

## **ANNEXURE – 1**

### **MANDATORY DISCLOSURE**

**“The information has been provided by the concerned institution and the onus of authenticity lies with the institution and not on AICTE.”**

#### I. NAME OF THE INSTITUTION

GEETHANJALI COLLEGE OF ENGG. & TECH.  
Cheeryal (V), Pin: 501301, Keesara (M).  
Ranga Reddy Dist  
Andhra Pradesh.

#### II. NAME & ADDRESS OF THE DIRECTOR

Dr. Ramamohan Rao Sankara, Principal  
GEETHANJALI COLLEGE OF ENGG. & TECH  
Cheeryal (V), Pin: 501301, Keesara (M).  
Ranga Reddy Dist.  
Andhra Pradesh.

#### III. NAME OF THE AFFILIATING UNIVERSITY

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY  
Kukatpally, HYDERABAD-500072

#### IV. GOVERNANCE

**4.1 MEMBERS OF THE BOARD :-** All the members of the Board are professionals in various fields with high educational qualifications and vast experience in administration. Such background will indeed give the desired direction to the Institutions sponsored by the Society. The profile of the members is as follows:-

- 1) **Dr. A. Tirupathi Reddy, President:** He is a veterinary doctor , associated with the management of S.R Institutions . SR Institutions have a standing of over 30 years. The group encompasses 10 Junior Colleges, SR Engineering College, SR Pharmacy College and an International School in pipeline. With a bright career in industry, he has ventured to associate himself with this institution.
- 2) **Mr. G.R.Ravinder Reddy, Secretary:** He is a post graduate in Civil Engineering and formerly a Senior Police Officer. He has graduated from NIT, Warangal and has also completed his Post Graduation from the same Institution. Subsequently he joined the civil services and served the Police department for more than 20 years before taking up voluntary retirement. With an excellent education and vast field experience, he has a vision to develop the institution into a centre of learning, where discipline would be a hallmark.

- 3) **Dr. G. Sridevi, Treasurer** : A dentist who graduated from the prestigious Osmania University will contribute immensely in adding new dimensions to the growth of the institution
- 4) **Mr.G. Ramesh Reddy, Member** : A Civil Engineering graduate who is presently working in Australia is not only providing financial assistance to the institution, but also guiding the management to tread the path of success.
- 5) **Ms.G. Shobha, Member** : A post graduate in management with adequate qualification in computer field is working in the banking sector in Dubai. She has a rich experience in software industry and has wide contacts in the higher echelons in the software industry and thus gives a direction in achieving the desired industry-institution interface.
- 6) **Dr.A.Vinay Babu** – A doctorate in Computer Science & Engineering working in JNTU as Director-SCHE-Hyderabad belongs to the present generation and can ably guide the Institution to encompass the latest developments in the computer education and industry. This will enable the students to be equipped to face the industry, once they graduate from the institution.
- 7) **Sri Narendra Shukla :-** He is presently the **CEO-CORDYS** he has graduated from NIT, Warangal and has done his MBA from IIM-Calcutta. He began his professional career by working in LAKME and then moved on to automobile industry in DUBAI. After a decade's stint in Dubai, he shifted to software industry and is presently the CEO of CORDYS.

#### 4.2

#### Members of Academic Advisory Body :-

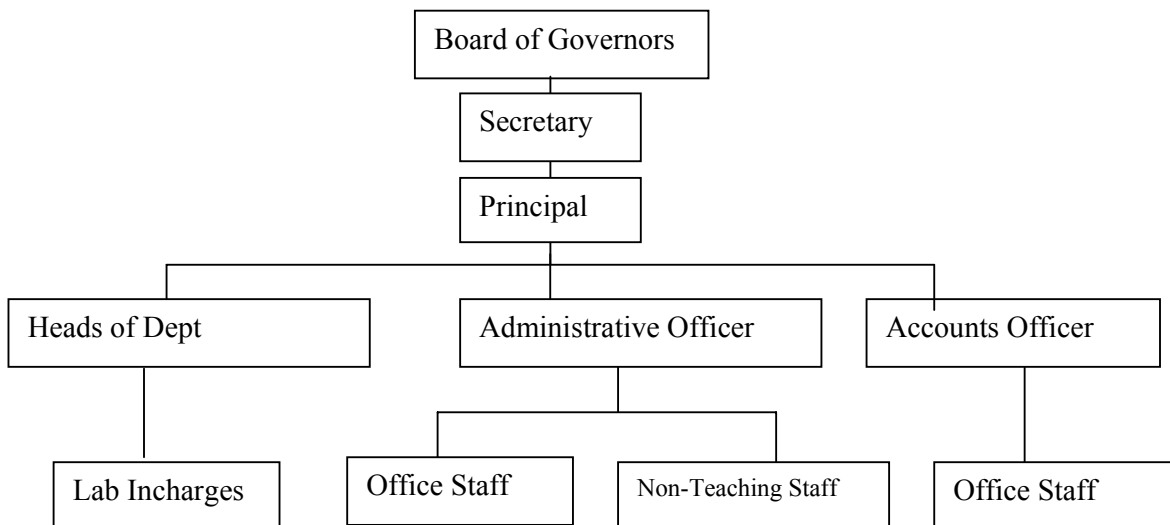
1. **Prof. Y.Purander :-** He is a postgraduate in Computer Science from Osmania University, who is presently the Dean, Industrial Relation & Placements in K L College of Engineering-Vijaywada. Previously he worked in ECIL in various capacities the last being project Director for Control System Projects.
2. **Prof.M.Subbaryudu:-** He is the Principal of Rajiv Gandhi Memorial College of Engineering – He graduated from Engineering College, Kakinada, did his Post Graduation from NIT, Warangal & Ph.D from IISC-Bangalore. He has long experience of 35 + Yrs in academic & Administration. He was HOD & Professor-Electronics & Communication Engineering and also as Principal College of Engineering-Anantapur.
3. **Prof.Uday Kumar:-** He is presently working as Principal- Arora College of Engineering, Bhavanagiri. He has long experience in both Academic & Administration.. He did his Post Graduation from Osmania University in Computer Science and Ph.D in Computers Science from JNTU.
4. **Prof.Dr.K.Srinivasa Rao :-** He is currently working as Principal TRR College of Engineering, Hyderabad. He did his Ph.D in Electronics & Communication from Andhra University and has long experience in Academic & Administration

#### 4.3 Frequency of the Board Meetings and Academic Advisory Body :-

Board meetings – once in 3 months.

Academic Advisory body meetings-Once in a semester

#### 4.4 Organizational chart and processes :-



#### 4.5 Nature and Extent of involvement of faculty and students in academic affairs/improvements :-

- 1) **College Academic Committee:-** This Committee consists of Heads of the Departments & Associate Professors. All the Academic activities are planned and implemented by the members of this Committee. The opinions and ideas of the faculty are taken into consideration before policy matters are decided.
- 2) **Class Review Committee:-** It consists of 5 students and the entire faculty handling the courses for that class with the HOD as the coordinator. The members are actively involved in the academic affairs including the coverage of syllabus , expert lectures, technical activities of the students, technical visits, paper presentation etc.
- 3) **Student counseling:-** Each faculty member is allotted 10 students. He is responsible for academic guidance of the students allotted to him. The faculty member redresses the problems faced by the student in academic and administrative matters.

4.6 Mechanism/Norms & Procedure for democratic/good Governance :- The Institution believes in a democratic set up. Each department with its head and members decide upon the requirements with consensus. The staff, lab equipments, library books required are projected to the Principal by the HOD. For all procurements, quotations are obtained, technical specifications studied, rates are compared by the department and the proposals are forwarded to the management through Principal.

4.7 Student Feedback on Institutional Governance / faculty performance :- Students are given feedback forms within two weeks of the commencement of the classwork to evaluate the effectiveness of teaching. The criteria taken are

- a).Punctuality & Regularity of the teacher
- b).Teacher's control and conduct of the class
- c). Understandability
- d). Discussion of class tests/tutorials / assignments
- e). Coverage of syllabus
- f). Overall rating of the teacher of the subject

The feedback is analyzed and is utilized to counsel the teachers whose performance is not upto mark. The students are also asked to comment about the facilities such as Library, Canteen, Sports transport etc., so that corrective measures can be taken.

**4.8 Grievance redressal mechanism for faculty, staff and students :-** The students can express their grievances through suggestions box and also through feedback forms. The management & Principal also attend special sessions to know the problems of the students. So, also faculty & staff meetings are held to know their problems and their grievances are attended to. A grievance redressal cell with the Secretary, Principal and HODs is formed where the problems are discussed & solutions arrived at.

**V. PROGRAMMES**

**5.1 Name of the Programmes approved by the AICTE :-**

- Computer Science & Engg.
- Electronics & Communication Engg.
- Electrical & Electronics Engg.
- Information Technology
- Master of Computer Applications
- Master of Business Administration.

**5.2 Name of the Programmes accredited by the AICTE :-**

Nil.

**5.3 The Details of the approved programmes are as follows :-**

Name	Comp. Sci & Engg.(CS)	Elect & Comm. Engg.(ECE)	Elec. & Elect. Engg.(EEE)	Inf. Tech.(IT)	MCA	MBA
Number of seats	120	120	60	120	60	60
Duration in Years	4	4	4	4	3	2
Cut off mark/rank for admission during the last three years	40 out of 160 in EAMCET  60 out of 200 in ECET	40 out of 160 in EAMCET  60 out of 200 in ECET	40 out of 160 in EAMCET  60 out of 200 in ECET	40 out of 160 in EAMCET  60 out of 200 in ECET	As decided by Convener ICET  60 out of 200 in ECET	As decided by Convener ICET  60 out of 200 in ECET
Fee	Rs.30,200 /-	Rs.30,200	Rs.30,200 /-	Rs.30,200 /-	Rs.26,700/-	Rs. 26,700/-
Placement Facilities	<b>A Placement Officer is appointed who is in-charge of campus placements.</b>					
Campus placement in last three years with minimum salary, maximum salary and average salaries	<b>Maximum salary-3.5 lakhs per annum,Average salary -1.80 to 2.0 lakhs per annum,Minimum salary – 72000/- per annum.</b>					

## VI. Faculty

Name of the Course	S.No	Name (s) of the Teaching Faculty	Designation (Lecturer/ Asst. Professor/ Professor)	Qualifications with field of specialization with class / division of passing			Experience a) Teaching b) Industry c) Research			Date of Joining the Institution
				UG	PG		a	b	c	
ECE	1	Dr.S.Ramamohana Rao	Professor	B.E., BSc,	M.Tech	Ph.D	10	25		23-06-2006
ECE	2	B.Lokeswara Rao	Professor	B.E	M.E	(Ph.D)	15	5		01-07-2006
ECE	3	D.Ramakrishna Rao	Professor	B.E	M.Tech	-	2.5	35	-	15.05.2008
ECE	4	P.Vijai Bhaskar	Professor	B.Tech	M.Tech	--	15	-	-	03-05-2007
ECE	5	P.Sudhakar	Assoc.Professor	B.Tech	(M.Tech)	--	5.5	-	-	28-05-2007
ECE	6	A.Rama Krishna	Assoc.Prof	B.Tech	(M.Tech)	-	10	-	-	12.09.2008
ECE	7	M.Vijaya Lakshmi	Assoc.prof.	B.Tech	(M.Tech)	-	8	-	-	15-11-2008
ECE	8	D R V A Sarath kumar	Assoc.Prof	B.E.	M.E	-	6	-	-	04.06.2007
ECE	9	K.Siva sundari	Asst.Prof	B.E.	-	-	9.5	-	-	02.06.2008
ECE	10	Radha A	Asst.Professor	B.Tech	-	-	2 Yrs	-	-	26-04-2007
ECE	11	Y.Nagalakshmi	Asst.Professor	B.Tech	-	-	Fresher	-	1	2-11-2006
ECE	12	A.Dharmendar	Asst.Prof	B.Tech	(M.Tech)	-	3.5	-	-	25.06.2008
ECE	13	V.Madhurima	Asst.Prof	B.Tech	(M.Tech)	-	2.5	-	-	14.07.2008
ECE	14	Mohammed Farooq	Asst.Professor	B.Tech	-	-	1 Yr	-	-	4-05-2007
ECE	15	A.Srinivas	Asst.Prof	B.Tech	-	-	2	-	-	15.09.2008
ECE	16	M.Muthamma	Asst.Prof	B.Tech	-	-	F	-	-	02.06.2008
ECE	17	B.Rajeswari	Asst.Prof	B.Tech	-	-	F	-	-	09.06.2008
ECE	18	S.Jyothirmayee	Asst.Prof	B.E	-	-	5	-	-	16.12.2008
ECE	19	G.Sahithi	Asst.Prof	B.Tech	-	-	F	-	-	01.07.2009
ECE	20	V.Haritha	Asst.Prof	B.Tech	M.E.	-	-	2.5	-	01.07.2009

ECE	21	A.Sammaiah	Asst.Prof	B.Tech	M.Tech	-	3	-	-	30.06.2009
ECE	22	A.Ravinder	Asst.Prof	B.Tech	M.Tech	-	3	-	-	16.07.2009
CSE	23	T.Prakasam	Professor	B.E	M.Tech	-	16 Yrs			12-07-2007
CSE	24	Dr.M.Nagabhushana Rao	Professor	B.E	MS	Ph.D	15	-	-	19-01-2007
CSE	25	P.Srinivas	Assoc.Professor	B.E	M.Tech		8	2	-	1-10-2005
CSE	26	S.Tirupathi Rao	Assoc.Professor	B.E	M.Tech	-	8	-	-	04.06.2008
CSE	27	S.Munisankaraiah	Assoc.Professor	B.Tech	M.Tech	-	8	-	-	19.09.2008
CSE	28	K.Madhusudhan Reddy	Assoc.Professor	B.Tech	(M.Tech)	-	5	-	-	19-03-2006
CSE	29	Indira Chakravarthy	Assoc.Professor	B.E.	M.Tech	-	4	5	-	01.12.2008
CSE	30	M.Ashwini	Asst. Professor	B.Tech	-	-	2	-	-	18-09-2006
CSE	31	Y.Dileep Babu	Asst. Professor	BE	-	-	2.4	-	-	13.11.2007
CSE	32	M.Ravinder	Asst. Professor	B.Tech	(M.Tech)	-	4.5	-	-	17.11.2008
CSE	33	N.Sujatha Gupta	Asst.Professor	B.Tech	-	-	3	-	-	21-06-2007
CSE	34	B.P.Raju	Asst.Professor	B.Tech	-	-	-	3	-	19.01.2009
CSE	35	T.Suneel Chowdary	Asst.Professor	B.Tech	M.Tech	-	9 months	-	-	29.11.2008
CSE	36	Y.Sandeep	Asst.Professor	B.Tech	-	-	7 months	5	-	16.07.2008
CSE	37	C.Sailaja	Asst.Professor	B.Tech	-	-	F	-	-	01.10.2008
CSE	38	G.Radhika	Asst.Professor	B.Tech	-	-	1	-	-	17.11.2008
CSE	39	K.Manjula	Asst.Professor	B.Tech	-	-	F	-	-	24.10.2008
CSE	40	N.Janakiram	Asst.Professor	B.Tech	-	-	2.3	-	-	
CSE	41	K.Vijaya Bhaskar	Asst.Professor	B.Tech	-	-	F	-	-	29.09.2008
CSE	42	M.Jayakrishna	Asst.Professor	B.Tech	-	-	F	-	-	
CSE	43	P.Ushashree	Asst.Professor	B.Tech	-	-	F	-	-	02.07.2009
IT	44	C.Rama Seshagiri Rao	Professor	B.Tech	M.Tech	(Ph.D)	8.5	5	-	01.07.2006
IT	45	Somasekhara Rao K	Professor	B.E.	M.Tech	-	-	32	-	28.06.2008

IT	46	M.Sampath Kumar	Assoc.Professor	B.E.	M.Tech	-	8	-	-	30.05.2008
IT	47	K.Srinivas	Assoc.Professor	B.E	M.Tech	-	7	-	-	1-10-2005
IT	48	P.Dileep	Assoc.Professor	B.Tech	M.Tech	-	5	-	-	12.11.2008
IT	49	V.Venkata Ramana	Assoc.Professor	B.E	M.Tech	-	8	-	-	21-06-2007
IT	50	G.Vijaya Shanthi	Asst.Professor	B.Tech	M.Tech	-	3	-	-	02.06.2008
IT	51	B.Sailaja	Asst.Professor	B.Tech	-	-	3	-	-	23-04-2007
IT	52	K.Abhilasha	Asst.Professor	B.Tech	-	-	Fresher	-	-	16-10-2006
IT	53	Rajashekar Parupati	Asst.Professor	B.Tech	-	-	2.4	-	-	27-04-2007
IT	54	A.Bixapathi	Asst.Professor	B.Tech	-	-	2	-	-	03.07.2008
IT	55	M.Siva Sankar	Asst.Professor	B.Tech	-	-	F	-	-	27.06.2007
IT	56	N.Shilpa	Asst.Professor	B.Tech	-	-	F	-	-	27.11.2008
IT	57	D.Prasanthi	Asst.Professor	B.Tech	-	-	F	-	-	21.01.2009
IT	58	S.Dedeepya	Asst.Professor	B.Tech	-	-	F	-	-	02.07.2009
IT	59	B.Bhargavi	Asst.Professor	B.Tech	-	-	F	-	-	03.07.2009
IT	60	C.Ramya	Asst.Professor	B.Tech	-	-	1.3	-	-	24.11.2008
IT	61	B.Manjulatha	Asst.Professor	B.Tech	-	-	F	-	-	
EEE	62	NVL Addanki	Professor	B.Sc, BE	MS	-	3	34	-	5-10-2006
EEE	63	Y.Suresh Babu	Assoc.Prof	B.Tech	M.Tech	-	9	-	-	02.06.2008
EEE	64	M.Devaiah	Assoc.Professor	B.E	M.Tech	(Ph.D)	7	-	3.5	1-10-05
EEE	65	N.Venkata Bharadwaj	Assoc. Professor	B.E	MBA	-	-	8	-	29.06.2009
EEE	66	K.Mahender	Asst. Professor	B.Tech	M.Tech	-	9 mon	-	-	20-04-2007
EEE	67	B.Anitha	Asst.Professor	B.Tech	-	-	2.4	-	-	24.09.2007
EEE	68	D.Krishna	Asst. Professor	B.Tech	-	-	2	-	-	13-04-2007
EEE	69	M.Ravikanth	Asst. Professor	B.E	-	-	1.5	-	-	01-07-2006
EEE	70	K.Bhadraji	Asst. Professor	B.Tech	-	-	2	-	-	28-04-2007

EEE	71	Voleti Padmaja	Asst.Professor	B.Tech	(M.Tech)	-	F	-	-	23.06.2008
EEE	72	Khadar Basha Shaik	Asst. Professor	B.E	-	-	3 mon	-	-	27-07-2006
EEE	73	B.Jayalakshmi	Asst. Professor	B.Tech	-	-	F	-	-	08.08.2008
EEE	74	PVS Murali Krishna	Asst.Professor	B.Tech	-	-	F	-	-	24.09.2008
EEE	75	B.Lakshmi Prasanna	Asst. Professor	B.Tech	-	-	F	-	-	24.10.2008
EEE	76	G.Srikanth	Asst.Professor	B.Tech	(M.Tech)	-	7	2	-	01.07.2009
SCI & HUM	77	Dr.J.Anjaiah	Assoc.Professor	B.Sc	M.Sc	Ph.D	7	-	-	2-10-2005
SCI & HUM	78	K.Ramakrishna Sarma	Assoc.Professor	B.A.	M.A.	(M.Phil)	14	-	-	22.11.2007
SCI & HUM	79	T.V.A.P.Sastry	Assoc.Professor	B.Sc	M.Sc	(Ph.D)	14	-	-	11-06-2007
SCI & HUM	80	L.Mrudula	Assoc.Professor	B.Sc	MA	M.Phil (Ph.D)	9.4	4	-	01-07-2006
SCI & HUM	81	Aparajitha Bharadwaj	Assoc.Professor	B.A., B.Ed	M.A., M.Ed		9.7	-	-	26.11.2007
SCI & HUM	82	K.Mallikarjun	Asst.Professor	B.A	M.A	(M.Phil)	10	-	-	25-10-2008
SCI & HUM	83	N.Nagi Reddy	Asst. Professor	B.Sc	M.Sc	-	3	-	-	1-10-2005
SCI & HUM	84	M.Narasimha Swamy	Asst. Professor	B.Sc	M.Sc	-	3	-	-	11-06-2007
SCI & HUM	85	Subhadra Nemani	Asst. Professor	B.Sc, B.Ed	M.Sc	-	7	-	-	9-07-2007
SCI & HUM	86	Mercy Kavitha	Asst. Professor	B.A	M.A	-	11	-	-	6-08-2007
SCI & HUM	87	G.Sudhaamsh Mohan Reddy	Asst. Professor	B.Sc	M.Sc	(Ph.D)	4	-	2	9-08-2007
SCI & HUM	88	D.Pavan kumar	Asst.Professor	B.Sc	M.Sc	-	2	-	-	11-08-2008
SCI & HUM	89	K.Sunitha Ramesh	Asst.Professor	B.A., B.Ed	M.A. M.Phil	-	4	-	-	28.08.2008

