITS	2
4	TABLE FANS	3
5	LED KITS	2

## List of Experimental Setups

### Name of the Laboratory: Electronics Devices & Circuits Lab

1<sup>st</sup> year

Common for ECE, EEE, CSE, ICE.

1. PN junction diode characteristics.
  - a. Forward bias
  - b. Reverse bias
2. Zener diode characteristics
3. Transistor CB characteristics (input & output)
4. Transistor CE characteristics (input & output)
5. Transistor CC characteristics (input & output)
6. Rectifier with filter (full wave & half wave)
7. Rectifier without filter (full wave & half wave)
8. FET characteristics
9. UJT characteristics
10. Study of CRO
11. Measurement of h-parameters of transistor in CB, CE, CC configurations
12. CE amplifier
13. CC amplifier (emitter follower)
14. Single stage R-C- coupled amplifier
15. FET amplifier (common source)
16. FET amplifier (common drain)
17. Wein bridge oscillator
18. RC phase shift oscillator
19. Colpitts oscillator
20. Hartley oscillator
21. SCR characteristics

### Name of the Laboratory: Pulse & Digital Circuits Lab

2<sup>nd</sup> year 1<sup>st</sup> Sem

1. Non linear wave shaping -Clippers
2. Non linear wave shaping- Clampers
3. Linear wave shaping.
4. Study of flipflops.
5. Logic gates using discrete components and ICS
6. Transistor as a switch
7. Sampling gates
8. Monostable Multivibrator
9. Astable Multivibrator
10. Schmitt Trigger Circuit
11. Bi-stable Multivibrator

**Name of the Laboratory: Electronic Circuit Analysis Lab**

2<sup>nd</sup> year 1<sup>st</sup> Sem

Hardware

1. Two stage RC coupled amplifier
2. Class A. power amplifier
3. Class B push pull amplifiers
4. Class B complementary symmetry configuration
5. Class C power amplifier
6. Class C tuned voltage amplifier.
7. Series Regulated power supply
8. Shunt Regulated power supply.

**Name of the Laboratory: IC Applications Lab(EEE / ECE )**

2<sup>nd</sup> year 1<sup>st</sup> Sem

1. Integrator using 741 Op-amp
2. Differentiator using 741 Op-amp
3. Study of logic gates and flip –flops
4. 7490 decade counter
5. BCD to seven segment decoder driver
6. Astable multi vibrator using 555 timer
7. Digital to analog converter using binary weight resistor
8. Digital to analog converter using R-2R ladder network
9. Monostable multi vibrator using IC 555 timer
10. Voltage regulator using IC 723

**Name of the Laboratory: Digital Communications Lab**

3<sup>rd</sup> year 1<sup>st</sup> Sem

1. Pulse amplitude modulation (PAM)
2. Pulse width modulation (PWM)
3. Pulse position modulation(PPM)
4. Time division multiplexing(TDM)
5. Pulse code modulation(PCM)
6. Differential pulse code modulation
7. Delta modulation(DM)
8. Frequency shift keying (FSK)
9. Phase shift keying (PSK)
10. Differential phase shift keying (DPSK)

**Name of the Laboratory: Linear IC Applications Lab**

3<sup>rd</sup> year 1<sup>st</sup> Sem

1. Study of Op-Amp
2. Op-Amp applications.
3. Integrator and Differentiator circuits using Op-Amp IC 741
4. Function generator
5. Monostable multivibrator
6. Astable multivibrator
7. PLL applications
8. VCO applications
9. Active Filter applications (First Order)
10. Active filter applications (high pass filter)
11. Schmitt Trigger circuit
12. Voltage Regulator using IC 723

**Name of the Laboratory: Interfacing through Microprocessors Lab(CSE**

) 3<sup>rd</sup> year 1<sup>st</sup> Sem

8086 Assembly languages programming exercise

1. Arithmetic operations.
2. Logical operations.
3. String operations.
4. Modular programs.
5. 8259 interrupt controller.
6. 8279 key board display.
7. 8255 PPI.
8. 8051 Micro controller.

**Name of the Laboratory: Digital Signal Processing Lab**

4<sup>th</sup> year 1<sup>st</sup> Sem

1. Introduction to DSK.
2. To generate sine wave using C6711 device simulator
3. To generate cosine wave using C6711 device simulator
4. To verify linear convolution
5. To verify circular convolution
6. Fast Fourier Transform
7. Power density spectrum
8. Finite impulse resonance filter.
9. infinite resonance filter.

