VELAGAPUDI RAMAKRISHNA
SIDDHARTHA ENGINEERING COLLEGE
(AUTONOMOUS)
VIJAYAWADA – 520 007

Minutes of the 26th Meeting of the College Academic Council held at **10.30 AM** on **21-11-2020 i.e Saturday (through digital mode)** of Velagapudi Ramakrishna Siddhartha Engineering College, (Autonomous), Vijayawada – 7.

Dr.A.V.Ratna Prasad, Principal of the College & Chairman, Academic Council, chaired the meeting and extended a warm welcome to the members participated.

Members Participated:

1.	Dr.A.V.Ratna Prasad Principal, VRSEC	Chairman
2.	Dr.R.Srinivasa Rao Director, Academic Planning, JNTUK	University Nominee
3.	Dr. L. Sumalatha Professor in CSE Department Director of Evaluation, JNTUK, Kakinada	University Nominee
4.	Dr.V.V.Subba Rao Principal, JNTU College of Engineering, Narasaraopet	University Nominee
5.	Dr. N. Siva Prasad, Pro-Vice Chancellor, Gitam School of Technology Hyderabad, Telangana	Expert -Education
6.	Sri.D. Ramakrishana MD. Efftronics Systems Pvt. Ltd., Vijayawada	Expert - Industry
7.	Sri.J.S.R.K.Prasad MD., Better Castings, Vijayawada	Expert – Industry
8.	Sri. Ch. Janaki Ram Prasad Kakinada	Expert - Industry
9.	Dr.B.Pandu Ranga Rao Dean, Student Affairs	Member
10.	Dr.Ch.Srinivas Prof. of CE & HOD	Member
11.	Dr.D.Rajeswara Rao Prof. of CSE & HOD	Member
12.	Dr.P.V.R.L.Narasimham Prof. of EEE & HOD	Member
13.	Dr.G.N.Swamy Prof of EIE & HOD	Member

14.	Dr.M.Suneetha Prof. of IT & HOD	Member
15.	Dr.N.Vijaya Sai Prof. of ME & HOD	Member
16.	Dr.A.Ratnakar Prof. of Chemistry & HOD I/c I year B.Tech	Member
17.	Dr.K.Ramchandra Prof. of English & HOD	Member
18.	Dr.Ch.Baby Rani Asso. Prof. of Maths & HOD	Member
19.	Dr.G.Sri Devi Asso. Prof. of Physics & HOD	Member
20.	Dr.V.Narasimha Rao Prof. & HOD of MBA	Member
21.	Sri. K. Anji Reddy Sr. Asst.Prof & I/c. HOD of MCA	Member
22.	Dr.B.Srinivasa Rao Prof. of EEE	Teacher Member
23.	Dr.M.Padmaja Prof. of ECE	Teacher Member
24.	Dr.S.Srinivasa Rao Asso. Prof. of Chemistry	Teacher Member
25.	Dr.B.L.N.Phanindra Kumar Asst. Prof. of IT	Teacher Member
26.	Dr.P.V.Subbaiah Prof., I/c HOD ECE & COE	Member Secretary

Members Not Participated:

1.	Sri.K V R Raju, Chief Project Manager, RVNL, Vijayawada.	Expert – Industry
2.	Sri Ch.Sripathi Rao, Advocate Vijayawada	Expert – Law
3.	Dr.N.N.Sastry Dean, R & D	Member
4.	Dr.K.Mohana Rao Former Director, VRSEC	Expert –Education
5.	Sri. P. Ravi Kumar Vijayawada	Expert - Industry

The following agenda items were discussed and deliberated upon

Item-1. To confirm the minutes and report the action taken on the minutes of the previous Academic Council meeting held on 15-06-2020.

Academic Council confirmed the following minutes of the previous meeting and approved the action taken on the minutes of the last meeting held on 15-06-2020.

Confirmed:

- B.Tech 7th, 8th , M.Tech, MBA & MCA 3rd and 4th semesters curriculum.
- Minutes of Boards of Studies meetings held in May/June 2020.
- Results of B.Tech, M.Tech, MBA, MCA 1st and 3rd semesters.

Information presented:

- NIRF 156th Rank
- Academic and other important activities and events of the college from Jan 2020 to May 2020.
- Placement details of A.Y 2019-20

Action Taken Report:

- ✓ ***Continuous Evaluation tests, class work of even semester for A. Y 2019-20 planned as per JNTUK guidelines in view of COVID-19.***
- ✓ ***B.Tech VIII, MBA IV semester end examinations were conducted and remaining semester end examinations of all programmes are being conducted as per JNTUK guidelines in view of COVID-19.***
- ✓ ***Required infrastructure is provided for conducting online classes in view of COVID-19.***

Item-2. To consider and approve the submission of application to AICTE for introduction of emerging courses in UG programme (B.Tech) w.e.f. 2021-22.

Dr.A.V.Ratna Prasad, Principal informed the academic council, the introduction of emerging courses in UG programme (B.Tech) w.e.f. 2021-22 as per the guidelines of AICTE.

- ✓ ***After thorough discussions the academic council unanimously approved to submit an application to AICTE for introduction of the following emerging courses in UG programme (B.Tech) w.e.f. 2021-22 with an intake of 60 per each course.***

Name of the course	Intake	Offered by
Computer Science and Engineering & Business Systems	60	CSE
Computer Science & Engineering (Artificial Intelligence & Machine learning)	60	IT

Item-3. To consider & approve the submission of application to AICTE for discontinuation of one section each in two UG programmes (B.Tech) and one PG programme (M. Tech) w.e.f. 2021-22.

Dr. A.V.Ratna Prasad, Principal informed the academic council, it is proposed to reduce in intake in Civil Engineering , Mechanical Engineering of UG (B.Tech) & CAD CAM of PG (M. Tech) w.e.f. 2021-22 in view of less number of admissions for the last two years .