SCI & HUM	90	G.Sudha Madhuri	Asst.Professor	B.Sc	M.Sc	-	2	-	-	01.09.2008
SCI & HUM	91	J.Swarupa Kumari	Asst.Professor	B.A.B ed	MA(M.Phil)	-	2.5	-	-	27-10-2008
SCI & HUM	92	S.Sarada	Asst.Professor	BA,B. Ed	MA	-	1	6	-	23-10-2008
SCI & HUM	93	S.Lalitha	Asst.Professor	B.Sc	M.Sc(M.Phil)	-	10	-	-	24.11.2008
SCI & HUM	94	G.Saritha	Asst.Professor	B.Sc	M.Sc	-	3	-	-	28-07-2009
SCI & HUM	95	P.Sreedhar	Asst.Professor	B.Sc, B.Ed	M.Sc	-	8	-	-	29-07-2009
SCI & HUM	96	P.Nanda kumar	Asst.Professor	B.Sc	M.Sc	-	3	-	-	29-07-2009
SCI & HUM	97	D.Ganga Prasad	Asst.Professor	B.Sc	M.Sc	-	1	-	-	12.08.2009
MBA	98	Dr.M.Srinivas	Professor	M.Co m	MBA	Ph.D	18	2	-	20.06.2008
MBA	99	NSR Murthy	Assoc.Professor	B.A.	M.A	MBA	7	30	-	28.07.2008
MBA	100	C.Pavan Kumar	Assoc. Professor	B.Sc.	M.Sc	-	6	-	-	17.09.2007
MBA	101	A.Kesava Koundinya	Assoc.Professor	B.Sc	DHM	MBA	7	11	-	28.07.2009
MBA	102	Alok Kumar	Asst. Professor	B.Sc	MBA	-	2	2	-	1-06-2007
MBA	103	P.Sateesh kumar	Asst.Professor	B.Sc	M.Sc	-	13	-	-	27-08-2007
MBA	104	A.I.Prasanth	Asst. Professor	BBM	MBA	-	1	7	-	19-02-2007
MBA	105	R.Lavanya Kumari	Asst..Professor	B.Sc	M.Sc	-	7	-	-	16-07-07
MCA	106	I.Nagaraju	Assoc.Professor	B.Sc	MCA	-	7	-	-	01.07.2009
MCA	107	A.Durga Pavani	Assoc.Professor	B.Sc	M.Sc	-	4	-	-	11-06-2007
MCA	108	T.Srinivasa Reddy	Assoc.Professor	B.Sc	MCA	-	8	-	-	05.08.2006
MCA	109	P.Naveen Kumar	Asst. Professor	B.Co m	MCA	-	3	-	-	1-07-2006
MCA	110	P.Swapna	Asst. Professor	B.Sc	MCA	-	2	-	-	11-08-2006

<b>MCA</b>	111	K.Bharathi	Asst. Professor	B.Sc	MCA	-	2	-	-	14-05-2007
<b>MCA</b>	112	Md.Faisal	Asst. Professor	BCA	MCA	-	2	-	-	11-06-2007
<b>MCA</b>	113	G.Soujanya	Asst.Professor	BCA	MCA	-	1	-	-	02.06.2008
<b>MCA</b>	114	Nagasrinu Kundavarapu	Asst.Professor	B.Sc	MCA	-	F	-	-	01.07.2008
<b>MCA</b>	115	G.K.Subbalakshmi	Asst.Professor	B.Sc	MCA	-	F	-	-	02.07.2008
<b>MCA</b>	116	Ch.Santosh	Asst.Professor	BCA	M.Sc	-	F	-	-	24.11.2008
<b>MCA</b>	117	R.Anusha	Asst.Professor	B.Sc	MCA	-	F	-	-	06.08.2009

**Permanent Faculty : Student Ratio : 1:15**

**\* Number of faculty employed and left during the last three years :**

S. No.	Programme	Category	Period of appointment				Total
			Less than 6 Months	Between 6 Months to 2 years	Between 2 to 3 years	More than 3 years	
1	UG (B.Tech)	Professors	NIL	2	3	4	9
		Assistant Prof.	2	9	6	6	22
		Lecturers	16	32	14	4	66
		Others	Nil	Nil	Nil	Nil	Nil
	PG (MBA & MCA)	Professors	NIL	01	-	Nil	1
		Assistant Prof.	2	4	0	Nil	6
		Lecturers	1	10	2	Nil	13
		Others	Nil	Nil	Nil	Nil	Nil

**VII. PROFILE OF DIRECTOR/PRINCIPAL WITH QUALIFICATIONS, TOTAL EXPERIENCE, AGE AND DURATION OF EMPLOYMENT AT THE INSTITUTE CONCERNED**

Name : Dr.S.Ramamohana Rao

Date of Birth : 19-12-1947

Academic qualifications (with field of specialization) :

Ph.D,	CAD Thermal Design,	IISC Bangalore.
Diploma	Production Management	Punjabi University
M.Tech	Electronics Instrument	REC, Warangal
B.E	Electrical Technology	IISC Bangalore
B.Sc	Maths-I, Maths-II, Physics	Andhra University, Waltair

Details of Experience (Academic / Industrial) :

1971 :1996 : Scientist /Engr SF:VSSC/ISRO - Trivandrum :

1996-2000 : Professor-Koneru Laxmaiah college of Engineering, Vijayawada, AP, ECE Dept.

2000-2004 : Professor: HOD-Biomedical Engg. Dept.  
BVRIT- Narsapur (Medak Dt), A.P.

2004-2006 : Principal : HITS College of Engineering, Bogaram, Keesara , Hyderabad, AP

Since June 2006 Principal : Geethanjali College of Engineering & Technology.

Area of Specialization : Digital Signal Processing

Subjects teaching at under gradual level : Image Processing Neural Networks, Artificial Intelligence etc.

Research guidance :

Master's	:	5
Ph.D	:	2

No. of papers published in

National Journals	:	7
International Journals	:	2
Conferences/ Seminars / Symposia / Workshop	:	6

Projects carried out : Worked in SLV, SLVC, ASLV, PSLV, & GSLV Projects

Patents held : ---

Technology transfer : Data amplifiers to M/s Encardio-rite from ISRO

Research publications : As above

No. of books published with details : As above

### 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.

At the time of admission.

No. of Fee waivers granted with amount and name of students.

NIL

Number of scholarship offered by the institute, duration and amount.

Merit scholarship of an amount Rs.10,000/- each is awarded for 9 students from CSE, IT, ECE, EEE, MBA & MCA of Ist Yr & II & III Yr.

Criteria for fee waivers/scholarship. NA

Estimated cost of Boarding and Lodging in Hostels : NO HOSTEL FACILITY

### IX. ADMISSION

#### 9.1 Number of seats sanctioned with the year of approval.

SANCTIONED FOR THE FOR THE ACADEMIC YEAR	BRANCH					
	CS E	ECE	EEE	IT	MCA	MBA
2005-06	60	60	60	60	-	-
2006-07	60	60	60	60	60	60
2007-08	120	120	60	60	60	60
2008-09	120	120	60	120	60	60
2009-10	120	120	60	120	60	60

#### 9.2 Number of students admitted under various categories each year in the last three years.

COLLEGE IS ESTABLISHED DURING THE ACADEMIC YEAR 2005-06.

ADMISSIONS MADE DURING THE ACADEMIC YEAR 2007-08.

S. No	Year of Admission	CSE		ECE		EEE		IT		MCA		MBA	
		CQ	MQ	CQ	MQ	CQ	MQ	CQ	MQ	CQ	MQ	CQ	MQ
1	2005-06	51	9	51	9	NIL		40	9	-	-	-	-
2	2006-07	48	12	48	12	47	12	48	12	48	12	47	12
3	2007-08	93	27	93	27	44	12	47	13	46	14	45	15
4	2008-09	90	30	90	30	45	15	90	30	44	16	45	15
5	2009-10	ADMISSIONS UNDER PROCESS											

#### 9.3 Number of applications received during last two years for admission under Management Quota and number admitted :-

	<u>2006-07</u>	<u>2007-08</u>	<u>2008-09</u>
No. of applications received	105	143	175
No. of Admissions made	72	96	135

## **X. Admission Procedure**

### **10.1 Name and address of the Test Agency and its URL (website) :-**

Type Of Test : EAMCET, ECET & ICET.  
Test Agency : ANDHRA PRADESH COUNCIL OF HIGHER EDUCATION.  
URL : [www.apsche.org](http://www.apsche.org)

### **10.2 Number of seats allotted to different Test Qualified candidates separately [AIEEE/CET (State conducted test/University tests)/Association conducted test]**

Details in section 9.2

### **10.3 Calendar for admission against management/vacant seats :-**

70% Seats are allotted through the entrance exams conducted by the State Government i.e., EAMCET, ICET & ECET and the remaining 30% seats are allotted by Management base on the merit of the students applied for management quota seats.

APSCHS on behalf of state Government of Andhra Pradesh decides the schedule for conducting entrance exam for convener quota seats and announces the calendar for management quota seats. The seats allotted by the Management are scrutinized and approved by APSCHS and JNTU.

## **XI. CRITERIA AND WEIGHTAGES FOR ADMISSION**

As per the rank obtained in the EAMCET / ECET / ICET.

### **11.1 Minimum level of acceptance :**

40 out of 160 marks in EAMCET conducted by State Government  
60 out of 200 marks in ECET conducted by State Government  
40 out of 160 marks in ICET conducted by State Government  
This is amended time to time by the State Government.

In case of Management seats, the Government specified that the candidates shall qualify the EAMCET exam or obtain 50% marks in qualifying exam.

## **XII. APPLICATION FORM**

**To be updated shortly**

XV. INFORMATION ON INFRASTRUCTURE AND OTHER RESOURCES AVAILABLE

**15.1 LIBRARY :-**

**Number of Library books/Titles/Journals available (programme-wise)**

Courses	No. of Books	No of Volumes	Journals	
			National	International
CSE	657	2625	11	3
IT	645	2336	10	3
ECE	640	2675	10	2
EEE	425	2258	10	2
Science & Humanities	345	1480	10	2
MBA	292	1785	30	2
MCA	245	1860	10	2
<b>Total</b>	<b>3249</b>	<b>15019</b>	<b>91</b>	<b>16</b>

**List of online National/International Journals subscribed. :-**

NIL.

**E-Library facilities :**

**Available**

**15.2 LABORATORY**

For each Laboratory

**List of Major Equipment / Facilities :** (ANNEXURE 1)

**List of Experimental Setup :** (ANNEXURE 2)

**15.3**

**COMPUTING FACILITIES :**

**Number and Configuration of Systems :** 520 (Pentium IV/dual core)

**Total number of systems connected by LAN :** 520

**Total number of systems connected to WAN :** NIL

**Internet bandwidth :** 1 Mbps

**Major software packages available**

**: Microsoft Academic Alliance Kit (Including all major OS), TURBO C++, MS-OFFICE TOOL KIT, RATIONAL ROSE , RED HAT LINUX, JAVA, ORACLE, WIN XP 2003.**

**Special purpose facilities available**

**MS VISUAL STUDIO : YES (E-CLASS ROOM)**

#### 15.4 WORKSHOP :

- Carpentry shop
- Fitting Shop
- House Wiring shop
- Metal forming shop

#### 15.5 List of facilities available :-

**Games and Sports Facilities :-** Cricket, Volley Ball, Basket Ball, Carroms, Chess etc.

**Extra Curriculum Activities :-** In addition to the academic activities such as mini projects, paper presentations, student seminars, number of other recreational activities are conducted through “**Fine Arts Club**” “**Debating Club**” **Music Group etc.,**

**Soft Skill Development Facilities :-** A Centre ‘CACHE’ is established in the very first year through which a number of activities are organized to improve the soft skills of the students. Public speaking, paper presentation, group discussions, student seminars etc are conducted through this centre. Further two state of the art multimediu communication skills labs have been established with advanced staffware and interactive platforms to enhance the communication skills of the students.

#### 15.6 Number of Classrooms and size of each:

S.No	Name of the Course	Name of the laboratory/workshop	Total Area of lab/workshop	Major equipment
1	MCA & MBA	C/C++,Co,	195 Sq.Mtrs.	30 computers
2		Ms Office, UML	195 Sq.Mtrs.	30 computers
3		Informatica, DBMS lab	195 sq mts	30 computers
4		COBOL	195 sq mts	30 computers
5	CSE & IT	C/C++ & DS Lab	250 Sq Mtrs	60 computers
6		Multimedia & Web Technologies Lab	167 Sq Mtrs	30comptuers
7		IT workshop	84 Sq.Mtrs	30 Computers
8		Unix & Networking Lab	250 Sq Mtrs.	64computers
9		Sun Micro systems Lab(Java)	105 Sq Mtrs	30 computers
10		. Net lab	167 Sq Mtrs	30 computers
11	ECE	Electronic Devices & circuits Lab-I	116 Sq.Mtrs	Cathode Ray Oscilloscopes -12 Regulated power supply -15 Function generators – 10 Digital Multimeters -12
12		Electronics circuits lab	116 Sq.Mtrs	Cathode Ray oscilloscopes – 10 DC regulated power supply-10 <b>Function generators 10</b>
13	ECE	Pulse & Digital circuits	116 Sq.Mtrs	Cathode Ray oscillo scopes – 10 DC Regulated power supply -10 Function generators – 10 <b>Digital multimeters - 10</b>
14		Analog Communication lab	105 Sq.Mtrs	CRO, Function generator power supply
15		Digital Communication lab	105 Sq.Mtrs	CRO, Function generator power supply
16		Linear IC Applications	105 Sq.Mtrs	Cathode Ray oscillometers – 10 DC regulated power supply-10 <b>Function generators - 10</b>

17		Micro processors lab	76 Sq.Mtrs	8086 kits – 11 8051 kits-11 Interfacing kits – 04 <b>Power supply - 12</b>
18		Electronics Computer Aided design	105 Sq.Mtrs	ALS-SDA-CPLD/FPGA-01 Universal/CPLD/FPGAT/K -10 FPGAXC 3550 module (XILINX) NV RoM – 10
19		Microwave & Optical communications lab	105 Sq.Mtrs	Kly stron power supply – 02 Kly stron 2k25 – 02 Gunnoscillators -02 Pin Modulator – 02 Gum power supply – 01 Laser diode kits – 02 Fiber optic analog kits – 02 <b>Fiber optic digital kits - 02</b>
21		Digital signal processing lab	105 Sq.Mtrs	Digital signal processor kits – 05 (5416) Digital signal processor kits – 10 (6713) MAT LAB soft ware – 15 users <b>Computers - 31</b>
22	EEE	Embedded systems lab	116 Sq.Mtrs	Embeded systems evaluation boards – 5 Power supply AVR kits-05, Computers - 30
23		Workshop	266 Sq.Mtrs.	Welding, fitting, house wiring, tinsmithy, blacksmithy
24		EM Lab	250 Sq.Mtrs.	DC Motors
25		ET Lab		AC and DC motors & transformers
26		BEE LAB		Circuits and DC / DC Machines
27		Control Systems lab	105 Sq.mtrs	Electrical kits, mat lab
28		Electrical circuits lab	105 Sq.mtrs	
29		ECA, ET lab		Power supply (5V, 1.5A ± 12V, 100 mA) -10
30		Simulation Lab	84 Sq.Mtrs	RLC series circuit, stability analysis
31		HHM Lab	250 Sq.Mtrs	
32		S&H	Eng &Language Comm. Lab-I	85 Sq.Mtrs
33	S&H	Eng &Language Comm. Lab-I	250 Sq.Mtrs	60 computers with head phones

**15.7 Central Examination Facility, Number of rooms and capacity of each.**

- 1 Drawing Hall of 60 capacity
- 25 Lecture halls with 60 capacity
- 13 tutorials with 30 capacity.

**15.8 Teaching Learning process :** The teacher learning process is effective as student centric methodology is being adopted. All the classrooms are provided with overhead projectal facilities. Teachers are encouraged to use Audio Visual Aids so that the learning process is effective.

**15.9 Curricula and syllabi for each of the programmes as approved by the University. :**  
: being followed

**15.10 Academic Calendar of the University :** (ANNEXURE -3)

**15.11 Academic Time Table :** As suggested by JNTU

**15.12 Teaching Load of each Faculty :** The faculty is given the teaching load as per the norms prescribed by JNTU.

**15.13 Students' assessment of Faculty, System in place. :** Continuous Feed back is taken from the students periodically and faculty is advised to improve their performance to make the teaching – learning more effective



ANNEXURE-1

List Of Equipment/Facilities

**DEPARTMENT OF COMPUTER SCIENCE & ENGG.**

**Computer Systems Facilities**

**Computer Lab- I**

**a. Server Configuration: 1**

512 RAM , 2.80 GHz with XEON Processor ,Digital Key Board  
Digital Scroll Mouse , 80GB SATA Hard Disk ,Color Monitor 17 inches(Samsung) with  
Multimedia , 1.44 MB Floppy Disk Drive, DVD-Drive.

**b. Client Configurations: 60 nos**

256 RAM , 2.4 GHz Intel Processor , 40GB Hard Disk  
Key Board , Optical Mouse, LG Color Monitor 17 inches, 1.44 MB  
Floppy Disk Drive, CD –ROM Drive.

**c. Total number of Systems connected to LAN: 61 nos**

**d. Total number of Systems connected to WAN: Nil**

**e. Internet Band Width: 512 Kbps**

**f. Major Software package Available: Microsoft Academic Alliance Kit  
(Including all major OS), Linux, TURBO C &  
MS-Office Tool Kit**

**g. Special purpose facilities available: Nil**

**Computer Lab- II**

**a. Server Configuration: 1**

512 RAM , 2.80 GHz with XEON Processor ,Digital Key Board  
Digital Scroll Mouse , 80GB SATA Hard Disk ,Color Monitor 17 inches(Samsung) with  
Multimedia , 1.44 MB Floppy Disk Drive, DVD-Drive.

**b. Client Configurations: 32 nos**

256 RAM, 2.4 GHz with Intel IV Processor , Key Board ,  
Optical Mouse, 40GB Hard Disk, Color Monitor 17 inches (LG) ,  
1.44 MB Floppy Disk Drive, CD –ROM Drive.

**c. Total number of Systems connected to LAN: 33 nos**

**d. Total number of Systems connected to WAN: Nil**

**e. Internet Band Width: Nil**

**f. Major Software package Available: Microsoft Academic Alliance Kit, Linux,**

**g. Special purpose facilities available: Nil**

**Computer Lab- III**

**a. Server Configuration: 1**

512 RAM , 2.80 GHz with AMD Processor , Key Board  
Scroll Mouse , 160GB SATA Hard Disk , DVD-Drive,  
Color Monitor 17 inches, 1.44 MB Floppy Disk Drive.

**b. Client Configurations: 32 nos**

512 RAM , 2.80 GHz with AMD Processor , Key Board  
Scroll Mouse , 160GB SATA Hard Disk , Color Monitor 17 inches,

**c. Total number of Systems connected to LAN: 33 nos**

- d. Total number of Systems connected to WAN: Nil
- e. Internet Band Width: Nil
- f. Major Software package Available: Microsoft Academic Alliance Kit, Linux,
- g. Special purpose facilities available: Nil

**Computer Lab- IV**

- a. **Server Configuration:** 1  
512 RAM , 2.80 GHz with AMD Processor , Key Board  
Scroll Mouse , 160GB SATA Hard Disk , DVD-Drive,  
Color Monitor 17 inches, 1.44 MB Floppy Disk Drive.
- b. **Client Configurations:** 32 nos  
512 RAM , 2.80 GHz with AMD Processor , Key Board  
Scroll Mouse , 160GB SATA Hard Disk , Color Monitor 17 inches,
- c. **Total number of Systems connected to LAN:** 33 nos
- d. Total number of Systems connected to WAN: Nil
- e. Internet Band Width: Nil
- f. Major Software package Available: Microsoft Academic Alliance Kit, Linux,
- g. Special purpose facilities available: Nil

**Computer Lab- V**

- a. **Server Configuration:** 1  
512 RAM , 2.80 GHz with AMD Processor , Key Board  
Scroll Mouse , 160GB SATA Hard Disk , DVD-Drive,  
Color Monitor 17 inches, 1.44 MB Floppy Disk Drive.
- b. **Client Configurations:** 105 nos  
512 RAM , 2.80 GHz with AMD Processor , Key Board  
Scroll Mouse , 160GB SATA Hard Disk , Color Monitor 17 inches,
- c. **Total number of Systems connected to LAN:** 105 nos
- d. Total number of Systems connected to WAN: Nil
- e. Internet Band Width: Nil
- f. Major Software package Available: Microsoft Academic Alliance Kit, Linux,
- g. Special purpose facilities available: Nil

**Computer Lab- VI**

- a. **Server Configuration:** 1  
512 RAM , 2.80 GHz with AMD Processor , Key Board  
Scroll Mouse , 160GB SATA Hard Disk , DVD-Drive,  
Color Monitor 17 inches, 1.44 MB Floppy Disk Drive.
- b. **Client Configurations:** 30 nos  
512 RAM , 2.80 GHz with AMD Processor , Key Board  
Scroll Mouse , 160GB SATA Hard Disk , Color Monitor 17 inches,
- c. **Total number of Systems connected to LAN:** 31 nos
- d. Total number of Systems connected to WAN: Nil
- e. Internet Band Width: Nil
- f. Major Software package Available: Microsoft Academic Alliance Kit, Linux,

**g. Special purpose facilities available:**

Nil

IT Workshop

Computer Configurations 30 nos  
128 RAM , Intel PIII Processor , Key Board , Mouse,  
10GB Hard Disk, Color Monitor 15inches (LG) ,  
1.44 MB Floppy Disk Drive,

**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGG.**

**ECE-Computer Centre:**

**Computer Configurations:** 34 nos

128 RAM , 2.4 GHz with Intel IV Processor , Key Board ,  
Optical Scroll Mouse, 40GB Hard Disk, Color Monitor 17 inches (LG) ,  
1.44 MB Floppy Disk Drive, CD –ROM Drive.