**Name of the Laboratory: Microwave & Optical communication Lab**

4<sup>th</sup> year 1<sup>st</sup> Sem

1. Reflex klystron characteristics.
2. Gunn diode characteristics
3. Attenuation measurement
4. Directional coupler characteristics
5. VSWR measurements
6. Impedance & frequency measurement
7. Scattering parameters of magic tee
8. Characteristics of LED
9. Communication through optical fiber.

**Name of the Laboratory: Microprocessors Lab (EEE )**

4<sup>th</sup> year 1<sup>st</sup> Sem

**1. Micro processor 8086:**

- a. Introduction to MASM/TASM.
- b. Arithmetic operation –multi byte addition and subtraction, multiplication and division-signed and unsigned arithmetic operation, ASCII arithmetic
- c. Logic operation-shift and rotate-converting packed BCD to unpacked BCD,BCD to ASCII conversion.
- d. By using the string operation and instruction prefix: move block, reverse string, sorting, inserting, deleting, length of the string, string comparison.
- e. Modular program,/procedure, near and far implementation, recursion.
- f. DOS/BIOS programming: reading key-board (buffered with and without echo) –display characters strings.

**Name of the Laboratory: Microprocessors Lab (ECE)**

3<sup>th</sup> year 2<sup>nd</sup> Sem

**2. Micro processor 8086:**

- g. Introduction to MASM/TASM.
- h. Arithmetic operation –multi byte addition and subtraction, multiplication and division-signed and unsigned arithmetic operation, ASCII arithmetic
- i. Logic operation-shift and rotate-converting packed BCD to unpacked BCD,BCD to ASCII conversion.
- j. By using the string operation and instruction prefix: move block, reverse string, sorting, inserting, deleting, length of the string, string comparison.
- k. Modular program,/procedure, near and far implementation, recursion.
- l. DOS/BIOS programming: reading key-board (buffered with and without echo) –display characters strings.

### 3. Interfacing:

- a. 8259-interrupt controllers.
- b. 8279 -key board displays
- c. 8255- PPI
- d. 8251-USART

### 4. Micro controller 8051

- a. Reading and writing on a parallel port.
- b. Timer in different modes
- c. Serial communicating implementation
- d. Understanding three memory areas of 00-FF (program using above areas.)
- e. Using external interrupts.
- f. Programs using special instructions like swap, bit/byte, set/reset etc.,
- g. Program based on short page absolute addressing.

**Name of the Laboratory: E-Cad LAB**      **(ECE) 3<sup>th</sup> year 2<sup>st</sup> Sem**

1. Logic gates
2. D- flip-flop
3. Decade counter.
4. 4-bit counter
5. Shift register.
6. Universal shift register.
7. 3-to-8 decoder.
8. 4- bit comparator.
9. 8\*1 multiplexer.
10.        16\*1 multiplexer.
11.        Stack and queue implementation using RAM.

## COMPUTER SCIENCE ENGINEERING LAB

### List of Major Equipment/facilities:

Number of computers Available = 241 systems  
(P-IV)

Number of Terminals on LAN = 180

Software:

WINDOWS 98/2000, XP, JAVA 1.4/1.5, ORACLE 8i, UML (Agro Tool), TURBO C, TURBOC++, MULTISIM, BSD UNIX, LINUX AS3 (Enterprise Edition)

Peripherals

PRINTER : 10 (1 INKJET, 1 DOT MATRIX)

UPS : UPS for 225 Computers & 1 UPS for servers.

### List of Experimental Setups

Name of the Laboratory: **Computer Programming Lab** 1<sup>st</sup> Year

1. Write a C Program to evaluate the following algebraic expressions after reading necessary values
  - a)  $ax+b/ax-b$
  - b)  $2.5\log x + \cos 32^\circ + |x^2 - y^2| + \sqrt{2xy}$
  - c)  $1/\alpha \sqrt{2} \int e^{-(x-m/\sqrt{2}\sigma)^2}$
2. Write a C Program for the following
  - a) Printing the given integers in ascending order
  - b) Sum of  $1+2+3+4+\dots+n$  terms
  - c)  $1+x^2/2+x^2/4+\dots+n$  terms
3. Write a 'c' Program Using FOR Statement to find the following from a given set of 20 integers.
  - a) Total no. of even integers
  - b) Total no. of odd integers
  - c) Sum of all even integers
  - d) Sum of all odd integers

