RAO BAHADUR Y.MAHABALESWARAPPA ENGINEERING COLLEGE (Formerly VIJAYANAGAR ENGINEERING COLLEGE)

Electronics & Communication Engg.

Part A : Institutional Information

1   Name and Address of the Institution

RAO BAHADUR Y.MAHABALESWARAPPA ENGINEERING COLLEGE (Formerly VIJAYANAGAR ENGINEERING COLLEGE),
PRINCIPAL,RAO BAHADUR Y.MAHABLESWARAPPA ENGINEERING COLLEGE,CANTONMENT,BELLARY-583104

2   Name and Address of Affiliating University

3   Year of establishment of the Institution:

1980,1994

4   Type of the Institution:

☐ University	☐ Autonomous
☐ Deemed University	☑ Affiliated
☐ Government Aided	

5   Ownership Status:

☐ Central Government	☐ Trust
☐ State Government	☐ Society
☐ Government Aided	☐ Section 25 Company
☑ Self financing	☐ Any Other(Please Specify)

6   Other Academic Institutions of the Trust/Society/Company etc., if any:

Name of Institutions	Year of Establishment	Programs of Study	Location
Veerasaiva College,	1945	PUC, Degree	Bellary
Smt. Allum Sumangalamma Memorial women's College	1969	PUC, Degree	Bellary
Vijayanagara College,	1964	PUC, Degree	Hospet
Kottureswara College,	1967	Degree	Kottur
Gangavathi Bhagyamma Rural College,	1970	Degree	Huvinahadagali
Ambli Dodda Bharamappa First Grade College,	1972	Degree	Harapanahalli
Rao Bhahadur Y Mhabaleswarappa Engg. College,	1980	Engineering	Bellary
Prodadevaraya Institute of Technology, TB Dam Rd,	1997	Engineering	Hospet
Hanagal Kumaraswamy Polytechnic,	1997	Diploma	Bellary
Allum Karibasappa Institute of Management	1998	(MBA)	Bellary
Vunki Sanna Rudrappa Law College,	1975	Law	Bellary

Togari Veeramallappa Memorial college of Pharmacy,	1985	Pharmacy	Bellary
Kotturswamy College of Education,	1963	TCH	Bellary
Sha Babulal Bhavarilal Nahar College, of Education,	2004	Degree	Hospet
Setra Gurushanthappa Pre University College ,	1942	High School, PUC	Bellary
Kittur Rani Channamma Girls High School, Bellary	1993	Primary and High School	Bellary
Haraginadoni Basavanagouda Pre University College, Kudithini	1963	Primary to PUC	Kuduthini
Vijayanagar Comp. Pre University T.B.P Munirabad	1963	PUC, Degree	Munirabad
Kinnalu Poramambe Gurusiddappa High School, Tambrahalli	1968	High School, PUC	Tambrahalli
Akki Basamma Thotappa Pre University College, Tambrahalli	1997	PUC	Tambrahalli
Sha Sheshaji Hastimal Jain Pre University College, Harapanahalli	1999	PUC	Harapanahalli
V.V.Sangha High School, Harapanahalli	2006	High School, PUC	Harapanahalli
Vivekananda Public School, Siruguppa	1993	Primary and High School	Siruguppa
Deshanur Sadashivareddy High School, Deshanuru	1999	Primary and High School	Deshanur
V.V.Sangha's Independent P U College, Bellary	2010	PUC	Bellary
Heerada Sugamma Higher Primary School , Bellary	1924	Primary and Higher Primary	Bellary
Silver Jublee Memorial Higher Primary School, Bellary	2014	Nursery and Primary	Bellary
Vunki Marisiddamma Primary School, Bellary	1975	Nursery and Primary	Bellary
Gandharva Sangeetha Vidyalaya, Bellary	2006	Music	Bellary
S.K. Modi National School	2014	Nursery to High School	Bellary
Kinder's Garden School	2019	Nursery	Bellary
V V Sangha Public School	2018	Primary and High SChool	Hospet
V.V. Sangha Independent PU College	2015	PUC	Hagribommanahalli
V.V. Sangha Kindergarden Schhol	2014	Nursery and Primary	Hagribommanahalli
V.V. Sangha Kindergarden Schhol	2014	Nursery and Primary	Munirabad

7 Details of all the programs being offered by the institution under consideration:

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
Electronics & Communication Engineering	UG	1983	1983	40	Yes	120	Applying first time	--	--	Yes	4
Digital Communication and Networking	PG	2013	2013	18	No	18	Eligible but not applied	--	--	No	2

8 Programs to be considered for Accreditation vide this application:

S No	Level	Discipline	Program
1	Under Graduate	Engineering & Technology	Civil Engg.
2	Under Graduate	Engineering & Technology	Electronics & Communication Engg.
3	Under Graduate	Engineering & Technology	Mechanical Engg.

9   Total number of employees in the institution:

A. Regular* Employees (Faculty and Staff):

Items	2018-19		2017-18		2016-17	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	139	145	134	143	144	148
Faculty in Engineering (Female)	34	39	36	41	38	38
Faculty in Maths, Science & Humanities (Male)	11	11	11	11	11	11
Faculty in Maths, Science & Humanities (FeMale)	7	7	7	7	7	7
Non-teaching staff (Male)	145	149	144	149	142	149
Non-teaching staff (FeMale)	4	5	5	5	5	5

B. Contractual* Employees (Faculty and Staff):

Items	2018-19		2017-18		2016-17	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	0	0	0	0	0	0
Faculty in Engineering (Female)	0	0	0	0	0	0
Faculty in Maths, Science & Humanities (Male)	0	0	0	0	0	0
Faculty in Maths, Science & Humanities (FeMale)	0	0	0	0	0	0
Non-teaching staff (Male)	8	8	8	8	5	5
Non-teaching staff (FeMale)	7	7	7	7	5	5