**ELECTRONICS DEVICES AND CIRCUITS LAB**

**LIST OF EQUIPMENTS**

1. CATHODE RAY OSCILLOSCOPES	-10
2. FUNCTION GENERATORS	-10
3. DC REGULATED POWER SUPPLIES	-10
4. DIGITAL MULTIMETERS	-10
5. AFOUTPUT POWER METER	-01
6. DIGITAL LCR METER	-01
7. BREAD BOARDS	-15
8. DECADE RESISTANCE BOXES	-10
9. DECADE INDUCTANCE BOXES	-10
10. DECADE CAPACITANCE BOXES	-10
11. DC VOLMETERS (20V)	-20
12. DC AMMETERS (200 mA)	-20
13. DC AMMETERS (200 uA)	-12
14. SOLDER IRONS	-05
15. SERVO-CONTROLLED VOLTAGE STABILIZER	-01

**Linear IC Application Lab**

**LIST OF EQUIPMENTS**

16. CATHODE RAY OSCILLOSCOPES	-10
17. FUNCTION GENERATORS	-10
18. DC REGULATED POWER SUPPLIES	-10
19. DIGITAL MULTIMETERS	-10
20. AFOUTPUT POWER METER	-01
21. DIGITAL LCR METER	-01
22. BREAD BOARDS	-15
23. DECADE RESISTANCE BOXES	-10
24. DECADE INDUCTANCE BOXES	-10
25. DECADE CAPACITANCE BOXES	-10
26. DC VOLMETERS (20V)	-20
27. DC AMMETERS (200 mA)	-20
28. DC AMMETERS (200 uA)	-12
29. SOLDER IRONS	-05
30. SERVO-CONTROLLED VOLTAGE STABILIZER	-01

## **Digital Communication Lab**

### **LIST OF EQUIPMENTS**

31. CATHODE RAY OSCILLOSCOPES	-10
32. FUNCTION GENERATORS	-10
33. DC REGULATED POWER SUPPLIES	-10
34. DIGITAL MULTIMETERS	-10
35. AFOUTPUT POWER METER	-01
36. DIGITAL LCR METER	-01
37. BREAD BOARDS	-15
38. DECADE RESISTANCE BOXES	-10
39. DECADE INDUCTANCE BOXES	-10
40. DECADE CAPACITANCE BOXES	-10
41. DC VOLMETERS (20V)	-20
42. DC AMMETERS (200 mA)	-20
43. DC AMMETERS (200 uA)	-12
44. SOLDER IRONS	-05
45. SERVO-CONTROLLED VOLTAGE STABILIZER	-01

## **MICROPROCESSORS LAB**

**DEPARTMENT : ELECTRONICS & COMMUNICATION ENGINEERING**

### **LIST OF EQUIPMENTS**

1. COMPUTERS	-11
2. 8086 - MICROPROCESSOR TRAINER KIT	-11
3. 8051 - MICRO CONTROLLER TRAINER KIT	-11
4. 8259 - INTERRUPT CONTROLLER	-03
5. 8279 - KEYBOARD DISPLAY	-03
6. 8255 - PPI	-03
7. 8251 – USART	-03
8. SERVO-CONTROLLED VOLTAGE STABILIZER	-01

**SOFTWARE:** MASM Software for unlimited users

## **PULSE AND DIGITAL CIRCUITS LAB**

### **LIST OF EQUIPMENTS**

1. CATHODE RAY OSCILLOSCOPES	-11
2. FUNCTION GENERATORS	-11
3. DC REGULATED POWER SUPPLIES	-11
4. DIGITAL MULTIMETERS	-11
5. BREAD BOARDS	-15
6. FLIP-FLOP TRAINER KITS	-02
7. SERVO-CONTROLLED VOLTAGE STABILIZER	-01

## **ELECTRONIC CIRCUITS LAB**

### **LIST OF EQUIPMENTS**

1. CATHODE RAY OSCILLOSCOPES	-11
2. FUNCTION GENERATORS	-11
3. DC REGULATED POWER SUPPLIES	-11
4. DIGITAL MULTIMETERS	-11
5. BREAD BOARDS	-15
6. SERVO-CONTROLLED VOLTAGE STABILIZER	-01

**SOFTWARE:** Pspice software for 30 users

## **ANALOG COMMUNICATIONS LAB**

### **LIST OF EQUIPMENTS**

1. CATHODE RAY OSCILLOSCOPES	-11
2. FUNCTION GENERATORS	-11
3. DIGITAL MULTIMETERS	-11
4. BREAD BOARDS	-15
5. SERVO-CONTROLLED VOLTAGE STABILIZER	-01
6. AMPLITUDE MODULATION & DEMODULATION KIT	-01
7. DIODE DETECTOR CHARACTERISTICS	-01
8. FREQUENCY MODULATION & DEMODULATION KIT	-01
9. BALANCED MODULATOR KIT	-01
10. PRE –EMPHASIS & DE-EMPHASIS KIT	-01
11. CHARACTERISTICS OF MIXER KIT	-01
12. DIGITAL PHASE DETECTOR KIT	-01
13. PHASE LOCK LOOP KIT	-01
14. SYNCHRONOUS DETECTOR KIT	-01
15. SSB SYSTEM KIT	-01
16. FREQUENCY SYNTHESIZER KIT	-01
17. AGC CHARACTERISTICS KIT	

## **E-CAD (VHDL) LAB**

### **LIST OF EQUIPMENTS**

1. CPLD / FPGA Tool kit	-10
2. FPGA XC3550 Module	-10
3. CPLD XC 9572	-10
4. POWER SUPPLIES	-10
5. FOUNDATION SERIES XILINX ( 9. 2i)	-01

## **MICROWAVE & OPTICAL COMMUNICATION LAB**

### **LIST OF EQUIPMENTS**

1. Microwave test benches	-06
2. Optical communication kits	-09

## **DIGITAL SIGNAL PROCESSING LAB**

### **LIST OF EQUIPMENTS**

1. DSP Starter kit TMD SDK / 5416	-05
2. DSP Starter kit TMS 320 C6713	-10
3. MAT LAB Software	-15 users
4. Signal processing Tool Box	-15 users

## **EMBEDDED SYSTEMS LAB**

### **LIST OF EQUIPMENTS**

- |  |     |
|--|-----|
| 1. UNI – 51 SDK 89 X 51 / AVR Training kit | -05 |
| 2. EMB – EVAL – 02 Evolution board         | -05 |

## **DEPARTMENT OF ELECTRONICS & ELECTRICAL ENGINEERING**

### **3.Fluid Mechanics and Hydraulic Machines Lab**

1. Performance test on Kaplan turbine.
2. performance test on Francis turbine
3. performance test on single stage centrifugal pump
4. performance test on multi stage centrifugal pump
5. performance test on reciprocating pump
6. calibration of Orifice meter.
7. calibration of venturimeter.
8. Jet impact on vanes
9. pipe friction apparatus.
10. turbine flow meter.

## ANNEXURE-2

### List of Experiments

#### **DEPARTMENT OF COMPUTER SCIENCE & ENGG. COMPUTER PROGRAMMING LAB1.**

**Write a C program to evaluate the following algebraic expressions after reading necessary values from the user**

a)  $ax+b/ax-b$

b)  $2.5 \log x + \cos 32^\circ + |x^2 - y^2| + 2xy$

2. Write a C program for the following

a) Printing three given integers in ascending order

b) Sum of  $1 + 2 + 3 + \dots + n$

c)  $1 + x^2/2! + x^2/4! + \dots$  upto ten terms

d)  $x + x^3/3! + x^5/5! + \dots$  upto 7th digit accuracy

e) Read x and compute  $Y = 1$  for  $x > 0$

$Y = 0$  for  $x = 0$

$Y = -1$  for  $x < 0$

3. Write C program using FOR statement to find the following from a given set of 20 integers.

i) Total number of even integers. ii) Total number of odd integers.

iii) Sum of all even integers. iv) 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 & B.

5. Using switch-case statement, write a C program that takes two operands and one operator from the user, perform the operation and then print the answer. (consider operators +, -, /, \* and %).

6. Write C procedures to add, subtract, multiply and divide two complex numbers ( $x+iy$ ) and ( $a+ib$ ). Also write the main program that uses these procedures.

7. The total distance traveled by vehicle in 't' seconds is given by distance =  $ut + 1/2at^2$  where 'u' and 'a' are the initial velocity (m/sec.) and acceleration (m/sec<sup>2</sup>). Write C program to find the distance traveled at regular intervals of time given the values of 'u' and 'a'. The program should provide the flexibility to the 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 items
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 complete the net amount to be paid by a customer.

9. Given a number, write C program using while loop to reverse the digits of the number. Example 1234 to be written as 4321.

10. The Fibonacci sequence of numbers is 1,1,2,3,5,8... based on the recurrence relation  $f(n) = f(n-1) + f(n-2)$  for  $n > 2$ .

Write C program using do-while to calculate and print the first m fibonacci numbers.

11. Write C program to print the following outputs using for loop.

1	1
2 2	2 2
3 3 3	3 3 3
4 4 4 4	4 4 4 4
5 5 5 5 5	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 extracted starting with the nth character.

13. A Maruthi Car dealer maintains a record of sales of various vehicles in the following form :

<b>Vehicle type</b>	<b>Month of Sales</b>	<b>Price (Rs).</b>
Maruthi – 800	02/87	75,000
Maruthi – DX	07/87	95,000
Gypsy	04/88	1,10,000
Maruthi Van	08/88	85,000

Write a C program to read this data into a table of strings and output 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 function that will scan a character string passed as an argument and convert all lower case characters into their upper case equivalents.

15. Implement the following data structures using Arrays

i) Stacks ii) Linear Queues iii) Circular queues

16. Implement binary search tree using linked list and perform the following operations.

i) Insertion ii) Deletion iii) Inorder Traversal iv) Preorder Traversal

v) Post Order Traversal.

17. Singly linked list and doubly linked lists

i) Insertion ii) Deletion iii) Lookup

18. i) Implement stack using singly linked list.

ii) Implement queue using singly linked list.

19. Implement the following sorting techniques.

i) Bubble sort ii) Insertion Sort iii) Quick Sort iv) Heap Sort.

20. Implement the following searching method.

i) Sequential Search ii) Binary Search

21. i) Conversion of Infix expression to Postfix notation.

ii) Simple expression evaluator, that can handle +, -, / and \*.

22. Implement the algorithms for the following iterative methods using C to find one root of the equation

$$9x^1+2x^2+4x^3= 0$$

$$x^1+10x^2+4x^3 = 6$$

$$2x^1-4x^2+10x^3 = -15.$$

23. Write Computer programs to implement the Lagrange interpolation and Newton-Gregory forward interpolation.

24. Implement in 'C' the linear regression and polynomial regression algorithms.

25. Implement Trapezoidal and Simpson methods.

## ADVANCED DATA STRUCTURES (C++) LAB

1. Write C++ programs to implement the following using an array.
  - a) Stack ADT b) Queue ADT
2. Write C++ programs to implement the following using a singly linked list.
  - a) Stack ADT b) Queue ADT
3. Write C++ programs to implement the deque (double ended queue)ADT using a doubly linked list.
4. Write C++ program to perform the following operations:
  - a) Insert an element into a binary search tree.
  - b) Delete an element from a binary search tree.
  - c) Search for a key element in a binary search tree.
5. Write a C++ program to implement circular queue ADT using an array.
6. Write C++ programs that use non-recursive functions to traverse the given binary tree in
7. a) Preorder b) inorder and c) postorder
8. Write C++ programs for the implementation of bfs & dfs for a given graph.
9. Write C++ programs for implementing the following sorting methods.
  - a) Quick sort b) merge sort c) Heap sort
10. Write a C++ program to perform the following operations.
  - a) insertion into a B-tree b) Deletion from a B-tree
11. Write a c++ program to perform the following operations
  - a) insertion into an AVL –tree b) Deletion from an AVL –tree
12. Write a C++ program to implement Kruskal’s algorithm to generate a minimum spanning tree.
13. Write a C++ program for implementing Knuth-Morris pattern matching algorithm.
14. Write C++ program to implement all the functions of a dictionary (ADT) using hashing.

## (cs 05157) DATABASE MANAGEMENT SYSTEMS LAB

1. Creating tables for various relations (in SQL)
2. implementing the queries in SQL for
  - a) Insertion
  - b) Retrival (Implement all the operation like Union, Intersect, Minus, in, exist aggregate functions (Min., Max..) etc..
  - c) Updation
  - d) Deletion
3. Creating views
4. Writing Assertions
5. Writing Triggers
6. Implementing Operations on relations (tables)using PL/SQL.
7. Creating FORMS

## 8. Generating REPORTS.

### DEPARTMENT OF INFORMATION TECHNOLOGY

#### IT Workshop

#### PC Hardware

**Week 1 – Task 1:** Identify the peripherals of a computer, components in a CPU and its functions.

**Week 2 – Task 2:** Every student should disassemble and assemble the PC back to working condition.

**Week 3 – Task 3:** Every student should individually install windows XP on the personal computer.

**Week 4 – Task 4:** Every student should install Linux on the computer. This computer should have windows installed.

**Week 5 – Task 5:** Several mini tasks would be that covers Basic commands in Linux and Basic system administration in Linux, which includes:

**Week 6 – Task 6: Hardware Troubleshooting:** Students have to be given a PC which does not boot due to improper assembly or defective peripherals.

**Week 7 – Task 7: Software Troubleshooting:** Students have to be given a malfunctioning CPU due to system software problems.

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

#### **Internet & World Wide Web**

**Week 9 - Task 1: Orientation & Connectivity Boot Camp:** Students should get connected to their Local Area Network and access the Internet.

**Week 10 - Task 2: Web Browsers, Surfing the Web:** Students customize their web browsers with the LAN proxy settings, bookmarks, search toolbars and pop up blockers. **Week 11 - Task 3: Search Engines & Netiquette:** Students should know what search engines are and how to use the search engines.

**Week 12 - 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.

**Week 13 Module Test:** A test, which simulates all of the above tasks, would be crafted and given to the students.

### **COMPUTER NETWORKS AND OPERATING SYSTEMS LAB**

#### **PART-A:**

- 1) Implement the data link layer framing methods such as character, character stuffing and bit stuffing.
- 2) Implement on a data set of characters the three CRC polynomials-CRC12, CRC16 and CRC CCIP.
- 3) Implement Dijkstra's algorithm to compute the shortest path thru a graph.
- 4) Take an example submit graph with weights indicating delay between nodes. Now obtain Routing table art each node using distance vector routing algorithm.
- 5) Take an example 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.

**PART-B:**

- 1) Simulate the following CPU scheduling algorithms
  - a) Round Robin b) SJF c) FCFS d) Priority
- 2) Simulate all file allocation strategies
  - a) Sequential b) Indexed c) Linked
- 3) Simulate MVT and MFT
- 4) Simulate all File Organization Techniques
  - a) Single level directory b) Two level c) Hierarchical d) DAG
- 5) Simulate Bankers Algorithm for Dead Lock Avoidance
- 6) Simulate Bankers Algorithm for Dead Lock Prevention
- 7) Simulate all page replacement algorithms
  - a) FIFO b) LRU c) LFU Etc.....
- 8) Simulate Paging Technique of memory management.

**UML LAB**

- 1) The student should take up the case study of Unified Library application which is mentioned in the theory, and Model it in different views i.e Use case view, logical view, component view, Deployment view, Database design, forward and Reverse Engineering, and Generation of documentation of the project.
- 2) Student has to take up another case study of his/her own interest and do the same what ever mentioned in first problem. Some of the ideas regarding case studies are given in reference books which were mentioned in theory syllabus can be referred for some idea.

**WEB TECHNOLOGIES LAB**

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.
  - Home Page
  - Registration and user login
  - Books Catalog
  - Shopping cart
  - Payment by Credit Card
  - Order Confirmation
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 Java Bean 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 Bean Info class such that only the “count” property is visible in the property window.
  - c. Create two beans –a) Key Pad b) Display Pad. After that integrate the two beans to make it work as a calculator.
  - d. Create two beans traffic light (implemented as a label with only three background colors-red, green, yellow) And Automobile (implemented as a text box which states its state /movement). The state of the automobile should depend on the following light transition table.

Light Transition	Automobile State
Red→Yellow	Ready
Yellow→Green	Move
Green→Red	Stopped
5. Install TOMCAT web Server . Convert the static web pages of assignment 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 assignment 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 Frame Work

### **JAVA LAB**

- 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) The Fibonacci sequence is defined by the following rule. The first two values in the sequence are 1 and 1. Every subsequent value is the sum of the two values preceding it. Write a java program that uses both recursive and non-recursive functions to print the  $n^{\text{th}}$  value in the Fibonacci sequence.
- 3) Write a java program that prompts the user for an integer and then prints out all prime numbers up to that integer.
- 4) Write a java program that checks whether a given string is a palindrome or not.  
Example: MADAM is a palindrome
- 5) Write a java program for sorting a given list of names in ascending order.
- 6) Write a java program to multiply two given matrices.
- 7) Write a java program that reads a line of integers, and then displays each integer, and the sum of all the integers (use StringTokenizer class).
- 8) Write a java program that reads on 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.
- 9) Write a java program that reads a file and displays a file and displays the file on the screen, with a line number before each line.
- 10) Write a java program that displays the number of characters, lines and words in a text file.
- 11) Write a java program that :
  - a) Implements stack ADT
  - b) Converts Infix Expression into Postfix form
- 12) Write an applet that displays a simple message.
- 13) Write an applet that compute the payment of a loan based on the amount of the loan, the interest rate and the number of months. It takes one parameter from the browser: Monthly rate; if true, the interest rate is per month; otherwise the interest rate is annual.
- 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 for creating multiple threads.
- 17) Write a java program that correctly implements producer consumer problem using the concept of inter thread communication.
- 18) Write a java program that lets users create Pie charts. Design your own interface using swings and AWT.
- 19) Write a java program that allows the user to draw lines rectangles and OUs.
- 20) Write a java program that implements a client server application. The client sends data to a server. The server receives the data users it to produce a result, and then sends the result back to the client. The client displays the result on the console. For Ex: The data sent from the client is the radius of a circle, and the result produced by the server is the area of the circle.
- 21) Write a java program that illustrates how run time polymorphism is achieved.

## **Latex and Microsoft Word**

**Week 14 – Word Orientation:** The mentor needs to give an overview of Latex and Microsoft 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.

**Week 15 - 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.

**Week 16 - Task 3: Creating a Newsletter.** Features to be covered:- Table of Content, Newspaper columns, Images from files and clipart, Drawing toolbar and Word Art, Formatting Images, Textboxes and Paragraphs

**Week 17 - Task 4: Creating a Feedback form** - Features to be covered- Forms, Text Fields, Inserting objects, Mail Merge in Word.**Week 18 - Latex and Word Module Test - Replicate the given document inclusive of all features**

## **Microsoft Excel**

**Week 19** Excel Orientation The mentor needs to tell the importance of MS Excel as a Spreadsheet tool, give the details of the four tasks and features that would be covered in each. Using Excel – Accessing, overview of toolbars, saving excel files, Using help and resources

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

**Week 20 - 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, HLOOKUP/VLOOKUP

**Week 21 - Task 3:** Performance Analysis - **Features to be covered:- Split cells, freeze panes, group and outline, Sorting, Boolean and logical operators, Conditional formatting**

**Week 22 - Task 4: Cricket Score Card** - Features to be covered:-Pivot Tables, Interactive Buttons, Importing Data, Data Protection, Data Validation,

**Week 23 – Excel Module Test** - Replicate the given document inclusive of all features

## **LaTeX and Microsoft Power Point**

**Week 24 Task1** Students will be working on basic power point utilities and tools which help them create basic power point presentation.