4. Write a 'c' Program to obtain the product of two matrices A of size (3X3) and B of size (3X2). The resultant matrix C is to be printed out along with A and B, assume suitable values for A and B
5. Using Switch –case Statement, Write a 'c' Program that takes two operands and one operator from the user, performs the operations and then prints the answer (consider operators +,-,/,\* and %)
6. Write a 'c' procedures to add, Subtract, multiply and divide two complex numbers (x+iy) and (a+ib), also write a main program that uses these procedures
7. The Total distance traveled by a vehicle in 't' seconds is given by distance =  $ut + \frac{1}{2}at^2$  where 'u' and 'a' are the initial velocity (m/sec) and acceleration (m/sec<sup>2</sup>)  
Write a 'c' program to find the distance traveled at Regular intervals of time given the values of 'n' and 'a'. The program should provide the flexibility to user to select his own time intervals and repeat the calculations for different values of 'u' and 'a'

8. A cloth show room has announced the following seasonal discounts on purchase of items

Purchase Amount	Discount Percentage	
	Mill cloth	Handloom Item
1-100	---	5.0
101-200	5.0	7.5
201-300	7.5	10.0
Above 300	10.0	15.0

Write a 'c' program using Switch and If statements to compute the net amount paid by a customer.

9. Given a number, Write a 'c' program , using WHILE loop to reverse the digits of the number
10. Write a 'c' Program , using DO-WHILE to calculate and print the first m Fibonacci numbers
11. Write a 'c' program to print the following outputs using FOR loop

```

1
2 2
3 3 3
4 4 4 4
5 5 5 5 5

```

```

1
2 2
3 3 3
4 4 4 4
5 5 5 5 5

```

12. Write a 'c' program to extract a portion of a character string and print the extracted string. Assume that 'm' characters are extracting starting with the n<sup>th</sup> character
13. A Maruthi car dealer maintains a record of sales of various vehicles in the following form

Vehicle	Month of Sales	Price (Rs)
Maruthi 800	Feb-87	75,000
Maruthi DX	Jul-87	95,000
Gypsy	Apr-88	1,10,000
Maruthi Van	Aug-88	85,000

Write a 'c' program to read this data into a table of strings and outputs the details of a particular vehicle sold during a specified period. The program should request the user to input the vehicle type and the period (starting month & ending month)

14. Write a 'c' Program to convert Lower case characters to uppercase equivalents

**Name of the Laboratory: IT Workshop**

1<sup>st</sup> Year

IT WORKSHOP

PC HARDWARE

Task 1: Identify the peripherals of a computer, components in a CPU and its functions. Draw the block diagram of the CPU along with the configuration of each peripheral and submit to your instructor.

Task 2: Every student should disassemble and assemble the PC back to working condition. Lab instructors should verify the work and flow it up with a Viva. Also students need to go through the video which shows the process of assembling a PC. A video would be given as part of the course content.

Task 3: Every student should individually install MS windows on the personal computer. Lab instructor should verify the installation and follow it up with a Viva.

Task 4: Every student should install Linux on the computer. This computer should have windows installed. The system should be configured as dual boot with both windows and Linux. Lab instructor should verify the installation and follow it up with a Viva.

Task 5: Several mini tasks would be that covers Basic commands in Linux and Basic system administration in Linux which includes: Basic Linux commands in bash, Create hard and symbolic links, Text processing, Using Wildcards.

Task 6: Hardware Troubleshooting: Students have to given a PC which does not boot due to improper assembly or defective peripherals. They should identify the problem and fix it to get the computer back to working condition. The work done should be verified by the instructor and followed up with a Viva.

Task 7: Software Troubleshooting: Students have to be given a malfunctioning CPU due to system software problems. They should identify the problem and fix it to get the computer back to working condition. The work done should be verified by the instructor and followed up with a Viva.

Task 8: The test consists of various systems with Hardware/ Software related troubles, Formatted disks without operating systems.

## INTERNET AND WORLD WIDE WEB

Task 1: Orientation and connectivity boot camp: Students should get connected to their Local Area Network and access the Internet. In the process they configure the TCP/IP setting. Finally students should demonstrate, to the instructor, how to access the websites and email. If there is no internet connectivity preparations need to be made by the instructors to simulate the WWW on the LAN.

Task 2: Web Browsers, Surfing the Web: Students customize their web browsers with the LAN proxy settings, bookmarks, search toolbars and pop up blockers. Also, plug-ins like Macromedia Flash and JRE for applets should be configured.

Task 3: Search Engines and Netiquette: Students should know what search engines are and how to use the search engines. A few topics would be given to the students for which they need to search on Google. This should be demonstrated to the instructors.