10   Total number of Engineering Students:

Engineering and Technology- UG	☑ Shift1	☐ Shift2
Engineering and Technology- PG	☑ Shift1	☐ Shift2
Engineering and Technology- Polytechnic	☐ Shift1	☐ Shift2
MBA	☑ Shift1	☐ Shift2
MCA	☐ Shift1	☐ Shift2

Engineering and Technology- UG Shift-1

Items	2018-19	2017-18	2016-17
Total no. of Boys	1388	1408	1673
Total no. of Girls	925	998	1110
Total	**2313**	**2406**	**2783**

Engineering and Technology- PG Shift-1

Items	2018-19	2017-18	2016-17
Total no. of Boys	47	52	61
Total no. of Girls	31	31	34
Total	**78**	**83**	**95**

Engineering and Technology- MBA Shift-1

Items	2018-19	2017-18	2016-17
Total no. of Boys	55	49	24
Total no. of Girls	54	33	27
Total	**109**	**82**	**51**

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11 Vision of the Institution:

"To Produce Professionally Excellent, Knowledgeable, Globally Competitive and Socially Responsible Engineers and Entrepreneurs"

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12 Mission of the Institution:

M1: To provide quality education in Engineering and Management.

M2: To establish a continuous Industry Institute Interaction, Participation and Collaboration to contribute skilled Engineers.

M3: To develop Human values, Social values, Entrepreneurship Skills and Professional Ethics among the Technocrats.

M4: To focus on Innovation and Development of Technologies by Engaging in Cutting Edge Research areas.

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13 Contact Information of the Head of the Institution and NBA coordinator, if designated:

Head of the Institution	
Name	Dr.Kuppagal Veeresh
Designation	Professor & Principal
Mobile No.	9448043949
Email ID	principalrymec@gmail.com

☑**NBA Coordinator, If Designated**

Name	Dr.Hiregoudar Yerrannagoudar
Designation	Professor
Mobile No.	9449950342
Email ID	hiregoudar.yng@gmail.com

PART B: Criteria Summary

Critera No.	Criteria	Total Marks	Institute Marks
1	VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES	60	60.00
2	PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES	120	117.00
3	COURSE OUTCOMES AND PROGRAM OUTCOMES	120	110.00
4	STUDENTS' PERFORMANCE	150	87.61
5	FACULTY INFORMATION AND CONTRIBUTIONS	200	185.49
6	FACILITIES AND TECHNICAL SUPPORT	80	80.00
7	CONTINUOUS IMPROVEMENT	50	44.00
8	FIRST YEAR ACADEMICS	50	44.37
9	STUDENT SUPPORT SYSTEMS	50	50.00
10	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	120	115.00
	Total	**1000**	**893**

Part B

1 VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES (60)

Total Marks 60.00

1.1 State the Vision and Mission of the Department and Institute (5)

Total Marks 5.00

Institute Marks : 5.00

Vision of the institute	"To Produce Professionally Excellent, Knowledgeable, Globally Competitive and Socially Responsible Engineers and Entrepreneurs"
Mission of the institute	**M1:** To provide quality education in Engineering and Management. **M2:** To establish a continuous Industry Institute Interaction, Participation and Collaboration to contribute skilled Engineers. **M3:** To develop Human values, Social values, Entrepreneurship Skills and Professional Ethics among the Technocrats. **M4:** To focus on Innovation and Development of Technologies by Engaging in Cutting Edge Research areas.
Vision of the Department	To Produce Professionally Excellent, Knowledgeable, Globally Competitive and Socially Responsible Electronics and Communication Engineers and Entrepreneurs.

Mission of the Department	Mission No.	Mission Statements
	M1	To provide Quality Education in Electronics and Communication Engineering.
	M2	To establish a Continuous Industry-Institute Interaction, Participation and Collaboration to Contribute Skilled Electronics and Communication Engineers.
	M3	To develop Human Values, Social Values, Entrepreneurship Skills and Professional Ethics among the Technocrats.
	M4	To focus on Innovation and Development of Technologies by Engaging in Electronics and Communication Research areas.

1.2 State the Program Educational Objectives (PEOs) (5)

Total Marks 5.00

Institute Marks : 5.00

PEO No.	Program Educational Objectives Statements
PEO1	Graduates of Electronics & Communication Engineering course will have Successful Professional Career.
PEO2	Graduates of Electronics & Communication Engineering course will pursue Higher Education or to become an Entrepreneur.
PEO3	Graduates of Electronics & Communication Engineering course will have ability for Lifelong Learning and to Serve the Society.

1.3 Indicate where the Vision, Mission and PEOs are published and disseminated among stakeholders (10)

Total Marks 10.00

Institute Marks : 10.00

The Vision and Mission are published at

- Institute website (http://www.rymec.in/).
- Department website (http://www.rymec.in/ (http://www.rymec.in/)EC.aspx).
- Chairman, Principal and HOD Chambers.
- Office and Staff Rooms.
- Department Laboratories and Notice Boards.
- Central and Department Library.
- Department Class Rooms and Seminar Hall.
- College Magazine, Lab Manuals and Journals.
- On the cover pages of IA and Assignment Books.
- Department News Letter

The Vision and Mission are disseminated at

- Workshops.
- Seminars.
- Conferences.
- Faculty Development Programs.
- Training Programs for Students.
- Student Orientation Programs.
- Alumni and Parents meeting.

Vision and Mission statements are conveyed to the students during the academic semester by HOD, Faculty and convey the same through Department Association, E&CE Student Forum (Talentronics). Vision and Mission are disseminated to all the stakeholders of the programs through Faculty Meetings, Student Awareness, Student Induction Programs, Alumni Meetings and Parent Meetings.

