VASAVI COLLEGE OF ENGINEERING(AUTONOMOUS)
IBRAHIMBAGH, HYDERABAD-31

Approved by A.I.C.T.E., New Delhi and
Affiliated to Osmania University, Hyderabad-07

Sponsored by
VASAVI ACADEMY OF EDUCATION
Hyderabad

STUDENT HAND BOOK
2018-19

Academic Regulations (VCE-2018-19) for PG programmes in Engineering under CHOICE BASED CREDIT SYSTEM (CBCS)for the students admitted w.e.f academic year 2018-19 onwards

+91-40-23146003, 23146002
Fax: +91-40-23146090
Website: www.vce.ac.in

COLLEGE VISION

Striving for a symbiosis of technological excellence and human values

COLLEGE MISSION

To arm young brains with competitive technology and nurture holistic development of individuals for a better tomorrow

QUALITY POLICY

Education without quality is like a flower without fragrance. It is our earnest resolve to strive towards high standards of teaching, training and developing human resources.

ABOUT THE COLLEGE

Established in 1981 by Vasavi Academy of Education under the stewardship of Late Sri Pendekanti Venkata Subbaiah, a veteran statesman of independent India and by a few eminent people from different walks of life Vasavi College of Engineering represents a rich tradition of excellence in technology based education in a stimulating environment. From a modest beginning, with just three undergraduate programs, viz., B.E. programs in Civil, Mechanical and Electronics & Communication Engineering, with dedicated efforts for over 37 years, it has now grown into a mighty center of learning with excellent and well-developed infrastructural facilities, offering 6 undergraduate programs, viz., B.E. in Civil, Mechanical, Electrical & Electronics, Electronics & Communication Engineering, Computer Science & Engineering, and Information Technology. In addition to this 2-Year Postgraduate Programmes in CSE, ECE, EEE and Mechanical Engineering are also being offered.

All the six undergraduate (B.E) programs were accredited by National Board of Accreditation (NBA) for three years from 2017 onwards. Two PG programs in Engineering namely M.E (ECE-Embedded Systems & VLSI Design and M.E (Advanced Design & Manufacturing- Mechanical) and MCA were also accredited by NBA for two years from 2017 onwards. The college has been recognized under 12(B) and 2(F) sections of the University Grants Commission (UGC) Act.

The college has been granted ***autonomy by the University Grants Commission***, New Delhi and Osmania University, Hyderabad for all the programs for a period of six years with effect from 2014-15.

Now, the college is implementing ***Choice Based Credit System (CBCS) w.e.f 2016-17 Academic Year for both UG and PG programmes offered by it.***

The College has 174 highly qualified and experienced faculty consisting of Professors, Associate Professors and Assistant Professors and around 154 technical and supporting staff. The college has very good infrastructural facilities which goes beyond the curriculum requirements. The college offers value-added courses in GIS, CAD/CAM, DSP, VLSI, Networking, J2EE and communication skills to bridge the gap between the curriculum and the requirements of the industry. Skill Development courses have been made part of the curriculum from the second year onwards to improve the skills of the students.

A Research & Development (R&D) Cell is established by personnel from industry / research organization to encourage the faculty and the students in acquiring additional qualifications and knowledge.
This Cell also facilitates the faculty for interaction with industry/research organizations in getting sponsored research projects. In addition, the college extends Consultancy Services in various fields of engineering and technology.
The Center for Counseling and Placement at Vasavi College of Engineering provides personal and career-related support to its students. The educational experience at the college is enlivened and enriched by an array of extra-curricular activities to fulfill the cultural and emotional needs of students.
A good number of ranks in university examinations are secured by our students every year. The all-round development of a student is achieved by exposing him/her to the outside world in a systematic and well planned manner through internships and industry related projects. In keeping with our vision statement human values and professional ethics are infused in the curriculum. This blend of values and technology makes Vasavi a preferred place for learning.

VASAVI ACADEMY OF EDUCATION (VAE)

GOVERNING BODY MEMBERS

1	Sri G.V. Gunnayya Chetty	:	Patron
2	Sri V.V. Sayi	:	Patron
3	Sri K.V. Rangaiah	:	Patron
4	Sri P. Ramamohan Rao	:	President
5	Prof. T.V. Subba Rao	:	Vice-President
6	Sri M. Krishna Murthy	:	Secretary
7	Sri P.V. Ratnam	:	Joint-Secretary
8	Sri V.M. Parthasarathi	:	Treasurer
9	Sri K. Ashok Kumar	:	Member
10	Sri P. Balaji	:	Member
11	Smt. P. Indrani	:	Member
12	Sri Gouri Prasad	:	Member
13	Prof. T. Revathy	:	Member
14	Prof. V. Srinivasulu	:	Member
15	Sri Lagisetty Subbagurumurthi	:	Member

INSTITUTIONS SPONSORED BY VASAVI ACADEMY OF EDUCATION

INSTITUTION	ESTABLISHED
Vasavi College of Engineering	1981
Vasavi Public School	1983
Vasavi Polytechnic	1984
Pendekanti Law College	1990
Pendekanti Institute of Management	1991
Vasavi College of Music & Dance	1996

VASAVI COLLEGE OF ENGINEERING
MANAGEMENT COMMITTEE

Sri G.V. Gunnayya Chetty	Patron
Sri V.V. Sayi	Patron
Sri K.V. Rangaiah	Patron
Sri P Ramamohan Rao	President
Prof. T.V. Subba Rao	Vice President
Sri M Krishna Murthy	Secretary
Sri P V Ratnam	Joint Secretary
Sri V.M. Parthasarathi	Treasurer
Sri D.B. Ramanatha Gupta	Member
Dr. S. V. Ramana	Principal & Ex-Officio Member

Principal : Prof. S.V. Ramana
Telephone No : +91-40-23146002
Fax : +91-40-23146090
Website : www.vce.ac.in
E-mail : principal@staff.vce.ac.in

VASAVI COLLEGE OF ENGINEERING (Autonomous)
BOARD OF GOVERNORS

1	Prof. D.N. Reddy, Director C R Rao Advanced Institute of Mathematics Statistics and Computer Science, Former Vice-Chancellor, JNTU-Hyderabad	:	Chairman
2	Prof. Anup Singh Beniwal, Dean Guru Gobind Singh Indraprastha University, Delhi UGC nominee	:	Member
3	Prof. Syeda Sameen Fatima, Principal Osmania University College of Engineering Univeristy Nominee	:	Member
4	CTE Nominee O/O Commissioner Technical Education, Telangana	:	Member
5	Dr. N. Venkat Reddy, Professor Department of Mechanical & Aerospace Engineering, IIT-Hyderabad	:	Member
6	Sri G. Yoganand, Managing Director M/s Manjeera Constructions, Hyderabad	:	Member
7	Sri P. Ramamohan Rao, President Vasavi Academy of Education (Management Nominee)	:	Member
8	Prof. T.V. Subba Rao, Vice President, Vasavi Academy of Education (Management Nominee)	:	Member
9	Sri M. Krishnamurthy, Secretary Vasavi Academy of Education (Management Nominee)	:	Member
10	Sri V.M. Parthasarathi, Director Finance Vasavi Academy of Education (Management Nominee)	:	Member
11	Sri P. Balaji, Member Vasavi Academy of Education (Management Nominee)	:	Member
12	Dr. A.S. Saiprasad, Director (A & E), Professor HoD-Physics, Vasavi College of Engineering	:	Member
13	Dr. G.V. Ramanamurty, Professor & HoD-Mech Director (A&A), Vasavi College of Engineering	:	Member
14	Dr. S. V. Ramana, Principal Vasavi College of Engineering	:	Member-Secretary

STUDENT PERSONAL DATA

Name :
Hall Ticket No. :
Class :
Branch :
Address :

PHOTO

Phone Nos. :
Home :
Mobile :
E-mail ID :
Bank A/c. No. :
Credit Card No. :
Passport No. :
Driving License :
Vehicle No :

Medical Information

Height :
Weight :
Blood Group :

In case of Emergency, Contact

Name :
Phone No. :

Name :
Phone No. :

COLLEGE PROFILE

Vasavi College of Engineering, established in 1981, is a self-financed institution, affiliated to Osmania University, Hyderabad and approved by AICTE, New Delhi, offers the following courses:

Branch	Starting Year	Intake (2018-19)
4-Year Undergraduate Programmes		
Civil Engineering	1981	60
Electronics & Communication Engineering	1981	120
Mechanical Engineering	1981	120
Computer Science & Engineering	1994	120
Electrical & Electronics Engineering	1999	60
Information Technology	2000	120
2-Year PG Programmes (Full-time 4 semesters)		
Embedded Systems & VLSI Design (ECE)	2003	18
Communication Engineering & Signal Processing (ECE)	2011	18
Advanced Design & Manufacturing (Mechanical)	2003	18
Computer Science & Engineering (CSE)	2011	18
Power Systems and Power Electronics (EEE)	2012	24

All the six U.G programmes are accredited by National Board of Accreditation (NBA) for two years upto 30.06.2020. The Departments Computer Science & Engineering (***CSE***), Electronics & Communication Engineering (***ECE***) and Mechanical Engineering (***ME***) have been recognized by the Osmania University, Hyderabad as ***Research Centers.***

Some of the faculty members from various Departments, have been recognized as research supervisors by the Osmania University and JNTU-Hyderabad.

INFRASTRUCTURE

Vasavi, in its constant pursuit of offering quality education, has created excellent infrastructural facilities for all the programmes and established certain advanced laboratories such as, CISCO Networking Lab, VLSI Design Centre, Embedded Systems, DSP, CAD/CAM and GIS dealing with contemporary technologies. Common facilities for the academic support, like the Basic Science Laboratories, Central Computing Laboratory, Manufacturing Practice Laboratory and English Language and Communication Skills Laboratory were established for the first year courses. The Phonetics Laboratory, Interactive Communication Laboratory and reading room were set up, much before it was made mandatory by the university, to improve the communication skills of students. Recently, the English Language Laboratory has been upgraded to Multi-Media facilities. There are a total of 1159 computer systems in the college with latest configuration. The College main computer center houses 64 latest computer systems and 14 servers. All the systems in the college campus are networked through LAN. Well established intranet, supports the faculty and the administration for online data retrieval of student details, marks, attendance, faculty publications etc.

FACULTY

The college has 174 highly qualified and experienced faculty members including, 05 Adjunct Professors, 22 Professor, 29 Associate Professors.

With a view to strengthen the teaching-learning process and provide quality education the college conducts staff development programs regularly.

The classrooms are well ventilated, spacious and luminous located in architecturally styled buildings amidst lush green lawns which provide a pleasant ambience.

Supporting facilities such as buses for comfortable and safe transport, campus wide EPBAXtelephone systems, 24X7internet connectivity, Generators (500 KVA, 120 KVA) for uninterrupted power supply, bank and subsidized canteen, are provided to the students and staff. The college has installed roof top solar power plant of 200KWp capacity.

COMPUTER CENTER

The college has established a high-speed campus-wide network that connects all the computer systems located in the college campus. A fully distributed computing environment based on clusters of workstations and PC's facilitates the staff and students to have ready access to computing resources, services, software and applications. The environment is tailored to the specific teaching/learning needs of each Department. Full access is provided to, the Internet, e-mail, on-line journals, e-content, QEEE facilities, departmental intranet and other online sources of services and information through BSNL leased line Internet connectivity of 100 mbps, separate lines of 100Mbps and 1Gbps from ACT Fiber.

The server room houses Windows Server, LINUX Server, Oracle Database Server which are connected to the LAN, thereby providing diverse computing platforms to the students, across the campus. The Internet Gateway comprises a Web Server, Symantec Protection Suite Enterprise 12.1, Fortigate 510B UTM, Fortianalyzer 200C, CISCO Router 2800, CISCO Switch and the other networking components required for an efficient LAN.