✓ ***After thorough discussions the academic council unanimously approved to submit an application to AICTE for discontinuation of one section each in two UG programmes (B.Tech) and one PG programme (M. Tech) w.e.f. 2021-22 as per the following table.***

S.No	Name of the Course	Existing Intake	Applying for reduction in Intake
1.	Civil Engineering (B.Tech)	180	60
2.	Mechanical Engineering (B.Tech)	180	60
3.	M.Tech CAD/CAM	18	18

Item-4. To consider and approve the academic regulations and curriculum (VR 20) of B.Tech course to be implemented w.e.f. 2020-21 academic year.

Dr. A.V.Ratna Prasad, Principal presented the following important academic regulations of B.Tech, curriculum & scheme of instructions for first year of B.Tech and course structure for the remaining three years (VR 20) to be implemented w.e.f. 2020-21 academic year for approval.

He informed that the academic regulations, curriculum and scheme are discussed in the combined BOS meeting held on 18-11-2020. The suggestions of subject experts and the guidelines of APSCHE are taken into consideration in preparing the curriculum of first year B.Tech and academic regulations (VR20).

ACADEMIC REGULATIONS:

- **Curriculum Structure**

Category	VR20
Humanities and Social Sciences (HS), including Management	11.5
Basic Sciences(BS) including Mathematics, Physics, Chemistry, Biology	22.5
Engineering Sciences (ES), including Materials, Workshop, Drawing, Basics of Electrical/ Electronics / Mechanical/Computer Engineering, Instrumentation	22.5 ± 2
Professional-Core (PC), relevant to the chosen specialization/branch	50 ± 3
Professional – Electives (PE), relevant to the chosen specialization/ branch	15 ± 3
Open Electives (OE), from other technical and/or emerging subject areas	12 ± 2
Project Work, Seminar and/or Internship in Industry or elsewhere	16.5
Mandatory Courses (MC) – Induction Program, Technology and Society Professional Ethics Environmental Studies, Indian Constitution Biology for Engineers, Student Practice Courses	Non-Credit 02
Mandatory Courses : Skill Oriented Courses and Soft Skill Courses	10
Total Credits	160

Credit Representation:

Credit is measured in terms of contact hours per week in a semester.

(a) One credit is given to theory or tutorial conducted for one contact period.

(b) One credit is given to laboratory course conducted for two contact periods.

Credit Allocation / Number of courses:

S No	Category of Courses	VR 20 Curriculum (Proposed)
1	No. of Credits	160+5(MC)+2(SPC)
2	Soft Skills	04 One Credit Courses
3	Skill/Job Oriented	06 Credits
4	Professional Electives	05 Electives ± 01
5	Open Electives/ Institutional Electives/ Self Learning Electives	04 Electives ± 01 * Self Learning : 02 (5th & 7th Semester)
6	Project Work/ Summer Internship	EPICS(Design/Simulation/Prototype) / Summer Internship (6 Weeks) Summer Internship (6 Weeks) Min/Major Project work/Long Internship (Semester long)

Grading System for Individual theory / lab / project:

Theory	Lab/Project	Grade Points	Letter Grade
90% and above	90% and above	10	Ex
80 to < 90%	80 to < 90%	9	A+
70 to < 80%	70 to < 80%	8	A
60 to < 70%	60 to < 70%	7	B
50 to < 60%	55 to < 60%	6	C
40 to < 50%	50 to < 55%	5	D
< 40%	< 50%	0	F (Fail)
ABSENT	ABSENT	0	AB

Award of Division for Entire Program

CGPA	DIVISION
≥7.75	First Class with distinction*
≥6.75	First Class
≥5.75 - <6.75	Second Class
≥5.00 - < 5.75	Pass Class
<5	Fail

Award of First class with Distinction: Awarded only if all the credit courses prescribed are cleared in **single attempt** with in four years for regular candidates and three years for lateral entry candidates.

Conversion of CGPA into equivalent percentage as follows:

Equivalent Percentage = (CGPA – 0.75) x 10

Conditions for Promotion to higher semesters :

- A regular student shall be promoted from semester - IV to semester - V only if he fulfils the academic requirements of 50% credits up to IV semester (excluding Mandatory Courses)
- A regular student shall be promoted from semester - VI to semester - VII only if he fulfils the academic requirements of 50% credits up to VIth semester (excluding Mandatory Courses)
- For lateral entry students 50% credits up to VIth semester (excluding Mandatory Courses)

Eligibility for Semester End Examinations :

- Minimum average attendance of 75% in all the courses computed by totaling the number of periods including Mandatory Courses.
- Condonation of shortage in attendance may be recommended by respective Heads of Departments on genuine medical grounds, provided the student puts in at least 65% attendance as calculated above and provided the Principal is satisfied with the genuineness of the reasons and the conduct of the student.
- A student is eligible to write the University examinations if he /she acquires a minimum of 40% in each subject and 75% of attendance in aggregate of all the subjects.
- Minimum of 50% aggregate marks must be secured by the candidates in the internal examinations conducted for theory, practice and lab courses (excluding Mandatory Courses) to be eligible to write semester end examinations.
- However, if the student is eligible to write the semester end examinations based on the attendance, in case necessary, a shortage of internal marks up to a maximum of 10% may be condoned by the Principal based on the recommendations of the Heads of the Departments.
- A student, who does not satisfy the attendance and /or continuous evaluation marks requirement, shall have to repeat that semester.

Eligibility for Award of B.Tech Degree :

Regular Students:

a) A Regular student (four year programme) should register and secure **160 Credits** from all the categories of courses.

b) Student shall earn **2 Credits** from the category Student Practice Courses (Co-curricular, NSS, NCC, Games & Sports, Art & Cultural. Etc.,)

c) Also students shall acquire satisfactory level in the category of Mandatory Courses.

   - Credits earned through **b & c** will not contribute for the calculation of CGPA.