1.4 State the process for defining the Vision and Mission of the Department, and PEOs of the program (25)   Total Marks 25.00

Institute Marks : 25.00

1.4. State the process for defining the Vision and Mission of the Department

The Vision and Mission of the Department established through a consultative process involving the Faculty, stakeholders (internal and external) of the Department. The inputs from Alumni Interaction, Exit Survey, Advisory Committee and department Strengths and Statistics is used in framing the Vision and Mission of the Department aligned with the institutional Vision and Mission statements. In establishing the Vision and Mission of the Department, the following steps are followed.

- **Steps for Defining Vision and Mission of the Department:**

- Vision and Mission of the Institute are taken as basis.
- Views are collected from Internal and External Stakeholders.
- Once the information is collected and summarized, the faculty will identify the most critical areas to be addressed by the Department, based on the expertise and available resources and develop a strong and meaningful Vision and Mission of the Department.
- The Vision and Mission statements so developed are reviewed and approved by Management, DAC and IQAC for publishing.
- Any comments by Internal/External stake holders are noted and considered for next cycle of revising the Vision and Mission statements.

Fig 1: Stakeholders involvement in the Process for Defining the Vision and Mission of the Department

1.4.1 State the process for defining the PEOs of the Program

- For framing Departmental PEO's the following three student centric factors are considered :
  - Knowledge
  - Skills
  - Attitudes
- The Program Educational Objectives (PEOs) support and are in consonance with the Vision, Mission and POs of the Institution and the Department.
- PEOs of the Electronics & Communication Engineering are developed through direct involvement of faculty, internal and external stake holders comprising of Industry experts, Alumni, Academicians of other Institutes.
- The PEOs so developed are reviewed and approved by DAC and IQAC for publishing.
- Any comments by Internal/External stake holders are noted and considered for next cycle of revising the PEOs.
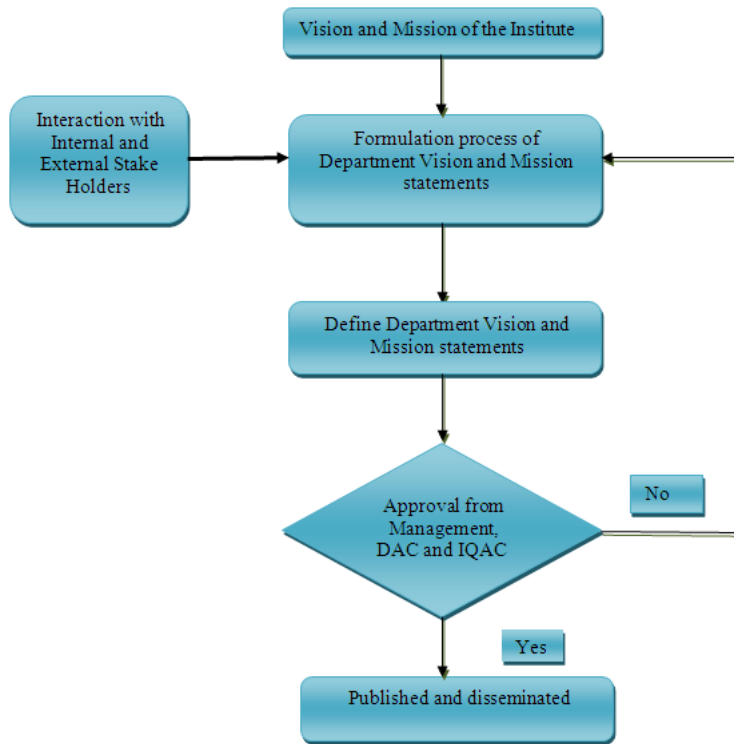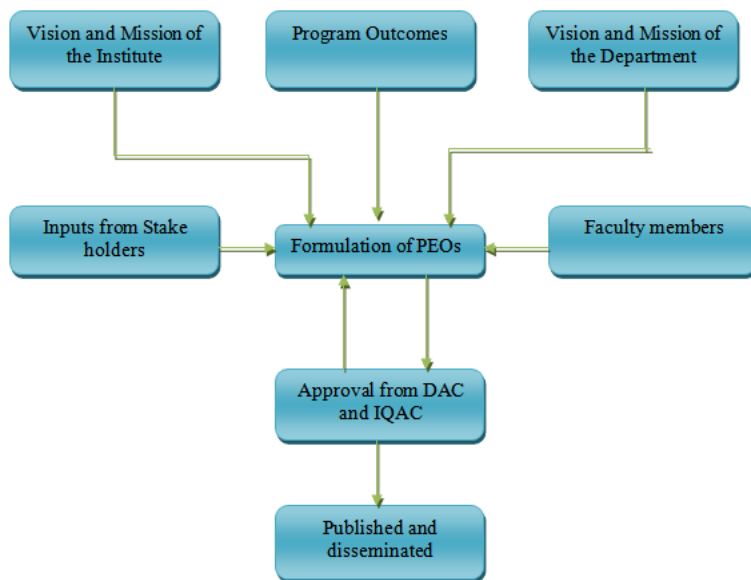

Fig2: Stakeholders involvement in the Process for Defining the PEOs of the Department

1.5 Establish consistency of PEOs with Mission of the Department (15)   Total Marks 15.00

1.5. Establish consistency of PEOs with Mission of the Department

In the following table consistency shown on a weighted relationship and qualitative relevance is shown as slight, moderate and substantial (1, 2, 3)

Mapping PEO – Mission Statements

PEO Statements	M1	M2	M3	M4
PEO1: Graduates of Electronics & Communication Engineering course will have Successful Professional Career.	3	2	1	-
PEO2: Graduates of Electronics & Communication Engineering course will pursue Higher Education or to become an Entrepreneur.	3	3	-	2
PEO3: Graduates of Electronics & Communication engineering course will have ability for Lifelong Learning and to Serve the Society.	3	2	3	3

Note: 1: Slight 2: Moderate 3: Substantial and the cell is left bank if there is no correlation between PEOs and Mission statement.