FACILITIES

Particulars	Availability
No. of Servers	14
No. of Computers	64
No. of Learning Resources	NPTEL Courses (192 Web + 212 Video Courses

SOFTWARE

SNo	Name of the Software	Make
1	MATLAB Image Processing Tool Box, Computer vision tool box Image acquition tool box, Neural Network tool box Optimization tool box, Fuzz logic tool box Parallel computing tool box	Mathworks
2	Aneka, NET cloud computing software Enterprize edition 3.0	MANJRA Soft
3	Oracle 11G Standard Edition	Oracle
4	Services IBM Rational Seed Suit Enterprise Software	IBM
5	Adobe Acrobat 10.0 Professional	Adobe
6	Symantec Protection Suite Enterprise Edition 12.1	Symantec
7	Informatica Power center 8 standards edition on windows	Informatica
8	MS Office 2007/2013	Microsoft
9	VxWorks 5.5 OEM Development License, includes one Board Support Package and BSP Developers kit for X86 Or PPCXX Host PC Turnado 2.2.1 Standard IDE Package includes Core Tools.Code. Documentation – 5 Users Node Locked. Licenses	Mistral
10	Oracle 9i Developer, Internet Suite	Oracle
11	Embarcadero Network Code Gear C, C++ builder RAD XE STUDI ARCHT Academic	C, C++ builder
12	Developer 2000	Oracle
13	Red Hat Enterprise Linux 6.0	Red Hat
14	Grammarly EDU (Anti-Plagarism Checker software)	
15	IBM SPSS Modeler 17.0	IBM
16	Primavera P6 EPPM 16.1	

DR. SARVEPALLI RADHAKRISHNAN LEARNING RESOURCE CENTRE: CENTRAL LIBRARY

Dr. Sarvepalli Radhakrishnan Learning Resources Centre, the central library has a total built up area of 44,503.36 Sq. ft. It houses **12728** titles and **109482** volumes. The college subscribes online journals, that are made accessible to students. These journals are published by Professional Bodies like Institute of Electrical & Electronics Engineers (IEEE), American Society for Mechanical Engineers (ASME) and American Society for Civil Engineers (ASCE). The College is a member of Delhi Library Network (DELNET). A digital library is provided to the students in 415 sq.ft space.

E - JOURNALS & E-BOOKS SUBSCRIBED

National Journal (Print)	51
Magazines (print)	36
International Journals (print)	19
ASCE	35
ASME	27
IEEE ASPP	155
DELNET CONSORTIUM (IESTC E-Journals-2016)	1152
DELNET E-Journals	817
DELNET MEMBERSHIP E-Books	335
Journals and magazines Print version	2186

The college provides **6** library cards per student to barrow books from the library. The Library is fully computerized and availability of any book in the library can be browsed by a click of mouse.

NPTEL Courses: To reinforce the technical knowledge of the students, college has purchased courseware from National Program on Technology Enabled Learning (NPTEL) developed by IITs and IISc and given free access through Intranet to all the students and faculty.

CO-CURRICULAR & EXTRA – CURRICULAR ACTIVITIES Vasavi campus has a basket of co-curricular and extracurricular activities. Students' brains are sharpened by conducting various workshops, seminars, quizzes, debates, essay-writing, presentation of technical papers, working model exhibitions etc.

Every year college hosts National Technical Symposium entitled ***ACUMEN.*** Students from all over the country are invited to the campus to present the best technical papers. The college annual day, ***EUPHORIA*** is celebrated which showcases the cultural talents of students. To enhance the creative skills, the department of H&SS conducts competitions and activities through ***Toastmasters, MuN, Arts, Vasavi Talkies, Dramatics Club and the like. The*** College publishes, `***In-touch'***, the Alumni Newsletter, and ***Technocrats***, the Annual College Magazine. ***Reminiscences*** provides data about the B.E 4/4 students.
The Physical Education Department encourages and provides practice to the students to participate in sports & games at Inter Collegiate, Intra-University and National Level Tournaments. The college has facilities for indoor and outdoor games & sports.

NATIONAL SERVICE SCHEME (NSS)
The College has an NSS unit and the student volunteers take up socially useful activities. The unit has organized blood donation camps, service camps to orphanages, tree plantation camps, flood relief camps etc.

CAREER GUIDANCE, TRAINING AND PLACEMENT CELL
Human Resources (HR) Department provides career guidance and counselling for the budding engineers. It prepares students to meet industry requirements in the technical and soft skills domain thus enriching and enabling them to meet the corporate demands.
The department arranges personality development programmes as well as career guidance sessions to help the students explore the various career options in the fields of All India Civil Services, All India Engineering Services, Scientific, Research and Industrial Organizations, Defence Services in addition to arranging counselling sessions on higher education avenues in India and abroad.

THE ENTREPRENEURSHIP CELL (SWAYAM)

Swayam–The Entrepreneurship Cell of the college is established to develop and nourish the latent entrepreneurial spirit inherent in students, and help them to become Entrepreneurs. The vision of the cell is to develop entrepreneurs by creating an ecosystem that encourages and supports the entrepreneurial potential of students. The mission of the cell is to inculcate the spirit of entrepreneurship and to provide the students with the necessary support by mentoring and equipping them with the right skills and attitude to convert an idea into a business venture.

Swayam bagged the championship award given by NEN for the year 2017-18 for conducting different entrepreneurship activities .

INNOVATION AND ENTREPRENEURSHIP DEVELOPMENT CENTRE (IEDC)

The Government of India recognized that young technocrats are looking for opportunities to exploit their full potential by setting up their own ventures thus becoming "job generators". As part of this strategy **National Science & Technology Entrepreneurship Development Board (NSTEDB),** Department of Science & Technology, Government of India, had set up Entrepreneurship Development Cells (EDCs) in educational institutions. The main objective of creating such cells is to *"Develop institutional mechanism to create entrepreneurial culture in academic institutions to foster growth, innovation and entrepreneurship among the faculty and students".*

SAFETY NORMS & CHECKS

The safety measures and checks are followed in buildings, laboratories and in other critical installations as per the standard norms. The entire campus is equipped with a modern firefighting system. In addition, all the buildings are fitted with fire extinguishers.

EMERGENCY MEDICAL CARE AND FIRST-AID

The college provides first-aid and medical help at the centralized place with trained staff. The health center is equipped with four beds and general medicines. To meet emergency medical attention, college has appointed a doctor and a nurse. A special ambulance has been provided to meet critical medical needs.

TEACHING-LEARNING PROCESS

The members of faculty maintain course files, lesson plan and lesson record to conduct the classes and laboratory courses as per the curriculum requirement. The quality of assignments tests and semester examinations is maintained to meet the program education objectives. The tutorial classes/remedial classes are conducted as per the schedule in the timetable.

PROCTORIAL SYSTEM

To monitor academic progress and holistic development of students ,the **proctor system** (mentoring system) has been introduced in the college.

In this system, each student is assigned a faculty member who acts as a ***loco parentis.*** Every faculty member is assigned twenty students whom they guide and mentor. The Proctor monitors the progress and welfare throughout the four years of his/her stay in college. Class Coordinators also are allotted for each section who monitor classwork schedule, attendance and discipline issues of every student. The college has introduced **Professional Practice School** for second year B.E. students so as to acquaint them with the industry needs.

The college has been building purposive partnership with the industry to provide practical learning experience and to expose the students with the emerging trends and contemporary technologies; the College has signed **Memorandum of Understandings (MOUs)** with various corporate houses and industries.

To further improve the skills of the students to face the campus placement interviews, new courses like soft skills and technical skills have been introduced in the curriculum from the second year onwards in the form of ***Skill Development***.

ALUMNI

The college has been interacting with the Alumni regularly with a view to providing career guidance and facilitate connectivity with industry through students' visits, projects, placements, consultancy etc. Alumni Meet 'REFLECTIONS' is organized every year. The alumni website is ***www.vcealumni.org***.

VASAVI COLLEGE OF ENGINEERNG (AUTONOMOUS)
ACADEMIC RULES AND REGULATIONS
FOR POST GRADUATE PROGRAMMES IN ENGINEERING
Under Choice Based Credit System (CBCS) w.e.f A.Y.2018-19

Academic Regulations VCE-2018-19

On the recommendations of Academic Council and Board of Governors of Vasavi College of Engineering (Autonomous), the following academic regulations will be in force and applicable to all the students admitted into post graduate programmes in Engineering of the college with effect from Academic Year 2018-19 onwards. The PG programmes are being offered under Choice based Credit System (CBCS). These regulations are called as *Academic Regulations VCE-2018-19.*

The above rules and regulations, specified herein after shall be read as whole for the purpose of interpretation. In case of arising a doubt, the interpretation of the Academic Council, the Statutory Body constituted as per UGC norms of the college is final. The Academic council has the power to make amendments to these regulations whenever necessary and shall be approved by Board of Governors (BoG).

1. DEFINITIONS OF KEY WORDS:

Academic Year	**:**	Two consecutive (one odd + one even) semesters constitute one academic year.
Choice Based Credit System (CBCS)	**:**	The CBCS provides choice for students to select from the prescribed courses (core, elective or open or soft skill courses).
Programme	:	An educational programme leading to award of a Degree, diploma or certificate
Semester	:	Each semester will consist of 16-17 weeks of academic work equivalent to 90 actual teaching days.
Discipline	:	A branch or specialization of M.E. M.Tech Degree programme, such as CSE, ECE, EEE, Mechanical engineering etc.

Course	**:**	Usually referred to, as 'paper' is a component of a programme. All courses need not carry the same weightage. The learning objectives and learning outcomes are defined for each course. A course is designed to comprise lectures/ tutorials/ laboratory work/ field work/ outreach activities/ project work/ vocational training/viva/ seminars/ term papers/ assignments/ presentations / self-study etc. or a combination of some of these.
Course Flexibility	**:**	Course work of students is made flexible to enable fast, average and slow learners to plan and pace out their study during the Semester as necessary. They can register for more/average/less credits within limits (e.g., +/- 20%) from the prescribed value, based on their learning capacities as observed from CIE, SEE results of the coursework of the previous Semesters.
Credit Based Semester System (CBSS):	**:**	Under the CBCS, the requirement for awarding a degree or diploma or certificate is prescribed in terms of number of credits to be completed by the students.
Credit:	**:**	A unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week.
Credit Point:	**:**	It is the product of grade point and number of credits for a course.
Grading	**:**	To be normally done using Letter Grades as qualitative measure of achievement in each Course like: A+ (Outstanding), A (Excellent), B+ (Very Good), B (Good), C (Average), D(Pass), F(Fail) based on the marks (%) scored in (CIE+SEE) of the course and conversion to grade done by relative/absolute grading.

Grade Point (GP)	**:**	It is a numerical weight allotted to each letter grade on a 10-point scale. A+ =10, A=9, B+=8, and F=0 and student passes a course only when he/she gets GP≥ 6
Semester Grade Point Average (SGPA)	:	It is a measure of performance of work done in a semester. It is ratio of total credit points secured by a student in various theory and lab courses offered in each semester and the total course credits taken during that semester. It shall be expressed upto two decimal places.
Cumulative Grade Point Average (CGPA):	**:**	It is a measure of overall cumulative performance, of a student over all semesters. The CGPA is the ratio of total credit points secured by a student in various courses in all semesters and the sum of the total credits of all courses in all the semesters of the program. It is expressed upto two decimal places.
Passing Standards	**:**	Student to be declared successful at the semester-end or programme-end only when she/he gets SGPA or CGPA ≥6, with none of the courses registered in the given semester or for the award of degree remaining with **F** grade.
Credits Required for Award of Degree	**:**	A student shall earn the prescribed number of credits recommended by the department concerned for the award of PG Degree. Also, each student must pass in the mandatory courses to qualify for the degree and shall not have any pending disciplinary action.
Transcript or Grade Card or Certificate	**:**	Based on the grades earned, a grade certificate shall be issued to all the registered students after every semester. The grade certificate will display the course details (code, title, credits, grade secured) along with SGPA of that semester and CGPA earned till that semester.

Course Load	:	Every student should register for a set of courses in each semester, with the total number of credits specified by considering the permissible weekly contact hours.
Course Registration	:	Every student to formally register in each Semester for courses (credits)on the advice of the faculty.
Course Evaluation	:	Continuous Internal Evaluation (CIE) in the Semester & Semester End Examination (SEE) constitute the main assessment prescribed for each course. Only those students maintaining a minimum standard in CIE (to be fixed by the institution) will be permitted to appear in SEE of the course.
Continuous Internal Evaluation (CIE)	:	To be normally conducted by the course instructor which includes class tests, problem solving exercises, group discussions, assignments, quizzes, mini-projects & seminars which will be conducted either weekly/fortnightly or during mid-term, anytime throughout the semester, with weightage for the different components being fixed at the institutional level.
Semester End Examination (SEE)	:	To be normally conducted at the institutional level which will cover the entire course syllabi. The syllabi are to be modularized and SEE questions to be set from each unit/module, with choice if any, to be confined to unit/module concerned only. The questions are to be based on knowledge, comprehension, application, analysis, synthesis and evaluation.
Revision of Regulations, Curriculum and Syllabi	:	The institution, from time to time may revise, amend or change the regulations, scheme of examinations, curriculum and syllabi with the approval of the academic council.