Lateral Entry Students:

a. A Lateral Entry student (Three year programme) should register and secure himself/ herself 121 Credits from all the categories of courses.
   Student shall earn 2 Credits from the category Student Practice Courses (Co-curricular, NSS, NCC, Games & Sports, Art & Cultural. Etc.,)
b. Also students shall acquire satisfactory level in the category of Mandatory Courses.
   - Credits earned through **b & c** will not contribute for the calculation of CGPA.

Conditions for Pass:

- A candidates shall be declared to have passed in individual theory / drawing course if he / she secures a minimum of 40% aggregate marks (Continuous Evaluation & Semester End Examination marks put together). Subject to a minimum of 35% marks in semester end examination.

- A candidate shall be declared to have passed in individual laboratory course / project if he / she secures a minimum of 50% aggregate marks (Continuous Evaluation & Semester End examination marks put together), subject to a minimum of 40% marks in semester end examination.

- A candidate shall be declared to have passed in internship / industry offered course / global certification if he /she secures a minimum of 50% aggregate marks.

Scheme of Instructions for first year B.Tech:

GROUP A (CSE, ECE, EIE, IT)

SEMESTER I **CONTACT HOURS: 25**

S. No	Course Code	Course	Subject	L	T	P	Credits
1.	20MA1101	Basic Science Course	Matrices and Differential Calculus	3	0	0	3
2.	20PH1102 (A) /1202(A) 20PH1102 (B) 20PH1202 (C)	Basic Science Course	Engineering Physics(ECE, EIE, EEE) Applied Physics(CSE,IT) Physics for Engineers(CE, ME)	3	0	0	3

3.	20CS1103	Engineering Science Course	Programming for Problem Solving	3	0	0	**3**
4.	20EE1104	Engineering Science Course	Basics of Electrical Engineering	3	0	0	**3**
5.	20HS1105	Humanities and Social Science	Technical English and Communication Skills	2	0	0	**2**
6.	20PH1151 (A)/1251(A) 20PH1151 (B) 20PH1251 (C)	Basic Science Course	Engineering Physics Laboratory(ECE,EIE,EEE) Engineering Physics Laboratory(CSE,IT) Engineering Physics Laboratory(CE,ME)	0	0	3	**1.5**
7.	20CS1152	Engineering Science Course	Programming for Problem Solving laboratory.	0	0	3	**1.5**
8.	20HS1153	Humanities and Social Science	Technical English and Communication Skills Laboratory	0	0	3	**1.5**
9.	20CS1154	Engineering Science Course	Computing and Peripherals Laboratory	0	0	2	**1**
Total Credits				**14**	**0**	**11**	**19.5**
10.	20MC1106A	Technology and Society		1	0	0	-
11.	20MC1107	Induction Program					-

Category	**Credits**
Basic Science Course	3+3+1.5 = 7.5
Engineering Science Course	3+3+1.5+1 = 8.5
Humanities and Social Science	2+1.5=3.5
TOTAL CREDITS	**19.5**

SEMESTER II **CONTACT HOURS: 26**

S. No	Course Code	Course	Subject	L	T	P	Credits
1.	20MA1201	Basic Science Course	Laplace Transforms and Integral Calculus	3	0	0	**3**
2.	20CH1202	Basic Science Course	Engineering Chemistry	3	0	0	**3**
3.	20CS1203	Engineering Science Course	object oriented programming	3	0	0	**3**

4.	20EC1204A 20EC1204B 20EI1204	Engineering Science Course	Basic Electronics Engineering (CSE/IT) Electronic Devices (ECE) Network Theory (EIE)	3	0	0	**3**
5.	20ME1205	Engineering Science Course	Engineering Graphics	1	0	4	**3**
6.	20CH1251	Basic Science Course	Engineering Chemistry Laboratory	0	0	3	**1.5**
7.	20CS1252	Engineering Science Course	Object Oriented Programming Lab	0	0	3	**1.5**
8.	20ME1253	Engineering Science Course	Engineering Workshop	0	0	3	**1.5**
Total Credits				**13**	**0**	**13**	**19.5**
9.	20MC1206A	Professional Ethics and Practice		1	0	0	-

Category	**Credits**
Basic Science Course	3+3+1.5 = 7.5
Engineering Science Course	3+3+3+1.5+1.5 = 12
TOTAL CREDITS	**19.5**

GROUP B (CE, EEE, ME)

SEMESTER I **CONTACT HOURS: 26**

S. No	**Course Code**	**Course**	**Subject**	**L**	**T**	**P**	**Credits**
1.	20MA1101	Basic Science Course	Matrices and Differential Calculus	3	0	0	**3**
2.	20CH1102	Basic Science Course	Engineering Chemistry	3	0	0	**3**
3.	20CS1103	Engineering Science Course	Programming for Problem Solving	3	0	0	**3**
4.	20CE1104 20EE1104 20ME1104	Engineering Science Course	Introduction to Civil Engineering (CE) Mechanics for Engineers (EEE) Engineering Mechanics – I (ME)	3	0	0	**3**

5.	20ME1105	Engineering Science Course	Engineering Graphics	1	0	4	**3**
6.	20CH1151	Basic Science Course	Engineering Chemistry Laboratory	0	0	3	**1.5**
7.	20CS1152	Engineering Science Course	Programming for Problem Solving lab	0	0	3	**1.5**
8.	20ME1253	Engineering Science Course	Engineering Workshop	0	0	3	**1.5**
Total Credits				**13**	**0**	**13**	**19.5**
9.	20MC1106A	Technology and Society		1	0	0	-
10.	20MC1107	Induction Program					-

Category	**Credits**
Basic Science Course	3+3+1.5 = 7.5
Engineering Science Course	3+3+3+1.5+1.5 = 12
TOTAL CREDITS	**19.5**