Justification for consistency of PEOs with Mission of the Department:

There are four corner-stones of the department mission that are reflected within the PEOS:

- Quality Education
- Industry – Institute Interaction
- Entrepreneurship & Ethics
- Innovation in Research & Development

M1: Quality education: PEO1, PEO2 & PEO3 are consistent with the M1 in meeting high standards in the view of providing successful professional career, higher education and lifelong learning.

M2: Industry – institute interaction: PEO1 PEO2 & PEO3 are consistent with the M2 in providing the graduates capable of professional development, lifelong learning and practicing as skilled technocrats.

M3: Entrepreneurship & Ethics: PEO1 is consistent with M3 in producing graduates contributing their social – environmental, economic, ethical values & entrepreneur skills. The graduates of the institution contribute to the society by taking part in activities or projects involving in environmental issues, green computing, social issues & community related projects.

PEO3 is consistent with M3 in a view to produce graduates to adapt to the constantly evolving advancements by engaging in lifelong learning by upgrading their knowledge.

M4: Innovation in research & development: PEO2 & PEO3 are consistent with M4 with the mission of producing graduates for pursuing higher education and capable of engaging in the process of research and scientific discovery in the area of Electronics and Communication Research areas.

PEO Statements	M1	M2	M3	M4
Graduates of Electronics & Communication Engineering course will have Successful Professional Career.	3 ▾	2 ▾	1 ▾	- ▾
Graduates of Electronics & Communication Engineering course will pursue Higher Education or to become an Entrepreneur.	3 ▾	3 ▾	- ▾	2 ▾
Graduates of Electronics & Communication Engineering course will have ability for Lifelong Learning and to Serve the Society.	3 ▾	2 ▾	3 ▾	3 ▾

2 PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES (120)

Total Marks 117.00

2.1 Program Curriculum (20)

Total Marks 20.00

2.1.1 State the process used to identify extent of compliance of the University curriculum for attaining the Program Outcomes and Program Specific Outcomes as mentioned in Annexurel. Also mention the identified curricular gaps, if any (10)

Institute Marks : 10.00

The Department of Electronics and Communication Engg., RYMEC, is affiliated to Visvesvaraya Technological University (VTU), Belagavi, Karnataka. The program curriculum is as provided by VTU which is a composition of Applied science & Humanities, Professional core engineering subjects & Electives. The curriculum is formulated and reviewed once in 4 years through Board of Studies (BoS) of VTU comprising a Chairman, Senior Professors of ECE discipline and Industry representatives.

The composition of VTU curriculum for Electronics and Communication Engineering (ECE) program is shown in table & figure 2.1 for the following schemes 2015 & 2017.

Table 2.1: Contribution of Curriculum

Sl No	Course component	Curriculum content(% of contribution) for 2015 scheme	Curriculum content(% of contribution) for 2017 scheme
1	Applied science & Humanities	20/64=31.25%	20/64=31.25%
2	Professional core engineering subjects	37/64=57.81%	37/64=57.81%
3	Electives	7/64=10.93%	7/64=10.93%
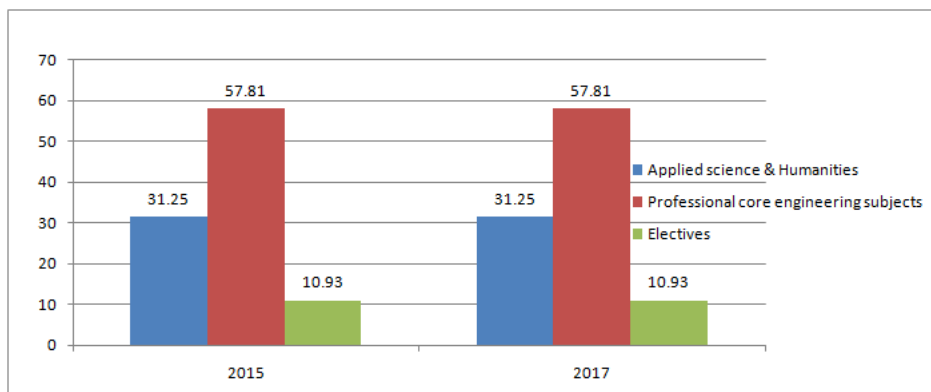
Figure 2.1: Contribution of Curriculum

Following institutional processes are used to identify the extent of compliance of University

curriculum for attaining the POs and PSOs:

1. Revisiting course outcomes for each subject.

2. Mapping each Course Outcome with POs and PSOs.

3. Analysis of gaps on the mapping of Course outcomes to POs.By keeping target level (40%) as fixed by DAC.

4. Discussion of gaps in the Departmental Academic Committee (DAC) meeting. The content   beyond syllabus is identified accordingly to bridge the gap.

5. These contents are delivered to the students through Guest lecturers/Workshops/Industrial visits etc.

The table 2.2, 2.3 shows extent (percentage) of mapping of the courses to program outcomes & program specific outcomes for the the following schemes 2015 & 2017 respectively.