College address	**:**	"Vasavi College of Engineering", (Autonomous), Ibrahimbagh, Hyderabad-500031, Telangana State.
Student	**:**	Student is a candidate who has taken admission into undergraduate and postgraduate programs of this college, as per the guidelines stipulated from time to time by the Government of Telangana for admissions into various courses of study and the affiliating university, i.e. Osmania University, Hyderabad.
Head of the Institution	**:**	The Principal is the head of the College
Controller of Examinations	**:**	Is a constituted body of the college that is responsible for all the examination activities of the autonomous College.

2. ADMISSION PROCEDURE

Admissions are done as per the norms issued from time to time by the Government of Telangana State.

2.1 a. 70% of seats under Category-A (based on the rank obtained in GATE and state level entrance examination (TSPGECET) will be filled by the Convener TSPGECET.

b. 30% of seats under Category-B will be filled by the management as per the guidelines issued through Government orders from time to time by the TSCHE and State Government.

2.2 Any seats left vacant in the convener quota will be filled based on the guidelines given by Convener TSPGECET.

Procedure: The College issues an advertisement after necessary approvals. The spot admissions will be made according to the guidelines issued from time to time by convener TSPGECET.

3. PROGRAMMES OFFERED

At present the college offers five PG programmes in the Departments CSE, ECE, EEE and Mechanical Engineering. A student may be admitted to any one of the programmes of study as per the admission rules. All the programs are offered under semester mode.

4. STRUCTURE OF THE PROGRAMME

4.1 Categorization of Courses

The curriculum of PG Program is designed to have syllabi consisting of theory, laboratory courses and projects that shall be categorized as follows:

Humanities and Social Sciences (H&SS) courses include English language and Communication skills Technical writing and professional presentations etc

Engineering Sciences (ES) courses include Materials, Workshop, Basics of Electrical/ Electronics/ Mechanical/ Computer Science Engineering, Engineering Graphics, Instrumentation, Engineering Mechanics, Instrumentation etc.

Professional Core (PC) are core courses relevant to the chosen specialization/branch

Professional Elective (PE) are courses relevant to the chosen specialization/ branch offered as electives.

Open Elective (OE) courses from other technical and/or emerging subject areas offered in the College by the Departments of Engineering, Basic Sciences and Humanities.

Mandatory Course: Course work on peripheral subjects offered in a program, wherein familiarity is considered mandatory. These are non-credit, mandatory courses, wherein a student needs to pass in each if he is to qualify for the award of degree from the concerned institution.

Audit Course (AC): These are non-credit, mandatory courses, wherein a student needs to pass in each if he is to qualify for the award of degree from the concerned institution.

Project Work can be an internship with an industry or elsewhere or projects and seminars.

5. DURATION OF STUDY

5.1 The duration of M.E/M.Tech (Full-Time) Program is 4 semesters, consisting of three semesters of course work and one semester of Project/Dissertation work. The fourth semester comprises Project seminar and Dissertation. The total period of study for drawing the fellowship amount (if eligible) shall not exceed 24 months. Each semester shall have 16 weeks of instruction.

*On admission to a program of study, each student will be allotted a specialized area of study in that course. No change of specialization is permitted after the admission is over.

6. AWARD OF DEGREE

6.1 The degree of M.E/M.Tech. will be conferred on a candidate who has: (i) pursued a regular course of study as prescribed by the College and has passed all examinations and earned requisite number of credits in the courses as prescribed in the scheme of examination and (ii) submitted and successfully defended Project/Dissertation at the end of the fourth semester as prescribed in the scheme of examination.

6.2 **ATTENDANCE REQUIREMENTS**:

(a) A regular course of study for eligibility to appear for Semester End Examination (SEE) has to obtain an attendance of ***not less than 75% in each of the courses*** registered during that semester.

(b) Provided that in special cases and for sufficient causes shown, the Principal on the recommendation of the Head of the department concerned may condone the deficiency not exceeding ***10% attendance for ill-health*** (***medical condonation***) when and application made for such a condonation is supported by a Medical Certificate issued by an authorized Medical Officer and approved by the Principal of the college. Absence not exceeding two weeks, for activities like N.S.S., Inter-University Competitions and debates will be condoned if the candidate is sponsored by the college for such activities.

(c) If a candidate fails to secure the minimum of 75% attendance required in a course, then he/she shall not be eligible to appear for the Semester End Examination at the

end of the semester in the course. He/She shall be required to study "Regular Course of Study" in that course again before appearing for the end semester examination in that course.

(d) As per the guidelines of Osmania University, in respect of women candidates who seek condonation of attendance due to pregnancy, the Principal of the college may condone the deficiency in attendance to the extent of 15% (as against 10% condonation for others) on medical grounds subjected to submission of medical certificate to this effect. Such condonation shall not be availed twice during the course of study.

6.3 The college working hours will be announced along with the time table and displayed on the department notice boards. To strengthen and augment the academic activities, college will work on extended hours with prior intimation to the students. All the parents are requested to cooperate in this regard.

7. COURSE REQUIREMENTS

7.1 Instruction in each theory and practical coursess shall be three hours per week and seminars shall be as per the approved scheme of instructions.

7.2 A student, on being admitted to the M.E/M.Tech, Degree Program shall be assigned to a faculty adviser. On the recommendation and approval of the adviser, the student shall draw up a study plan to satisfy all the requirements, keeping in view the area of specialization and then register for the courses/courses.

7.3 A student is permitted to register for a maximum of six theory courses, two laboratories and seminar in a semester excluding Audit courses and skill Development course. It is necessary to pursue a regular course of study in a minimum of three courses in the semester for eligibility to draw the fellowship amount.

7.4 The Registration of the candidates should be made within one week from the date of admission for the I-Semester and within one week from the date of commencement of classes for

subsequent semesters. For the benefit of those who are unsuccessful in the main examination or for those who wish to reappear in a course/courses a make-up examination will be conducted. A candidate must register for the main examination at the end of the semester. Failure to register for the main examination makes the candidate ineligible to register for the make-up examination.

7.5 A student is permitted to register for Project/Dissertation only if there are not more than three courses as backlogs subjected to a maximum of 9 (nine) credits from the previous semesters. Backlog for this purpose shall mean theory /practicals/seminars. A student who has successfully completed all the course requirements except Project/Dissertation may be permitted to work on his project/Dissertation at the place of employment, any recognized institution/R&D Organization with the approval of the Head of the Department concerned and Head of the Organization.

7.6 A student shall submit five copies of the Project Report/Dissertation prepared as per the format prescribed by the Faculty and approved by his/her guide on or before the date indicated in the Almanac.

7.7 a)*As per the Guidelines of Osmania University the allowed period of study of PG program in Engineering is N+2, where N is the normal or minimum duration prescribed for completion of the programme.* Hence candidates of two-year PG program, who fail to fulfill all the requirements for the award of the degree as specified herein within (N+2= 2+2=2) four academic years from the time of admission, will forfeit their seat and their admission will stand cancelled.

7.8 The distribution of marks based on the continuous internal assessment (CIE) assessment and Semester Examination (SEE) for ***M.E/ M.Tech*** programs shall be as follows:

Course		**Marks**	
		CIE	**SEE**
i)	Each theory course	40	60
ii)	Each practical or drawing course	50	-

7.9 According to the Osmania University Letter No. 3145/D/2011/Acad.III dated 26-03-2011 and the higher education G.O. MS No. 152 dated 22.08.2007 and other related Government orders mentioned therein, the following two concessions namely

(a) exemption from payment of examination fee and
(b) reduction of pass marks in each subject by 10%

have been provided to the hearing impaired, orthopedically handicapped and visually challenged students of Engineering. The Government orders also provided 30 minutes extra time to write the university final examinations papers for orthopedically handicapped students studying Engineering who cannot use their hands freely for writing and have to necessarily use a scribe. To meet these requirements the Board of Governors have approved the following exemptions under Autonomy
(c) reduction of aggregate marks by 10% in CIE and
(d) reduction of pass marks in each subject by 10% for award of pass Grade by taking CIE and SEE put together

8 GENRAL GUIDELINES FOR EXAMINATION

8.1 Applications for permission to appear at the end semester Examination shall be made on the prescribed form along with the necessary certificates regarding attendance, practical work, etc., and prescribed fee. The form and the enclosures shall be sent to the Controller of Examinations on or before the date of prescribed for this purpose.

8.2 When a candidate's application is found in order and he/she is found eligible to appear for end semester examination, the Controller of Examinations shall furnish him/her with a Hall-Ticket for the Examination and this Hall-Ticket shall be produced by the candidate before he/she can be admitted into the Examination Hall.

8.3 A candidate who fails to present himself/herself for the Examination for any reason whatsoever excepting shortage of attendance or who fails to pass the examination shall not be entitled to claim refund of the whole or part of the Examination fee nor for the reservation of the same for a subsequent Examination or Examinations.

8.4 The semester end examinations shall be held at the end of each semester only in the courses offered during that semester.

8.5 A student shall appear for the semester end examination at the end of each semester only in the courses registered during that semester.

8.6 A candidate who has been allowed to appear for the Main Examination may be permitted to re-appear in the course at the subsequent Make-up Examination when conducted.

8.7 A candidate who is unsuccessful at both the Main and Make-up Examinations or has not appeared at these Examinations in course(s) shall register for the course(s) again and pass. Irrespective of whether the syllabus has changed or not, the candidate must undergo a regular course of study and secure a minimum 75% attendance for eligibility to appear for the examination. The sessional marks obtained earlier stands cancelled. If the course in which the candidate has failed is an elective, a new elective may be chosen if required. If a core course has been dropped in the revised curriculum in which the candidate has failed, the alternate course will be specified by the Faculty Adviser in consultation with the Chairperson, BOS

8.8 If a candidate appears of both the main and make-up examinations in the same course, then the better of the two scores will be taken on record.

8.9 The Make-up examinations will be conducted after publishing re-valuation results.

9. SCHEME OF INSTRUCTION & EXAMINATION

9.1 The medium of instruction in English.

9.2 Instruction in the various courses offered in each semester shall be provided by the College as per the scheme of instruction and syllabus prescribed.

9.3 The program of instruction, examination and Vacations shall be notified by the Principal of the college in consultation with the concerned Heads.

9.4 The courses shall be on the semester pattern as specified earlier.

9.5 The distribution of marks shall be as specified in the scheme of instruction and course structure.

9.6 The examination prescribed may be conducted by means of written papers, practicals and oral tests, project reports, inspection of certified sessional work in laboratories or by means of any combination of these methods as may be deemed necessary.

9.7 All the general rules of examinations shall be adhered to.

9.8 A candidate shall be deemed to have fully passed the examination of any semester, if he/she secured not less than the minimum letter grades prescribed.

9.9 5 Marks will be allotted for assignments and 5 marks for quiz tests. Three assignments and three quizzes shall be conducted in a semester and average marks will be considered for computing internal marks. In addition, there shall be two internal examinations of 30 marks each in every course in a semester. The total sessional marks 40 will be computed by considering 30 (average) marks from internal examinations and 10 (average) marks from assignments and quizzes.

The internal exam question paper contains part-A, Part-B and Part-C. Internal Exam Duration: 90 minutes. The question Paper comprises of

- Part-A: shall contain 6 Questions of 1 mark each (6 Marks)
- Part-B: Shall contain 3 or 4 Questions of 4 or 3 marks each (12 Marks)
- Part-C: Shall contains 2 or 3 Questions of 6 or 4 marks each (12 Marks)
- There is no choice in the question paper. All questions are to be answered.
- Blooms Taxonomy will be followed in the question Paper Setting.

Average of two tests will be considered for calculating internal exams marks to which average assignment/quiz marks will be added for obtaining total CIE marks.

9.10 The syllabus shall consists of five units. The semester end examination will be conducted for 60 marks. The question paper consists of Part-A and Part-B. The Part-A is compulsory and cover entire syllabus. It carries a total of 20 marks with maximum number of 10 questions. Part-B will have 7 questions out of which the candidate must answer 5 questions and the total marks for Part-B is 40. There will be one question from each unit of syllabus.