Task 4: Cyber Hygiene: Students would be exposed to the various threats on the internet and would be asked to configure their computer to be safe on the internet. They need to first install an anti virus software, configure their personal firewall and windows update on their computer. Then they need to customize their browsers to block pop ups, block active x downloads to avoid viruses and/or worms.

Module Test: A test which simulates all of the above tasks would be crafted and given to the students.

## LATEX AND WORD:

Word Orientation: The mentor needs to give an overview of LaTeX and Microsoft/equivalent (FOSS) tool word: Importance of LaTeX and MS/ equivalent (FOSS) tool Word as word Processors, Details of the four tasks and features that would be covered in each, Using LaTeX and word

Task 1: Using LaTeX and word to create project certificate. Features to be covered:- Formatting Fonts in word, Drop Cap in word, Applying Text effects, Using Character Spacing, Borders and Colors, Inserting Header and Footer, Using Date and Time option in both LaTeX and Word.

Task 2: Creating project abstract Features to be covered:- Formatting styles, Inserting table, Bullets and Numbering, Changing Text Direction, Cell alignment, Footnote, Hyperlink, Symbols, Spell Check, Track Changes.

Task 3: Creating a Newsletter: Features to be covered:- Table of Content, Newspaper columns, Images from files and clipart, Drawing toolbar and WordArt, Formatting Images, Textboxes and Paragraphs

Task 4: Creating a Feedback form :- Features to be covered:- Forms, Text Fields, Inserting objects, Mail Merge in Word.

LaTeX and Word Module Test: Replicate the given document inclusive of all features

## EXCEL

Excel Orientation: The mentor needs to tell the importance of MS/ equivalent (FOSS) tool Excel as a SpreadSheet tool, give the details of the four tasks and features that would be covered in each.

Task 1: Creating a Scheduler : Features to be covered:- Gridlines, Format Cells, Summation, auto fill, Formatting text

Task 2: Calculating GPA: Features to be covered:- Cell Referencing, Formulae in excel-average, std.deviation, Charts, Renaming and Inserting worksheets, Hyper linking, Count function, LOOKUP/VLOOKUP

Task 3: Performance Analysis: Features to be covered:- Split cells, freeze panes, group and outline, Sorting, Boolean and logical operators, Conditional formatting.

Task 4: Cricket Score Card: Features to be covered:-Pivot Tables, Interactive Buttons, Importing Data, Data Protection and Data Validation

Excel Module Test: Replicate the given document inclusive of all features  
LATEX AND MS/ EQUIVALENT (FOSS) TOOL POWER POINT

Task 1: Students will be working on basic power point utilities and tools which help them create basic power point presentation. Topic covered includes:- PPT Orientation, Slide Layouts, Inserting Text, Word Art, Formatting Text, Bullets and Numbering, Auto Shapes, Lines and Arrows in both LaTeX and Powerpoint.

Task 2: Second week helps students in making their presentation interactive. Topic covered include Hyperlinks, Inserting- Images, ClipArt, Audio, Video, Objects, Tables and Charts

Task 3: Concentrating on the in and out of Microsoft Power Point and Presentations in LaTeX. Topic covered include:- Master Layouts, Types of views, Inserting,, textures, Design Templates, Hidden Slides.

Task 4: Topic covered include :- Using Auto content wizard, Slide Transition, Custom Animation, Auto Rehearsing.

Task 5: Power point test would be conducted.

PUBLISHER

Help students in preparing their personal website. Topic covered include:- Publisher Orientation, Using Templates, Layouts, Inserting text objects, Editing Text Objects, Inserting Tables, Working with menu objects, Inserting pages, Hyper linking, Renaming, deleting, modifying pages, Hosting Website.

## **ADVANCED DATA STRUCTURES LAB**

**2<sup>nd</sup> Year 1 Sem**

- 1 C++ programs to implement the following using an array.
  - a) Stack ADT
  - b) Queue ADT
- 2 C++ program to implement the following using SLL
  - a) Stack ADT
  - b) Queue ADT
- 3 C++ program to implement the dequeue using double linked list
- 4 C++ program to perform the following operations
  - a) Insert the element into the binary search tree
  - b) Delete the element from the binary search tree
  - c) Search the element in a binary search tree
- 5 C++ program for implementing the following in a binary tree
  - a) Preorder
  - b) Postorder
  - c) Inorder
- 6 C++ program for implementation of bfs and dfs for a given graph
- 7
  - a) Merge sort
  - b) Heap sort
- 8 C++ program to perform the following operations
  - a) Insertion into a B tree
  - b) Deletion from a B tree
- 9 C++ program to perform the following
  - a) Insertion into an AVL tree
  - b) Deletion from an AVL tree
- 10 C++ program to implement all the functions of dictionary using hashing
- 11 C++ program for implementing Knutt-Morris-Pratt matching algorithm
- 12 C++ program for implementing Boyer-Moore pattern matching algorithm.