Table 2.2: Compliance of subjects with Pos & PSOs for 2015 scheme

POs	1	2	3	4	5	6	7	8	9	10	11	12	PSO1	PSO2
Percentage compliance	93.65	93.65	69.84	23.81	20.63	11.11	9.52	9.52	9.52	9.52	7.94	17.46	38.10	26.98
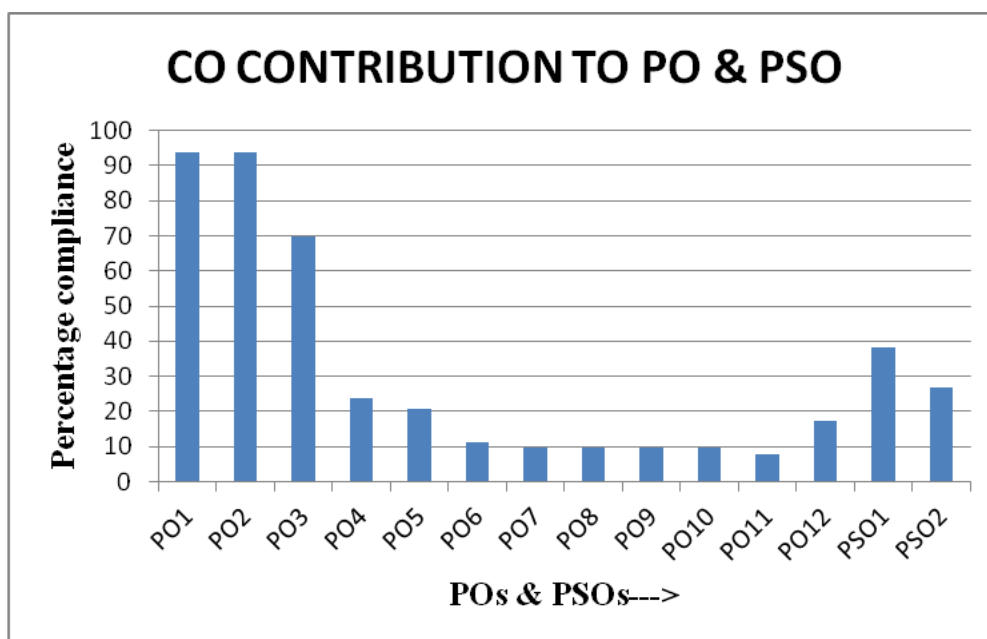
Figure 2.2: Compliance of subjects with Pos & PSOs for 2015 scheme

The compilance of POs & PSOs for 2017 scheme is considered till 5th semester since the syllabus copy released by VTU is tentative.

Table 2.3: Compliance of subjects with Pos & PSOs for 2017 scheme(upto 5 sem)

POs	1	2	3	4	5	6	7	8	9	10	11	12	PSO1	PSO2
Percentage compliance	60.32	58.73	38.10	6.35	7.94	4.76	4.76	4.76	3.17	3.17	1.59	6.35	15.87	12.70
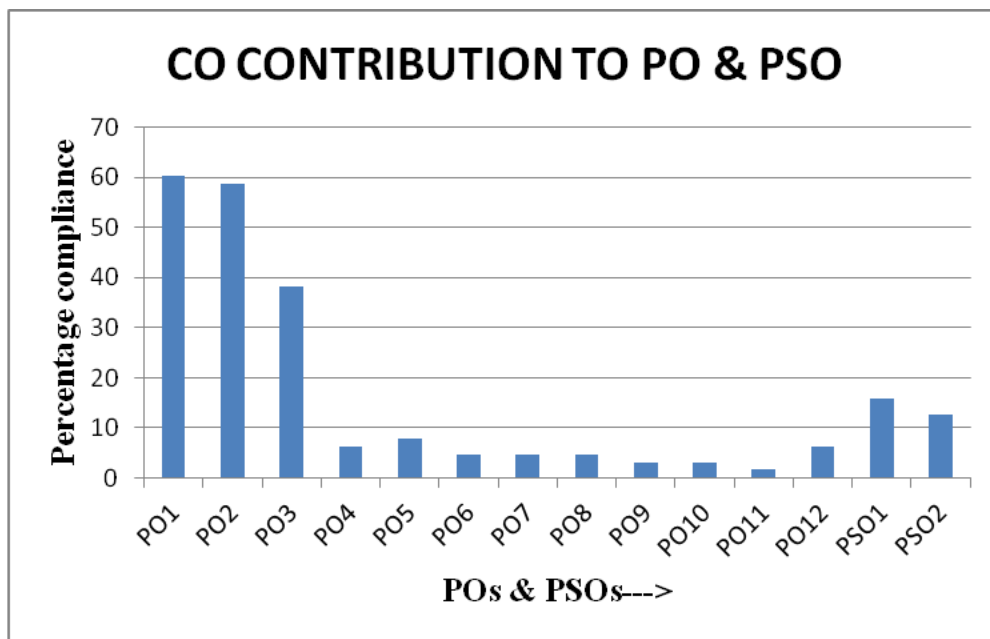
Figure 2.3: Compliance of subjects with Pos & PSOs for 2017 scheme

Referring University Curriculum all the Subjects are mapped to Pos & PSOs and gaps are identified. Few of the subjects prescribed by the university are not fully in compliance with PO6 to PO12. Efforts are made to impart requisite knowledge by the way of content enhancement beyond syllabus.

The gaps identified have been mitigated by organizing Seminars, workshops, personality development programs, inviting experts to give talks and interact with students and site visits.

The table 2.4 below shows the prerequisite for the courses involved in ECE discipline for the 2015 scheme.