9.11 A student shall successfully complete all the course requirements to be eligible to submit the M.E./M.Tech project Report/Dissertation and to take pre-submission viva-voce M.E/M.Tech. Dissertation can be inter-disciplinary relevant to the Department concerned.

9.12 **Pre-submission of Project/Dissertation**

(a) Viva-Voce Committees: M.E./M.Tech students of fourth semester will take-up a project and submit a report/dissertation. For assessment and evaluation of the project, (i) Pre-submission Viva Voce Committee and (ii) Final Viva-Voce Committees are to be constituted.

(b) Composition of Pre-submission/Final Viva Voce Committee

HoD/Chairperson-BoS : Chairman
External Subject Expert : Member
Project Supervisor : Member

An External Subject Expert can conduct Viva-Voce Examination for a maximum of six students in a day. The Final Viva-Voce Committee will submit its recommendations to the Controller of Examinations.

(c) Grading to M.E./M.Tech Project/Dissertation:

The existing Grading System is used to evaluate to M.E./M.Tech project dissertations in line with the Grading System being implemented for Theory and Practicals for the M.E./M.Tech programs.

The submission of dissertation is in two phases i.e., Phase-I (Regular Submission) & Phase-II (late submission) with a gap of four months between the two phases.

The Viva Voce will be conducted as per the Almanac and will normally be twice in an academic year.

The Viva-Voce committee will give a comprehensive report indicating the adequacy or otherwise of the Project Report/Dissertation. If candidate's work/dissertation is found inadequate by the viva committee, he/she should appear once again for the viva-voce examination as per almanac. The candidate will revise the thesis as per recommendations of the viva-voce committee and submit the corrected copy along with point by point reply to the examiners' report which should be duly verified and certified by the Supervisor and Head of the Department before forwarding it for evaluation by the external examiner to the Exam Branch. The Controller of Examinations will arrange to get the Project Report/Dissertation valued by an External Examiner. Report of the External Examiner will be final for declaration of result without again referring to the Department, unless the External Examiner suggests that the dissertation be revised.

The thesis of a candidate awaiting the result of any backlog courses shall not be sent for evaluation to the external examiner. After successfully completing the backlog courses the M.E / M.Tech. Project Report / Dissertation will be sent for evaluation. In the case of any revision suggested by the external examiner, the candidate will submit the revised Project Report/Dissertation, incorporating the suggestions made by the External Examiner, through the Head of the Department and Supervisor to the Controller of Examinations for taking necessary action.

10. ASSESSMENT AND EVALUATION SYSTEM

10.1 There will be continuous and comprehensive evaluation of students. At least two internal examinations, three quizzes three assignments and one semester end examination will be conducted in each course per semester.

Continuous Internal Evaluation (CIE)	Semester End Examination (SEE)
Theory: 40 Marks • Two internal examinations for 30 Marks each and 10 marks for assignments and quizzes will be conducted. • Three assignments and three quizzes shall be conducted. Each quiz and assignment carries 5 marks. Average of three quizzes and three assignments (a total of 10 marks) will be considered while computing CIE marks. • The total CIE marks 40 will be computed by considering 30 (average) marks from internal examinations and 10 (average) marks from assignments and quizzes.	**Theory: 60 Marks** • Semester End examinations will be conducted for 60 marks for each course. • A student should obtain 50% aggregate of CIE and SEE put together in each course to be declared as passed.

(a) A candidate shall be deemed to have fully passed in the courses/courses he/she has registered during the semester if he/she secures not less than the letter grades as herein prescribed.

Course	Grade
Each Theory Course	C
Sessional Marks for Practical/Seminar/Project Seminar	C
Project / Dissertation	C

(b) The candidate has to pass all theory courses, dissertation and Departmental requirements (Seminars, Project Seminar, Practicals) for the award of degree.

(c) The marks obtained in the CIE and SEE shall be shown separately in the memorandum of Marks. Distinction and Gold Medal (if any) will be awarded course to the condition that the candidate passes all the courses and departmental requirements in the first attempt.

(d) **CREDITS AND GRADES:** Credit system will be implemented in each semester. The credit hours for each theory course, laboratory sessions, finishing school and project work are clearly mentioned in the scheme of instruction.

(e) **LETTER GRADES AND GRADE POINTS:** Absolute/Relative grading system is adopted in awarding the letter grades. The marks are converted to grades based on pre-determined class interval. As per the UGC recommendations a 10-point grading system with the following letter grades are followed:

Academic Performance (%)	Letter Grade		Grade Points
90 to 100	A+	Out Standing	10
80 to 89.99	A	Excellent	09
70 to 79.99	B+	Very Good	08
60 to 69.99	B	Good	07
50 to 59.99	C	Pass	06
Absent	Ab	Absent	Ab
Below 50 (Theory and Laboratory)	F	Fail	0

10.2	A Relative grading system will be implemented for computing semester grade point average (SGPA) and Cumulative grade point average (CGPA). The college will follow relative grading with flexibility given of ranges for grades.
10.3	A student obtaining Grade 'F' shall be considered failed and will be required to reappear in the examination. For non-credit courses letter grade secured will not be considered while computation of SGPA/CGPA. No SGPA/CGPA is declared, if a candidate is failed in any one of the courses.
10.4	**GRADES: THEORY AND LABORATORY COURSES** The final grades in a semester will be computed based on aggregate marks of CIE and Semester End Examinations put together for each course. A student who earns a minimum of '6' and above grade points in a theory course and in a laboratory is declared to have successfully completed the course.
10.5	The Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) shall be computed considering the credits and grades secured by a student in CIE and semester examinations marks put together.
10.6	**Computation of SGPA and CGPA** Average (SGPA) and Cumulative Grade Point Average (CGPA): A. The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student in a semester i.e. **SGPA** (S_i) = $\Sigma(C_i \times G_i) / \Sigma C_i$ where C_i is the number of credits of the i^{th} course and G_i is the grade point scored by the student in the i^{th} course. B. The **CGPA** is also calculated in the same manner considering all the courses undergone by a student over all the semesters of a programme, i.e. **CGPA =** $\Sigma(C_i \times S_i) / \Sigma C_i$

	where S_i is the SGPA of the i^{th} semester and C_i is the total number of credits in that semester. The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.
10.7	**CONVERSION OF GRADES INTO PERCENTAGE** Conversion formula for the conversion of GPA into indicative percentage is [CGPA Earned-0.50]x10= % of marks scored. Illustration: [CGPA Earned 7.5 – 0.50]x 10 = 70.0%
10.8	**AWARD OF DIVISION** Division is awarded on a 10-point scale as mentioned below:

CGPA Score	Type of Grade Awarded
8.00-10	First Division with distinction*
6.50 and above but below **8.00**	First Division
6.50 below and above **6.00**	Second Division
below **6**	Fail
* distinction with first division is awarded only if passed in the first examination appeared.	

11. TRANSITORY REGULATIONS

Whenever the schemes of instruction and/or syllabi are changed for a course, candidates shall satisfy the unfulfilled requirements of passing the number of courses choosing from the revised schemes, with the approval of the Head of the Department.

20. SCHEDULE ON THE NATURE OF MALPRACTICE AND AWARD OF PUNISHMENT

S.No	TYPE OF MALPRACTICE	PUNISHMENT TO BE AWARDED
1	Possession of the prohibited (written or printed) papers, books, notes during the examination period but which were not used.	Shall be debarred from appearing at the subsequent papers of the examination apart from cancelling the result of the examination (***"Examination"*** in this context refers to all the papers taken by the candidate on the same Hall Ticket) in which he/she had indulged in malpractice.
2	Matter relevant to the examination being written on any part of the body or on the clothes worn, or in the instruments, wrappings, etc.	
3	Attempting to take help from any prohibited papers, notes, written or printed matter, writings on the walls, furniture, mobile phones / electronic gadgets and attempting to take help from or giving help to other regarding answer to any question or questions of the examination paper.	
4	Taking help from mobile phones / electronic gadgets or consulting of prohibited written or printed material; consulting and / or taking help from or helping other examinee during the examination period inside the examination hall or	

	outside it with or without their consent, or helping other candidate to receive help from anyone else.	
5	An examinee who attempts to disclose his/her identity to the paper valuer by writing his/her Hall Ticket Number at a place other than the place prescribed for it, or by writing his/her name or any coded message or an examinee who makes an appeal to the paper valuer in the answer book.	Cancelling the result of that paper.
6	Using abusive and obscene language in the answer book.	
7	Refusing to obey instructions of the Chief Superintendent/ Invigilator.	
8	Writing on the question paper or other papers the answer to questions, rough work etc., with no intention of passing it on to another examinee.	To be warned not to do so.
9	Examinee swallowing or destroying prohibited material found in his/her possession or acting in any other manner with a view to destroy evidence.	Cancellation of the result of all examinations taken or proposed to be taken during that session and prohibiting his/her admission into or continuation in any course of the Institution for a period of one year.
10	Smuggling an answer book / additional answer book / matter into or out of the examination hall.	Cancellation of the result of all examinations taken or proposed to be taken during that session and prohibiting his/her

11	Inserting in or removing from the answer book / additional answer book of any sheet.	admission into or continuation in any course of the Institution for a period of one year.
12	Substituting wholly or partly an answer book / additional answer book.	
13	Cases of examinees when conspiring to interchange their Hall Ticket Numbers.	
14	Creation of disturbance or otherwise misbehaving in and around the examination hall during or before the examination.	Cancelling the results of all examinations taken or proposed to be taken during that session and prohibiting admission into or continuation in any course of study for a period of two years.
15	Guilty of assaulting / abusing, intimidating any person connected with the examination work any time-before, during or after the examination.	Cancelling the results of all examinations taken or proposed to be taken during that session and the next session and prohibiting admission into or continuation in any course for a period of two years.
16	Impersonation even at a single examination.	a) The case of impersonation to be dealt with as per law in respect of the candidate who has impersonated (Imposter) and the candidate who is impersonated (original candidate). b) The candidate who has impersonated (Imposter) shall be expelled from examination hall. He/She(Imposter) is also debarred and forfeits the seat. c) The performance of the original candidate shall be

		cancelled in all the examinations (including Practicals / Project work) if any appeared by him/her and shall not be allowed to write remaining subjects of that semester. He/She shall also forfeit the result(s) of other semester(s) registered along with the examination in which the offence was committed. d) The original candidate be debarred from two consecutive semesters from class work and all examinations conducted by the Institution. e) Continuation of the course by the original candidate shall be subject to the academic regulations in connection with forfeiture of seat. f) In case if the original candidate would like to discontinue the course immediately after the punishment is awarded, he/she shall be permitted to discontinue only after the completion of punishment period.
17	Any other malpractice not defined above.	As advised by the committee constituted to look into the cases of malpractices.

NOTE: ***"EXAMINATION"*** in this context refers to all the papers taken by the candidate on the same Hall Ticket.

RULES OF CONDUCT TO STUDENTS

1. The college premises and buildings shall be kept clean; writing and sticking posters and notices on the building walls is strictly prohibited.
2. Students are not permitted to resort to strikes and demonstrations within the college. Participation in any such activity shall automatically result in their dismissal from the college.
3. No student unions, except professional associations, are permitted in the college.
4. Any student responsible for bringing outsiders into the college campus for settling student disputes will be expelled from the college.
5. The students may go on Industrial Tours on their own expense. The college will not defray any expenses of the tour.
6. Smoking, consumption of alcoholic drinks, gambling of any kind is prohibited in the college premises. Any student found in the college premises in an intoxicated condition at any time will be summarily expelled from the college without any enquiry.
7. The students are expected to be regular in their class work and should conduct themselves in a disciplined manner. They should abide by such rules of discipline and conduct as stipulated by the college from time to time.
8. Fees must be paid in one instalment within two weeks of 1st Semester in the College. Fine at Rs.20/- per day will be levied for delayed payment upto 2 weeks, after which name will be deleted from rolls. Later Readmission fee will be Rs.500/- in addition to fine dues. Fee once paid will not be returned under any circumstances. Nonpayment of fees will result in forfeiture of his/her seat in the college.
9. The principal of the college is the final authority as regards the discipline in the institution and has full powers to suspend, fine, rusticate and take any other action, which is deemed necessary.
10. The conduct of the students should be exemplary, not only within the premises of the college but also outside.
11. The students are informed that they should furnish the latest addresses of their parents/guardians in the Principal's Office. Any change of address of the parents/guardian should also be informed immediately, in the college office.
12. Ragging is prohibited. Any student participating in ragging is liable to be summarily expelled from the college without any enquiry. Ragging on campus and off campus is strictly prohibited and it is a cognizable offence. The college has constituted Anti-Ragging Committee, vigilance teams, anti-ragging squads involving the police officers, senior faculty, etc., as per the Act.