## **UNIX AND SHELL PROGRAMMING LAB**

**2<sup>nd</sup> year I Sem**

### **Week 1**

#### **Session 1**

- a) Log into the system
- b) Use vi editor to create a file called myfile.txt which contains some text.
- c) Correct typing errors during creation
- d) Save the file
- e) Log out of the system.

#### **Session 2**

- a) Log into the system
- b) Open the file created in session 1
- c) Add some text
- d) Change some text
- e) Delete some text
- f) Save the changes
- g) Logout of the system

## Week 2

- a) Log into the system
- b) Use the cat command to create a file containing the following data.  
Call it mytable, use tabs to separate the fields.

1425	Ravi	15.65
4320	Ramu	26.27
6830	Sita	36.15
1450	Raju	21.86

- c) Use the cat command to display the file, mytable
- d) Use the vi command to correct any errors in the file, mytable.
- e) Use the sort command to sort the file mytable according to the first field. Call the sorted file mytable(same name)
- f) Print the file mytable
- g) Use the cut and paste commands to swap the fields 2 and 3 of mytable. Call it mytable(same name)
- h) Print the new file mytable
- i) Logout of the system

## Week 3

1)

- a) Login to the system
- b) Use the appropriate command to determine your login shell
- c) Use the /etc/passwd file to verify the result of step b.
- d) Use the who command and redirect the result to a file called myfile1. Use the more command to see the contents of myfile1
- e) Use the date and who commands in sequence(in one line) such that the output of the date will display on the screen and the output of who will be redirected to a file called myfile2. Use the more command to check the contents of myfile2.

2)

- a) Write a sed command that deletes the first character in each line in a file.
- b) Write a sed command that deletes the character before the last character in each line in a file.
- c) Write a sed command that swaps the first and second words in each line in a file.

## WEEK -4

- a) pipe your /etc/passwd file to awk, and print out the home directory of each user.
- b) Develop an interactive grep script that asks for a word and a file name and then tells how many lines contain that word.
- c) Repeat
- d) Part using awk.

## WEEK – 5

- a) write a shell script that takes a command line argument and reports on whether it is directory, a file or something else.
- b) Write a shell script that accepts one or more filename as arguments and converts all of them to upper case provided they exists in the current directory.
- c) Write a shell script that determines the period for which a specified user is working on the system.

## Week—6

- a) Write a shell script that accepts a filename starting and ending lineno. As arguments and displays all the lines between the given line numbers.
- d) b) Write a shell script that deletes all lines containing a specified word in one or more files supplied as arguments to it.

## Week—7

- e) a) Write a shell script that accepts two integers as its arguments and computes the values of first no. raised to the power of second no.

## Week—8

- f) a) Write a shell program let it offer the user the choice of copying removing renaming or linking files. Ince the user has made the choice have the program ask the user for necessary information such as filename new name and so on.
- g) b) Write a shell script that takes a login name as command line argument and reports when that person logs in
- h) Write a shell script which receives two filenames as arguments.. it should check whether two file contents are same or not. If they are same then second file should be delete

## Week—9

- a) Write a shell script that displays a list of all files in the current directory to which the user has read, write and execute permissions.
- b) Develop an interactive script that ask for a word and a file name and then tells how many times that word occurred in the file.
- c) Write a shell script to
  - i) Extract a sub string from a given string.
  - ii) Find the length of a given string.