Table 2.4: Prerequisite Details for the Scheme 2015 CBCS SCHEME

SEM	SUBJECT WITH CODE	PREREQUISITE DETAILS
	Engineering Mathematics –III (15MAT31)	Mathematics –I,II
	Analog Electronics(15EC32)	Basic Electronics
	Digital Electronics(15EC32)	Basic Electronics
	Network Analysis(15EC34)	Basic Electrical Engineering
	Electronic Instrumentation(15EC35)	Physics
	Engineering Electromagnetics(15EC36)	Mathematics, Physics
	Analog Electronics Lab(15ECL37)	Basic Electronics
III Semester	Digital Electronics Lab(15ECL38)	Basic Electronics
	Engineering Mathematics –IV(15MAT 41)	Mathematics –I,II,III
	Microprocessor (15EC 42)	Basic Electronics
	Control Systems (15EC 43)	Mathematics
	Signals and Systems (15EC 44)	Mathematics –I,II,III,IV

	Principles of Communication Systems(15EC 45)	Signals & Systems	
	Linear Integrated Circuits (15EC 46)	Basic Electronics, Analog Electronics Circuits	
	Microprocessor Lab(15ECL47)	Basic Electronics, Programming skills	
IV Semester	Linear ICs and Communication Lab(15ECL48)	Analog Electronics Circuits Lab	
	Management & Entrepreneur(15EC51)	CIP	
	Digital Signal Processing(15EC52)	Mathematics, Signals & Systems	
	Verilog HDL(15EC53)	Logic Design	
	Information Theory & Coding(15EC54)	Mathematics	
	Professional Elective(15EC55X) Operating Systems.	Micro Processor	
	Open Elective(15EC56X) OOPS using C++, MC 8051	Micro Processor	
	DSP LAB (15ECL57)	Signal & System	
V Semester	HDL LAB (15ECL58)	Digital Electronics	
	Digital Communication(15EC61)	Mathematics, Analog Communication	
	ARM & Embedded Systems(15EC62)	Microprocessor, Microcontroller, C++	
	VLSI Design(15EC63)	Logic Design	
	Computer Communication Networks(15EC64)	Digital Communication	
	Professional Elective-2(15EC65X) Digital Switching Systems,	Analog Communication	
	Open Elective-2(15EC66X) Digital system design using Verilog.	HDL	
	Embedded Controller Lab(15ECL67)	Micro Processor,Microcontroller	
VI Semester	Computer Network Lab(15ECL68)	Operating System	
	Microwave & Antenna(15EC71)	Mathematics, Field Theory	
	Digital Image Processing(15EC72)	DSP	

	Power Electronics(15EC73)	Basic Electronics	
	Professional Elective-3(15EC743) Real Time Systems,	MP,MC,Embedded System	
	Professional Elective-4 (15EC752) IOT & Wireless sensor Networks,	Analog Electronic,Digital Electronic	
	Advanced Communication Lab(15ECL76)	LIC LAB	
	VLSI Lab(15ECL77)	HDL LAB, HDL	
VII Semester	Project Work Phase-I+ Seminar(15ECP78)	All Subjects	
	Wireless Cellular & LTE 4G(15EC81)	Analog Communication, Digital Communication	
	Fiber Optics & Networks(15EC82)	Basic Electronics, Analog Electronics	
	Professional Elective-5(15EC83X) Speech Processing,	DIP	
	Internship/Professional Practice(15EC84)	Specific Domain Knowledge	
	Project Work(15ECP85)	All Subjects	
VIII Semester	Seminar(15ECS86)	All Subjects	

2.1.2 State the delivery details of the content beyond the syllabus for the attainment of POs and PSOs (10)

2017-18

Institute Marks : 10.00

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	PO3, PO5	One day workshop on MultiSim software	22/09/2019	Mr. Raghavendra, ALS	75	PO3, PO5
2	PO6, PO 8, PO 12	Three days workshop on Engineering & Society – Life Health & Happiness	24/09/2019	Mrs. Pushpa	60	PO6, PO 8, PO 12
3	PO6, PO 8, PO 12	One day workshop on Entrepreneurship and development"	29/09/2019	Mr. Manjunath Gouda, Joint Director, DIC, Ballari.	75	PO6, PO 8, PO 12
4	PO1 PO12	One Day Seminar on "IEEE EXPLORE	06/10/2018	Mr. M S Srinivasa, Training Manager, EBSCO, New Delhi	80	PO1 PO12
5	PO6, PO8, PO9, PO10, PO11, PO12	Mini project exhibition & Competition for 3rd & 5th Sem students	13/10/2018	Dr Savita Sonoli,Dr. Prabhavathi .S,Mr Surendanath H,Mr. Khajamoinuddin	40	PO6, PO8, PO9, PO10, PO11, PO12
6	PO11	Dept forum Talentronics	22/02/2019	Dr.Savita Sonoli,Mr.Prashanth KY,Ms.Vani H	90	PO11
7	PO5, PO11	Orientation program on IOT in association with R V College, Bengaluru	07/06/2019	Mr. Renuka Joshi, Mrs. Pratibha Kantanavar	65	PO5, PO11

2016-17

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	PO1, PO 2, PO 12	One day FDP on Digital Circuit & System Application	30/07/2018	Manager, BSNL	30	PO1, PO 2, PO 12
2	PO1, PO 2, PO 12	One day FDP on Antenna & RADAR Application	31/07/2018	Mr. Chellappa	30	PO1, PO 2, PO 12
3	PO1, PO 2, PO 12	One Day District Level Symposium on "Science,Engineering & society"	07/02/2018	Dr. D M Chandargi Dr Parameshachari B D	90	PO1, PO 2, PO 12
4	PO1, PO 2, PO 12, PO 6	Hands on training on VERILOG LAB for Govt Polytechnic Ballari	15/03/2018	Mrs. Chinna V Gowdar Mr.Lokesh KS Mrs Anitha A Mr Sudarshan Bankar Mr Prashanth Keni Mr Sharanabasava B Mrs Masana KC Mr Chandra Shekar	40	PO1, PO 2, PO 12, PO 6
5	PO10, PO11, PO12	One day Seminar on "Carrier Guidance"	21/11/2017	Mr. Sridhar,Costuco	60	PO10, PO11, PO12
6	PO6, PO 8, PO 12	One day "Awareness about Legal Rights of Women	15/11/2017	All Ladies Faculty, RYMEC, Ballari.	100	PO6, PO 8, PO 12
7	PO5, PO12	One day Seminar on "Orientation on Storage Technologies & Self Learning	19/08/2017	Mr. Loka Reddy	70	PO5, PO12