SEMESTER II **CONTACT HOURS: 25**

S.No	**Course Code**	**Course**	**Subject**	**L**	**T**	**P**	**Credits**
1.	20MA1201	Basic Science Course	Laplace Transforms and Integral Calculus	3	0	0	**3**
2.	20PH1102(A)/1202(A) 20PH1102(B) 20PH1202(C)	Basic Science Course	Engineering Physics(ECE, EIE, EEE) Applied Physics(CSE,IT) Physics for Engineers(CE, ME)	3	0	0	**3**
3.	20CS1203	Engineering Science Course	Object Oriented Programming	3	0	0	**3**
4.	20CE1204 20EE1204 20ME1204	Engineering Science Course	Engineering Mechanics (CE) Network Analysis (EEE) Engineering Mechanics – II (ME)	3	0	0	**3**

5.	20HS1205	Humanities and Social Science	Technical English and Communication Skills	2	0	0	**2**
6.	20PH1151(A)/1251(A) 20PH1151(B) 20PH1251(C)	Basic Science Course	Engineering Physics Laboratory(ECE,EIE,EEE) Engineering Physics Laboratory(CSE,IT) Engineering Physics Laboratory(CE,ME)	0	0	3	**1.5**
7.	20CS1252	Engineering Science Course	Object Oriented Programming lab	0	0	3	**1.5**
8.	20HS1253	Engineering Science Course	Technical English and Communication Skills Lab	0	0	3	**1.5**
9	20CS1254	Engineering Science Course	Computing and Peripherals Laboratory	0	0	2	**1**
Total Credits				**14**	**0**	**11**	**19.5**
10.	20MC1206B	Professional Ethics and Practice		1	0	0	-

Category	**Credits**
Basic Science Course	3+3+1.5 = 7.5
Engineering Science Course	3+3+1.5+1.5+1 = 10
Humanities and Social Science	2
TOTAL CREDITS	**19.5**

SEMESTER III **CONTACT HOURS: 30**

S.No	Course Code	Course	Subject	L	T	P	Credits
1	20MA1301	Basic Science Course		3	0	0	3
2	20XX3302	Professional Core		3	0	0	3
3	20XX3303	Professional Core		3	0	0	3
4	20XX3304	Professional Core		3	0	0	3
5	20XX3305	Professional Core		3	0	0	3
6	20XX3351	Professional Core Lab 1		0	0	3	1.5
7	20XX3352	Professional Core Lab 2		0	0	3	1.5
8	20XX333	Professional Core Lab 3		0	0	3	1.5
9.	20XX5306	**Skill oriented course**		**0**	**0**	**2**	**1**
10.	20TP1306	**Soft Skills – 1 (Logic and Reasoning)**		**0**	**0**	**2**	**1**
11.	20MC1407A/ 20MC1407B	MC (AICTE suggested)	Environmental Studies(CSE/ECE/IT) Indian	2	0	0	-

			Constitution(EIE)				
			Total Credits	**17**	**0**	**13**	**21.5**

Category	Credits
Basic Science Course	3
Professional Core Courses	16.5
Skill oriented course	2
TOTAL CREDITS	**21.5**

SEMESTER IV **CONTACT HOURS: 34**

S.No	Course Code	Course	Subject	L	T	P	Credits
1.	20MA1401	Basic Science/Professional Core		3	0	0	3
2.	20XX3402	Engineering Science Course		3	0	0	3
3.	20 XX3403	Professional Core		3	0	0	3
4.	20 XX3404	Professional Core		3	0	0	3
5.	20HS3405	Humanities and Social Sciences		3	0	0	3
6.	20XX3451	Engineering Sciences/ Professional Core Lab1		0	0	3	1.5
7.	20XX3452	Professional Core Lab 2		0	0	3	1.5
8.	20XX3453	Professional Core Lab 3		0	0	3	1.5
9.	20XX5406	**Skill oriented course**		**0**	**0**	**2**	**1**
10.	20TP1405	**Soft Skills – 2 (English for Professionals)**		**0**	**0**	**2**	**1**
11	20MC1407B/ 20MC1407A	MC (AICTE suggested)	Indian Constitution(CSE/ECE/IT) Environmental Studies(EIE)	**2**	**0**	**0**	-
EPICS	**Summer Internship six weeks (Mandatory) during summer vacation**						
Honors/Minor Courses (the hours distribution can be 3-0-2 0r 3-1-0 also)				**4**	**0**	**0**	**4**
Total Credits				**21**	**0**	**13**	**21.5**

Category	Credits
Basic Science Course	3
Professional Core Courses	9
Engineering Science Course	4.5
Skill oriented course	2
Humanities and Social Science	3
TOTAL CREDITS	**21.5**

SEMESTER V **CONTACT HOURS: 31**

S.No	Course Code	Course	Subject	L	T	P	Credits
1	20XX3501	Professional Core		3	0	0	3
2	20XX 3502	Professional Core		3	0	0	3
3	20XX 3503	Professional Core		3	0	0	3
4	20XX2504	Open Elective Courses/Job oriented elective		2	0	2	3
5	20XX4505	Professional Elective Courses		3	0	0	3
6	20XX3551	Professional Core Lab 1		0	0	3	1.5
7	20XX3552	Professional Core Lab 2		0	0	3	1.5
8	**20XX5504**	**Skill Advanced course/Soft skill Course**		**0**	**0**	**2**	**1**
9	**20TP1506**	**Soft Skills – 3 Personality Development**		**0**	**0**	**2**	**1**
10.	20MC1508A	Mandatory Course (AICTE suggested)	Biology for Engineers	**2**	**0**	**0**	-
EPICS	**Summer Internship six weeks (Mandatory) after Second Year (to be evaluated during V Semester)**			**0**	**0**	**0**	**1.5**
			Total	**20**	**0**	**12**	**21.5**
Honors/Minor Courses (the hours distribution can be 3-0-2 0r 3-1-0 also)				**4**	**0**	**0**	**4**

Note: **Open Elective Courses may opt as self-learning course. Students register and complete the opted course in approved MOOCS platform on or before last instruction day of V Semester. They have to submit the certificate before the last instruction day of V semester**