**Topic covered during this week includes :- PPT Orientation, Slide Layouts, Inserting Text, Word Art, Formatting Text, Bullets and Numbering, Auto Shapes, Lines and Arrows in both LaTeX and Powerpoint.**

**Week 25 Task2** Second week helps students in making their presentations interactive.

Topic covered during this week includes :-Hyperlinks, Inserting –Images, Clip Art, Audio, Video, Objects, Tables and Charts

**Week 26 Task3** Concentrating on the in and out of Microsoft power point and presentations in LaTeX. Helps them learn best practices in designing and preparing power point presentation.

**Topic covered during this week includes :- Master Layouts (slide, template, and notes), Types of views (basic, presentation, slide slotter, notes etc), Inserting – Background, textures, Design Templates, Hidden slides.**

**Week 27 Task4** Entire week concentrates on presentation part of LaTeX and Microsoft power point.

**Topic covered during this week includes -Using Auto content wizard, Slide Transition, Custom Animation, Auto Rehearsing**

### **Week 28 Task5**

Power point test would be conducted. Students will be given model power point presentation which needs to be replicated (exactly how it's asked).

### **Microsoft Publisher**

**Week 29** Help students in preparing their personal website using Microsoft publisher.

Topic covered during this week includes - 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.

## **DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGG.**

### **LIST OF EXPERIMENTS**

#### **I ELECTRONIC DEVICES AND CIRCUITS LAB**

1. PN JUNCTION DIODE CHARACTERISTICS
2. ZENER DIODE CHARACTERISTICS
3. TRANSISTOR CB CHARACTERISTICS
4. TRANSISTOR CE CHARACTERISTICS
5. RECTIFIER WITHOUT FILTERS
6. RECTIFIER WITH FILTERS
7. FET CHARACTERISTICS
8. SCR CHARACTERISTICS
9. CE AMPLIFIER
10. CC AMPLIFIER
11. SINGLE STAGE R-C COUPLED AMPLIFIER
12. FET CS AMPLIFIER
13. RC PHASE SHIFT OSCILLATOR
14. HARTLEY OSCILLATOR
15. COLPITTS OSCILLATOR
16. WIEN BRIDGE OSCILLATOR

#### **II PULSE AND DIGITAL CIRCUITS LAB**

1. LINEAR WAVE SHAPING-FILTERS
2. NON-LINEAR WAVE SHAPING- CLIPPERS
3. NON-LINEAR WAVE SHAPING- CLAMPERS
4. TRANSISTOR AS A SWITCH
5. STUDY OF LOGIC GATES
6. STUDY OF FLIP-FLOPS
7. SAMPLING GATES
8. ASTABLE MULTIVIBRATOR
9. MONOSTABLE MULTIVIBRATOR
10. BISTABLE MULTIVIBRATOR
11. SCHMITT TRIGGER
12. UJT RELAXATION OSCILLATOR

#### **III ELECTRONIC CIRCUITS LAB**

##### **TESTING IN HARDWARE LABORATORY :**

1. SINGLE STAGE COMMON EMITTER AMPLIFIER
2. RC PHASE SHIFT OSCILLATOR USING TRANSISTORS
3. CURRENT SHUNT AND FEEDBACK AMPLIFIER

4. HIGH FREQUENCY COMMON SOURCE (JFET) AMPLIFIER
5. SERIES VOLTAGE REGULATOR
6. SHUNT VOLTAGE REGULATOR

**TESTING IN SOFTWARE LABORATORY:**

1. SINGLE STAGE COMMON EMITTER AMPLIFIER
2. RC PHASE SHIFT OSCILLATOR USING TRANSISTORS
3. CURRENT SHUNT AND FEEDBACK AMPLIFIER
4. HIGH FREQUENCY COMMON GATE (JFET) AMPLIFIER
5. SERIES VOLTAGE REGULATOR
6. SHUNT VOLTAGE REGULATOR

**IV ANALOG COMMUNICATIONS LAB**

1. AMPLITUDE MODULATION AND DEMODULATION
2. DIODE DETECTOR CHARACTERISTICS
3. FREQUENCY MODULATION AND DEMODULATION
4. BALANCED MODULATOR
5. PRE-EMPHASIS & DE-EMPHASIS
6. CHARACTERISTICS OF MIXER
7. DIGITAL PHASE DETECTOR
8. PHASE LOCKED LOOP
9. SYNCHRONOUS DETECTOR
10. SSB SYSTEM
11. FREQUENCY SYNTHESIZER
12. AGC CHARACTERISTICS

**V MICROPROCESSOR LAB**

1. INTRODUCTION TO TASM
2. ARITHMETIC OPERATION – MULTIBYTE ADDITION, SUBTRACTION, MULTIPLICATION AND DIVISION.
3. LOGICAL OPERATIONS – PACKED BCD TO UNPACKED BCD, BCD TO ASCII CONVERSION
4. COMPARISON OF TWO STRINGS & REVERSE OF TWO STRINGS.
5. SORTING, ASCENDING & DESCENDING ORDER OF GIVEN LIST.
6. DOS / BIOS PROGRAMMING – DISPLAY CHARACTERS STRINGS.
7. 8255 – PPI : WRITE ALP TO GENERATE SINUSOIDAL WAVE USING PPI.
8. 8251 – USART: WRITE ALP TO ESTABLISH COMMUNICATION BETWEEN TWO PROCESSORS
9. READING & WRITING ON A PARALLEL PORT BY USING 8051
10. TIMER IN DIFFERENT MODES BY USING 8051
11. SERIAL COMMUNICATION IMPLEMENTATION BY USING 8051

**VI DIGITAL COMMUNICATION LAB:**

1. PULSE AMPLITUDE MODULATION AND DEMODULATION
2. PULSE WIDTH MODULATION AND DEMODULATION
3. PULSE POSITION MODULATION AND DEMODULATION
4. SAMPLING THEOREM – VERIFICATION
5. TIME DIVISION MULTIPLEXING
6. PULSE CODE MODULATION
7. DIFFERENTIAL PULSE CODE MODULATION
8. DELTA MODULATION
9. FREQUENCY SHIFT KEYING
10. PHASE SHIFT KEYING
11. DIFFERENTIAL PHASE SHIFT KEYING

### **VII LINEAR IC APPLICATION LAB:**

1. STUDY OF OP AMPS –IC 74, IC 555, IC 565, IC 566, IC 1496 – FUNCTIONING, PARAMETERS AND SPECIFICATION.
2. OP AMP APPLICATION – ADDER, SUBTRACTOR, COMPARATOR CIRCUITS.
3. INTEGRATOR AND DIFFERENTIATOR CIRCUITS USING IC 741.
4. ACTIVE FILTER APPLICATION - LPF, HPF(FIRST ORDER).
5. FUNCTION GENERATOR USING OP AMPS.
6. IC 555 TIMER – MONOSTABLE OPERATION CIRCUIT.
7. IC 555 TIMER – ASTABLE OPERATION CIRCUIT.
8. IC 566 – VCO APPLICATIONS.
9. VOLTAGE REGULATOR USING IC 723.

#### **PART – B**

SIMULATE THE INTERNAL STRUCTURE OF THE FOLLOWING DIGITAL IC's USING VHDL

1. D FLIP – FLOP 7474
2. DECADE COUNTER 7490
3. SHIFT REGISTERS 74957
4. 3 – 8 DECODER 74138
5. 4 BIT COMPARATOR 7485
6. 8X1 MULTIPLEXER 74151
7. 2X4 DEMULTIPLEXER 741555

### **VIII DIGITAL SIGNAL PROCESSING LAB:**

1. STUDY THE ARCHITECTURE OF DSP CHIP – 3206713
2. LINEAR CONVOLUTION USING MATLAB
3. CIRCULAR CONVOLUTION USING MATLAB
4. GENERATE SUM OF SINUSOIDAL SIGNAL ALGORITHM USING MATLAB
5. FIND FREQUENCY RESPONSE OF ANALOG LP/HP FILTERS USING MATLAB
6. COMPUTE POWER DENSITY SPECTRUM OF A SEQUENCE.
7. LINEAR CONVOLUTION USING CC STUDIO
8. CIRCULAR CONVOLUTION USING CC STUDIO
9. FIR-FILTERS (LP/HP) USING RECTANGULAR WINDOW
10. FIR-FILTERS (LP/HP) USING TRIANGULAR & KAISER WINDOW.
11. IIR FILTERS (LP/HP)
12. N-POINT FFT ALGORITHM
13. FFT OF GIVEN 1-D SIGNAL AND PLOT

### **IX MICROWAVE & OPTICAL COMMUNICATION LAB :**

#### **PART-A**

1. REFLEX KLYSTRON CHARACTERISTICS
2. GUNN DIODE CHARACTERISTICS
3. ATTENUATION MEASUREMENT
4. DIRECTIONAL COUPLER CHARACTERISTICS
5. VSWR MEASUREMENT
6. IMPEDANCE AND FREQUENCY MEASUREMENT
7. WAVEGUIDE PARAMETERS MEASUREMENT.
8. SCATTERING PARAMETERS OF MAGIC TEE.

#### **PART – B**

1. CHARACTERIZATION OF LED
2. CHARACTERIZATION OF LASER DIODE
3. INTENSITY MODULATION OF LASER O/P THROUGH AN OPTICAL LINE.
4. MEASUREMENT OF DATA RATE FOR DIGITAL OPTICAL LINK.
5. MEASUREMENT OF NA
6. MEASUREMENT OF LOSSES FOR ANALOG OPTICAL LINK.

### **X EMBEDDED SYSTEMS LAB :**

1. WRITE A PROGRAM TO (A) LEAD INPUTS FROM SWITCHES (B) TO MAKE LED'S BLINK
2. WRITE A PROGRAM FOR SERIAL COMMUNICATION

3. WRITE A PROGRAM FOR ENCRPTION / DECRPTION.
4. SORT RTOs(MCOs) ON TO 89C51 BOARD AND VERIFY.
5. SIMULATE ON ELEVATOR MOVEMENT USING RTOs ON 89C51 BOARD

**LIST OF EXPERIMENTS FOR EEE I & II YEAR**

**EEE I YEAR (Workshop Lab)**

S.No.	List of experiments	Equipments
<b>I</b>	<b>Carpentry</b>	<ul style="list-style-type: none"> <li>• Carpentry Vice</li> <li>• Jack plane</li> <li>• Try Square</li> <li>• Hand Saw</li> <li>• Tenon Saw</li> <li>• Firmer Chisel</li> <li>• Wooden Mallet</li> <li>• Steel Rule</li> <li>• Marking /Mortise Gauge</li> <li>• Claw Hammer</li> </ul>
	1)Cross lap joint .	
	2)Dovetail joint .	
	3)Tenon joint.	
<b>II</b>	<b>Fitting</b>	<ul style="list-style-type: none"> <li>• Bench Vice</li> <li>• Steel Rule</li> <li>• Try square</li> <li>• Scriber</li> <li>• Dot Punch</li> <li>• Hack Frame With Blade</li> <li>• Ball Peen hammer</li> <li>• Chisel.</li> <li>• Flat File (Rough&amp;Smooth)</li> <li>• Triangular File</li> </ul>
	1)Dovetail fit	
	2) V- fit	
	3) Radius fit	
<b>III</b>	<b>House wiring</b>	<ul style="list-style-type: none"> <li>• Electrical Case</li> <li>• Switches</li> <li>• Straight Holders</li> <li>• Two Way Switches</li> <li>• Gang Boxes</li> <li>• Clip Nails</li> <li>• Screws.</li> </ul>
	1)Series & parallel wiring.	
	2)Fluorescent Lamp wiring	
	3)Stair case wiring	
<b>Trades for Demonstration.</b>		
	1) Plumbing.	
	2) ARC Welding	
	3) Study and working of Drilling Machine & Bench Grinder.	

**EEE (HHM LAB)**

S.NO.	List of experiments
<b>01</b>	<b>Impact of jets on vanes</b>
<b>02</b>	<b>Performance test on pelton wheel</b>
<b>03</b>	<b>Performance test on francis turbine</b>
<b>04</b>	<b>Performance test on single stage centrifugal pupm</b>

05	Performance test on multi stage centrifugal pupm
06	Performance test on Reciprocating pump
07	Calibration of venturi meter
08	Calibration of Orifice meter
09	Determination of friction factor for a given pipe line
10	Determination of loss head due to sudden contraction in a pipe line
11	Turbine flow meter

**EEE SEM(Electrical circuits lab)**

S.NO.	List of experiments
01	Verification of Max power transfer, Thevenin's & Norton's theorem
02	Determination of self & Mutual Inductance
03	Measurement of 3 $\phi$ power
04	Verification of millimans and reciprocity theorem
05	Series and parallel Resonance
06	Determination of Z & Y Parameters
07	Determination of ABCD 4 hybrid parameter
08	Verification of compensation theorem
09	Verification of superposition theorem and RMS value of complex wave
10	Locus diagram of PL and RC circuits
11	Simulation of d.c.circuit using Mat lab
12	Mesh Analysis using Matlab

**EEE (Electrical machine lab-1)**

S.NO.	List of experiments
01	Magnetization characteristics of D.C. Shunt generator
02	Load test on D.C.Shunt generator
03	Load test on D.C.Series generator
04	Load test on D.C. compound generator
05	Hopkinson's test on D.C Shunt machines
06	Field test on D.C. Series machines
07	Swimburnes test and Speed control of D.C. Shunt motor
08	Brake test on D.C. Compound motor
09	Brake test on D.C.Shunt motor
10	Separation of losses in D.C. Shunt motor

**EEE (Electrical Technology lab)**

S.NO.	List of experiments
01	Verification of Superposition theorem and Reciprocity theorem
02	Verification of maximum power transfer theorem
03	Verification of Thevenin's and Norton's Theorem
04	Two port network parameters (open circuit & short circuit)
05	Series and parallel resonance(Q-Factor,Bandwidth,selectivity)
06	Magnetization characteristics of DC Shunt generator
07	Swimburnes test on D.C. Shunt motor
08	Brake test on 3-d induction motor

09	Open circuit & short circuit test on 1- $\phi$ transformer
10	Regulation of 3- $\phi$ alternator by synchronous impedance method

**EEE (Power Electronics lab)**

S.NO.	List of experiments
01	Study of V-I characteristics of SCR,INDFET and IGBT
02	Gate fixing circuits
03	1- $\phi$ qc voltage controller with R, RL loads
04	1- $\phi$ full bridge rectifier with R, RL IOADS
05	Forced Commutation circuits
06	Parallel inverter with R,RL loads
07	Jones chopper with R, RL loads
08	Mc-Murray-Bedford inverter with R, RL Loads
09	1- $\phi$ AC cycloconvertor with R,RL loads
10	1- $\phi$ Half controlled bridge rectifier with R,RL loads

**EEE (Control Systems And Simulation Lab)**

S.NO.	List of experiments
01	Time response of Second order system
02	Characteristics of Synchros
03	Temperature controller using PID
04	Effect of feedback on DC servo motor
05	Transfer function of DC motor
06	Lag and lead compensation –Magnitude and phase plot
07	Characteristics of magnetic amplifiers
08	Characteristics of AC servo motor
09	PSPICE simulation of Op-Amp based Integrator and Differentiator circuits.
10	Stability analysis (Bode,RootLocus,Nyquist) of Linear Time Invariant system using MAT Lab
11	Programmable logic controller-study and verification of truth tables of logic gates,simple Boolean expressions and application of speed control of motor.

**EEE (Electrical Machines -II Lab)**

S.NO.	List of experiments
01	Open Circuit and short circuit test on 1- $\phi$ Transformer
02	Sumpner's test on pair of transformers
03	Scott connection of Transformers
04	Parallel operation of two 1- $\phi$ transformers
05	Equivalent circuit of a single phase induction motor
06	Brake load test on 3- $\phi$ induction motor
07	No-load & Blocked motor test on 3- $\phi$ Induction motor
08	Regulation of 3- $\phi$ alternator by synchronous impedance method and mmt method.
09	V and V curves of a three phase synchronous motor
10	Determination of XD and XQ of a salient pole synchronous machine.

### EEE (Electrical Measurements Lab)

<b>S.NO.</b>	<b>List of experiments</b>
<b>01</b>	<b>Calibration and Testing of Single phase Energy Meter</b>
<b>02</b>	<b>Calibration of Dynamometer Power factor Meter</b>
<b>03</b>	<b>Calibration of PMMC voltmeter and Ammeter using Cromptons DC Potentiometer</b>
<b>04</b>	<b>Measurement of three phase reactive power</b>
<b>05</b>	<b>Measurement of choke coil parameters</b>
<b>06</b>	<b>Silsbees test for testing CT's</b>
<b>07</b>	<b>Kelvins double bridge</b>
<b>08</b>	<b>Schering and Andersons bridge</b>
<b>09</b>	<b>Relay testing usin secondary current injection over current and Reverse current</b>
<b>10</b>	<b>Calibration of low power factor wattmeter.</b>

### **DEPARTMENT OF SCIENCE & HUMANITIES LIST OF EXPERIMENTS**

#### **1.ENGLISH LANGUAGE COMMUNICATION SKILLS LAB - I**

1. Introduction to the sounds of English – vowels,diphthongs and consonants
2. Introduction to Stress and intonation
3. Situational Dialogues/Role Plays
4. Oral presentations
5. Just a Minute session (JAM)
6. Describing objects
7. Describing people
8. Information transfer
9. Giving directions
10. Telephoning skills
11. Interviews
12. Group discussion

\* The number of experiments usually go beyond the above stated number according to the need of the group.

#### **2.ENGLISH LANGUAGE COMMUNICATION SKILLS LAB – II**

1. Functional English
2. Vocabulary building
3. JAM
4. Group discussion
5. Interview skills
6. Debate
7. Resume writing
8. Presentations

9. Reading comprehension
10. Technical report writing

### 3. ENGINEERING PHYSICS LAB

1. Determination of Refractive Index of the material of a Prism – Spectrometer.
2. Dispersive power of the material of a Prism. – Spectrometer.
3. Cauchy's constants – Spectrometer.
4. Determination of wavelength of a source – Diffraction Grating.
5. Determination of thickness of a thin object using parallel fringes.
6. Newton's Rings.
7. Determination of Rigidity modulus of a material in the form of a wire – Torsional pendulum.
8. Melde's Experiment – Transverse and Longitudinal modes.
9. Single slit diffraction using Sodium lamp.
10. Double slit diffraction using sodium lamp.
11. Single slit diffraction using lasers.
12. Double slit diffraction using lasers.
13. Time constant of R-C Circuit.
14. L-C-R Circuit.
15. Verification of laws of stretched string – sonometer.
16. Study of Characteristics of LED and LASER sources.
17. Study of characteristics of p-i-n and avalanche photo diode detectors.
18. Bending losses of fibers.
19. Evaluation of Numerical Aperture of a given fiber.
20. Magnetic field along the axis of a current carrying coil – Stewart and Gee's method.
21. Hall effect.
22. B – H curve.
23. Energy gap of a material of p-n junction.
24. Determination of Young's modulus and Poisson's ratio by Comu's method.
25. Thermo Electric effect – Seebeck effect and Peltier effect.

### 3. ENGINEERING CHEM LAB

- 1. Preparation of a standard solution of Oxalic acid and estimation of Ferrous Iron by Permanganometry.**
- 2. Estimation of Ferric Iron by preparing a standard solution of potassium dichromate.**
- 3. Estimation of hardness of water by EDTA method.**
- 4. Estimation of alkalinity of water.**
- 5. Determination of percentage of copper in brass.**
- 6. Conductometric titration of strong acid Vs strong base**
- 7. Conductometric titration of mixture of acids Vs strong base.**
- 8. Titration of strong acid Vs strong base**
- 9. Titration of weak acid Vs strong base by potentiometry and determination of dissociation constant of weak acid – (Demonstration experiment)**
- 10. Preparation of standard calcium solution and estimation of total hardness of water by EDTA complexometry**
- 11. Estimation of calcium in limestone by Permanganometry.**
- 12. Estimation of manganese dioxide in pyrolusite**

- 13. Determination of ferrous iron in cement by colorimetric method.**
- 14. Preparation of urea – formaldehyde resin**
- 15. Preparation of Thiokol rubber**
- 16. Determination of the capacity of the given cation – exchange resin. (ex. Zero-karb-225 in the hydrogen form)**
- 17. Determination of viscosity of lubricants by Redwood viscometer**
- 18. Preparation of Aspirin**
- 19. Determination of Calorific value of solid fuel by Bomb calorimeter.**
- 20. Estimation of loss of weight of mild steel in presence of acid and inhibition.**
- 21. Preparation of membranes for filter anyone (Demonstration)**













**MANDATORY DISCLOSURE**

**“The information has been provided by the concerned institution and the onus of authenticity lies with the institution and not on AICTE.”**

**II. NAME OF THE INSTITUTION**

GEETHANJALI COLLEGE OF ENGG. & TECH.  
Cheeryal (V), Pin: 501301, Keesara (M).  
Ranga Reddy Dist  
Andhra Pradesh.