2015-16

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	PO6, PO 8, PO 12	Happiness Program	23/06/2016	Team from Art of Living	60	PO6, PO 8, PO 12
2	PO6, PO 8, PO 12	Yoga Shikshana Shibira	23/11/2016	Mr. I Pampapathi & Team	60	PO6, PO 8, PO 12
3	PO6, PO 8, PO 12	Invited talk on "Path way to good Health	08/08/2016	Dr. Gaddi Diwakar	90	PO6, PO 8, PO 12
4	PO6, PO 8, PO 12	One Day seminar on "Self Help Motivation & perception about the world	10/09/2016	Mr.VivekMachani	75	PO6, PO 8, PO 12
5	PO 3, PO 5, PO 9, PO 10, PSO 1	A Seminar on "Network Design & Implementation in Corporate World	17/09/2016	Sri.Rakesh.M	60	PO 3, PO 5, PO 9, PO 10, PSO 1
6	PO6, PO 8, PO 12	Two days Workshop on "Yoga for Balanced Life	24/09/2016	Mrs.PushpaLatha Sreedhar	60	PO6, PO 8, PO 12
7	PO 3, PO4, PO 5, PO 9, PO 10, PSO 1 PSO 2	workshop on "Hands on training using MATLab & Simulink	07/10/2016	Mr.Chandrasekhar & Mr Pramod Naik	60	PO 3, PO4, PO 5, PO 9, PO 10, PSO 1 PSO 2
8	PO 3, PO 5, PO 9, PO 10, PSO 1 PSO 2	MINI Project Competition	25/10/2016	Mr. Vinay A & Mr. Manjuntha K M	60	PO 3, PO 5, PO 9, PO 10, PSO 1 PSO 2
9	PO2	Industrial Visit	08/10/2016	Mr. Md Zakirulla	60	PO2
10	PO6, PO 8, PO 12	One Day Seminar on "Entrepreneurship and Development Skills	12/11/2016	Mr.Kotresh.K.R	60	PO6, PO 8, PO 12
11	PO 3, PO 5, PO 9, PO 10, PSO 1	MultiSim Software	05/11/2016	Mr.Khaja Moinuddin & Mr.SharanBasavaraj B	80	PO 3, PO 5, PO 9, PO 10, PSO 1
12	PO 3, PO 5, PO 9, PO 10, PSO 1	Two days' workshop on Probability & random process	17/05/2017	Mr. Ramesh K	100	PO 3, PO 5, PO 9, PO 10, PSO 1

2.2 Teaching - Learning Processes (100)   Total Marks 97.00

2.2.1 Describe processes followed to improve quality of Teaching & Learning (25)   Institute Marks : 25.00

2.2.1.1 Describe processes followed to improve quality of Teaching and learning (25)

Course Delivery Methods used in our Department:

- Power Point Presentations
- Student Seminars
- Group Discussions
- Industry Institute Interactions
- Self Learning/ Skill Up gradation
- Mini, Major technical Projects
- English Language Lab
- One to one internal viva voce in labs
- AVIEW/EDUSAT
- Contents beyond syllabus in theory & lab
- Workshops, Seminars, Invited Talks
- Conference
- NAIN Project
- Symposium

Table 2.5 Course Delivery Methods:

Sl.No.	Innovations	Goals	Advantage/ Outcome
1	Power Point Presentations	To enhance the overall comprehension of students and allows teachers to present their lessons in a More dynamic way.	1. It provides the ability to equip presentations with different types of media - including images, sounds, animations, and much more. 2. This enhances the students abilities to retain what is being taught, especially to those who are visual learners. 3. Teachers can focus on the class and interacting with the students instead of writing on a board, because the text and the entire presentation are already there in the form of a PowerPoint file.

2	Student Seminars	The overall objective of this activity is to motivate students for self Study and Group Study.	1This best practice enhances the Listening ability. 2.Being working in a team builds up Leadership quality of students.. 3. The communication skill gets build up by Oral Communication in seminars. 4. Sharing of Knowledge uplifts while preparing. 5. Students learn Time Management skill. 6. Students learn to deal with conflicting opinions. 7. For delivering seminars students prepare, Produce and use visual aids for presentation.
3	Group Discussion	To develop skills in Interpersonal communication and in expressing views in a Clear and concise manner.	1. Learn from other peoples experiences and background knowledge. 2. Gain perspective and point of view which increases the listening and interpersonal skill. 3. Identify and sort out the communication opinions.
4	Industry Institute Interaction	To provide students an insight regarding internal working of companies and Industries, Undertaking Internship, Establishing MOU with Industries to Train Students.	1. Industrial visit is considered as one of the tactical methods of teaching. 2. The main reason behind this is helps student to know things practically through interaction, working methods and employment practices. 3. It also provides a good opportunity to the students to gain awareness about industrial practices. 4. Through industrial visit students get awareness about new technologies.
5	Self Learning / Skill Up gradation.	To Provide Online Certification for Students in Collaboration with Other Universities/ Institutions. (MOOC/NPTEL/IIT/NITTTR/Webinars)	1. Moodle is used for blended (https://en.wikipedia.org/wiki/Blended_learning) learning, (https://en.wikipedia.org/wiki/Blended_learning)distance education (https://en.wikipedia.org/wiki/Distance_education)and other e-learning (https://en.wikipedia.org/wiki/E-learning)projects in institute. 2. With customized management features, it is used to create private websites (https://en.wikipedia.org/wiki/Websites)with online courses for educators and trainers to achieve learning goals.
6	Mini and Major technical projects	To expand technical understandings through development in terms of software solutions and hardware implementation for industrial/societal Problems.	Create opportunities to explore theory, to research and present a pilot project with a possibility of further development, to test a technical insight, to apply intellectual learning, or to challenge skills as well as understandings Within a particular field.
7	English Language Laboratory	To improve verbal skills for effective public speaking, acquire Employment & Workplace Communication Skills	1. The practice enhances Listening and Oral Communication dexterity. 2. To build Technical writing & Presentation Skills. 3. Pronunciation Skill gets personified. 4. Dealing with conflicting rules of English & effectively tackle grammatical rules. 5. Have a good word power & communication.
8	One to one internal viva voce in labs	To groom students for technical interview skills	1.Increases the performance level of Candidate in the Interview and help them to enhance the overall Personality. 2. Increases Technical Knowledge.