SEMESTER VI **CONTACT HOURS:31**

S.No	Course Code	Course	Subject	L	T	P	Credits
1	20XX3601	Professional Core		3	0	0	3
2	20XX3602	Professional Core		3	0	0	3
3	20XX3603	Professional Core		3	0	0	3
4	20XX4604	Professional Elective Courses		3	0	0	3
5	20XX2605	Open Elective Courses/Job oriented elective		2	0	2	3
6	20XX3651	Professional Core Lab 1		0	0	3	1.5
7	20XX3652	Professional Core Lab 2		0	0	3	1.5
8	20XX3653	Professional Core Lab 3		0	0	3	1.5
9	**20XX5606**	**Skill Advanced course/Soft skill Course**		**0**	**0**	**2**	**1**
10.	**20TP1507**	**Soft Skills –4 Quantitative Aptitude**		**0**	**0**	**2**	**1**
		Mandatory Course (AICTE suggested)		2	0	0	0
Industrial/Research Internship six weeks (Mandatory) during summer vacation							
			Total	**16**	**0**	**15**	**21.5**
	Honors/Minor Courses (the hours distribution can be 3-0-2 0r 3-1-0 also)			**4**	**0**	**0**	**4**

Category	Credits
Professional Core Courses	13.5
Professional Elective Courses	3
Open Elective Course/Job Oriented Elective	3

Category	Credits
Professional Core Courses	12
Professional Elective Courses	3
Open Elective Course/Job Oriented Elective	3
Skill Advanced course/Soft skill Course	2
Mandatory Course (AICTE)	0
Summer Internship	1.5
TOTAL CREDITS	**21.5**
Skill Advanced course/Soft skill Course	2
Mandatory Course (AICTE)	0
Industrial/Research Internship (Mandatory) 2 Months	
TOTAL CREDITS	**21.5**

SEMESTER VII CONTACT HOURS:23

S.No	Course Code	Course	Subject	L	T	P	Credits
1	20XX3701	Professional Elective		3	0	0	3
2	20XX3702	Programme Elective		3	0	0	3
3	20XX3703	Programme Elective		3	0	0	3
4	20XX2704	Open Elective Courses/Job oriented elective		2	0	2	3
5	20XX2705	Open Elective Courses/Job oriented elective		2	0	2	3
6	20HS1706	*** Humanities and Social Science Elective**		3	0	0	3
7	**20XX5707**	**Skill Advanced course/Soft skill Course**		1	0	2	2
8	**Industrial/Research Internship six weeks (Mandatory) after 3rd year (to be evaluated during VII Semester)**			**0**	**0**	**0**	**1.5**
	Mini Project			**0**	**0**	**3**	**1.5**
Total				**17**	**0**	**6**	**23**
Honors/Minor Courses (the hours distribution can be 3-0-2 0r 3-1-0 also)				**4**	**0**	**0**	**4**

***There is a provision for the Universities/Institutions to implement AICTE mandatory course**

" Universal Human Values 2: Understanding Harmony" under Humanities and Social Science Elective in Seventh Semester for 3 Credits

Note: Open Elective Courses may opt as self-learning course. Students register and complete the opted course in approved MOOCS platform on or before last instruction day of VII Semester. They have to submit the certificate before the last instruction day of VII semester

Category	Credits
Professional Elective Courses	9
Open Elective Course/Job Oriented Elective	6
Humanities and Social Science Elective	3
Skill Advanced course/Soft skill Course	2
Industrial/Research Internship	3
TOTAL CREDITS	**23**

SEMESTER VIII **CONTACT HOURS: 12**

S.No	Course Code	Course	Subject	L	T	P	Credits
1	20XX6851	Major Project**	Project work	0	0	0	12
Internship(6 Months)							
			Total	12			

Dr. N. Siva Prasad, Pro-Vice Chancellor, Gitam School of Technology, Hyderabad, suggested to inter change the Problem Solving Methods using Python and Programming in C courses in first year B.Tech.

Dr.V.V.Subba Rao, Principal, JNTU College of Engineering, Narasaraopet, suggested to introduce both Problem Solving Methods using Python and Programming in C courses in first semester of first year B.Tech.

Sri. D. Ramakrishna, MD, Efftronics, Vijayawada, suggested to include application oriented topics in first year B.Tech Mathematics syllabus. The syllabus needs to be modified as per requirement of industry 4.0, further he suggested to introduce **"innovation"** related subjects in new regulation.

- ✓ ***After thorough discussions the academic council unanimously approved Academic Regulations of B.Tech (VR20) and Scheme of instructions, curriculum of first year B.Tech and tentative course structure for the remaining three years to be implemented w.e.f 2020-21, after incorporating the suggestions given by experts.***

Item-5. To Consider and approve academic regulations & curriculum of MCA two year course to be implemented w.e.f. 2020-21 academic year.

Dr. A.V.Ratna Prasad, Principal presented the following important academic regulations and curriculum and scheme of instructions of two year MCA course (MCA20) to be implemented w.e.f. 2020-21 academic year for approval.

MCA 20 Regulations

- Duration of the MCA Programme is 2 years w.e.f 2020-21 as per AICTE guidelines.
- It consists of 4 semesters and 83 credits.
- The student shall have to complete all the courses and earn total 83 credits for the award of degree.