**II. NAME & ADDRESS OF THE DIRECTOR**

Dr. Ramamohan Rao Sankara, Principal  
GEETHANJALI COLLEGE OF ENGG. & TECH  
Cheeryal (V), Pin: 501301, Keesara (M).  
Ranga Reddy Dist.  
Andhra Pradesh.

**III. NAME OF THE AFFILIATING UNIVERSITY**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY  
Kukatpally, HYDERABAD-500072

**V. GOVERNANCE**

**4.1 MEMBERS OF THE BOARD :-** All the members of the Board are professionals in various fields with high educational qualifications and vast experience in administration. Such background will indeed give the desired direction to the Institutions sponsored by the Society. The profile of the members is as follows:-

- 8) **Dr. A. Tirupathi Reddy, President:** He is a veterinary doctor , associated with the management of S.R Institutions . SR Institutions have a standing of over 30 years. The group encompasses 10 Junior Colleges, SR Engineering College, SR Pharmacy College and an International School in pipeline. With a bright career in industry, he has ventured to associate himself with this institution.
- 9) **Mr. G.R.Ravinder Reddy, Secretary:** He is a post graduate in Civil Engineering and formerly a Senior Police Officer. He has graduated from NIT, Warangal and has also completed his Post Graduation from the same Institution. Subsequently he joined the civil services and served the Police department for more than 20 years before taking up voluntary retirement. With an excellent education and vast field experience, he has a vision to develop the institution into a centre of learning, where discipline would be a hallmark.

- 10) **Dr. G. Sridevi, Treasurer** : A dentist who graduated from the prestigious Osmania University will contribute immensely in adding new dimensions to the growth of the institution
- 11) **Mr.G. Ramesh Reddy, Member** : A Civil Engineering graduate who is presently working in Australia is not only providing financial assistance to the institution, but also guiding the management to tread the path of success.
- 12) **Ms.G. Shobha, Member** : A post graduate in management with adequate qualification in computer field is working in the banking sector in Dubai. She has a rich experience in software industry and has wide contacts in the higher echelons in the software industry and thus gives a direction in achieving the desired industry-institution interface.
- 13) **Dr.A.Vinay Babu** – A doctorate in Computer Science & Engineering working in JNTU as Director-SCHE-Hyderabad belongs to the present generation and can ably guide the Institution to encompass the latest developments in the computer education and industry. This will enable the students to be equipped to face the industry, once they graduate from the institution.
- 14) **Sri Narendra Shukla :-** He is presently the **CEO-CORDYS** he has graduated from NIT, Warangal and has done his MBA from IIM-Calcutta. He began his professional career by working in LAKME and then moved on to automobile industry in DUBAI. After a decade's stint in Dubai, he shifted to software industry and is presently the CEO of CORDYS.

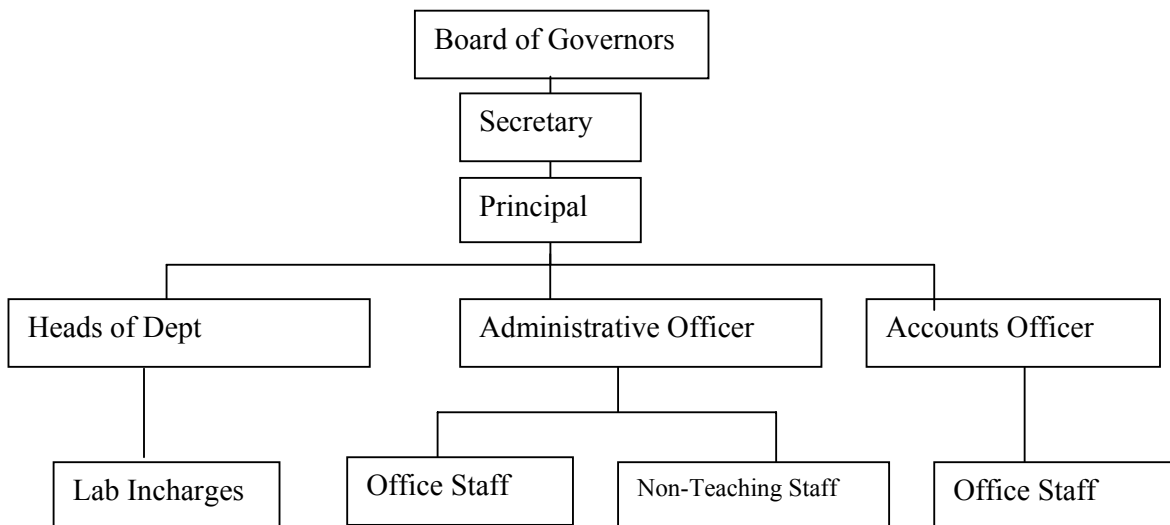
#### **4.2 Members of Academic Advisory Body :-**

5. **Prof. Y.Purander :-** He is a postgraduate in Computer Science from Osmania University, who is presently the Dean, Industrial Relation & Placements in K L College of Engineering-Vijaywada. Previously he worked in ECIL in various capacities the last being project Director for Control System Projects.
6. **Prof.M.Subbaryudu:-** He is the Principal of Rajiv Gandhi Memorial College of Engineering – He graduated from Engineering College, Kakinada, did his Post Graduation from NIT, Warangal & Ph.D from IISC-Bangalore. He has long experience of 35 + Yrs in academic & Administration. He was HOD & Professor-Electronics & Communication Engineering and also as Principal College of Engineering-Anantapur.
7. **Prof.Uday Kumar:-** He is presently working as Principal- Arora College of Engineering, Bhavanagiri. He has long experience in both Academic & Administration.. He did his Post Graduation from Osmania University in Computer Science and Ph.D in Computers Science from JNTU.
8. **Prof.Dr.K.Srinivasa Rao :-** He is currently working as Principal TRR College of Engineering, Hyderabad. He did his Ph.D in Electronics & Communication from Andhra University and has long experience in Academic & Administration

#### **4.3 Frequency of the Board Meetings and Academic Advisory Body :-**

Board meetings – once in 3 months.  
Academic Advisory body meetings-Once in a semester

#### 4.6 Organizational chart and processes :-



#### 4.7 Nature and Extent of involvement of faculty and students in academic affairs/improvements :-

- 4) **College Academic Committee:-** This Committee consists of Heads of the Departments & Associate Professors. All the Academic activities are planned and implemented by the members of this Committee. The opinions and ideas of the faculty are taken into consideration before policy matters are decided.
- 5) **Class Review Committee:-** It consists of 5 students and the entire faculty handling the courses for that class with the HOD as the coordinator. The members are actively involved in the academic affairs including the coverage of syllabus , expert lectures, technical activities of the students, technical visits, paper presentation etc.
- 6) **Student counseling:-** Each faculty member is allotted 10 students. He is responsible for academic guidance of the students allotted to him. The faculty member redresses the problems faced by the student in academic and administrative matters.

4.6 Mechanism/Norms & Procedure for democratic/good Governance :- The Institution believes in a democratic set up. Each department with its head and members decide upon the requirements with consensus. The staff, lab equipments, library books required are projected to the Principal by the HOD. For all procurements, quotations are obtained, technical specifications studied, rates are compared by the department and the proposals are forwarded to the management through Principal.

4.7 Student Feedback on Institutional Governance / faculty performance :- Students are given feedback forms within two weeks of the commencement of the classwork to evaluate the effectiveness of teaching. The criteria taken are

- a).Punctuality & Regularity of the teacher
- b).Teacher's control and conduct of the class
- c). Understandability
- d). Discussion of class tests/tutorials / assignments
- e). Coverage of syllabus
- f). Overall rating of the teacher of the subject

The feedback is analyzed and is utilized to counsel the teachers whose performance is not upto mark. The students are also asked to comment about the facilities such as Library, Canteen, Sports transport etc., so that corrective measures can be taken.

**4.8 Grievance redressal mechanism for faculty, staff and students :-** The students can express their grievances through suggestions box and also through feedback forms. The management & Principal also attend special sessions to know the problems of the students. So, also faculty & staff meetings are held to know their problems and their grievances are attended to. A grievance redressal cell with the Secretary, Principal and HODs is formed where the problems are discussed & solutions arrived at.

**V. PROGRAMMES**

**5.1 Name of the Programmes approved by the AICTE :-**

- Computer Science & Engg.
- Electronics & Communication Engg.
- Electrical & Electronics Engg.
- Information Technology
- Master of Computer Applications
- Master of Business Administration.

**5.2 Name of the Programmes accredited by the AICTE :-**

Nil.

**5.3 The Details of the approved programmes are as follows :-**

Name	Comp. Sci & Engg.(CS)	Elect & Comm. Engg.(ECE)	Elec. & Elect. Engg.(EEE)	Inf. Tech.(IT)	MCA	MBA
Number of seats	120	120	60	120	60	60
Duration in Years	4	4	4	4	3	2
Cut off mark/rank for admission during the last three years	40 out of 160 in EAMCET  60 out of 200 in ECET	40 out of 160 in EAMCET  60 out of 200 in ECET	40 out of 160 in EAMCET  60 out of 200 in ECET	40 out of 160 in EAMCET  60 out of 200 in ECET	As decided by Convener ICET  60 out of 200 in ECET	As decided by Convener ICET  60 out of 200 in ECET
Fee	Rs.30,200 /-	Rs.30,200	Rs.30,200 /-	Rs.30,200 /-	Rs.26,700/-	Rs. 26,700/-
Placement Facilities	<b>A Placement Officer is appointed who is in-charge of campus placements.</b>					
Campus placement in last three years with minimum salary, maximum salary and average salaries	<b>Maximum salary-3.5 lakhs per annum,Average salary -1.80 to 2.0 lakhs per annum,Minimum salary – 72000/- per annum.</b>					

## VI. Faculty

Name of the Course	S.No	Name (s) of the Teaching Faculty	Designation (Lecturer/ Asst. Professor/ Professor)	Qualifications with field of specialization with class / division of passing			Experience a) Teaching b) Industry c) Research			Date of Joining the Institution
				UG	PG		a	b	c	
ECE	1	Dr.S.Ramamohana Rao	Professor	B.E., BSc,	M.Tech	Ph.D	10	25		23-06-2006
ECE	2	B.Lokeswara Rao	Professor	B.E	M.E	(Ph.D)	15	5		01-07-2006
ECE	3	D.Ramakrishna Rao	Professor	B.E	M.Tech	-	2.5	35	-	15.05.2008
ECE	4	P.Vijai Bhaskar	Professor	B.Tech	M.Tech	--	15	-	-	03-05-2007
ECE	5	P.Sudhakar	Assoc.Professor	B.Tech	(M.Tech)	--	5.5	-	-	28-05-2007
ECE	6	A.Rama Krishna	Assoc.Prof	B.Tech	(M.Tech)	-	10	-	-	12.09.2008
ECE	7	M.Vijaya Lakshmi	Assoc.prof.	B.Tech	(M.Tech)	-	8	-	-	15-11-2008
ECE	8	D R V A Sarath kumar	Assoc.Prof	B.E.	M.E	-	6	-	-	04.06.2007
ECE	9	K.Siva sundari	Asst.Prof	B.E.	-	-	9.5	-	-	02.06.2008
ECE	10	Radha A	Asst.Professor	B.Tech	-	-	2 Yrs	-	-	26-04-2007
ECE	11	Y.Nagalakshmi	Asst.Professor	B.Tech	-	-	Fresher	-	1	2-11-2006
ECE	12	A.Dharmendar	Asst.Prof	B.Tech	(M.Tech)	-	3.5	-	-	25.06.2008
ECE	13	V.Madhurima	Asst.Prof	B.Tech	(M.Tech)	-	2.5	-	-	14.07.2008
ECE	14	Mohammed Farooq	Asst.Professor	B.Tech	-	-	1 Yr	-	-	4-05-2007
ECE	15	A.Srinivas	Asst.Prof	B.Tech	-	-	2	-	-	15.09.2008
ECE	16	M.Muthamma	Asst.Prof	B.Tech	-	-	F	-	-	02.06.2008
ECE	17	B.Rajeswari	Asst.Prof	B.Tech	-	-	F	-	-	09.06.2008
ECE	18	S.Jyothirmayee	Asst.Prof	B.E	-	-	5	-	-	16.12.2008
ECE	19	G.Sahithi	Asst.Prof	B.Tech	-	-	F	-	-	01.07.2009
ECE	20	V.Haritha	Asst.Prof	B.Tech	M.E.	-	-	2.5	-	01.07.2009

ECE	21	A.Sammaiah	Asst.Prof	B.Tech	M.Tech	-	3	-	-	30.06.2009
ECE	22	A.Ravinder	Asst.Prof	B.Tech	M.Tech	-	3	-	-	16.07.2009
CSE	23	T.Prakasam	Professor	B.E	M.Tech	-	16 Yrs			12-07-2007
CSE	24	Dr.M.Nagabhushana Rao	Professor	B.E	MS	Ph.D	15	-	-	19-01-2007
CSE	25	P.Srinivas	Assoc.Professor	B.E	M.Tech		8	2	-	1-10-2005
CSE	26	S.Tirupathi Rao	Assoc.Professor	B.E	M.Tech	-	8	-	-	04.06.2008
CSE	27	S.Munisankaraiah	Assoc.Professor	B.Tech	M.Tech	-	8	-	-	19.09.2008
CSE	28	K.Madhusudhan Reddy	Assoc.Professor	B.Tech	(M.Tech)	-	5	-	-	19-03-2006
CSE	29	Indira Chakravarthy	Assoc.Professor	B.E.	M.Tech	-	4	5	-	01.12.2008
CSE	30	M.Ashwini	Asst. Professor	B.Tech	-	-	2	-	-	18-09-2006
CSE	31	Y.Dileep Babu	Asst. Professor	BE	-	-	2.4	-	-	13.11.2007
CSE	32	M.Ravinder	Asst. Professor	B.Tech	(M.Tech)	-	4.5	-	-	17.11.2008
CSE	33	N.Sujatha Gupta	Asst.Professor	B.Tech	-	-	3	-	-	21-06-2007
CSE	34	B.P.Raju	Asst.Professor	B.Tech	-	-	-	3	-	19.01.2009
CSE	35	T.Suneel Chowdary	Asst.Professor	B.Tech	M.Tech	-	9 months	-	-	29.11.2008
CSE	36	Y.Sandeep	Asst.Professor	B.Tech	-	-	7 months	5	-	16.07.2008
CSE	37	C.Sailaja	Asst.Professor	B.Tech	-	-	F	-	-	01.10.2008
CSE	38	G.Radhika	Asst.Professor	B.Tech	-	-	1	-	-	17.11.2008
CSE	39	K.Manjula	Asst.Professor	B.Tech	-	-	F	-	-	24.10.2008
CSE	40	N.Janakiram	Asst.Professor	B.Tech	-	-	2.3	-	-	
CSE	41	K.Vijaya Bhaskar	Asst.Professor	B.Tech	-	-	F	-	-	29.09.2008
CSE	42	M.Jayakrishna	Asst.Professor	B.Tech	-	-	F	-	-	
CSE	43	P.Ushashree	Asst.Professor	B.Tech	-	-	F	-	-	02.07.2009
IT	44	C.Rama Seshagiri Rao	Professor	B.Tech	M.Tech	(Ph.D)	8.5	5	-	01.07.2006
IT	45	Somasekhara Rao K	Professor	B.E.	M.Tech	-	-	32	-	28.06.2008

IT	46	M.Sampath Kumar	Assoc.Professor	B.E.	M.Tech	-	8	-	-	30.05.2008
IT	47	K.Srinivas	Assoc.Professor	B.E	M.Tech	-	7	-	-	1-10-2005
IT	48	P.Dileep	Assoc.Professor	B.Tech	M.Tech	-	5	-	-	12.11.2008
IT	49	V.Venkata Ramana	Assoc.Professor	B.E	M.Tech	-	8	-	-	21-06-2007
IT	50	G.Vijaya Shanthi	Asst.Professor	B.Tech	M.Tech	-	3	-	-	02.06.2008
IT	51	B.Sailaja	Asst.Professor	B.Tech	-	-	3	-	-	23-04-2007
IT	52	K.Abhilasha	Asst.Professor	B.Tech	-	-	Fresher	-	-	16-10-2006
IT	53	Rajashekar Parupati	Asst.Professor	B.Tech	-	-	2.4	-	-	27-04-2007
IT	54	A.Bixapathi	Asst.Professor	B.Tech	-	-	2	-	-	03.07.2008
IT	55	M.Siva Sankar	Asst.Professor	B.Tech	-	-	F	-	-	27.06.2007
IT	56	N.Shilpa	Asst.Professor	B.Tech	-	-	F	-	-	27.11.2008
IT	57	D.Prasanthi	Asst.Professor	B.Tech	-	-	F	-	-	21.01.2009
IT	58	S.Dedeepya	Asst.Professor	B.Tech	-	-	F	-	-	02.07.2009
IT	59	B.Bhargavi	Asst.Professor	B.Tech	-	-	F	-	-	03.07.2009
IT	60	C.Ramya	Asst.Professor	B.Tech	-	-	1.3	-	-	24.11.2008
IT	61	B.Manjulatha	Asst.Professor	B.Tech	-	-	F	-	-	
EEE	62	NVL Addanki	Professor	B.Sc, BE	MS	-	3	34	-	5-10-2006
EEE	63	Y.Suresh Babu	Assoc.Prof	B.Tech	M.Tech	-	9	-	-	02.06.2008
EEE	64	M.Devaiiah	Assoc.Professor	B.E	M.Tech	(Ph.D)	7	-	3.5	1-10-05
EEE	65	N.Venkata Bharadwaj	Assoc. Professor	B.E	MBA	-	-	8	-	29.06.2009
EEE	66	K.Mahender	Asst. Professor	B.Tech	M.Tech	-	9 mon	-	-	20-04-2007
EEE	67	B.Anitha	Asst.Professor	B.Tech	-	-	2.4	-	-	24.09.2007
EEE	68	D.Krishna	Asst. Professor	B.Tech	-	-	2	-	-	13-04-2007
EEE	69	M.Ravikanth	Asst. Professor	B.E	-	-	1.5	-	-	01-07-2006
EEE	70	K.Bhadraji	Asst. Professor	B.Tech	-	-	2	-	-	28-04-2007

EEE	71	Voleti Padmaja	Asst.Professor	B.Tech	(M.Tech)	-	F	-	-	23.06.2008
EEE	72	Khadar Basha Shaik	Asst. Professor	B.E	-	-	3 mon	-	-	27-07-2006
EEE	73	B.Jayalakshmi	Asst. Professor	B.Tech	-	-	F	-	-	08.08.2008
EEE	74	PVS Murali Krishna	Asst.Professor	B.Tech	-	-	F	-	-	24.09.2008
EEE	75	B.Lakshmi Prasanna	Asst. Professor	B.Tech	-	-	F	-	-	24.10.2008
EEE	76	G.Srikanth	Asst.Professor	B.Tech	(M.Tech)	-	7	2	-	01.07.2009
SCI & HUM	77	Dr.J.Anjaiah	Assoc.Professor	B.Sc	M.Sc	Ph.D	7	-	-	2-10-2005
SCI & HUM	78	K.Ramakrishna Sarma	Assoc.Professor	B.A.	M.A.	(M.Phil)	14	-	-	22.11.2007
SCI & HUM	79	T.V.A.P.Sastry	Assoc.Professor	B.Sc	M.Sc	(Ph.D)	14	-	-	11-06-2007
SCI & HUM	80	L.Mrudula	Assoc.Professor	B.Sc	MA	M.Phil (Ph.D)	9.4	4	-	01-07-2006
SCI & HUM	81	Aparajitha Bharadwaj	Assoc.Professor	B.A., B.Ed	M.A., M.Ed		9.7	-	-	26.11.2007
SCI & HUM	82	K.Mallikarjun	Asst.Professor	B.A	M.A	(M.Phil)	10	-	-	25-10-2008
SCI & HUM	83	N.Nagi Reddy	Asst. Professor	B.Sc	M.Sc	-	3	-	-	1-10-2005
SCI & HUM	84	M.Narasimha Swamy	Asst. Professor	B.Sc	M.Sc	-	3	-	-	11-06-2007
SCI & HUM	85	Subhadra Nemani	Asst. Professor	B.Sc, B.Ed	M.Sc	-	7	-	-	9-07-2007
SCI & HUM	86	Mercy Kavitha	Asst. Professor	B.A	M.A	-	11	-	-	6-08-2007
SCI & HUM	87	G.Sudhaamsh Mohan Reddy	Asst. Professor	B.Sc	M.Sc	(Ph.D)	4	-	2	9-08-2007
SCI & HUM	88	D.Pavan kumar	Asst.Professor	B.Sc	M.Sc	-	2	-	-	11-08-2008
SCI & HUM	89	K.Sunitha Ramesh	Asst.Professor	B.A., B.Ed	M.A. M.Phil	-	4	-	-	28.08.2008