DEPARTMENT PROFILES

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

The Department of Computer Science & Engineering was started in the year 1994 offering, a 4-year B.E. course and the present annual intake is 120 students and a 2-Year M.Tech course in the year 2011 with an annual intake of 18 students.

MISSION

To enable students to develop logic and problem-solving approach that will help build their careers in the innovative field of computing and provide creative solutions for the benefit of society.

FACULTY

Dr. T. Adilakshmi, Professor and Head of the Department, has 30 years of teaching experience. The department has 24 well-qualified & experienced faculty members. Osmania University has recognized the department as a Research Center and two professors are recognized as Research Supervisors. The faculty members have varied academic interests and some of their specialized fields include Data Mining, Artificial Intelligence, Grid Computing, Image Processing, Cloud Computing etc. The department has been associated with eminent industries to carry-out research/consultancy work.

INFRASTRUCTURE

The department has a carpet area of **1585**Sq.mtrs. to accommodate the needs of classrooms, laboratories and other common facilities. The laboratories are well equipped computers with latest configuration. There are five UG, one PG and one research labs consisting a total of 218 systems.

The various servers in the server room which includes, Oracle 11g Database Server, Intranet Server (TOMCAT), Oracle 11g Database Automation Server, NPTEL Video/Web Server, Mat Lab Server 2011 R2, Proxy Server, Red Hat Linux 5.0 Server, Library Automation Server, Symantec Protection Enterprise Edition 3.02, Rational Rose Server, Informatica Server all connected to the LAN thereby providing diverse computing platforms to the students across the campus. The college has high speed internet connectivity throughout the campus through a

leased line from BSNL with 100Mbps and Beam telecom with 100Mbps+1Gbps broadband. To facilitate research, the department also has

1. Aneka.NET Cloud computing software version 3.0 enterprise edition site user license
2. MATLAB Perpetual concurrent license academic version

INDUSTRY INSTITUTE INTERACTION

The College has signed MoUs with prominent IT-related organizations: Pega Systems, Infosys, Merxius Software Pvt Ltd, Navaratan Technologies. These partnerships help the students meet the highly competitive standards of the industry by keeping them abreast with the advances in technology through training programmes, student internship and projects, lectures by professionals/experts from the industry. The department in association with Infosys, conducts Infosys Campus Connect foundation programme for students placed in Infosys from our college.

CONTENT BEYOND SYLLABUS

CSE Department also offers content beyond the syllabus in the form of QEEE (Quality Enhancement in Engineering Education) under MHRD.

VALUE ADDED COURSES

CISCO Local Academy enables students to meet the contemporary market demands of Computer Networks. The department has a CSI Student chapter to facilitate students for interaction with the industry and academia through seminars/workshops/expert lectures.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

MISSION

"To inculcate a spirit of scientific temper and analytical thinking and train the students in contemporary technologies in Electronics & Communication Engineering to meet the needs of the industry."

Established in 1981, the department offers 4-year B.E. Degree Programme in Electronics &Communication Engineering, with an annual intake of 120 students. It also offers two M.E. Programmes, Embedded Systems & VLSI Design and Communication Engineering & Signal Processing of two years duration each. There are 167 computers located in various labs of the department.

FACULTY

Dr. E. Sreenivasa Rao, is Professor and Head of the Department. The Department has 32 experienced faculty members comprising Professors, Associate Professors and Assistant Professors and industry professionals. The faculty has teaching expertise in various specializations like Signal Processing, Communications, Digital Systems, Embedded Systems, VLSI Design, Microwaves etc.

INFRASTRUCTURE

The ECE Department is spread in an area of 2,701 Sq. Mtrs. in a separate block to cater to the needs of classrooms, laboratories and other common facilities. The Department has 13 laboratories as per the curriculum which includes 4 advanced laboratories. The laboratories are as per the curriculum such as Basic Electronics, Analog Electronics Circuits, Digital & Integrated Circuits, Communication, Microwave Engineering, Signal Processing & Microprocessors and Interfacing.

The advanced labs are

- VLSI Lab with Mentor graphics and Cadence tools.
- Digital Signal Processing Lab with TMS320C6711 based DSP Kits, code composer studio and MATLAB modeling and simulation software.

- Communication Engineering Lab with Agilent make test and measurement bundle, WiComm-T Wireless communication trainer system SDR platforms, NI LabVIEW academy hardware and software bundles.
- Embedded Systems Lab with X86, 8051 and ARM based embedded system development platforms, Vivaldo SoC/Embedded System Development suite, Zynq 7020 based all programmable System on Chip (SoC) development platforms., Proteus Virtual System Modeling software.

The Department maintains a robust association with the industry for student training, student projects, faculty visits, expert lectures, and for collaboration in research and development in emerging technologies. The department is associated with the major industries like NVIDIA Graphics, Veda IIT, Cypress, AMS, ANURAG, National Instruments, DLRL, etc. The department has research projects funded by DLRL & RCI.

Osmania University accorded recognition to ECE department as a research center to carryout research leading to the award of Ph.D. degree. University also accorded recognition to 4 professors as Ph.D supervisors to supervise Ph.D scholars and currently about 25 Ph.D scholars are working with them in the department.

The Department has an IEEE student branch, IETE student Forum and IE(I) chapter to facilitate effective interaction with the industry and academia through seminars / symposia / workshops. The ECE students have been consistently securing top university honors among the affiliated colleges of Osmania University. A good number of ECE students have been offered employment both by IT and Core Electronics Engineering Companies in the campus selections.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

The department of EEE was established in 1999. It offers a 4-year B.E. Degree Programme in Electrical & Electronics Engineering (EEE) with an annual intake of 60 students and one M.E programme in power systems and power electronics.

MISSION

"To impart knowledge to electrical engineering students so that they have the skills to innovate, excel and lead in their professions with values for the benefit of the society."

FACULTY Dr. M. Chakravarthy is Professor and Head of the Department. The department has 17 qualified and dedicated faculty comprising Professor, Associate Professors and Assistant Professors and also Industry professionals. The faculty has teaching expertise in various specializations like Power Electronics & Drives, Power Systems & Electrical Machines, Renewable Energy Sources and Control Systems.

INFRASTRUCTURE

The EEE Department is spread in an area of 1,967 Sq. Mtrs. caters to classrooms, laboratories and other common facilities. The Department is equipped with 8 labs, a departmental library, classrooms, tutorial rooms, a seminar hall with modern teaching aids and staff rooms. The laboratories are equipped to suit the modern curriculum requirements. Some of laboratories in the department are Electrical Machinery Labs, Power Systems Lab, Power Electronics Lab and Control Systems Lab, Electrical Circuits & Measurements Lab and Electrical Simulation Lab. The Department has maintained a good ties with renowned organizations like Bharat Heavy Electricals Limited (BHEL), National Thermal Power Corporation (NTPC), Power Grid Corporation of India Limited, Central Power Research Institute (CPRI), Railway Loco Workshop, Vijay Electricals Limited, Medha Servo Drives, Siemens India Limited, GE Enterprises, etc. These links help students to equip themselves with latest trends in electrical and electronic industry. The department has 41 computer systems at its disposal.

DEPARTMENT OF MECHANICAL ENGINEERING

Established in the year 1981, the department offers 4-yearB.Eprogram in Mechanical Engineering, with an annual intake of 120 students and a 2-year M.E. Program in Advanced Design & Manufacturing.

MISSION

To nurture an environment of research, innovation and knowledge through the latest teaching-learning practices in mechanical enaineerina.

FACULTY

Dr. T. Ramamohan Rao is Professor and Head of the Department. The Department has 28 faculty members and one adjunct faculty member. The Department is one of the well-established Mechanical Engineering Departments in the State of Telangana. Majority of staff have industrial experience. The Department has made a significant progress in research at the Master's and Doctoral levels. The faculty members of the Department are actively engaged in research publication and dissemination of knowledge through guest lectures at various prestigious institutions.

INFRASTRUCTURE

The Mechanical Engineering Department is spread in an area of 3,465 Sq. meters to cater to the needs of classrooms, laboratories and other common facilities. The department has excellent infrastructural resources. The laboratories in the department are Applied Thermodynamics, Thermal Engineering, CAD/CAM, Metallurgy Lab, FMS, CNC, Automation & Robotics, Welding, Metal Forming Technology, Metal Cutting & Machine Tools engineering, Metal Casting, Metrology & Instrumentation and dynamics of Machine lab..

A Central Workshop with the facilities of Carpentry, House Wiring, Fitting, Plumbing and Smithy imparts necessary skills to the students.

The CAD/CAM Lab is equipped with advanced CAD and CAE software, viz., Unigraphics, ANSYS, Hyperworks, FLUENT, GIBBS-CAM, MATLAB for different tasks of part Modeling & Assembly, Analysis, and Simulation etc. Sophisticated equipment like Fast Fourier Transforming Analyzer (FFT), Vibrations, Sound level meters and under additive manufacturing three 3D printing machines are also available.

The department has established linkages with various renowned organizations for student interactions, training, internship, faculty visits and consultancy services. Some of the organizations are Mahindra & Mahindra, Castrol India, Rane Engine Valves, DRDL, Bharat Heavy Electricals Limited (BHEL), Designtech Systems, APSRTC, Central Institute of Tool Design and Midhani.

The students of the Department have consistently bagged Gold Medals and University Ranks among the affiliated colleges and won several prizes in design and other contests at various levels. The Department has excellent track record in placements and higher education.

DEPARTMENT OF PHYSICAL EDUCATION

Department of Physical Education plays a crucial role in encouraging the students to nurture the inherent talents in sports and games. Qualified and experienced faculty serves the needs of the students. The college has good indoor and outdoor sports & games facilities like table tennis, carom, chess, shuttle badminton, cricket, valley ball, basketball, etc. The college student teams have been consistently winning various prizes/medals at Inter-Collegiate, Inter-University and also at various National Level Tournaments.

DEPARTMENT OF HUMAN RESOURCES

Human Resources (HR) Department provides career guidance and counseling to the outgoing budding engineers. It prepares students to meet the industry's requirements and enrich them to suit the corporate world with excellent soft skills. The HR Department organizes personality development programs and looks after campus placements of the students. It takes care of pre-placement training & placements. It explores the various career options in the fields of All India Civil Services, All India Engineering Services, Scientific, Research and Industrial Organizations, Army, Navy and Air force in addition to arranging counseling sessions on higher education avenues in India and abroad. Human Resources wing is headed by Prof. Kishore, Director, Training & Placement. Sri. K. Srinivasa Chakravarthy is Assistant Director.

ACADEMIC AND EXAMINATIONS BRANCH

Academic and Examinations Branch takes care of all the academic requirements of students starting from admission processes, collection of original certificates at the time of admission, issue of i.d cards, syllabus books, photo copies of original certificates deposited in the college, course completion certificates, custodian forms, and return original certificates at the time of leaving and also issue transfer and bona-fide certificates, migration certificate, provisional degree certificate, consolidate marks memos, etc.

DIRECTOR – STUDENT WELFARE

Sri K. Ramakrishna is the DSW. This wing of the college looks after the student facilities and addresses problems of students. The DSW takes care of the amenities, proctorial system, transport facilities, financial assistance, student bus passes, railway concessions, certification of scholarship applications and Student Bonafide certificates.

ACCOUNTS SECTION

The account section collects tuition fee, special fee, examination fee, medical condonation fee, process and disbursement of A.P. state social welfare scholarships, national merit scholarships, aicte stipends, prepares estimates to obtain education loan from banks, refund of caution deposits and issue of no due certificates.

STUDENT COUNSELLOR

The student counsellor services are provided to the students to give guidance on personal, social and psychological problems.

VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS)

ALMANAC FOR THE ACADEMIC YEAR 2018-19

M.E/M.Tech I Semester (16 weeks)

1	Registration of Subjects, Orientation and Briefing sessions	13.08.2018 to 18-08-2018
2	Commencement of Instruction	20-08-2018
3	First Class Test	10.10.2018 to 13.10.2018
4	Dasara Vacation	15.10.2018 to 20.10.2018
5	Second Class Test	12.12.2018 to 15.12.2018
6	Last date of Instruction	15.12.2018
7	Display of attendance and Sessional Marks	19.12.2018
8	Theory Exams	31.12.2018 to 19.01.2019
9	Declaration of results	09.02.2019
10	Make-up Exams	18.02.2019 to 09.03.2019

M.E/M.Tech II Semester(16 weeks)

1	Registration of Subjects, Orientation and Briefing sessions	21.01.2019 to 25.01.2019
2	Commencement of Instruction	28-01-2019
3	First Class Test	20.03.2019 to 23.03.2019
4	Dasara Vacation	----
5	Second Class Test	14.05.2019 to 18.05.2019
6	Last date of Instruction	18.05.2019
7	Display of attendance and Sessional Marks	22.05.2019
8	Theory Exams	03.06.2019 to 22.06.2019
9	Declaration of results	13.07.2019
10	Make-up Exams	29.07.2019 to 17.08.2019

DEPARTMENTOF COMPUTER SCIENCE AND ENGINEERING
SCHEME OF INSTRUCTION AND EXAMINATION FOR M. Tech (CSE)
I-SEMESTER w.e.f. 2018-19 under CBCS

S. No	Course Code	Name of the Course	Scheme of Instruction			Scheme of Examination			
			Hours per Week			Duration in Hrs	Maximum Marks		Credits
			L	T	P		SEE	CIE	
		THEORY							
1	PI18AC110EH	Audit course-I: English for Research Paper Writing	2	0	0	3	60	40	-
2	PI 18PC110CS	Mathematical Foundations of Computer Science	3	0	0	3	60	40	3
3	PI 18PC120CS	Advanced Data Structures	3	0	0	3	60	40	3
4	PI 18PC130CS	Advanced Operating Systems	3	0	0	3	60	40	3
5	PI 18PE1XXCS	Professional Elective - I	3	0	0	3	60	40	3
6	PI 18PE1XXCS	Professional Elective - II	3	0	0	3	60	40	3
7	PI 18PE1XXCS	Professional Elective - III	3	0	0	3	60	40	3
		PRACTICALS							
8	PI 18PC111CS	Advanced Data Structures Lab	0	0	3	0	0	50	1.5
9	PI 18PE1X1CS	Elective Based Lab	0	0	3	0	0	50	1.5
10	PI 18PC118CS	Seminar – I	0	0	2	0	0	50	1
		TOTAL	**20**	**0**	**8**	**0**	**420**	**430**	**22**
		GRAND TOTAL	**28**				**850**		

DEPARTMENTOF COMPUTER SCIENCE AND ENGINEERING
SCHEME OF INSTRUCTION AND EXAMINATION FOR M. Tech (CSE)
II-SEMESTER w.e.f. 2018-19 under CBCS

S. No	Course Code	Name of the Course	Scheme of Instruction			Scheme of Examination			
			Hours per Week			Duration in Hrs	Maximum Marks		Credits
			L	T	P		SEE	CIE	
THEORY									
1	PI 18AC210EH	Audit course-II: : Pedagogy Studies	2	-	-	3	60	40	0
2	PI18PC240ME	Research Methodology and IPR	2	-	-	3	60	40	2
3	PI 18HS200EH	Skill Development Course	2	-	-	3	60	40	2
4	PI 18PC210CS	Advanced Algorithms	3	0	0	3	60	40	3
5	PI 18PC220CS	Data Mining	3	0	0	3	60	40	3
6	PI 18PC230CS	Object Oriented Software Engineering	3	0	0	3	60	40	3
7	PI 18PE2XXCS	Professional Elective -IV	3	0	0	3	60	40	3
8	PI 18PE2XXCS	Professional Elective - V	3	0	0	3	60	40	3
PRACTICALS									
9	PI 18PC211CS	Advanced Algorithms Lab	0	0	3	0	0	50	1.5
10	PI 18PE2X1CS	Elective Based Lab	0	0	3	0	0	50	1.5
11	PI 18PC218CS	Seminar- II	0	0	2	0	0	50	1
12	PI 18PC219CS	Mini Project	0	0	2	0	0	50	1
		TOTAL	**21**	**0**	**10**	**-**	**480**	**520**	**24**
		GRAND TOTAL	**31**				**1000**		

DEPARTMENTOF COMPUTER SCIENCE AND ENGINEERING
SCHEME OF INSTRUCTION AND EXAMINATION FOR M.Tech (CSE)
III and IV-SEMESTERS w.e.f. 2018-19 under CBCS
III SEMESTER

S. No	Course Code	Name of the Course	Scheme of Instruction			Scheme of Examination			
			Hours per Week			Duration in Hrs	Maximum Marks		Credits
			L	T	P		SEE	CIE	
THEORY									
1	PI 18OE3XXCS	Open Elective	3	-	-	3	60	40	3
2	PI 18PE3XXCS	Professional Elective - VI	3	-	-	3	60	40	3
PRACTICALS									
3	PI 18PW319CS	Dissertation - Phase-I / Internship	-	-	8	-	-	100	4
		TOTAL	6	-	8	-	120	180	10
		GRAND TOTAL	**14**				**300**		
IV SEMESTER									
1	PI18PW419CS	Dissertation – Phase II / Internship	0	0	24	-	Viva-Voce (Grade)		12
		GRAND TOTAL	**0**	**0**	**24**				**12**

List of Professional Electives (Stream wise)		
AI and Data Engineering		
PE-I	PI18PE110CS	Artificial Intelligence
PE-II	PI18PE120CS	Advanced Data bases
PE-III	PI18PE130CS	Machine Learning
PE-IV	PI18PE240CS	Natural Language Processing
PE-V	PI18PE250CS	Information Retrieval Systems
PE-VI	PI18PE360CS	Web Mining
Systems & Networks		
PE-I	PI18PE 114CS	Information Storage Management
PE-II	PI18PE 124CS	Parallel Computer Architecture
PE-III	PI18PE 134CS	Information Security
PE-IV	PI18PE 244CS	Distributed Computing
PE-V	PI18PE 254CS	Wireless Sensor Networks
PE-VI	PI18PE 364CS	Cloud Computing
Applications		
PE-I	PI18PE 115CS	Mobile Computing
PE-II	PI18PE 125CS	Parallel Algorithms
PE-III	PI18PE 135CS	Software Engineering For Real Time Systems
PE-IV	PI18PE 245CS	Software Quality & Testing
PE-V	PI18PE 255CS	Image Processing
PE-VI	PI18PE 365CS	Multimedia Technologies

Audit Course – I			
	PI18AC110EH	English for Research Paper Writing	2
	PI18AC120XX	Value Education	2
	PI18AC130XX	Stress Management by Yoga	2
	PI18AC140XX	Sanskrit for Technical Knowledge	2
Audit Course –II			
	PI18AC210EH	Pedagogy Studies	2
	PI18AC220XX	Personality Development through Life Enlightenment Skills.	2
	PI18AC230XX	Constitution of India	2
	PI18AC240XX	Disaster Management	2
Open Electives			
	PI18OE310XX	Business Analytics	3
	PI18OE320XX	Industrial Safety	3
	PI18OE330XX	Operations Research	3
	PI18OE340XX	Cost Management of Engineering Projects	3
	PI18OE350XX	Composite Materials	3
	PI18OE360XX	Waste to Energy	3

DEPARTMENTOF ELECTRONICS AND COMMUNICATIONS ENGINEERING
SCHEME OF INSTRUCTION AND EXAMINATION FOR
M.E (ECE) EMBEDDED SYSTEMS AND VLSI DESIGN
I-SEMESTER w.e.f. 2018-19 under CBCS

S.No	Course code	Course Title	Scheme of Instruction			Scheme of Examination			Total	Credits
			L	T	P	Duration in Hrs	CIE	SEE		
	Theory									
1.	PI18AC110EH	Audit course-I: English for Research Paper Writing	2	-	-	3	40	60	100	-
2.	PI18PC110EC	**Core - I:** Embedded Systems Design	3	-	-	3	40	60	100	3
3.	PI18PC120EC	**Core - II:** Digital IC Design	3	-	-	3	40	60	100	3
4.	PI18PC130EC	**Core - III:** Analog IC Design	3	-	-	3	40	60	100	3
5.	PI18PE1X0EC	Professional Elective - I	3	-	-	3	40	60	100	3
6.	PI18PE1X0EC	Professional Elective - II	3	-	-	3	40	60	100	3
7.	PI18PE1X0EC	Professional Elective - III	3	-	-	3	40	60	100	3
	Laboratory									
8.	PI18PC111EC	Design and Simulation Laboratory - I	-	-	3	-	50	-	50	1.5
9.	PI18PC121EC	Embedded Systems Laboratory	-	-	3	-	50	-	50	1.5
10.	PI18PC118EC	Seminar – I	-	-	2	-	50	-	50	1
			20	**-**	**8**	**-**	**430**	**420**	**850**	**22**

DEPARTMENTOF ELECTRONICS AND COMMUNICATIONS ENGINEERING
SCHEME OF INSTRUCTION AND EXAMINATION FOR
M.E (ECE) EMBEDDED SYSTEMS AND VLSI DESIGN
II-SEMESTER w.e.f. 2018-19 under CBCS

S. No	Category	Course code	Course Title	Scheme of Instruction			Scheme of Examination			Total	Credits
				L	T	P	Duration in Hrs	CIE	SEE		
Theory											
1.	AC	PI 18AC210EH	Audit course-II: : Pedagogy Studies	2	-	-	3	40	60	100	-
2.	PC	PI18PC240ME	Research Methodology and IPR	2	-	-	3	40	60	100	2
3.	HS	PI 18HS200EH	Skill Development Course	2	-	-	3	40	60	100	2
4.	PC	PI18PC210EC	**Core–IV:** Embedded Real Time Operating Systems	3	-	-	3	40	60	100	3
5.	PC	PI18PC220EC	**Core – V:** Mixed Signal IC Design	3	-	-	3	40	60	100	3
6.	PC	PI18PC230EC	**Core – VI :** Physics of Semiconductor Devices	3	-	-	3	40	60	100	3
7.	PE	PI18PE2X0EC	Professional Elective - IV	3	-	-	3	40	60	100	3
8.	PE	PI18PE2X0EC	Professional Elective - V	3	-	-	3	40	60	100	3
		Laboratory									
9.	PC	PI18PC211EC	Design and Simulation Laboratory –II	-	-	3	-	50	-	50	1.5
10.	PC	PI18PC212EC	Embedded Systems Application Laboratory	-	-	3	-	50	-	50	1.5
11.	PW	PI18PW219EC	Mini Project	-	-	2	-	50	-	50	1
12.	PC	PI18PC218EC	Seminar – II	-	-	2	-	50	-	50	1
				21	**-**	**10**	**-**	**520**	**480**	**1000**	**24**

DEPARTMENTOF ELECTRONICS AND COMMUNICATIONS ENGINEERING
SCHEME OF INSTRUCTION AND EXAMINATION FOR
M.E (ECE) EMBEDDED SYSTEMS AND VLSI DESIGN
III and IV -SEMESTERS w.e.f. 2018-19 under CBCS

S. No	Category	Course code	Course Title	Scheme of Instruction			Scheme of Examination			Total	Credits
				L	T	P	Duration in Hrs	CIE	SEE		
III – SEMESTER											
1.	OE	PI18OE3XXXX	Open Elective	3	-	-	3	40	60	100	3
2.	PE	PI18PE3X0EC	Professional Elective - VI	3	-	-	3	40	60	100	3
3.	PW	PI18PW319EC	Dissertation-Phase-I / Internship	-	-	8	-	100	-	100	4
			Total	**6**	**-**	**8**	**-**	**180**	**120**	**300**	**10**
IV - SEMESTER											
1.	PW	PI18PW419EC	Dissertation-Phase-II / Internship	-	-	24	-	Viva-Voce (Grade)			**12**