Distribution of Credits:

S.No	Courses	No of credits
1	Humanities, Mathematics and Science Courses	**6.5**
2	Professional Courses	**63**
3	Mini Project and Major Project	**13.5**
4	Personality development courses	**Mandatory and non-credit courses**

Scheme of Evaluation:

Theory (100 Marks)		
Continuous Evaluation	Semester End Exam	
Sessional Exam	Comprehensive / Project based Assignment	
25	15	60

Laboratory /Practical (100 Marks)		
Continuous Evaluation	Semester End Exam	
Continuous Assessment	Record	Exam
10	10	20

Mini Project (100 Marks)		
Continuous Evaluation	Semester End Exam	
Continuous Assessment	Two Reviews	
10	30 (15 + 15)	60

Major Project (100 Marks)		
Continuous Evaluation	Semester End Exam	
Continuous Assessment	Three Reviews	
10	30 (10+10+10)	60

Eligibility for appearing Semester End Examination

- Student should meet a minimum average attendance of 75% in all the courses computed by totaling the number of periods of lectures, tutorials, practicals, projects and personality development courses.
- Condonation of shortage in attendance may be recommended by Head of the Department on genuine medical grounds, provided the student puts in at least 65% attendance as calculated above and provided the Principal is satisfied with the genuineness of the reasons and the conduct of the student.
- A student is eligible to write the University examinations if he /she acquires a minimum of 40% in each subject and 75% of attendance in aggregate of all the subjects.
- Minimum of 50% aggregate marks must be secured by the candidates in the internal examinations conducted for theory, lab and project courses to be eligible to write semester end examinations.
- A student, who does not satisfy the attendance and /or continuous evaluation marks requirement, shall have to repeat that semester.

Examination and Scheme of Evaluation

- The performance of the candidate in each semester shall be evaluated subject-wise, with a maximum of 100 Marks for Theory and 100 Marks for Laboratory on the basis of continuous evaluation tests and Semester Examination.
- Continuous assessment for theory as well as laboratory courses evaluated for 40 Marks.
- Semester end examinations for theory as well as laboratory courses evaluated for 60 Marks.

1. Conditions for Pass and Award of Degree

1. A candidate shall be declared to have passed in individual theory course if he/she secures a min. of 50% aggregate marks (Internal Exam & Semester End Exam Marks put together), subject to a minimum of 40% marks in semester end examination.
2. A candidate shall be declared to have passed in individual lab/project course if he/she secures a min. of 50% aggregate marks (Internal & semester end exam marks put together), subject to a min. of 50% marks in semester end examination.
3. The MCA Degree shall be conferred on a candidate who has satisfied the following requirements:
    1. A student should register himself for 83 credits and should obtain all the 83 credits in order to become eligible for the award of MCA Degree.
    2. Student should attain **satisfactory level of performance** in Personality Development Course.

2. Grading System for Individual Theory/Lab/Project.

Theory	Lab/Project	Grade Points	Letter Grade
90% and above	90% and above	10	Ex
80 to < 90%	80 to < 90%	9	A+
70 to < 80%	70 to < 80%	8	A
60 to < 70%	60 to < 70%	7	B
50 to < 60%	55 to < 60%	6	C
40 to < 50%	50 to < 55%	5	D
< 40%	< 50%	0	F (Fail)
ABSENT	ABSENT	0	AB

- **CRITERIA FOR THE AWARD OF DIVISION**

CGPA	DIVISION
≥7.75	First Class with distinction*
≥6.75	First Class
≥5.75 - <6.75	Second Class
≥5.00 - < 5.75	Pass Class
<5	Fail

Conversion of CGPA into equivalent percentage as follows:

Equivalent Percentage = (CGPA – 0.75) x 10

- **Course Structure – MCA20 Regulations**

Semester	Total number of Credits
I	21.5
II	22.0
III	21.5
IV	18.0
Total Credits	83

Scheme of Instructions: **SEMESTER – I**

S. No.	Subject Code	Subject Title	L	T	P	C	CE	SE	Tot
1	20MCA2101	Data Structures	3	1	-	4	40	60	100
2	20MCA2102	Database Management Systems	3	1	-	4	40	60	100
3	20MCA1103	Discrete Mathematics	3	-	-	3	40	60	100
4	20MCA2104	Computer Networks	3	-	-	3	40	60	100
5	20MCA2105	Operating Systems	3	-	-	3	40	60	100
6	20MCA2151	Data Structures Using C Lab	-	-	3	1.5	40	60	100
7	20MCA2152	Database Management Systems Lab	-	-	3	1.5	40	60	100
8	20MCA1153	Professional Communication Skills Lab	-	-	3	1.5	40	60	100
9	20MCA4154	Personality Development Course (Logical Reasoning and English for Professionals)	-	-	2	0	100	-	100
			15	2	11	**21.5**	420	480	900

- **SEMESTER – II**

S. No.	Subject Code	Subject Title	L	T	P	C	CE	SE	Tot
1	20MCA2201	Python Programming	3	-	-	3	40	60	100
2	20MCA2202	Object Oriented Programming through Java	3	1	-	4	40	60	100
3	20MCA2203	Software Engineering	3	-	-	3	40	60	100
4	20MCA2204	Data Mining	3	1	-	4	40	60	100
5	20MCA2205	**Program Elective – I** A: Design and analysis of Algorithms B: Artificial Intelligence C: Cryptography & Network Security D: Information Retrieval Systems	3	-	-	3	40	60	100
6	20MCA2251	Python Programming Lab	-	-	3	1.5	40	60	100
7	20MCA2252	Object Oriented Programming Through Java Lab	-	-	3	1.5	40	60	100
8	20MCA2253	Statistics with R Programming Lab	-	1	2	2	40	60	100
9	20MCA4254	Personality Development Course (Aptitude and Campus Recruitment Training)	-	-	2	0	100	-	100
			15	3	10	22	420	480	900

- **SEMESTER – III**

S. No.	Subject Code	Subject Title	L	T	P	C	CE	SE	Tot
1	20MCA2301	Machine Learning with Python	3	1	-	4	40	60	100
2	20MCA2302	**Program Elective - II**	3	1	-	4	40	60	100
3	20MCA2303	**Program Elective - III**	3	-	-	3	40	60	100
4	20MCA2304	Industrial Management	3	-	-	3	40	60	100
5	20MCA2305	Cloud Computing	3	-	-	3	40	60	100
6	20MCA2351	Machine Learning with Python Lab	-	-	3	1.5	40	60	100
7	20MCA2352	**Program Elective - II Lab**	-	-	3	1.5	40	60	100
8	20MCA3353	Mini Project	-	-	3	1.5	40	60	100
			15	2	9	**21.5**	320	480	800

- **SEMESTER –IV**

S. No.	Subject Code	Subject Title	L	T	P	C	CE	SE	Tot
1	20MCA2401	**Program Elective-IV**	3	-	-	3	40	60	100
2	20MCA2402	**Program Elective- V**	3	-	-	3	40	60	100
3	20MCA3453	**Major Project**	--	-	24	12	40	60	100
			6	-	24	**18**	120	180	300

✓ ***After thorough discussions the academic council unanimously approved MCA academic regulations (MCA20), four semesters scheme of instructions, curriculum for first and second semesters and course structure to be implemented w.e.f 2020-21.***

Item-6. To Consider to continue in two year MCA Course w.e.f. 2020-21 for the candidates who detained due to lack of attendance in MCA first year (three year Course) in the academic year 2019-20.