<b>SCI &amp; HUM</b>	90	G.Sudha Madhuri	Asst.Professor	B.Sc	M.Sc	-	2	-	-	01.09.2008
<b>SCI &amp; HUM</b>	91	J.Swarupa Kumari	Asst.Professor	B.A.B ed	MA(M.Phil)	-	2.5	-	-	27-10-2008
<b>SCI &amp; HUM</b>	92	S.Sarada	Asst.Professor	BA,B. Ed	MA	-	1	6	-	23-10-2008
<b>SCI &amp; HUM</b>	93	S.Lalitha	Asst.Professor	B.Sc	M.Sc(M.Phil)	-	10	-	-	24.11.2008
<b>SCI &amp; HUM</b>	94	G.Saritha	Asst.Professor	B.Sc	M.Sc	-	3	-	-	28-07-2009
<b>SCI &amp; HUM</b>	95	P.Sreedhar	Asst.Professor	B.Sc, B.Ed	M.Sc	-	8	-	-	29-07-2009
<b>SCI &amp; HUM</b>	96	P.Nanda kumar	Asst.Professor	B.Sc	M.Sc	-	3	-	-	29-07-2009
<b>SCI &amp; HUM</b>	97	D.Ganga Prasad	Asst.Professor	B.Sc	M.Sc	-	1	-	-	12.08.2009
<b>MBA</b>	98	Dr.M.Srinivas	Professor	M.Co m	MBA	Ph.D	18	2	-	20.06.2008
<b>MBA</b>	99	NSR Murthy	Assoc.Professor	B.A.	M.A	MBA	7	30	-	28.07.2008
<b>MBA</b>	100	C.Pavan Kumar	Assoc. Professor	B.Sc.	M.Sc	-	6	-	-	17.09.2007
<b>MBA</b>	101	A.Kesava Koundinya	Assoc.Professor	B.Sc	DHM	MBA	7	11	-	28.07.2009
<b>MBA</b>	102	Alok Kumar	Asst. Professor	B.Sc	MBA	-	2	2	-	1-06-2007
<b>MBA</b>	103	P.Sateesh kumar	Asst.Professor	B.Sc	M.Sc	-	13	-	-	27-08-2007
<b>MBA</b>	104	A.I.Prasanth	Asst. Professor	BBM	MBA	-	1	7	-	19-02-2007
<b>MBA</b>	105	R.Lavanya Kumari	Asst..Professor	B.Sc	M.Sc	-	7	-	-	16-07-07
<b>MCA</b>	106	I.Nagaraju	Assoc.Professor	B.Sc	MCA	-	7	-	-	01.07.2009
<b>MCA</b>	107	A.Durga Pavani	Assoc.Professor	B.Sc	M.Sc	-	4	-	-	11-06-2007
<b>MCA</b>	108	T.Srinivasa Reddy	Assoc.Professor	B.Sc	MCA	-	8	-	-	05.08.2006
<b>MCA</b>	109	P.Naveen Kumar	Asst. Professor	B.Co m	MCA	-	3	-	-	1-07-2006
<b>MCA</b>	110	P.Swapna	Asst. Professor	B.Sc	MCA	-	2	-	-	11-08-2006

<b>MCA</b>	111	K.Bharathi	Asst. Professor	B.Sc	MCA	-	2	-	-	14-05-2007
<b>MCA</b>	112	Md.Faisal	Asst. Professor	BCA	MCA	-	2	-	-	11-06-2007
<b>MCA</b>	113	G.Soujanya	Asst.Professor	BCA	MCA	-	1	-	-	02.06.2008
<b>MCA</b>	114	Nagasrinu Kundavarapu	Asst.Professor	B.Sc	MCA	-	F	-	-	01.07.2008
<b>MCA</b>	115	G.K.Subbalakshmi	Asst.Professor	B.Sc	MCA	-	F	-	-	02.07.2008
<b>MCA</b>	116	Ch.Santosh	Asst.Professor	BCA	M.Sc	-	F	-	-	24.11.2008
<b>MCA</b>	117	R.Anusha	Asst.Professor	B.Sc	MCA	-	F	-	-	06.08.2009

**Permanent Faculty : Student Ratio : 1:15**

**\* Number of faculty employed and left during the last three years :**

S. No.	Programme	Category	Period of appointment				Total
			Less than 6 Months	Between 6 Months to 2 years	Between 2 to 3 years	More than 3 years	
1	UG (B.Tech)	Professors	NIL	2	3	4	9
		Assistant Prof.	2	9	6	6	22
		Lecturers	16	32	14	4	66
		Others	Nil	Nil	Nil	Nil	Nil
	PG (MBA & MCA)	Professors	NIL	01	-	Nil	1
		Assistant Prof.	2	4	0	Nil	6
		Lecturers	1	10	2	Nil	13
		Others	Nil	Nil	Nil	Nil	Nil

**VIII. PROFILE OF DIRECTOR/PRINCIPAL WITH QUALIFICATIONS, TOTAL EXPERIENCE, AGE AND DURATION OF EMPLOYMENT AT THE INSTITUTE CONCERNED**

Name : Dr.S.Ramamohana Rao

Date of Birth : 19-12-1947

Academic qualifications (with field of specialization) :

Ph.D,	CAD Thermal Design,	IISC Bangalore.
Diploma	Production Management	Punjabi University
M.Tech	Electronics Instrument	REC, Warangal
B.E	Electrical Technology	IISC Bangalore
B.Sc	Maths-I, Maths-II, Physics	Andhra University, Waltair

Details of Experience (Academic / Industrial) :

1971 :1996 : Scientist /Engr SF:VSSC/ISRO - Trivandrum :

1996-2000 : Professor-Koneru Laxmaiah college of Engineering, Vijayawada, AP, ECE Dept.

2000-2004 : Professor: HOD-Biomedical Engg. Dept.  
BVRIT- Narsapur (Medak Dt), A.P.

2004-2006 : Principal : HITS College of Engineering, Bogaram, Keesara , Hyderabad, AP

Since June 2006 Principal : Geethanjali College of Engineering & Technology.

Area of Specialization : Digital Signal Processing

Subjects teaching at under gradual level : Image Processing Neural Networks, Artificial Intelligence etc.

Research guidance :

Master's	:	5
Ph.D	:	2

No. of papers published in

National Journals	:	7
International Journals	:	2
Conferences/ Seminars / Symposia / Workshop	:	6

Projects carried out : Worked in SLV, SLVC, ASLV, PSLV, & GSLV Projects

Patents held : ---

Technology transfer : Data amplifiers to M/s Encardio-rite from ISRO

Research publications : As above

No. of books published with details : As above

### 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.

At the time of admission.

No. of Fee waivers granted with amount and name of students.

NIL

Number of scholarship offered by the institute, duration and amount.

Merit scholarship of an amount Rs.10,000/- each is awarded for 9 students from CSE, IT, ECE, EEE, MBA & MCA of Ist Yr & II & III Yr.

Criteria for fee waivers/scholarship. NA

Estimated cost of Boarding and Lodging in Hostels : NO HOSTEL FACILITY

### IX. ADMISSION

#### 9.1 Number of seats sanctioned with the year of approval.

SANCTIONED FOR THE FOR THE ACADEMIC YEAR	BRANCH					
	CS E	ECE	EEE	IT	MCA	MBA
2005-06	60	60	60	60	-	-
2006-07	60	60	60	60	60	60
2007-08	120	120	60	60	60	60
2008-09	120	120	60	120	60	60
2009-10	120	120	60	120	60	60

#### 9.3 Number of students admitted under various categories each year in the last three years.

COLLEGE IS ESTABLISHED DURING THE ACADEMIC YEAR 2005-06.

ADMISSIONS MADE DURING THE ACADEMIC YEAR 2007-08.

S. No	Year of Admission	CSE		ECE		EEE		IT		MCA		MBA	
		CQ	MQ	CQ	MQ	CQ	MQ	CQ	MQ	C Q	MQ	CQ	MQ
1	2005-06	51	9	51	9	NIL		40	9	-	-	-	-
2	2006-07	48	12	48	12	47	12	48	12	48	12	47	12
3	2007-08	93	27	93	27	44	12	47	13	46	14	45	15
4	2008-09	90	30	90	30	45	15	90	30	44	16	45	15
5	2009-10	ADMISSIONS UNDER PROCESS											

#### 9.3 Number of applications received during last two years for admission under Management Quota and number admitted :-

	<u>2006-07</u>	<u>2007-08</u>	<u>2008-09</u>
No. of applications received	105	143	175
No. of Admissions made	72	96	135

## **X. Admission Procedure**

### **10.1 Name and address of the Test Agency and its URL (website) :-**

Type Of Test : EAMCET, ECET & ICET.  
Test Agency : ANDHRA PRADESH COUNCIL OF HIGHER EDUCATION.  
URL : [www.apsche.org](http://www.apsche.org)

### **10.2 Number of seats allotted to different Test Qualified candidates separately [AIEEE/CET (State conducted test/University tests)/Association conducted test]**

Details in section 9.2

### **10.4 Calendar for admission against management/vacant seats :-**

70% Seats are allotted through the entrance exams conducted by the State Government i.e., EAMCET, ICET & ECET and the remaining 30% seats are allotted by Management base on the merit of the students applied for management quota seats.

APSCHS on behalf of state Government of Andhra Pradesh decides the schedule for conducting entrance exam for convener quota seats and announces the calendar for management quota seats. The seats allotted by the Management are scrutinized and approved by APSCHS and JNTU.

## **XII. CRITERIA AND WEIGHTAGES FOR ADMISSION**

As per the rank obtained in the EAMCET / ECET / ICET.

### **11.1 Minimum level of acceptance :**

40 out of 160 marks in EAMCET conducted by State Government  
60 out of 200 marks in ECET conducted by State Government  
40 out of 160 marks in ICET conducted by State Government  
This is amended time to time by the State Government.

In case of Management seats, the Government specified that the candidates shall qualify the EAMCET exam or obtain 50% marks in qualifying exam.

## **XII. APPLICATION FORM**

**To be updated shortly**

XV. INFORMATION ON INFRASTRUCTURE AND OTHER RESOURCES AVAILABLE

**15.1 LIBRARY :-**

**Number of Library books/Titles/Journals available (programme-wise)**

Courses	No. of Books	No of Volumes	Journals	
			National	International
CSE	657	2625	11	3
IT	645	2336	10	3
ECE	640	2675	10	2
EEE	425	2258	10	2
Science & Humanities	345	1480	10	2
MBA	292	1785	30	2
MCA	245	1860	10	2
<b>Total</b>	<b>3249</b>	<b>15019</b>	<b>91</b>	<b>16</b>

**List of online National/International Journals subscribed. :-**

NIL.

**E-Library facilities :**

**Available**

**15.2 LABORATORY**

For each Laboratory

**List of Major Equipment / Facilities :** (ANNEXURE 1)

**List of Experimental Setup :** (ANNEXURE 2)

**15.3**

**COMPUTING FACILITIES :**

**Number and Configuration of Systems :** 520 (Pentium IV/dual core)

**Total number of systems connected by LAN :** 520

**Total number of systems connected to WAN :** NIL

**Internet bandwidth :** 1 Mbps

**Major software packages available**

: Microsoft Academic Alliance Kit (Including all major OS), TURBO C++, MS-OFFICE TOOL KIT, RATIONAL ROSE , RED HAT LINUX, JAVA, ORACLE, WIN XP 2003.

**Special purpose facilities available**

MS VISUAL STUDIO  
: YES (E-CLASS ROOM)

#### 15.4 WORKSHOP :

- Carpentry shop
- Fitting Shop
- House Wiring shop
- Metal forming shop

#### 15.5 List of facilities available :-

**Games and Sports Facilities :-** Cricket, Volley Ball, Basket Ball, Carroms, Chess etc.

**Extra Curriculum Activities :-** In addition to the academic activities such as mini projects, paper presentations, student seminars, number of other recreational activities are conducted through “**Fine Arts Club**” “**Debating Club**” **Music Group etc.,**

**Soft Skill Development Facilities :-** A Centre ‘CACHE’ is established in the very first year through which a number of activities are organized to improve the soft skills of the students. Public speaking, paper presentation, group discussions, student seminars etc are conducted through this centre. Further two state of the art multimediu communication skills labs have been established with advanced staffware and interactive platforms to enhance the communication skills of the students.

#### 15.7 Number of Classrooms and size of each:

S.No	Name of the Course	Name of the laboratory/workshop	Total Area of lab/workshop	Major equipment
1	MCA & MBA	C/C++,Co,	195 Sq.Mtrs.	30 computers
2		Ms Office, UML	195 Sq.Mtrs.	30 computers
3		Informatica, DBMS lab	195 sq mts	30 computers
4		COBOL	195 sq mts	30 computers
5	CSE & IT	C/C++ & DS Lab	250 Sq Mtrs	60 computers
6		Multimedia & Web Technologies Lab	167 Sq Mtrs	30comptuers
7		IT workshop	84 Sq.Mtrs	30 Computers
8		Unix & Networking Lab	250 Sq Mtrs.	64computers
9		Sun Micro systems Lab(Java)	105 Sq Mtrs	30 computers
10		. Net lab	167 Sq Mtrs	30 computers
11	ECE	Electronic Devices & circuits Lab-I	116 Sq.Mtrs	Cathode Ray Oscilloscopes -12 Regulated power supply -15 Function generators – 10 Digital Multimeters -12
12		Electronics circuits lab	116 Sq.Mtrs	Cathode Ray oscilloscopes – 10 DC regulated power supply-10 <b>Function generators 10</b>
13	ECE	Pulse & Digital circuits	116 Sq.Mtrs	Cathode Ray oscillo scopes – 10 DC Regulated power supply -10 Function generators – 10 <b>Digital multimeters - 10</b>
14		Analog Communication lab	105 Sq.Mtrs	CRO, Function generator power supply
15		Digital Communication lab	105 Sq.Mtrs	CRO, Function generator power supply
16		Linear IC Applications	105 Sq.Mtrs	Cathode Ray oscillometers – 10 DC regulated power supply-10 <b>Function generators - 10</b>

17		Micro processors lab	76 Sq.Mtrs	8086 kits – 11 8051 kits-11 Interfacing kits – 04 <b>Power supply - 12</b>
18		Electronics Computer Aided design	105 Sq.Mtrs	ALS-SDA-CPLD/FPGA-01 Universal/CPLD/FPGAT/K -10 FPGAXC 3550 module (XILINX) NV RoM – 10
19		Microwave & Optical communications lab	105 Sq.Mtrs	Kly stron power supply – 02 Kly stron 2k25 – 02 Gunnoscillators -02 Pin Modulator – 02 Gum power supply – 01 Laser diode kits – 02 Fiber optic analog kits – 02 <b>Fiber optic digital kits - 02</b>
21		Digital signal processing lab	105 Sq.Mtrs	Digital signal processor kits – 05 (5416) Digital signal processor kits – 10 (6713) MAT LAB soft ware – 15 users <b>Computers - 31</b>
22	EEE	Embedded systems lab	116 Sq.Mtrs	Embeded systems evaluation boards – 5 Power supply AVR kits-05, Computers - 30
23		Workshop	266 Sq.Mtrs.	Welding, fitting, house wiring, tinsmithy, blacksmithy
24		EM Lab	250 Sq.Mtrs.	DC Motors
25		ET Lab		AC and DC motors & transformers
26		BEE LAB		Circuits and DC / DC Machines
27		Control Systems lab	105 Sq.mtrs	Electrical kits, mat lab
28		Electrical circuits lab	105 Sq.mtrs	
29		ECA, ET lab		Power supply (5V, 1.5A ± 12V, 100 mA) -10
30		Simulation Lab	84 Sq.Mtrs	RLC series circuit, stability analysis
31		HHM Lab	250 Sq.Mtrs	
32		S&H	Eng &Language Comm. Lab-I	85 Sq.Mtrs
33	S&H	Eng &Language Comm. Lab-I	250 Sq.Mtrs	60 computers with head phones

**15.7 Central Examination Facility, Number of rooms and capacity of each.**

- 1 Drawing Hall of 60 capacity
- 25 Lecture halls with 60 capacity
- 13 tutorials with 30 capacity.

**15.8 Teaching Learning process :** The teacher learning process is effective as student centric methodology is being adopted. All the classrooms are provided with overhead projectal facilities. Teachers are encouraged to use Audio Visual Aids so that the learning process is effective.

**15.9 Curricula and syllabi for each of the programmes as approved by the University. :**  
: being followed

**15.10 Academic Calendar of the University :** (ANNEXURE -3)

**15.11 Academic Time Table :** As suggested by JNTU

**15.12 Teaching Load of each Faculty :** The faculty is given the teaching load as per the norms prescribed by JNTU.

**15.13 Students' assessment of Faculty, System in place. :** Continuous Feed back is taken from the students periodically and faculty is advised to improve their performance to make the teaching – learning more effective



ANNEXURE-1

List Of Equipment/Facilities

**DEPARTMENT OF COMPUTER SCIENCE & ENGG.**

**Computer Systems Facilities**

**Computer Lab- I**

**a. Server Configuration: 1**

512 RAM , 2.80 GHz with XEON Processor ,Digital Key Board  
Digital Scroll Mouse , 80GB SATA Hard Disk ,Color Monitor 17 inches(Samsung) with  
Multimedia , 1.44 MB Floppy Disk Drive, DVD-Drive.

**b. Client Configurations: 60 nos**

256 RAM , 2.4 GHz Intel Processor , 40GB Hard Disk  
Key Board , Optical Mouse, LG Color Monitor 17 inches, 1.44 MB  
Floppy Disk Drive, CD –ROM Drive.

**c. Total number of Systems connected to LAN: 61 nos**

**d. Total number of Systems connected to WAN: Nil**

**e. Internet Band Width: 512 Kbps**

**f. Major Software package Available: Microsoft Academic Alliance Kit  
(Including all major OS), Linux, TURBO C &  
MS-Office Tool Kit**

**g. Special purpose facilities available: Nil**

**Computer Lab- II**

**a. Server Configuration: 1**

512 RAM , 2.80 GHz with XEON Processor ,Digital Key Board  
Digital Scroll Mouse , 80GB SATA Hard Disk ,Color Monitor 17 inches(Samsung) with  
Multimedia , 1.44 MB Floppy Disk Drive, DVD-Drive.

**b. Client Configurations: 32 nos**

256 RAM, 2.4 GHz with Intel IV Processor , Key Board ,  
Optical Mouse, 40GB Hard Disk, Color Monitor 17 inches (LG) ,  
1.44 MB Floppy Disk Drive, CD –ROM Drive.

**c. Total number of Systems connected to LAN: 33 nos**

**d. Total number of Systems connected to WAN: Nil**

**e. Internet Band Width: Nil**

**f. Major Software package Available: Microsoft Academic Alliance Kit, Linux,**

**g. Special purpose facilities available: Nil**

**Computer Lab- III**

**a. Server Configuration: 1**

512 RAM , 2.80 GHz with AMD Processor , Key Board  
Scroll Mouse , 160GB SATA Hard Disk , DVD-Drive,  
Color Monitor 17 inches, 1.44 MB Floppy Disk Drive.

**b. Client Configurations: 32 nos**

512 RAM , 2.80 GHz with AMD Processor , Key Board  
Scroll Mouse , 160GB SATA Hard Disk , Color Monitor 17 inches,

**c. Total number of Systems connected to LAN: 33 nos**

- d. Total number of Systems connected to WAN: Nil
- e. Internet Band Width: Nil
- f. Major Software package Available: Microsoft Academic Alliance Kit, Linux,
- g. Special purpose facilities available: Nil

**Computer Lab- IV**

- a. **Server Configuration:** 1  
512 RAM , 2.80 GHz with AMD Processor , Key Board  
Scroll Mouse , 160GB SATA Hard Disk , DVD-Drive,  
Color Monitor 17 inches, 1.44 MB Floppy Disk Drive.
- b. **Client Configurations:** 32 nos  
512 RAM , 2.80 GHz with AMD Processor , Key Board  
Scroll Mouse , 160GB SATA Hard Disk , Color Monitor 17 inches,
- c. **Total number of Systems connected to LAN:** 33 nos
- d. Total number of Systems connected to WAN: Nil
- e. Internet Band Width: Nil
- f. Major Software package Available: Microsoft Academic Alliance Kit, Linux,
- g. Special purpose facilities available: Nil

**Computer Lab- V**

- a. **Server Configuration:** 1  
512 RAM , 2.80 GHz with AMD Processor , Key Board  
Scroll Mouse , 160GB SATA Hard Disk , DVD-Drive,  
Color Monitor 17 inches, 1.44 MB Floppy Disk Drive.
- b. **Client Configurations:** 105 nos  
512 RAM , 2.80 GHz with AMD Processor , Key Board  
Scroll Mouse , 160GB SATA Hard Disk , Color Monitor 17 inches,
- c. **Total number of Systems connected to LAN:** 105 nos
- d. Total number of Systems connected to WAN: Nil
- e. Internet Band Width: Nil
- f. Major Software package Available: Microsoft Academic Alliance Kit, Linux,
- g. Special purpose facilities available: Nil

**Computer Lab- VI**

- a. **Server Configuration:** 1  
512 RAM , 2.80 GHz with AMD Processor , Key Board  
Scroll Mouse , 160GB SATA Hard Disk , DVD-Drive,  
Color Monitor 17 inches, 1.44 MB Floppy Disk Drive.
- b. **Client Configurations:** 30 nos  
512 RAM , 2.80 GHz with AMD Processor , Key Board  
Scroll Mouse , 160GB SATA Hard Disk , Color Monitor 17 inches,
- c. **Total number of Systems connected to LAN:** 31 nos
- d. Total number of Systems connected to WAN: Nil
- e. Internet Band Width: Nil
- f. Major Software package Available: Microsoft Academic Alliance Kit, Linux,

**g. Special purpose facilities available:**

Nil

IT Workshop

Computer Configurations 30 nos  
128 RAM , Intel PIII Processor , Key Board , Mouse,  
10GB Hard Disk, Color Monitor 15inches (LG) ,  
1.44 MB Floppy Disk Drive,

**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGG.**

**ECE-Computer Centre:**

**Computer Configurations:**

34 nos

128 RAM , 2.4 GHz with Intel IV Processor , Key Board ,  
Optical Scroll Mouse, 40GB Hard Disk, Color Monitor 17 inches (LG) ,  
1.44 MB Floppy Disk Drive, CD –ROM Drive.