Week—10

- a) Write a C program that takes one or more file or directory names as command line input and reports the following information:
- i) File type
  - ii) Number of links
  - iii) Read, write and execute permissions
  - iv) Time of last access

Week—11

Write a C program that simulates the following unix commands:

- a) mv
- b) cp

week—12

Write a C program that simulates ls command

Name of the Laboratory: **DBMS lab**

2<sup>nd</sup> year 2<sup>nd</sup> Sem

1. Creation, altering and dropping of tables and inserting rows into a table (use constraints while creating tables) examples using SELECT command.
2. Queries (along with sub queries) using ANY , ALL , IN , EXISTS, NOT EXISTS , UNION , INTERSECT , Constraints .
3. Queries using Aggregate functions (COUNT , SUM , AVG , MAX and MIN), GROUP BY, HAVING and Creation and dropping of Views.
4. Queries using Conversion functions (to\_char, to\_number and to\_date ), string functions (Concatenation , lpad,ltrim, LOWER,UPPER,LENGTH,SUBSTR AND INSTR), Date functions (Sysdate,next\_day,add\_months,last\_day,months\_between,least,greatest,truncate,round,to\_char,to\_date)
5. i) Creation of simple PL/SQL program which includes declaration section , executable section and exception – Handling section .  
ii) Insert data into student table and use COMMIT, ROLLBACK and SAVEPOINT in PL/SQL .
6. Develop a program that includes the features NESTED IF,CASE and CASE expression . THE program can be extended using the NULLIF and COALESCE functions.
7. Programs development using WHILE LOOPS, numeric FOR LOOPS, nested loops using ERROR Handling , BUILT –IN Exceptions,RAISE-APPLICATION ERROR.
8. Programs development using creation of procedures ,passing parameters parameters IN and OUT of PROCEDURES.
9. Programs development using creation of stored functions ,invoke functions in SQL Statements and write complex functions.

10. Programs development using creation of package specification, package bodies, private objects, package variables and cursors and calling stored packages.
11. Develop programs using features parameters in a CURSOR, FOR UPDATE CURSOR, WHERE CURRENT of clause and CURSOR variables.
12. Develop Programs using BEFORE and AFTER triggers, Row and Statement Triggers and INSTEAD OF triggers.

## **LIST OF EXPERIMENTS OF OBJECT ORIENTED PROGRAMMING LAB II YR II SEM**

1. Write a java program that prints all real solutions to the quadratic equation  $ax^2+bx+c=0$ . Read in a,b,c and use the quadratic formula. If the discriminant  $b^2-4ac$  is negative, display a message stating that there are no real solutions.
2. Write a java program that uses both recursive and non recursive functions to print the nth value in the Fibonacci sequence.
3. Write a java program that prompts the user for an integer and then prints out all prime numbers upto that integer.
4. Write a java program to multiply two matrices.
5. Write a java program that reads a line of integers and then displays each integer, and the sum of all the integers.
6. Write a java program that checks whether a given string is palindrome or not.
7. Write a java program for sorting a given list of names in ascending order.
8. Write a java program to make frequency count of words in a given text.
9. Write a java program that reads a file name from the user, then displays information about whether the file exists, whether the file is readable, whether the file is writable, the type of file, and the length of the file in bytes.
10. Write a java program that reads a file and displays the file on the screen, with a line number before each line.
11. Write a java program that displays the number of characters, lines and words in text file
12. Write a java program that implements stack ADT

13. Develop an applet that displays a simple message.
14. Write a java program that works as a simple calculator, use a grid layout to arrange buttons for the digits and for the +, -, \*, % operations. Add a text field to display the result.
15. Write a java program for handling mouse events.
16. Write a java program that creates three threads. First thread displays "Good Morning" every one second, the second thread displays "Hello" every two seconds and the third thread displays "Welcome" every three seconds.
17. Write a java program that currently implements the producer consumer problem using the inter thread communication.
18. Write a program that creates a user interface to perform integer divisions.
19. Write a java program that implements a simple client/ server application.
20. Write a java program that simulates a traffic light.
21. Write a java program to create an abstract class named Shape that contains an empty method named numberOfSides().
22. Suppose that a table named Table .txt is stored in a text file. The first line in the file is the header, and the remaining are rows in the table. Write a java program to display the Jtable Component.

Name of the Laboratory: **UML Lab**

3<sup>rd</sup> year 1<sup>st</sup> Sem

The student is expected to take up about five mini projects and model them and produce Usecase, Analysis Documents – both Static and Dynamic aspects, Sequence diagram and State Charts, Database design.

## **MINI-PROJECTS**

### 1. A point-of-sale system project (POS)

A POS system is a computerized application used to record Sales and handle payments. it is typically used in a retail store. it include Hardware components such as a computer and barcode scanner and software to run the system.

### 2. ATM project

Designing static and dynamic part of ATM system and maintaining. All type of transaction.

### 3.online bookshop project

Following the model of amazon.com or bn.com, design and implement an online bookstore.

### 4.multi threaded airport simulation

Simulate the operations in a airport. Your application should support multiple air crafts using several runways and gates avoiding collisions/conflicts

Landing: aircraft used the runway, lands and then taxis over to the terminal

Take off: an aircraft taxis to the runway and then take off.