Dr.A.V.Ratna Prasad, Principal requested to grant permission to continue in two year MCA Course w.e.f. 2020-21 for the candidates who detained due to lack of attendance/ continuous evaluation marks in MCA first year under three year Course for the academic year 2019-20.

- ✓ ***The academic council unanimously approved the proposal presented by the Principal to continue in two year MCA course w.e.f 2020-21 for the candidates who detained due to lack of attendance or any other reason in MCA first year (3 years course) in the academic year 2019-20.***

Item-7. To consider and approve the strategic plan of the college for the years 2020- 25.

Dr. A.V. Ratna Prasad, Principal presented the following strategic plan of the college for the years 2020- 25.

STRATEGIC goals

1. EXCELLENCE IN LEARNING AND TEACHING ENVIRONMENT

S. No	Key Performance Indicator	2015	2020	2025
1	Success rate of students to higher semester (Pass Percentage I Year to II Year)	70%	75%	80%
2	Placement rate	47%	70%	90%
3	Placement with Package >= 5 Lakhs (Employment in top-notch companies, such as Amazon, Microsoft, Cisco, Deloitte, etc. with attractive packages.)	15	100+	250
4	Enrolment / Success rate in higher education entrance examinations	10%	15%	20%

2. EXCELLENCE IN R & D

S. No	Key Performance Indicator	2015	2020	2025
5	Faculty with Ph.Ds	50	130	250
	Faculty with Post doctoral fellowship	--	03	15
	Quality Publications (SCI, Scopus, IEEE)	50	250	500
	Patents Granted	--	02	20
	Funded Research Grant in lakhs / year	87.63	77.14	100
6	Consultancy from each department(other than Civil Engineering)	--	1.29 lakhs	10 lakhs /year
7	Accreditation of Programs by NBA	2 yrs – 100%	3+3 years – 85% (UG)	PG-100% UG-100%
	NAAC	3.17 (NAAC)	>3.5	> 3.5
8	NIRF (National Ranking)	--	156	75-100 ranking
9	Atal Ranking of Institutions on Innovation Achievements (ARIIA)	--	Rank between 6 to 25 in the category of Private or self financed institutes	Within **top 25** among self-financed Engineering Colleges in India.

Sri. J S R K Prasad, suggested to incorporate the startups and entrepreneurships in key performance indicators.

- ✓ ***After thorough discussions the academic council approved the proposed KPIs of the strategic plan of the college for the years 2020-2025 presented by the Principal and also resolved to incorporate the suggestion given by Sri J S R K Prasad, Industry Expert.***

Item-8. To Present the information w.r.t conduct of pending semester end examinations of B.Tech, M. Tech, MBA & MCA for the academic year 2019-20 & promotion policy 2020-21 for ratification.

Dr.A.V.Ratna Prasad, Principal presented the information w.r.t conduct of pending semester end examinations of B.Tech, M. Tech, MBA & MCA for the academic year 2019-20 & promotion policy 2020-21 for ratification.

Schedules for Exams : 2019-20

S.No	Name of the Exam	Exam dates
1	B.Tech VIII Semester	14-09-2020 to 19-09-2020
2	B.Tech VI Semester	31-10-2020 to 11-11-2020
3	B.Tech IV Semester	16-11-2020 to 29-11-2020
4	B.Tech II Semester	30-11-2020 to 11-12-2020
5	MCA VI Semester	24-08-2020 to 27-08-2020
6	MCA IV Semester	06-10-2020 to 14-10-2020
7	MBA IV Semester	14-09-2020 to 28-09-2020
8	M.Tech IV Semester	29-09-2020 to 14-10-2020
9	M.Tech / MBA / MCA II Semester	31-10-2020 to 13-11-2020

Promotion Policy to B.Tech- 5th /7th semesters for the academic year 2020-21.

- Permission to promote all the students of B.Tech 4th and 6th semesters to next higher semester in the academic year 2020-21 by complying the following without credits requirement, in view of COVID-19.
- The total attendance shall be finalized considering the physical attendance up to the lockdown period (19-03-2020) and taking 100% online attendance during the online class work period.
- This promotion policy is applicable to the students to be studied in A.Y. 2020-21 only and for subsequent years i.e. for A.Y. 2021-22 onwards promotion Policy will be as per VR17 regulations.
- It will be applicable to students who studied B.Tech 4th / 6th semesters and secured minimum attendance in the academic year 2019-20 and the students who appeared B.Tech 4th/ 6th semester end examinations but not promoted to B.Tech 5th / 7th semesters due to lack of minimum number of credits prior to the academic year 2020-21.

✓ ***The academic council ratified the action taken by the college for conduct of the above semester end examinations & Promotion Policy to B.Tech- 5th /7th semesters for the academic year 2020-21.***

Item-9. To Present the academic and other important activities & events of the college from June 2020 to October 2020.

Dr.A.V.Ratna Prasad, Principal presented the following academic and other important activities & events of the college from June 2020 to October 2020.

- R & D projects
- Details of patents
- Publications
- Continuing education programs organized
- Faculty participation in continuing education programs
- Achievements of the students
- Job oriented training programs conducted
- Ph.D awarded

Item-10. To consider and approve the B.Tech 8th , M.Tech 4th , MBA 4th & MCA 6th Semester results for the academic year 2019-20 & results of supplementary examinations B.Tech, M. Tech, MBA & MCA held in October / November 2019.