**ELECTRONICS DEVICES AND CIRCUITS LAB**

**LIST OF EQUIPMENTS**

17. CATHODE RAY OSCILLOSCOPES	-10
18. FUNCTION GENERATORS	-10
19. DC REGULATED POWER SUPPLIES	-10
20. DIGITAL MULTIMETERS	-10
21. AFOUTPUT POWER METER	-01
22. DIGITAL LCR METER	-01
23. BREAD BOARDS	-15
24. DECADE RESISTANCE BOXES	-10
25. DECADE INDUCTANCE BOXES	-10
26. DECADE CAPACITANCE BOXES	-10
27. DC VOLMETERS (20V)	-20
28. DC AMMETERS (200 mA)	-20
29. DC AMMETERS (200 uA)	-12
30. SOLDER IRONS	-05
31. SERVO-CONTROLLED VOLTAGE STABILIZER	-01

**Linear IC Application Lab**

**LIST OF EQUIPMENTS**

32. CATHODE RAY OSCILLOSCOPES	-10
33. FUNCTION GENERATORS	-10
34. DC REGULATED POWER SUPPLIES	-10
35. DIGITAL MULTIMETERS	-10
36. AFOUTPUT POWER METER	-01
37. DIGITAL LCR METER	-01
38. BREAD BOARDS	-15
39. DECADE RESISTANCE BOXES	-10
40. DECADE INDUCTANCE BOXES	-10
41. DECADE CAPACITANCE BOXES	-10
42. DC VOLMETERS (20V)	-20
43. DC AMMETERS (200 mA)	-20
44. DC AMMETERS (200 uA)	-12
45. SOLDER IRONS	-05
46. SERVO-CONTROLLED VOLTAGE STABILIZER	-01

## **Digital Communication Lab**

### **LIST OF EQUIPMENTS**

47. CATHODE RAY OSCILLOSCOPES	-10
48. FUNCTION GENERATORS	-10
49. DC REGULATED POWER SUPPLIES	-10
50. DIGITAL MULTIMETERS	-10
51. AFOUTPUT POWER METER	-01
52. DIGITAL LCR METER	-01
53. BREAD BOARDS	-15
54. DECADE RESISTANCE BOXES	-10
55. DECADE INDUCTANCE BOXES	-10
56. DECADE CAPACITANCE BOXES	-10
57. DC VOLMETERS (20V)	-20
58. DC AMMETERS (200 mA)	-20
59. DC AMMETERS (200 uA)	-12
60. SOLDER IRONS	-05
61. SERVO-CONTROLLED VOLTAGE STABILIZER	-01

## **MICROPROCESSORS LAB**

**DEPARTMENT : ELECTRONICS & COMMUNICATION ENGINEERING**

### **LIST OF EQUIPMENTS**

9. COMPUTERS	-11
10. 8086 - MICROPROCESSOR TRAINER KIT	-11
11. 8051 - MICRO CONTROLLER TRAINER KIT	-11
12. 8259 - INTERRUPT CONTROLLER	-03
13. 8279 - KEYBOARD DISPLAY	-03
14. 8255 - PPI	-03
15. 8251 – USART	-03
16. SERVO-CONTROLLED VOLTAGE STABILIZER	-01

**SOFTWARE:** MASM Software for unlimited users

## **PULSE AND DIGITAL CIRCUITS LAB**

### **LIST OF EQUIPMENTS**

8. CATHODE RAY OSCILLOSCOPES	-11
9. FUNCTION GENERATORS	-11
10. DC REGULATED POWER SUPPLIES	-11
11. DIGITAL MULTIMETERS	-11
12. BREAD BOARDS	-15
13. FLIP-FLOP TRAINER KITS	-02
14. SERVO-CONTROLLED VOLTAGE STABILIZER	-01

## **ELECTRONIC CIRCUITS LAB**

### **LIST OF EQUIPMENTS**

7. CATHODE RAY OSCILLOSCOPES	-11
8. FUNCTION GENERATORS	-11
9. DC REGULATED POWER SUPPLIES	-11
10. DIGITAL MULTIMETERS	-11
11. BREAD BOARDS	-15
12. SERVO-CONTROLLED VOLTAGE STABILIZER	-01

**SOFTWARE:** Pspice software for 30 users

## **ANALOG COMMUNICATIONS LAB**

### **LIST OF EQUIPMENTS**

18. CATHODE RAY OSCILLOSCOPES	-11
19. FUNCTION GENERATORS	-11
20. DIGITAL MULTIMETERS	-11
21. BREAD BOARDS	-15
22. SERVO-CONTROLLED VOLTAGE STABILIZER	-01
23. AMPLITUDE MODULATION & DEMODULATION KIT	-01
24. DIODE DETECTOR CHARACTERISTICS	-01
25. FREQUENCY MODULATION & DEMODULATION KIT	-01
26. BALANCED MODULATOR KIT	-01
27. PRE –EMPHASIS & DE-EMPHASIS KIT	-01
28. CHARACTERISTICS OF MIXER KIT	-01
29. DIGITAL PHASE DETECTOR KIT	-01
30. PHASE LOCK LOOP KIT	-01
31. SYNCHRONOUS DETECTOR KIT	-01
32. SSB SYSTEM KIT	-01
33. FREQUENCY SYNTHESIZER KIT	-01
34. AGC CHARACTERISTICS KIT	

## **E-CAD (VHDL) LAB**

### **LIST OF EQUIPMENTS**

1. CPLD / FPGA Tool kit	-10
2. FPGA XC3550 Module	-10
3. CPLD XC 9572	-10
4. POWER SUPPLIES	-10
5. FOUNDATION SERIES XILINX ( 9. 2i)	-01

## **MICROWAVE & OPTICAL COMMUNICATION LAB**

### **LIST OF EQUIPMENTS**

1. Microwave test benches	-06
2. Optical communication kits	-09

## **DIGITAL SIGNAL PROCESSING LAB**

### **LIST OF EQUIPMENTS**

1. DSP Starter kit TMD SDK / 5416	-05
2. DSP Starter kit TMS 320 C6713	-10
3. MAT LAB Software	-15 users
4. Signal processing Tool Box	-15 users

## **EMBEDDED SYSTEMS LAB**

### **LIST OF EQUIPMENTS**

- |  |     |
|--|-----|
| 1. UNI – 51 SDK 89 X 51 / AVR Training kit | -05 |
| 2. EMB – EVAL – 02 Evolution board         | -05 |

## **DEPARTMENT OF ELECTRONICS & ELECTRICAL ENGINEERING**

### **3.Fluid Mechanics and Hydraulic Machines Lab**

11. Performance test on Kaplan turbine.
12. performance test on Francis turbine
13. performance test on single stage centrifugal pump
14. performance test on multi stage centrifugal pump
15. performance test on reciprocating pump
16. calibration of Orifice meter.
17. calibration of venturimeter.
18. Jet impact on vanes
19. pipe friction apparatus.
20. turbine flow meter.

## ANNEXURE-2

### List of Experiments

#### **DEPARTMENT OF COMPUTER SCIENCE & ENGG. COMPUTER PROGRAMMING LAB1.**

**Write a C program to evaluate the following algebraic expressions after reading necessary values from the user**

a)  $ax+b/ax-b$

b)  $2.5 \log x + \cos 32^\circ + |x^2 - y^2| + 2xy$

2. Write a C program for the following

a) Printing three given integers in ascending order

b) Sum of  $1 + 2 + 3 + \dots + n$

c)  $1 + x^2/2! + x^2/4! + \dots$  upto ten terms

d)  $x + x^3/3! + x^5/5! + \dots$  upto 7th digit accuracy

e) Read x and compute  $Y = 1$  for  $x > 0$

$Y = 0$  for  $x = 0$

$Y = -1$  for  $x < 0$

3. Write C program using FOR statement to find the following from a given set of 20 integers.

i) Total number of even integers. ii) Total number of odd integers.

iii) Sum of all even integers. iv) 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 & B.

5. Using switch-case statement, write a C program that takes two operands and one operator from the user, perform the operation and then print the answer. (consider operators +, -, /, \* and %).

6. Write C procedures to add, subtract, multiply and divide two complex numbers  $(x+iy)$  and  $(a+ib)$ . Also write the main program that uses these procedures.

7. The total distance traveled by vehicle in 't' seconds is given by distance =  $ut + 1/2at^2$  where 'u' and 'a' are the initial velocity (m/sec.) and acceleration (m/sec<sup>2</sup>). Write C program to find the distance traveled at regular intervals of time given the values of 'u' and 'a'. The program should provide the flexibility to the 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 items
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 complete the net amount to be paid by a customer.

9. Given a number, write C program using while loop to reverse the digits of the number. Example 1234 to be written as 4321.

10. The Fibonacci sequence of numbers is 1,1,2,3,5,8... based on the recurrence relation  $f(n) = f(n-1) + f(n-2)$  for  $n > 2$ .

Write C program using do-while to calculate and print the first m fibonacci numbers.

11. Write C program to print the following outputs using for loop.

1	1
2 2	2 2
3 3 3	3 3 3
4 4 4 4	4 4 4 4
5 5 5 5 5	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 extracted starting with the nth character.

13. A Maruthi Car dealer maintains a record of sales of various vehicles in the following form :

<b>Vehicle type</b>	<b>Month of Sales</b>	<b>Price (Rs).</b>
Maruthi – 800	02/87	75,000
Maruthi – DX	07/87	95,000
Gypsy	04/88	1,10,000
Maruthi Van	08/88	85,000

Write a C program to read this data into a table of strings and output 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 function that will scan a character string passed as an argument and convert all lower case characters into their upper case equivalents.

15. Implement the following data structures using Arrays

i) Stacks ii) Linear Queues iii) Circular queues

16. Implement binary search tree using linked list and perform the following operations.

i) Insertion ii) Deletion iii) Inorder Traversal iv) Preorder Traversal

v) Post Order Traversal.

17. Singly linked list and doubly linked lists

i) Insertion ii) Deletion iii) Lookup

18. i) Implement stack using singly linked list.

ii) Implement queue using singly linked list.

19. Implement the following sorting techniques.

i) Bubble sort ii) Insertion Sort iii) Quick Sort iv) Heap Sort.

20. Implement the following searching method.

i) Sequential Search ii) Binary Search

21. i) Conversion of Infix expression to Postfix notation.

ii) Simple expression evaluator, that can handle +, -, / and \*.

22. Implement the algorithms for the following iterative methods using C to find one root of the equation

$$9x^1+2x^2+4x^3= 0$$

$$x^1+10x^2+4x^3 = 6$$

$$2x^1-4x^2+10x^3 = -15.$$

23. Write Computer programs to implement the Lagrange interpolation and Newton-Gregory forward interpolation.

24. Implement in 'C' the linear regression and polynomial regression algorithms.

25. Implement Trapezoidal and Simpson methods.

## ADVANCED DATA STRUCTURES (C++) LAB

15. Write C++ programs to implement the following using an array.
  - a) Stack ADT
  - b) Queue ADT
16. Write C++ programs to implement the following using a singly linked list.
  - a) Stack ADT
  - b) Queue ADT
17. Write C++ programs to implement the deque (double ended queue)ADT using a doubly linked list.
18. Write C++ program to perform the following operations:
  - d) Insert an element into a binary search tree.
  - e) Delete an element from a binary search tree.
  - f) Search for a key element in a binary search tree.
19. Write a C++ program to implement circular queue ADT using an array.
20. Write C++ programs that use non-recursive functions to traverse the given binary tree in
21. a) Preorder b) inorder and c) postorder
22. Write C++ programs for the implementation of bfs & dfs for a given graph.
23. Write C++ programs for implementing the following sorting methods.
  - a) Quick sort
  - b) merge sort
  - c) Heap sort
24. Write a C++ program to perform the following operations.
  - a) insertion into a B-tree
  - b) Deletion from a B-tree
25. Write a c++ program to perform the following operations
  - a) insertion into an AVL –tree
  - b) Deletion from an AVL –tree
26. Write a C++ program to implement Kruskal’s algorithm to generate a minimum spanning tree.
27. Write a C++ program for implementing Knuth-Morris pattern matching algorithm.
28. Write C++ program to implement all the functions of a dictionary (ADT) using hashing.

## (cs 05157) DATABASE MANAGEMENT SYSTEMS LAB

9. Creating tables for various relations (in SQL)
10. implementing the queries in SQL for
  - a) Insertion
  - b) Retrival (Implement all the operation like Union, Intersect, Minus, in, exist aggregate functions (Min., Max..) etc..
  - c) Updation
  - d) Deletion
11. Creating views
12. Writing Assertions
13. Writing Triggers
14. Implementing Operations on relations (tables)using PL/SQL.
15. Creating FORMS

## 16. Generating REPORTS.

### DEPARTMENT OF INFORMATION TECHNOLOGY

#### IT Workshop

#### PC Hardware

**Week 1 – Task 1:** Identify the peripherals of a computer, components in a CPU and its functions.

**Week 2 – Task 2:** Every student should disassemble and assemble the PC back to working condition.

**Week 3 – Task 3:** Every student should individually install windows XP on the personal computer.

**Week 4 – Task 4:** Every student should install Linux on the computer. This computer should have windows installed.

**Week 5 – Task 5:** Several mini tasks would be that covers Basic commands in Linux and Basic system administration in Linux, which includes:

**Week 6 – Task 6: Hardware Troubleshooting:** Students have to be given a PC which does not boot due to improper assembly or defective peripherals.

**Week 7 – Task 7: Software Troubleshooting:** Students have to be given a malfunctioning CPU due to system software problems.

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

#### **Internet & World Wide Web**

**Week 9 - Task 1: Orientation & Connectivity Boot Camp:** Students should get connected to their Local Area Network and access the Internet.

**Week 10 - Task 2: Web Browsers, Surfing the Web:** Students customize their web browsers with the LAN proxy settings, bookmarks, search toolbars and pop up blockers. **Week 11 - Task 3: Search Engines & Netiquette:** Students should know what search engines are and how to use the search engines.

**Week 12 - 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.

**Week 13 Module Test:** A test, which simulates all of the above tasks, would be crafted and given to the students.

### **COMPUTER NETWORKS AND OPERATING SYSTEMS LAB**

#### **PART-A:**

- 1) Implement the data link layer framing methods such as character, character stuffing and bit stuffing.
- 2) Implement on a data set of characters the three CRC polynomials-CRC12, CRC16 and CRC CCIP.
- 3) Implement Dijkstra's algorithm to compute the shortest path thru a graph.
- 4) Take an example submit graph with weights indicating delay between nodes. Now obtain Routing table art each node using distance vector routing algorithm.
- 5) Take an example 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.

**PART-B:**

- 1) Simulate the following CPU scheduling algorithms
  - b) Round Robin b) SJF c) FCFS d) Priority
- 2) Simulate all file allocation strategies
  - a) Sequential b) Indexed c) Linked
- 3) Simulate MVT and MFT
- 4) Simulate all File Organization Techniques
  - a) Single level directory b) Two level c) Hierarchical d) DAG
- 5) Simulate Bankers Algorithm for Dead Lock Avoidance
- 6) Simulate Bankers Algorithm for Dead Lock Prevention
- 7) Simulate all page replacement algorithms
  - a) FIFO b) LRU c) LFU Etc.....
- 8) Simulate Paging Technique of memory management.

**UML LAB**

- 1) The student should take up the case study of Unified Library application which is mentioned in the theory, and Model it in different views i.e Use case view, logical view, component view, Deployment view, Database design, forward and Reverse Engineering, and Generation of documentation of the project.
- 2) Student has to take up another case study of his/her own interest and do the same what ever mentioned in first problem. Some of the ideas regarding case studies are given in reference books which were mentioned in theory syllabus can be referred for some idea.

**WEB TECHNOLOGIES LAB**

8. 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.
  - Home Page
  - Registration and user login
  - Books Catalog
  - Shopping cart
  - Payment by Credit Card
  - Order Confirmation
9. Validate the Registration, user Login, user Profile and payment by credit card pages using JavaScript.
10. 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.
11. Bean Assignments
  - a. Create Java Bean 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 Bean Info class such that only the “count” property is visible in the property window.
  - c. Create two beans –a) Key Pad b) Display Pad. After that integrate the two beans to make it work as a calculator.
  - d. Create two beans traffic light (implemented as a label with only three background colors-red, green, yellow) And Automobile (implemented as a text box which states its state /movement). The state of the automobile should depend on the following light transition table.

Light Transition	Automobile State
Red→Yellow	Ready
Yellow→Green	Move
Green→Red	Stopped

12. Install TOMCAT web Server . Convert the static web pages of assignment 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.

13. Redo the previous task using JSP by converting the static web pages of assignment 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.
14. Implement the "Hello World !" program using JSP Struts Frame Work

### **JAVA LAB**

- 22) 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.
- 23) The Fibonacci sequence is defined by the following rule. The first two values in the sequence are 1 and 1. Every subsequent value is the sum of the two values preceding it. Write a java program that uses both recursive and non-recursive functions to print the  $n^{\text{th}}$  value in the Fibonacci sequence.
- 24) Write a java program that prompts the user for an integer and then prints out all prime numbers up to that integer.
- 25) Write a java program that checks whether a given string is a palindrome or not.  
Example: MADAM is a palindrome
- 26) Write a java program for sorting a given list of names in ascending order.
- 27) Write a java program to multiply two given matrices.
- 28) Write a java program that reads a line of integers, and then displays each integer, and the sum of all the integers (use StringTokenizer class).
- 29) Write a java program that reads on 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.
- 30) Write a java program that reads a file and displays a file and displays the file on the screen, with a line number before each line.
- 31) Write a java program that displays the number of characters, lines and words in a text file.
- 32) Write a java program that :
  - a) Implements stack ADT
  - b) Converts Infix Expression into Postfix form
- 33) Write an applet that displays a simple message.
- 34) Write an applet that compute the payment of a loan based on the amount of the loan, the interest rate and the number of months. It takes one parameter from the browser: Monthly rate; if true, the interest rate is per month; otherwise the interest rate is annual.
- 35) 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.
- 36) Write a java program for handling mouse events.
- 37) Write a java program for creating multiple threads.
- 38) Write a java program that correctly implements producer consumer problem using the concept of inter thread communication.
- 39) Write a java program that lets users create Pie charts. Design your own interface using swings and AWT.
- 40) Write a java program that allows the user to draw lines rectangles and OUs.
- 41) Write a java program that implements a client server application. The client sends data to a server. The server receives the data users it to produce a result, and then sends the result back to the client. The client displays the result on the console. For Ex: The data sent from the client is the radius of a circle, and the result produced by the server is the area of the circle.
- 42) Write a java program that illustrates how run time polymorphism is achieved.

## **Latex and Microsoft Word**

**Week 14 – Word Orientation:** The mentor needs to give an overview of Latex and Microsoft 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.

**Week 15 - 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.

**Week 16 - Task 3: Creating a Newsletter.** Features to be covered:- Table of Content, Newspaper columns, Images from files and clipart, Drawing toolbar and Word Art, Formatting Images, Textboxes and Paragraphs

**Week 17 - Task 4: Creating a Feedback form** - Features to be covered- Forms, Text Fields, Inserting objects, Mail Merge in Word.**Week 18 - Latex and Word Module Test - Replicate the given document inclusive of all features**

## **Microsoft Excel**

**Week 19** Excel Orientation The mentor needs to tell the importance of MS Excel as a Spreadsheet tool, give the details of the four tasks and features that would be covered in each. Using Excel – Accessing, overview of toolbars, saving excel files, Using help and resources

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

**Week 20 - 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, HLOOKUP/VLOOKUP

**Week 21 - Task 3:** Performance Analysis - **Features to be covered:- Split cells, freeze panes, group and outline, Sorting, Boolean and logical operators, Conditional formatting**

**Week 22 - Task 4: Cricket Score Card** - Features to be covered:-Pivot Tables, Interactive Buttons, Importing Data, Data Protection, Data Validation,

**Week 23 – Excel Module Test** - Replicate the given document inclusive of all features

## **LaTeX and Microsoft Power Point**

**Week 24 Task1** Students will be working on basic power point utilities and tools which help them create basic power point presentation.