S.No.	Course Code	Course	Hours per week
Professional Core Courses			
1.	PI18PC240ME	Research Methodology and IPR	2
2.	PI18PC110EC	**Core – I:** Embedded Systems Design	3
3.	PI18PC120EC	**Core – II:** Digital IC Design	3
4.	PI18PC130EC	**Core – III:** Analog IC Design	3
5.	PI18PC210EC	**Core – IV:** Embedded Real Time Operating Systems	3
6.	PI18PC220EC	**Core – V:** Mixed Signal IC Design	3
7.	PI18PC230EC	**Core – VI:** Physics of Semiconductor Devices	3
8.	PI18PC111EC	Design and Simulation Laboratory-I	3
9.	PI18PC121EC	Embedded Systems Laboratory	3
10.	PI18PC211EC	Design and Simulation Laboratory –II	3
11.	PI18PC212EC	Embedded Systems Application Laboratory	3
12.	PI18PW219EC	Mini Project	2
13.	PI18HS200EH	Skill Development Course	2
14.	PI18PC118EC	Seminar – I	2
15.	PI18PC218EC	Seminar – II	2
16.	PI18PW319EC	Dissertation-Phase-I / Internship	8
17.	PI18PW419EC	Dissertation-Phase-II / Internship	24
Professional Electives			
Elective – I			
17.	PI18PE110EC	Advanced Computer Organization	3
	PI18PE120EC	System on Chip Architecture	3
	PI18PE130EC	Electromagnetic Interference & Compatibility	3
Elective – II			
18.	PI18PE140EC	VLSI Technology	3
	PI18PE150EC	System Design and Reliability	3
	PI18PE160EC	Reconfigurable System Design	3
Elective – III			
19.	PI18PE170EC	VLSI Physical Design	3
	PI18PE180EC	Hardware-Software Co-design	3
	PI18PE190EC	Scripting Languages for Embedded Systems	3
Elective – IV			
20.	PI18PE210EC	Low Power VLSI Design	3
	PI18PE220EC	Principles of VLSI System Design	3
	PI18PE230EC	Low Power Embedded Systems Design	3

Elective – V			
21.	PI18PE240EC	CPLD & FPGA Architectures and Applications	3
	PI18PE250EC	MEMS	3
	PI18PE260EC	RFIC Design	3
Elective – VI			
22.	PI18PE310EC	Design for Testability	3
	PI18PE320EC	Integrated Optics & Photonic Systems	3
	PI18PE330EC	High Level Synthesis	3
Audit Course – I			
23.	PI18AC110EH	English for Research Paper Writing	2
	PI18AC120XX	Value Education	2
	PI18AC130XX	Stress Management by Yoga	2
	PI18AC140XX	Sanskrit for Technical Knowledge	2
Audit Course –II			
24.	PI18AC210EH	Pedagogy Studies	2
	PI18AC220XX	Personality Development through Life Enlightenment Skills.	2
	PI18AC230XX	Constitution of India	2
	PI18AC240XX	Disaster Management	2
Open Electives			
25.	PI18OE310XX	Business Analytics	3
	PI18OE320XX	Industrial Safety	3
	PI18OE330XX	Operations Research	3
	PI18OE340XX	Cost Management of Engineering Projects	3
	PI18OE350XX	Composite Materials	3
	PI18OE360XX	Waste to Energy	3

DEPARTMENTOF ELECTRONICS AND COMMUNICATIONS ENGINEERING
SCHEME OF INSTRUCTION AND EXAMINATION FOR
M.E (ECE) Communication Engineering and Signal Processing
I-SEMESTER w.e.f. 2018-19 under CBCS

S.No.	Category	Course code	Course Title	Scheme of Instruction			Scheme of Examination			Total	Credits
				L	T	P	Duration of SEE in Hrs	CIE	SEE		
Theory											
1.	AC	PI18AC110EH	Audit course-I: English for Research Paper Writing	2	-	-	3	40	60	100	-
2.	PC	PII18PC110EC	**Core – I:** Advanced Digital Signal Processing	3	-	-	3	40	60	100	3
3.	PC	PII18PC120EC	**Core – II:** Advanced Digital Modulation Techniques	3	-	-	3	40	60	100	3
4.	PC	PII18PC130EC	**Core – III:** Image and Video Processing	3	-	-	3	40	60	100	3
5.	PE	PII18PE1X0EC	Professional Elective - I	3	-	-	3	40	60	100	3
6.	PE	PII18PE1X0EC	Professional Elective - II	3	-	-	3	40	60	100	3
7.	PE	PII18PE1X0EC	Professional Elective - III	3	-	-	3	40	60	100	3
Laboratory											
8.	PC	PII18PC111EC	Advanced Signal Processing Laboratory	-	-	3	-	50	-	50	1.5
9.	PC	PII18PC121EC	Embedded Systems Laboratory	-	-	3	-	50	-	50	1.5
10.	PC	PII18PC118EC	Seminar – I	-	-	2	-	50	-	50	1
				20	**-**	**8**	**-**	**430**	**420**	**850**	**22**

DEPARTMENTOF ELECTRONICS AND COMMUNICATIONS ENGINEERING
SCHEME OF INSTRUCTION AND EXAMINATION FOR
M.E (ECE) Communication Engineering and Signal Processing
II-SEMESTER w.e.f. 2018-19 under CBCS

S.No.	Category	Course code	Course Title	Scheme of Instruction			Scheme of Examination			Total	Credits
				L	T	P	Duration of SEE in Hrs	CIE	SEE		
Theory											
1.	AC	PI18AC210EH	Audit course-II: : Pedagogy Studies	2	-	-	3	40	60	100	-
2.	PC	PI18PC240ME	Research Methodology and IPR	2	-	-	3	40	60	100	2
3.	HS	PI18HS200EH	Skill Development Course	2	-	-	3	40	60	100	2
4.	PC	PII18PC210EC	**Core–IV:** Coding Theory and Techniques	3	-	-	3	40	60	100	3
5.	PC	PII18PC220EC	**Core–V:** Wireless Communications and Networking	3	-	-	3	40	60	100	3
6.	PC	PII18PC230EC	**Core–VI:** Microcontrollers and DSP Processors - Architecture	3	-	-	3	40	60	100	3
7.	PE	PII18PE2X0EC	Professional Elective – IV	3	-	-	3	40	60	100	3
8.	PE	PII18PE2X0EC	Professional Elective – V	3	-	-	3	40	60	100	3
Laboratory											
9.	PC	PII18PC211EC	Communication Systems Simulation Laboratory	-	-	3	-	50	-	50	1.5
10.	PC	PII18PC212EC	DSP Processors Applications Laboratory	-	-	3	-	50	-	50	1.5
11.	PW	PII18PW219EC	Mini Project	-	-	2	-	50	-	50	1
12.	PC	PII18PC218EC	Seminar – II	-	-	2	-	50	-	50	1
				21	**-**	**10**	**-**	**520**	**480**	**1000**	**24**

DEPARTMENTOF ELECTRONICS AND COMMUNICATIONS ENGINEERING
SCHEME OF INSTRUCTION AND EXAMINATION FOR
M.E (ECE) Communication Engineering and Signal Processing
III and IV-SEMESTER w.e.f. 2018-19 under CBCS

III – SEMESTER											
1.	OE	PII18OE3XXXX	Open Elective	3	-	-	3	40	60	100	3
2.	PE	PII18PE3X0EC	Professional Elective – VI	3	-	-	3	40	60	100	3
3.	PW	PII18PW319EC	Dissertation-Phase-I / Internship	-	-	8	-	100	-	100	4
				6	**-**	**8**	**-**	**180**	**120**	**300**	**10**
IV - SEMESTER											
1.	PW	PII18PW419EC	Dissertation-Phase-II / Internship	-	-	24	-	Viva-voce (Grade)			**12**

S.No.	Course Code	Course	Hours per week
Professional Core Courses			
1	PII18PC240ME	Research Methodology and IPR	2
2	PII18PC110EC	**Core – I:** Advanced Digital Signal Processing	3
3	PII18PC120EC	**Core – II:** Advanced Digital Modulation Techniques	3
4	PII18PC130EC	**Core – III:** Image and Video Processing	3
5	PII18PC210EC	**Core – IV:** Coding Theory and Techniques	3
6	PII18PC220EC	**Core – V:** Wireless Communications and Networking	3
7	PII18PC230EC	**Core – VI:** Microcontrollers and DSP Processors – Architecture	3
8	PII18PC111EC	Advanced Signal Processing Laboratory	3
9	PII18PC121EC	Embedded Systems Laboratory	3
10	PII18PC211EC	Communication Systems Simulation Laboratory	3
11	PII18PC212EC	DSP Processors Applications Laboratory	3
12	PII18PW219EC	Mini Project	2
13	PII18HS200EH	Skill Development Course	2
14	PII18PC118EC	Seminar – I	2
15	PII18PC218EC	Seminar – II	2
16	PII18PW319EC	Dissertation-Phase-I / Internship	8
17	PII18PW419EC	Dissertation-Phase-II / Internship	24
Professional Electives			
Elective – I			
17	PII18PE110EC	Network Security and Cryptography	3
	PII18PE120EC	Data and Computer Communication Networks	3
	PII18PE130EC	Soft Computing Techniques	3
Elective – II			
18	PII18PE140EC	Audio and Speech Signal Processing	3
	PII18PE150EC	Bio-Medical Signal Processing	3
	PII18PE160EC	Wavelets & Applications	3
Elective – III			
19	PII18PE170EC	Adaptive Signal Processing	3
	PII18PE180EC	Array Signal Processing	3
	PII18PE190EC	Radar Signal Processing	3
Elective – IV			
20	PII18PE210EC	Data Compression Methods	3
	PII18PE220EC	CODECS for Multimedia Applications	3
	PII18PE230EC	Advanced Optical Communication	3

Elective – V			
21	PII18PE240EC	Global Navigational Satellite Systems	3
	PII18PE250EC	Advanced Wireless Communication	3
	PII18PE260EC	Smart Antennas for Mobile Communications	3
Elective – VI			
22	PII18PE310EC	MIMO Communication Systems	3
	PII18PE320EC	Spread Spectrum and CDMA Systems	3
	PII18PE330EC	Software Defined and Cognitive Radio	3
Audit Course – I			
23.	PII18AC110EH	English for Research Paper Writing	2
	PII18AC120XX	Value Education	2
	PII18AC130XX	Stress Management by Yoga	2
	PII18AC140XX	Sanskrit for Technical Knowledge	2
Audit Course –II			
24.	PII18AC210EH	Pedagogy Studies	2
	PII18AC220XX	Personality Development through Life Enlightenment Skills.	2
	PII18AC230XX	Constitution of India	2
	PII18AC240XX	Disaster Management	2
Open Electives			
25.	PII18OE310XX	Business Analytics	3
	PII18OE320XX	Industrial Safety	3
	PII18OE330XX	Operations Research	3
	PII18OE340XX	Cost Management of Engineering Projects	3
	PII18OE350XX	Composite Materials	3
	PII18OE360XX	Waste to Energy	3

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING
SCHEME OF INSTRUCTION AND EXAMINATION FOR
M.E (EEE) Power Systems and Power Electronics
I-SEMESTER w.e.f. 2018-19 under CBCS

S.No	Course Code	Name of the Course	Scheme of Instruction Hours per week			Scheme of Examination			Credits
			L	T	P	Duration in Hrs	Max. Marks		
	THEORY						CIE	SEE	
1	PI18AC110EH	Audit Course I: English for Research Paper Writing	2	-	-	3	40	60	-
2	PI18PC110EE	Advanced Computer Methods in Power Systems	3	-	-	3	40	60	3
3	PI18PC120EE	Power Electronics Converters	3	-	-	3	40	60	3
4	PI18PC130EE	Application of Power Electronics to Power Systems	3	-	-	3	40	60	3
5	PI18PC140EE	Power System Stability	3	-	-	3	40	60	3
6	PI18PE1XXEE	Professional Elective (from Power Systems Stream)	3	-	-	3	40	60	3
7	PI18PE1XXEE	Professional Elective (from Power Electronics Stream)	3	-	-	3	40	60	3
	LABS								
8	PI18PC111EE	Computer Simulation Lab	-	-	3	3	50	-	1.5
9	PI18PC121EE	Power Electronics & DSP Lab	-	-	3	3	50	-	1.5
10	PI18PC118EE	Seminar I	-	-	2	-	50	-	1
			20	**-**	**8**		**430**	**420**	**22**
			28				**850**		

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING
SCHEME OF INSTRUCTION AND EXAMINATION FOR
M.E (EEE) Power Systems and Power Electronics
II-SEMESTER w.e.f. 2018-19 under CBCS