### 5. An auction application

Several commerce models exist and are the basis for a number of companies like eBay.com, priceline.com, etc and implement an auction application that provides auctioning services. it should clearly model the various auctioneers the bidding process, auctioning etc.

Name of the Laboratory: **Computer Networks Lab**  
Sem

3rd year 1<sup>st</sup>

1.implement the data link layer framing methods such as character stuffing and bit stuffing.

2.implement on a data set of characters the three CRC polynomials – CRC-12,CRC-16 and

CRC CCIP.

3.implement Dijkstra's algorithm to compute the shortest path thru a graph.

4.take an example subnet graph with weights indicating delay between nodes.

Now obtain routing table at each node using distance

Vector routing algorithm.

5.take an example of subnet of hosts.obtain broadcast tree for it

6.take a 64 bit playing text and encrypt the same using DES algorithm.

7.write a program to break the above DES coding.

8.using RSA algorithm encrypt a text data and decrypt the same.

## **LIST OF PROGRAMS OF INFORMATION SECURITY LAB**

III rd year II nd sem

1. Working with Snuffers for monitoring network communication (Ethereal)
2. Understanding of cryptographic algorithms and implementation of the same in C or C++.
3. Using openssl for web server-browser communication
4. Using GNU PGP
5. Performance evaluation of various cryptographic algorithms.
6. Using IPTABLES on Linux and setting the filtering rules.
7. Configuring S/MIME for e-mail communication
8. Understanding the buffer overflow and format string attacks
9. Using NMAP for ports monitoring.
10. Implementation of proxy based security protocols in C or C++ with features like confidentiality, integrity and authentication.

Name of the Laboratory: 3<sup>rd</sup> year 2<sup>nd</sup> Sem  
UNIX PROGRAMMING & COMPILER DESIGN LAB  
(USING UNIX OS & C)

### **PART A (UNIX)**

1. Write a shell script to generate a multiplication table.
2. Write a shell script that copies multiple files to a directory.
3. Write a shell script which counts the number of lines and words present in a file.
4. Write a shell script which displays the list of all files in the given directory.
5. Write a shell script that adds, subtracts, multiplies and divides the given integers.
6. Write a shell script to reverse the rows and columns of a matrix.
7. Write a C program that counts the number of blanks in the text file.
8. Implement in C the following Unix commands using system calls(cat, ls, mv)
9. Write a C program that takes one or more file names as command line input and reports the following information on the file (file type, no. of links, time of last access, read, write and execute permissions).
10. Write a C program that illustrates how to execute two commands concurrently with a command pipe.
11. Write a C program that illustrates the creation of child process using vfork system call.
12. Write a C program that displays the real time of a day every 60 seconds.
13. Write a C program that illustrates file locking using semaphores.

14. Write a C program that implements a producer-consumer system with two processes.
15. Write a C program that illustrates inter process communication using shared memory system calls.
16. Write a C program that illustrates creating a message queue, writing to a message queue, reading from a message queue.
17. User access and user id commands (login, logout, password).
18. Directory commands (mkdir, rmdir, cd, mv, pwd, ls, find, cat, link).
19. Information commands (date, who, finger).
20. Arithmetic calculation commands (bc, expr, factor, units).
21. Process commands (ps, shutdown, chvt).
22. Networking commands (telnet, ftp, ping, talk, mail, write, mesg)

### **LIST OF PROGRAMS OF WEB TECHNOLOGIES LAB IV year I sem**

1. Develop static pages( using Only HTML) of an online Book store. The pages should resemble: [www.amazon.com](http://www.amazon.com) The website should consist the following pages.
2. Validate the Registration, user login, user profile and payment by credit card pages using JavaScript.
3. Create and save an XML document at the server, which contains 10 users information. Write a program, which takes User Id as an input and returns the user details by taking the user information from the XML document.
4. Bean Assignments
  - a. Create a JavaBean which gives the exchange value of INR(Indian Rupees) into equivalent American/Canadian/Australian Dollar value.
  - b. Create a simple Bean with a label- which is the count of number of clicks. Then create a BeanInfo class such that only the "count" property is visible in the Property Window.
  - c. Create two Beans-a) KeyPad. b) DisplayPad. After that integrate the two Beans to make it work as a Calculator.
  - d. Create tow Beans Traffic Light (Implemented as a Label with only three background colours-Red, Green, Yellow) and Automobile(Implemented as TextBox which states its state/movement). The state of the Automobile should depend on the following Light Transition Table.
 