**Topic covered during this week includes :- PPT Orientation, Slide Layouts, Inserting Text, Word Art, Formatting Text, Bullets and Numbering, Auto Shapes, Lines and Arrows in both LaTeX and Powerpoint.**

**Week 25 Task2** Second week helps students in making their presentations interactive.

Topic covered during this week includes :-Hyperlinks, Inserting –Images, Clip Art, Audio, Video, Objects, Tables and Charts

**Week 26 Task3** Concentrating on the in and out of Microsoft power point and presentations in LaTeX. Helps them learn best practices in designing and preparing power point presentation.

**Topic covered during this week includes :- Master Layouts (slide, template, and notes), Types of views (basic, presentation, slide slotter, notes etc), Inserting – Background, textures, Design Templates, Hidden slides.**

**Week 27 Task4** Entire week concentrates on presentation part of LaTeX and Microsoft power point.

**Topic covered during this week includes -Using Auto content wizard, Slide Transition, Custom Animation, Auto Rehearsing**

### **Week 28 Task5**

Power point test would be conducted. Students will be given model power point presentation which needs to be replicated (exactly how it's asked).

### **Microsoft Publisher**

**Week 29** Help students in preparing their personal website using Microsoft publisher.

Topic covered during this week includes - 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.

## **DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGG.**

### **LIST OF EXPERIMENTS**

#### **I ELECTRONIC DEVICES AND CIRCUITS LAB**

62. PN JUNCTION DIODE CHARACTERISTICS
63. ZENER DIODE CHARACTERISTICS
64. TRANSISTOR CB CHARACTERISTICS
65. TRANSISTOR CE CHARACTERISTICS
66. RECTIFIER WITHOUT FILTERS
67. RECTIFIER WITH FILTERS
68. FET CHARACTERISTICS
69. SCR CHARACTERISTICS
70. CE AMPLIFIER
71. CC AMPLIFIER
72. SINGLE STAGE R-C COUPLED AMPLIFIER
73. FET CS AMPLIFIER
74. RC PHASE SHIFT OSCILLATOR
75. HARTLEY OSCILLATOR
76. COLPITTS OSCILLATOR
77. WIEN BRIDGE OSCILLATOR

#### **II PULSE AND DIGITAL CIRCUITS LAB**

13. LINEAR WAVE SHAPING-FILTERS
14. NON-LINEAR WAVE SHAPING- CLIPPERS
15. NON-LINEAR WAVE SHAPING- CLAMPERS
16. TRANSISTOR AS A SWITCH
17. STUDY OF LOGIC GATES
18. STUDY OF FLIP-FLOPS
19. SAMPLING GATES
20. ASTABLE MULTIVIBRATOR
21. MONOSTABLE MULTIVIBRATOR
22. BISTABLE MULTIVIBRATOR
23. SCHMITT TRIGGER
24. UJT RELAXATION OSCILLATOR

#### **III ELECTRONIC CIRCUITS LAB**

##### **TESTING IN HARDWARE LABORATORY :**

7. SINGLE STAGE COMMON EMITTER AMPLIFIER
8. RC PHASE SHIFT OSCILLATOR USING TRANSISTORS
9. CURRENT SHUNT AND FEEDBACK AMPLIFIER

10. HIGH FREQUENCY COMMON SOURCE (JFET) AMPLIFIER
11. SERIES VOLTAGE REGULATOR
12. SHUNT VOLTAGE REGULATOR

**TESTING IN SOFTWARE LABORATORY:**

1. SINGLE STAGE COMMON EMITTER AMPLIFIER
2. RC PHASE SHIFT OSCILLATOR USING TRANSISTORS
3. CURRENT SHUNT AND FEEDBACK AMPLIFIER
4. HIGH FREQUENCY COMMON GATE (JFET) AMPLIFIER
5. SERIES VOLTAGE REGULATOR
6. SHUNT VOLTAGE REGULATOR

**IV ANALOG COMMUNICATIONS LAB**

13. AMPLITUDE MODULATION AND DEMODULATION
14. DIODE DETECTOR CHARACTERISTICS
15. FREQUENCY MODULATION AND DEMODULATION
16. BALANCED MODULATOR
17. PRE-EMPHASIS & DE-EMPHASIS
18. CHARACTERISTICS OF MIXER
19. DIGITAL PHASE DETECTOR
20. PHASE LOCKED LOOP
21. SYNCHRONOUS DETECTOR
22. SSB SYSTEM
23. FREQUENCY SYNTHESIZER
24. AGC CHARACTERISTICS

**V MICROPROCESSOR LAB**

12. INTRODUCTION TO TASM
13. ARITHMETIC OPERATION – MULTIBYTE ADDITION, SUBTRACTION, MULTIPLICATION AND DIVISION.
14. LOGICAL OPERATIONS – PACKED BCD TO UNPACKED BCD, BCD TO ASCII CONVERSION
15. COMPARISON OF TWO STRINGS & REVERSE OF TWO STRINGS.
16. SORTING, ASCENDING & DESCENDING ORDER OF GIVEN LIST.
17. DOS / BIOS PROGRAMMING – DISPLAY CHARACTERS STRINGS.
18. 8255 – PPI : WRITE ALP TO GENERATE SINUSOIDAL WAVE USING PPI.
19. 8251 – USART: WRITE ALP TO ESTABLISH COMMUNICATION BETWEEN TWO PROCESSORS
20. READING & WRITING ON A PARALLEL PORT BY USING 8051
21. TIMER IN DIFFERENT MODES BY USING 8051
22. SERIAL COMMUNICATION IMPLEMENTATION BY USING 8051

**VI DIGITAL COMMUNICATION LAB:**

12. PULSE AMPLITUDE MODULATION AND DEMODULATION
13. PULSE WIDTH MODULATION AND DEMODULATION
14. PULSE POSITION MODULATION AND DEMODULATION
15. SAMPLING THEOREM – VERIFICATION
16. TIME DIVISION MULTIPLEXING
17. PULSE CODE MODULATION
18. DIFFERENTIAL PULSE CODE MODULATION
19. DELTA MODULATION
20. FREQUENCY SHIFT KEYING
21. PHASE SHIFT KEYING
22. DIFFERENTIAL PHASE SHIFT KEYING

### **VII LINEAR IC APPLICATION LAB:**

10. STUDY OF OP AMPS –IC 74, IC 555, IC 565, IC 566, IC 1496 – FUNCTIONING, PARAMETERS AND SPECIFICATION.
11. OP AMP APPLICATION – ADDER, SUBTRACTOR, COMPARATOR CIRCUITS.
12. INTEGRATOR AND DIFFERENTIATOR CIRCUITS USING IC 741.
13. ACTIVE FILTER APPLICATION - LPF, HPF(FIRST ORDER).
14. FUNCTION GENERATOR USING OP AMPS.
15. IC 555 TIMER – MONOSTABLE OPERATION CIRCUIT.
16. IC 555 TIMER – ASTABLE OPERATION CIRCUIT.
17. IC 566 – VCO APPLICATIONS.
18. VOLTAGE REGULATOR USING IC 723.

#### **PART – B**

SIMULATE THE INTERNAL STRUCTURE OF THE FOLLOWING DIGITAL IC's USING VHDL

1. D FLIP – FLOP 7474
2. DECADE COUNTER 7490
3. SHIFT REGISTERS 74957
4. 3 – 8 DECODER 74138
5. 4 BIT COMPARATOR 7485
6. 8X1 MULTIPLEXER 74151
7. 2X4 DEMULTIPLEXER 741555

### **VIII DIGITAL SIGNAL PROCESSING LAB:**

1. STUDY THE ARCHITECTURE OF DSP CHIP – 3206713
2. LINEAR CONVOLUTION USING MATLAB
3. CIRCULAR CONVOLUTION USING MATLAB
4. GENERATE SUM OF SINUSOIDAL SIGNAL ALGORITHM USING MATLAB
5. FIND FREQUENCY RESPONSE OF ANALOG LP/HP FILTERS USING MATLAB
6. COMPUTE POWER DENSITY SPECTRUM OF A SEQUENCE.
7. LINEAR CONVOLUTION USING CC STUDIO
8. CIRCULAR CONVOLUTION USING CC STUDIO
9. FIR-FILTERS (LP/HP) USING RECTANGULAR WINDOW
10. FIR-FILTERS (LP/HP) USING TRIANGULAR & KAISER WINDOW.
11. IIR FILTERS (LP/HP)
12. N-POINT FFT ALGORITHM
13. FFT OF GIVEN 1-D SIGNAL AND PLOT

### **IX MICROWAVE & OPTICAL COMMUNICATION LAB :**

#### **PART-A**

1. REFLEX KLYSTRON CHARACTERISTICS
2. GUNN DIODE CHARACTERISTICS
3. ATTENUATION MEASUREMENT
4. DIRECTIONAL COUPLER CHARACTERISTICS
5. VSWR MEASUREMENT
6. IMPEDANCE AND FREQUENCY MEASUREMENT
7. WAVEGUIDE PARAMETERS MEASUREMENT.
8. SCATTERING PARAMETERS OF MAGIC TEE.

#### **PART – B**

1. CHARACTERIZATION OF LED
2. CHARACTERIZATION OF LASER DIODE
3. INTENSITY MODULATION OF LASER O/P THROUGH AN OPTICAL LINE.
4. MEASUREMENT OF DATA RATE FOR DIGITAL OPTICAL LINK.
5. MEASUREMENT OF NA
6. MEASUREMENT OF LOSSES FOR ANALOG OPTICAL LINK.

### **X EMBEDDED SYSTEMS LAB :**

1. WRITE A PROGRAM TO (A) LEAD INPUTS FROM SWITCHES (B) TO MAKE LED'S BLINK
2. WRITE A PROGRAM FOR SERIAL COMMUNICATION

3. WRITE A PROGRAM FOR ENCRPTION / DECRPTION.
4. SORT RTOs(MCOs) ON TO 89C51 BOARD AND VERIFY.
5. SIMULATE ON ELEVATOR MOVEMENT USING RTOs ON 89C51 BOARD

**LIST OF EXPERIMENTS FOR EEE I & II YEAR**

**EEE I YEAR (Workshop Lab)**

S.No.	List of experiments	Equipments
<b>I</b>	<b>Carpentry</b>	<ul style="list-style-type: none"> <li>• Carpentry Vice</li> <li>• Jack plane</li> <li>• Try Square</li> <li>• Hand Saw</li> <li>• Tenon Saw</li> <li>• Firmer Chisel</li> <li>• Wooden Mallet</li> <li>• Steel Rule</li> <li>• Marking /Mortise Gauge</li> <li>• Claw Hammer</li> </ul>
	1)Cross lap joint .	
	2)Dovetail joint .	
	3)Tenon joint.	
<b>II</b>	<b>Fitting</b>	<ul style="list-style-type: none"> <li>• Bench Vice</li> <li>• Steel Rule</li> <li>• Try square</li> <li>• Scriber</li> <li>• Dot Punch</li> <li>• Hack Frame With Blade</li> <li>• Ball Peen hammer</li> <li>• Chisel.</li> <li>• Flat File (Rough&amp;Smooth)</li> <li>• Triangular File</li> </ul>
	1)Dovetail fit	
	2) V- fit	
	3) Radius fit	
<b>III</b>	<b>House wiring</b>	<ul style="list-style-type: none"> <li>• Electrical Case</li> <li>• Switches</li> <li>• Straight Holders</li> <li>• Two Way Switches</li> <li>• Gang Boxes</li> <li>• Clip Nails</li> <li>• Screws.</li> </ul>
	1)Series & parallel wiring.	
	2)Fluorescent Lamp wiring	
	3)Stair case wiring	
<b>Trades for Demonstration.</b>		
	1) Plumbing.	
	2) ARC Welding	
	3) Study and working of Drilling Machine & Bench Grinder.	

**EEE (HHM LAB)**

S.NO.	List of experiments
<b>01</b>	<b>Impact of jets on vanes</b>
<b>02</b>	<b>Performance test on pelton wheel</b>
<b>03</b>	<b>Performance test on francis turbine</b>
<b>04</b>	<b>Performance test on single stage centrifugal pupm</b>

05	Performance test on multi stage centrifugal pupm
06	Performance test on Reciprocating pump
07	Calibration of venturi meter
08	Calibration of Orifice meter
09	Determination of friction factor for a given pipe line
10	Determination of loss head due to sudden contraction in a pipe line
11	Turbine flow meter

**EEE SEM(Electrical circuits lab)**

S.NO.	List of experiments
01	Verification of Max power transfer, Thevenin's & Norton's theorem
02	Determination of self & Mutual Inductance
03	Measurement of 3 $\phi$ power
04	Verification of millimans and reciprocity theorem
05	Series and parallel Resonance
06	Determination of Z & Y Parameters
07	Determination of ABCD 4 hybrid parameter
08	Verification of compensation theorem
09	Verification of superposition theorem and RMS value of complex wave
10	Locus diagram of PL and RC circuits
11	Simulation of d.c.circuit using Mat lab
12	Mesh Analysis using Matlab

**EEE (Electrical machine lab-1)**

S.NO.	List of experiments
01	Magnetization characteristics of D.C. Shunt generator
02	Load test on D.C.Shunt generator
03	Load test on D.C.Series generator
04	Load test on D.C. compound generator
05	Hopkinson's test on D.C Shunt machines
06	Field test on D.C. Series machines
07	Swimburnes test and Speed control of D.C. Shunt motor
08	Brake test on D.C. Compound motor
09	Brake test on D.C.Shunt motor
10	Separation of losses in D.C. Shunt motor

**EEE (Electrical Technology lab)**

S.NO.	List of experiments
01	Verification of Superposition theorem and Reciprocity theorem
02	Verification of maximum power transfer theorem
03	Verification of Thevenin's and Norton's Theorem
04	Two port network parameters (open circuit & short circuit)
05	Series and parallel resonance(Q-Factor,Bandwidth,selectivity)
06	Magnetization characteristics of DC Shunt generator
07	Swimburnes test on D.C. Shunt motor
08	Brake test on 3-d induction motor

09	Open circuit & short circuit test on 1- $\phi$ transformer
10	Regulation of 3- $\phi$ alternator by synchronous impedance method

**EEE (Power Electronics lab)**

S.NO.	List of experiments
01	Study of V-I characteristics of SCR,INDFET and IGBT
02	Gate fixing circuits
03	1- $\phi$ qc voltage controller with R, RL loads
04	1- $\phi$ full bridge rectifier with R, RL IOADS
05	Forced Commutation circuits
06	Parallel inverter with R,RL loads
07	Jones chopper with R, RL loads
08	Mc-Murray-Bedford inverter with R, RL Loads
09	1- $\phi$ AC cycloconvertor with R,RL loads
10	1- $\phi$ Half controlled bridge rectifier with R,RL loads

**EEE (Control Systems And Simulation Lab)**

S.NO.	List of experiments
01	Time response of Second order system
02	Characteristics of Synchros
03	Temperature controller using PID
04	Effect of feedback on DC servo motor
05	Transfer function of DC motor
06	Lag and lead compensation –Magnitude and phase plot
07	Characteristics of magnetic amplifiers
08	Characteristics of AC servo motor
09	PSPICE simulation of Op-Amp based Integrator and Differentiator circuits.
10	Stability analysis (Bode,RootLocus,Nyquist) of Linear Time Invariant system using MAT Lab
11	Programmable logic controller-study and verification of truth tables of logic gates,simple Boolean expressions and application of speed control of motor.

**EEE (Electrical Machines -II Lab)**

S.NO.	List of experiments
01	Open Circuit and short circuit test on 1- $\phi$ Transformer
02	Sumpner's test on pair of transformers
03	Scott connection of Transformers
04	Parallel operation of two 1- $\phi$ transformers
05	Equivalent circuit of a single phase induction motor
06	Brake load test on 3- $\phi$ induction motor
07	No-load & Blocked motor test on 3- $\phi$ Induction motor
08	Regulation of 3- $\phi$ alternator by synchronous impedance method and mmt method.
09	V and V curves of a three phase synchronous motor
10	Determination of XD and XQ of a salient pole synchronous machine.

### EEE (Electrical Measurements Lab)

<b>S.NO.</b>	<b>List of experiments</b>
<b>01</b>	<b>Calibration and Testing of Single phase Energy Meter</b>
<b>02</b>	<b>Calibration of Dynamometer Power factor Meter</b>
<b>03</b>	<b>Calibration of PMMC voltmeter and Ammeter using Cromptons DC Potentiometer</b>
<b>04</b>	<b>Measurement of three phase reactive power</b>
<b>05</b>	<b>Measurement of choke coil parameters</b>
<b>06</b>	<b>Silsbees test for testing CT's</b>
<b>07</b>	<b>Kelvins double bridge</b>
<b>08</b>	<b>Schering and Andersons bridge</b>
<b>09</b>	<b>Relay testing usin secondary current injection over current and Reverse current</b>
<b>10</b>	<b>Calibration of low power factor wattmeter.</b>

### **DEPARTMENT OF SCIENCE & HUMANITIES LIST OF EXPERIMENTS**

#### **1.ENGLISH LANGUAGE COMMUNICATION SKILLS LAB - I**

13. Introduction to the sounds of English – vowels,diphthongs and consonants
  14. Introduction to Stress and intonation
  15. Situational Dialogues/Role Plays
  16. Oral presentations
  17. Just a Minute session (JAM)
  18. Describing objects
  19. Describing people
  20. Information transfer
  21. Giving directions
  22. Telephoning skills
  23. Interviews
  24. Group discussion
- \* The number of experiments usually go beyond the above stated number according to the need of the group.

#### **2.ENGLISH LANGUAGE COMMUNICATION SKILLS LAB – II**

1. Functional English
2. Vocabulary building
3. JAM
4. Group discussion
5. Interview skills
6. Debate
7. Resume writing
8. Presentations

9. Reading comprehension
10. Technical report writing

### 3. ENGINEERING PHYSICS LAB

1. Determination of Refractive Index of the material of a Prism – Spectrometer.
26. Dispersive power of the material of a Prism. – Spectrometer.
27. Cauchy's constants – Spectrometer.
28. Determination of wavelength of a source – Diffraction Grating.
29. Determination of thickness of a thin object using parallel fringes.
30. Newton's Rings.
31. Determination of Rigidity modulus of a material in the form of a wire – Torsional pendulum.
32. Melde's Experiment – Transverse and Longitudinal modes.
33. Single slit diffraction using Sodium lamp.
34. Double slit diffraction using sodium lamp.
35. Single slit diffraction using lasers.
36. Double slit diffraction using lasers.
37. Time constant of R-C Circuit.
38. L-C-R Circuit.
39. Verification of laws of stretched string – sonometer.
40. Study of Characteristics of LED and LASER sources.
41. Study of characteristics of p-i-n and avalanche photo diode detectors.
42. Bending losses of fibers.
43. Evaluation of Numerical Aperture of a given fiber.
44. Magnetic field along the axis of a current carrying coil – Stewart and Gee's method.
45. Hall effect.
46. B – H curve.
47. Energy gap of a material of p-n junction.
48. Determination of Young's modulus and Poisson's ratio by Comu's method.
49. Thermo Electric effect – Seebeck effect and Peltier effect.

### 3. ENGINEERING CHEM LAB

- 1. Preparation of a standard solution of Oxalic acid and estimation of Ferrous Iron by Permanganometry.**
- 2. Estimation of Ferric Iron by preparing a standard solution of potassium dichromate.**
- 3. Estimation of hardness of water by EDTA method.**
- 4. Estimation of alkalinity of water.**
- 5. Determination of percentage of copper in brass.**
- 6. Conductometric titration of strong acid Vs strong base**
- 7. Conductometric titration of mixture of acids Vs strong base.**
- 8. Titration of strong acid Vs strong base**
- 9. Titration of weak acid Vs strong base by potentiometry and determination of dissociation constant of weak acid – (Demonstration experiment)**
- 10. Preparation of standard calcium solution and estimation of total hardness of water by EDTA complexometry**
- 11. Estimation of calcium in limestone by Permanganometry.**
- 12. Estimation of manganese dioxide in pisolite**

- 13. Determination of ferrous iron in cement by colorimetric method.**
- 14. Preparation of urea – formaldehyde resin**
- 15. Preparation of Thiokol rubber**
- 16. Determination of the capacity of the given cation – exchange resin. (ex. Zero-karb-225 in the hydrogen form)**
- 17. Determination of viscosity of lubricants by Redwood viscometer**
- 18. Preparation of Aspirin**
- 19. Determination of Calorific value of solid fuel by Bomb calorimeter.**
- 20. Estimation of loss of weight of mild steel in presence of acid and inhibition.**
- 21. Preparation of membranes for filter anyone (Demonstration)**