S.No	Course Code	Name of the Course	Scheme of Instruction Hours per week			Scheme of Examination			Credits
			L	T	P	Duration in Hrs	Max. Marks		
	THEORY						**CIE**	**SEE**	
1	PI18AC210EH	Audit Course-II: Pedagogy Studies	2	-	-	3	40	60	-
2	PI18PC240ME	Research Methodology & IPR	2	-	-	3	40	60	2
3	PI18HS200EH	Skill Development Course	2	-	-	3	40	60	2
4	PI18PC210EE	Power Electronics Controlled Electric Drives	3	-	-	3	40	60	3
5	PI18PC220EE	Distribution System Planning & Automation	3	-	-	3	40	60	3
6	PI18PE2XXEE	Professional Elective (from Power Systems Stream)	3	-	-	3	40	60	3
7	PI18PE2XXEE	Professional Elective (from Power Systems & Power Electronics Stream)	3	-	-	3	40	60	3
8	PI18PE2XXEE	Professional Elective (from Power Electronics Stream)	3	-	-	3	40	60	3
	LABS								
9	PI18PC211EE	Power Systems & Power Electronics Lab	-	-	3	3	50	-	1.5
10	PI18PC221EE	Programmable Logic Controller & Applications Lab	-	-	3	3	50	-	1.5
11	PI18PC218EE	Seminar – II	-	-	2	-	50	-	1
12	PI18PW219EE	Mini Project	-	-	2	-	50	-	1
		Total	**21**	**-**	**10**		**520**	**480**	**24**

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING
SCHEME OF INSTRUCTION AND EXAMINATION FOR
M.E (EEE) Power Systems and Power Electronics
III and IV SEMESTERS w.e.f. 2018-19 under CBCS

S.No	Course Code	Name of the Course	Scheme of Instruction			Scheme of Examination			Credits
			Hours per week						
			L	T	P	Duration in Hrs	Max. Marks		
	THEORY						CIE	SEE	
1	PI18OE3XXXX	Open Elective	3	0	0	3	40	60	3
2	PI18PE3XXEE	Professional Elective	3	0	0	3	40	60	3
	LABS								
3	PI18PW319EE	Dissertation-Phase I / Internship	0	0	8	-	100	-	4
		Total	**6**	**0**	**8**		**180**	**120**	**10**
IV-SEMESTER w.e.f. 2018-19 under CBCS									
1	PI18PW419EE	Phase II Dissertation / Internship	0	0	24		Viva-Voce (Grade)		**12**
		Total			**24**				**12**

CORE SUBJECTS		
1	PI18PC110EE	Advanced Computer Methods in Power Systems
2	PI18PC120EE	Power Electronic Converters
3	PI18PC130EE	Application of Power Electronics to Power Systems
4	PI18PC140EE	Power System Stability
5	PI18PC210EE	Power Electronics Controlled Electric Drives
6	PI18PC220EE	Distribution System Planning & Automation
PROFESSIONAL ELECTIVES POWER SYSTEMS		
1	PI18PEX10EE	Advanced Synchronous Machine Theory
2	PI18PEX20EE	Advanced Power System Protection
3	PI18PEX30EE	Real Time Applications in Power Systems
4	PI18PEX40EE	High Voltage D.C. Transmission
5	PI18PEX50EE	Renewable Energy Sources
6	PI18PEX60EE	Reliability Modeling in Power Systems
7	PI18PEX70EE	Energy Management
8	PI18PEX80EE	AI Applications to Power Systems
9	PI18PEX90EE	High Voltage Engineering
10	PI18PEX14EE	Distributed generation and micro grids
11	PI18PEX24EE	Power System Analysis
12	PI18PEX34EE	AI Techniques
13	PI18PEX44EE	Digital Protection of Power Systems
14	PI18PEX54EE	Electrical Power Distribution System
15	PI18PEX64EE	Wind and Solar Systems
16	PI18PEX74EE	Smart Grid Technologies

PROFESSIONAL ELECTIVES POWER ELECTRONICS		
1	PI18PEX94EE	Power Semi-Conductor Devices Circuits
2	PI18PEX15EE	Machine Modeling and Analysis
3	PI18PEX25EE	Power Quality Engineering
4	PI18PEX35EE	Advanced topics in Power Electronics
5	PI18PEX45EE	Switched Mode power conversion
6	PI18PEX55EE	PWM converters and applications

7	PI18PEX65EE	Digital controllers in Power Electronics Applications
8	PI18PEX75EE	Static Control of Electric Drives
9	PI18PEX85EE	Application of Micro controllers to Power electronics
10	PI18PEX95EE	Power Electronic Control of DC Drives
11	PI18PEX16EE	Power Electronic Control of AC Drives
12	PI18PEX26EE	Digital Control of Power Electronics and Drive systems
13	PI18PEX36EE	SCADA Systems and Applications
14	PI18PEX46EE	Electric and Hybrid Vehicles
15	PI18PEX56EE	Electric Drive Systems
16	PI18PEX66EE	Static VAR Controllers and Harmonic Filtering

OPEN ELECTIVES		
1	PI18OE710XX	Business Analytics
2	PI18OE720XX	Industrial Safety
3	PI18OE730XX	Operations Research
4	PI18OE740XX	Cost Management of Engineering Projects
5	PI18OE750XX	Composite Materials
6	PI18OE760XX	Waste to Energy
AUDIT COURSES I & II		
1	PI18AC110EH	**English for Research Paper Writing**
2	PI18ACX20XX	Disaster Management
3	PI18ACX30XX	Sanskrit for Technical Knowledge
4	PI18ACX40XX	Value Education
5	PI18ACX50XX	Constitution of India
6	PI18AC210EH	Pedagogy Studies
7	PI18ACX70XX	Stress Management by Yoga
8	PI18ACX80XX	Personality Development through Life Enlightenment Skills
PROFESSIONAL ELECTIVES (COMMON TO POWER SYSTEMS & POWER ELECTRONICS)		
1	PI18PEX76EE	Advanced Microprocessors Systems
2	PI18PEX86EE	Digital Control Systems
3	PI18PEX96EE	Programmable Logic Controllers & Applications
4	PI18PEX17EE	Modern Control Theory
5	PI18PEX27EE	Microcontrollers

DEPARTMENT OF MECHANICAL ENGINEERING
SCHEME OF INSTRUCTION AND EXAMINATION FOR
M.E (MECH) Advanced Design & Manufacturing
I-SEMESTER w.e.f. 2018-19 under CBCS

S. No	Course Code	Course Title	Scheme of Instruction Hours per week			Scheme of Examination			
			L	T	P	Duration in Hrs	Max.Marks CIE	Max.Marks SEE	Credits
Theory									
1	PI18AC110EH	Audit Course- I: English for Research Paper writing	2	-	-	3	40	60	0
2	PI18PC110MA	Mathematical Methods for Engineers	3	-	-	3	40	60	3
3	PI18PC100ME	Metal Cutting and Forming	3	-	-	3	40	60	3
4	PI18PC110ME	Computer Integrated Design and manufacturing	3	-	-	3	40	60	3
5	PI18PE1X0ME	Professional Elective -1	3	-	-	3	40	60	3
6	PI18PE1X4ME	Professional Elective -2	3	-	-	3	40	60	3
7	PI18PE1X5ME	Professional Elective -3	3	-	-	3	40	60	3
Laboratory									
8	PI18PC111ME	Computer Aided Modelling and Assembly Laboratory	-	-	3	3	50	-	1.5
9	PI18PC121ME	Advanced Manufacturing Laboratory	-	-	3	3	50	-	1.5
10	PI18PC118ME	Seminar I	-	-	2	-	50	-	1
		Total	**20**	**-**	**8**		**430**	**420**	**22**
		Grand Total	**28**				**850**		

DEPARTMENT OF MECHANICAL ENGINEERING
SCHEME OF INSTRUCTION AND EXAMINATION FOR
M.E (MECH) Advanced Design & Manufacturing
II-SEMESTER w.e.f. 2018-19 under CBCS

S. No	Course Code	Course Title	Scheme of Instruction			Scheme of Examination			
			Hours per Week			Duration	Maximum Marks		Credits
			L	T	P	in Hrs	CIE	SEE	
Theory									
1	PI18AC210EH	Audit Course-II: Pedagogy Studies	2	-	-	3	40	60	0
2	PI18PC240ME	Research Methodology and IPR	2	-	-	3	40	60	2
3	PI18HS200EH	Skill Development Course	2	-	-	3	40	60	2
4	PI18PC210ME	Design for Manufacture and assembly	3	-	-	3	40	60	3
5	PI18PC220ME	Metallurgy of Metal Casting and Welding	3	-	-	3	40	60	3
6	PI18PC230ME	Computer Aided Mechanical Design and Analysis	3	-	-	3	40	60	3
7	PI18PE2X0ME	Professional Elective – 4	3	-	-	3	40	60	3
8	PI18PE2X4ME	Professional Elective – 5	3	-	-	3	40	60	3
Labs									
9	PI18PC231ME	Vibration Analysis Laboratory	-	-	3	-	50	-	1.5
10	PI18PC241ME	Computer Aided Simulation Laboratory	-	-	3	-	50	-	1.5
11	PI18PC218ME	Seminar - II	-	-	2	-	50	-	1
12	PI18PW219ME	Mini Project	-	-	2	-	50	-	1
		Total	**21**	**-**	**10**		**520**	**480**	**24**
		Grand Total	**31**				**1000**		
Foundation Classes : 3 Hours& CCA : 2 Hours									

DEPARTMENT OF MECHANICAL ENGINEERING
SCHEME OF INSTRUCTION AND EXAMINATION FOR
M.E (MECH) Advanced Design & Manufacturing
III and IV SEMESTERS w.e.f. 2018-19 under CBCS

III- SEMESTER									
S. No	**Course Code**	**Course Title**	**Scheme of Examination**			**Scheme of Examination**			
			Hours per Week			**Duration in Hrs**	**Maximum Marks**		**Credits**
			L	**T**	**P**		**CIE**	**SEE**	
Theory									
1	PI18OE3XXXX	Open Elective	3	0	0	3	40	60	3
2	PI18PE3X5ME	Professional Elective – 6	3	0	0	3	40	60	3
LABS									
3	PI18PW319ME	Dissertation – Phase I / Internship	0	0	8	-	100	-	4
		Total	**6**	**-**	**8**		**180**	**120**	**10**
		Grand Total	**14**				**300**		
IV-SEMESTER									
1	PI18PW419ME	Dissertation - Phase II / Internship	0	0		24	-	Viva-Voce (Grade)	12
		Total	0	0		24			12
		Grand Total	24						

AC: Audit Courses		
S. No.	**Course Code**	**Course Title**
1	PI18AC110EH	English for Research Paper Writing
2	PI18AC120XX	Value Education
3	PI18AC130XX	Stress Management by Yoga
4	PI18AC140XX	Sanskrit for Technical Knowledge
5	PI18AC210EH	Pedagogy Studies
6	PI18AC220XX	Personality Development through Life Enlightenment Skills
7	PI18AC230XX	Constitution of India
8	PI18AC240XX	Disaster Management

OE: Open Electives		
S. No.	**Course Code**	**Course Title**
1	PI18OE310XX	Business Analytics
2	PI18OE320XX	Industrial Safety
3	PI18OE330ME	Operations Research
4	PI18OE340XX	Cost Management of Engineering Projects
5	PI18OE350ME	Composite Materials
6	PI18OE360XX	Waste to Energy

PE: Professional Electives		
Professional Elective-I (Design Group)		
1	PI18PE100ME	Mechanical Vibrations
2	PI18PE110ME	Advanced Kinematics
3	PI18PE120ME	Robotic Engineering
Professional Elective-II (Manufacturing Group)		
1	PI18PE130ME	Flexible Manufacturing systems
2	PI18PE140ME	Quality and Reliability Engineering
3	PI18PE150ME	An Introduction to Nano Science and Technology
Professional Elective-III (Analysis Group)		
1	PI18PE160ME	Finite Element Techniques
2	PI18PE170ME	Experimental Techniques and Data Analysis
3	PI18PE180ME	Fracture Mechanics
Professional Elective-IV (Design Group)		
1	PI18PE200ME	Theory of Elasticity and Plasticity
2	PI18PE210ME	Tribology in Design
3	PI18PE220ME	Mechanics of Composite materials
Professional Elective-V (Manufacturing Group)		
1	PI18PE230ME	Advanced Non Destructive Evaluation Techniques
2	PI18PE240ME	Additive Manufacturing
3	PI18PE250ME	Mechatronics
Professional Elective-VI (Analysis Group)		
1	PI18PE300ME	Optimization Techniques
2	PI18PE310ME	Advanced Finite Element Analysis
3	PI18PE320ME	Computational Fluid Dynamics