Red -> Yellow	Automobile State
Yellow-> Green	Ready
Green-> Red	Stopped

5. Install TOMCAT web server. Convert the static web pages of assignments 2 into dynamic web pages using servlets and cookies. Hint: Users information(user id, password, credit card number) would be stored in web.xml. Each user should have a separate Shopping Cart.
6. Redo the previous task using JSP by converting the static web pages of assignments 2 into dynamic web pages. Create a database with user information and books information. The books catalogue should be dynamically loaded from the database. Follow the MVC architecture while doing the website.
7. Implement the "Hello World!" program using JSP Struts Framework.

EMBEDDED SYSTEMS LAB		
1	89C51 MICRO CONTROLLER	35 KIT
2	ACCESSORIES SET	4SETS
3	8051 RTOS DEVELOPMENT BOARD (VI-51 RTOS)	7KIT
4	PC TO PC (RS 232) CABLES	7
5	POWER CARDS	7
LIST OF EXPERIMENTS		
1	PROGRAM TO (I) READ INPUT FROM SWITCHES (II) TO MAKES LEDs BLINK	
2	PROGRAM FOR SERIAL COMMUNICATION	
3	PROGRAM FOR ENCRUPTION / DECRUPTION	
4	DEVELOP INTERFACING CIRCUIT TO READ DATA FROM A SENSOR AND PROCESS USING THE 8051 BOARD	
5	SORT RTOS (m COS) ON TO 89C51 BOARD AND VERIFY	
6	ELEVATOR MOVEMENT USING RTOS ON 89C51BOARD	

**INDUSTRY ORIENTED MINI PROJECT  
SEMINAR  
PROJECT WORK**

**IVTH YEAR 2SEM**

## ACADEMIC CALENDER OF THE UNIVERSITY:

### **B. Tech I year : Not yet commenced**

### **B.Tech. II Yr., III Yr., IV Yr. - I Semester : (2009 – 10)**

Instruction Commencement	: 06-07-2009 to 29-8-2009 (8 W)
I Mid Term Examination	: 31-08-2009 to 5 -09-2009
Instruction Contd.	: 03-09-2009 to 28-10-2009 (8 W)
II Mid Term Examination	29-10-2009 to 04-11-2009
Preparation & Practicals	: 05-11-2009 to 14-11-2009
End examinations	: 16-11-2009 to 30-11-2009
Supplementary Examination of II Sem	:01-12-2009 to 12-12-2009

### **B.Tech. II Yr., III Yr., IV Yr. - II Semester : (2008 – 09)**

Instruction Commencement	: 14-12-2009 to 06-02-2010 (8 W 3 )
I Mid Term Examination	: 08-02-2010 to 13 -02-2010
Instruction Contd.	: 15-02-2010 to 07-04-2010 (8 W)
II Mid Term Examination	08-04-2010 to 14-04-2010
Preparation & Practicals	: 15-04-2010 to 24-04-2010
End examinations	: 26-04-2010 to 08-05-2010
Supplementary Examination of I Sem	: 10-05-2010 to 22-05-2010
Summer Vacations	: 10-05-2010 to 04-07-2010
Commencement of Class work for I semester for II,III,IV Years	: 05-07-2010

### **Internal Continuous Evaluation System:**

Two internal tests comprising of 5 Subjective type questions of 90 minutes duration are held during the course of the semester, two test after completion of IV unit One subjective & one online. The average of best 3 out of these 4 tests is considered towards award of 20 sessional marks.

Apart from these, subjective type tests are held after completion of 2 units which are on JNTU final exam pattern. The intention is to familiarize the students with the pattern of questions asked in the final exam.

For practical, there is continuous evaluation during the semester for 25 sessional marks. Out of these 15 marks are to be awarded for day to day work are 10 marks for internal lab test.

I year, there will be three objective type tests and three subjective type tests for Ist year. The objective type tests will be of 20 minutes duration and will be online. While the subjective type tests will be of 1 1/2 hours duration and will consist of 5 questions out of which 3 are to be attempted.

Average of four best marks out of the above six tests will be considered towards award of 20 sessional marks.

### **Students' assessment of Faculty:**

A performance Appraisal report is prepared for each faculty member by the Principal wherein due weight age is given to feedback from students Feedback from students is personally obtained by the Principal at the beginning / during / and towards the end of semester. The feedback plays an important role in counseling of faculty members, taking corrective action where necessary, and if required making a change in faculty.