Dr.A.V.Ratna Prasad, Principal presented the B.Tech 8th , M.Tech 4th , MBA 4th & MCA 6th Semester results for the academic year 2019-20 & results of supplementary examinations of B.Tech, M. Tech, MBA & MCA held in October / November 2019.

Regular : 2019-20

- B.Tech 8th semester – 97.58%
- M.Tech 4th semester – 77.78%
- MBA 4th semester – 98.21%
- MCA 6th semester – 100%

Supplementary :

B.Tech :	2015-19
M.Tech	2017-19
MBA	2017-19
MCA	2016-19

The following table gives the number of students who have completed their course i.e. B.Tech/ M. Tech/ MBA/MCA by passing their backlogs in supplementary examinations of B.Tech 1 to 7, M. Tech 1 & 2, MBA 1 to 4, MCA 1 to 5 semesters held in October / November 2019.

BRANCH	FIRST CLASS	SECOND CLASS	PASS CLASS	TOTAL
CE	05	08	01	14
CSE	01	04	--	05
ECE	04	14+1*	--	18+01*
EEE	01	03	--	04
EIE	01	06	01	08
IT	03	01	--	04
ME	01	04	--	05
EEPS	01	--	--	01
ECSP	02	--	--	02
METE	04	--	--	04
MBA	01			01
MCA	02			02
TOTAL	**26**	**40+01***	**02**	**68+01***

* Betterment option cancelled student (158W1A04F8)

✓ ***It is resolved to ratify the results of B.Tech 8th , M.Tech 4th , MBA 4th & MCA 6th Semester results for the academic year 2019-20 & results of supplementary examinations of B.Tech, M. Tech, MBA & MCA held in October / November 2019, presented by the principal***

Item-11. To Consider and approve the B. Tech, M. Tech, MBA & MCA Academic Calendar of the academic year 2020-21.

Dr. A.V.Ratna Prasad, Principal informed that the class work (online) for B.Tech 2nd , 3rd , 4th years, MBA, MCA & M.Tech 2nd years and MCA 3rd year have already been started as per the directions of JNTUK. Recently APSCHE has given guidelines and academic calendar for offline class work and schedule of examinations and requested opinion of the members.

✓ ***After thorough discussions it is resolved to follow the academic calendar issued by APSCHE for conducting class work and semester end examinations for all programmes for the academic year 2020-21 considering the expectations of the industry who have recruited students of final year B.Tech for joining the employment while conducting examinations for 8th semester.***

Item-12. To Consider and approve the minutes of BOS meetings of MCA held in November, 2020.

Dr.A.V.Ratna Prasad, Principal presented the following points approved by BOS for ratification

- Academic Regulations and Scheme of Instruction (I to IV Semesters) of Two Year MCA Programme w.e.f 2020-21(MCA20 Regulations).
- Curriculum of I and II Semesters of Two Year MCA Programme w.e.f. from 2020-21(MCA20 Regulations).

✓ ***It is resolved to ratify the minutes of MCA BOS held in November 2020.***

Item-13. To Present the Placements of current Academic Year 2020-2021 as on 31.10.2020.

Dr. A.V.Ratna Prasad, Principal presented the Placements of current Academic Year 2020-2021 as on 31.10.2020.

Total number of placements:	252
• 3.6 to 4 LPA :	175
• 4 to 6 LPA :	17
• 6 to 8 LPA :	22
• 8 to 10 LPA :	24
• 10 to 20 LPA :	14

Item-14. To Present the Status of conducting class work and continuous evaluation tests for UG and PG programmes for the academic year 2020-21 in view of COVID – 19 for ratification.

Dr. A.V.Ratna Prasad, Principal presented the Status of conducting class work and continuous evaluation tests for UG and PG programmes for the academic year 2020-21 in view of COVID – 19 for ratification and **academic council ratified the same.**

Item-15. Any other point with the permission of the Chairman.

a) Dr.A.V.Ratna Prasad, Principal, presented the following Amendments to B.Tech Academic Regulation (VR17)

1. **MOOCs (Item 7.2.5 of VR17 Regulations)**

- The students can learn the courses offered under self learning category on their own through MOOCs platform.

- It is proposed that students shall undergo 2 credit courses for 8 weeks duration or 30 hours and 3 credit courses for 12 weeks duration or 45 hours duration subjected to approval of BOS.

2. **CBCS (Item 8 of VR17 Regulations)**

Flexibility is extended to the fast learning students to take the courses of higher semester in advance.

- Eligibility for students:
  - Regular – CGPA ≥ 7.0 up to (n-2) semester
  - Lateral entry – 70% marks in their diploma

✓ ***It is resolved to approve the above two amendments to B.Tech Academic Regulations (VR17).***

a) Principal informed that Ms. Ravipalli Aamani (168W1A10B3) student of B.Tech EIE branch who transferred from VNRVJIET in 2017-18 to VRSEC – has fallen short of 4 credits for the award of the degree. She secured 196 out of 200. She missed to complete Institutional Elective course during V semester.

Approval is requested to complete the institutional Elective course in MOOCs platform to enable her complete the course to secure 4 credits as she has not completed.

✓ ***It is resolved to permit the student to complete the institutional elective course carrying 4 credits in 5th semester of B.Tech through MOOCs platform with 12 weeks duration in order to complete her degree with 200 credits.***

Dr. A.V.Ratna Prasad, Principal of the college & Chairman, College Academic Council thanked all the members for their active participation.

(Dr. P.V. SUBBAIAH)
Member Secretary,
College Academic Council &
COE

V.R.SIDDHARTHA ENGINEERING COLLEGE ★ VIJAYAWADA 520 007

(Dr. A.V.RATNA PRASAD)
Chairman,
College Academic Council &
PRINCIPAL