9	A-View E-Sikshana /Edusat	To provide remote-access to Theory & Labs in various disciplines of Science and Engineering in Collaboration with VTU.	1. This helps them in learning basic and advanced concepts. 2. This practice provides a complete Learning through web-resources, video-lectures, animated demonstrations and self Evaluation.
10	Contents beyond syllabus in theory and labs hours	To bridge the gap between syllabus & recent trends in Engineering & Technology.	1. It is empirically proven that interests in subjects are sparked by factors that are not always related to the curriculum. 2. It makes students curious and encourages them to take more interest in the topic and enhance their learning process. 3. Students shall be encouraged to work with innovative ideas and shall focus on current technological trends to do their Seminars and Projects.
11	Workshop/Seminar/ Invited Talks	To enhance Technical Skills apart from Curriculum	1. Students are trained in Advanced Technical Topics. 2. Enhance Learning by Interacting with Technical Expert. 3.Improve Lifelong Learning
12	Conference	To encourage students for Research Activities	1. Technical writing skill gets Enhanced. 2. Learn to Present Technical Papers. 3. Enhance Publishing Skills.
13	NAIN Project	To motivate Students for Product Development.	1. Best student Project Ideas gets Funded from Incubation Centre. 2. Incubation Centre arrange various innovative activities for students to enhance Research skills.
14	Symposium	To Build Technical & Non Technical Skills.	Students learn to Develop Project Prototypes. Educated with Innovative Ideas.

2.2.1.2. Implementation details of Improving Instruction Methods

- Department calendar of events is well planned, before the commencement of the semester in line with University and College Calendar of Events. The Program Co-coordinator along with HOD and Senior Faculty members analyze department calendar and will be incorporated with additional activities to meet the curriculum gap that consists of the activities planned from the gaps in attaining the POs.
- Subject allotment is done before the commencement of the semester, Course plan, Course execution plan and lecture notes are prepared accordingly.
- The faculties of the department adopt various innovative Teaching & Learning methodologies to create the best learning environment for students.

- These methodologies include traditional black board teaching, presentations and video lecturing. collaborative learning methods are used where every concept is explained with real world illustrations, design and problematic aspects are conveyed by appropriate methods.
- The faculties are oriented towards Outcome Based Education (OBE) and are actively utilizing the OBE to cater the learning needs of students by innovative ways.
- Before the start of semester the faculties are allotted with subjects to be thought for upcoming semester, then the faculties define COs, CO-PO mapping and also prepare a Course Plan and Course Execution plan for the subject.

- The planned Courses are delivered to students with the active participation of students in every class, in every Course, the students are assessed for their participation in OBE class using an alternative assessment tools like Flip Classrooms, Quiz, Read and Summarize, Poster Presentation, Seminars, Mini Projects and Projects.
- The faculties also use simulations/power point presentations to explain Concepts /process/algorithms for the courses like Electronic Circuits, Signal Processing, Communication, Computer Networks and the programming subjects are taught using hands on sessions in laboratory.

- Students are advised to take Massive Open Online Courses (MOOC) and refer NPTEL videos and students are given with Assignments, presentations, group discussions etc to improve their basic knowledge and communication skills.
- The department Calendar of Events comprises of academic activities like, Internal assessment dates, Internal assessment Marks display, proctor meeting, Parents teachers meeting, assignment submission, faculty meeting, Seminars/Workshops/conference, orientation program, alumni meet and Laboratory/Theory examination schedule. Individual faculty members will prepare the course plan for the semester adhering to the department calendar of events.
- Teaching Learning process is implemented using the guidelines/formats of the college while preparing lecture notes, course plan and course Execution plan. Depending on the requirement of the Courses Invited talks/Guest Lectures from Subject/Industry Experts are arranged.

- Tutorial/Remedial classes are conducted for the students.
- Motivating and guiding students for higher studies and university ranks by organizing Personality Development Programs.
- Technical quiz is conducted for students.
- Bright students are encouraged by felicitating in College Annual Day Program MANDARA for their Academic & Co curricular achievements.

Figure 2.4 : Academic Calendar of events

MENTOR-MENTEE SYSTEM

Process of mentoring system

- Each staff member is allocated a group of 12-15 students once in four years.
- Students are being mentored thrice in a semester personally. After every Internals, they are being monitored for their academic performance and Regularity in attendance
- The mentoring details and their performance is maintained with respective mentors and updated periodically.
- Mentoring also includes alerting and guiding by, being in touch with students regularly, through different modes, like creating whatsapp groups, mails and messages.
- At the end of every internals ,observations (problems faced by students)made by the mentors are collected ,consolidated by the Mentoring Coordinator,
- The Mentoring Coordinator makes the consolidated report and submits the same, to the PAC committee, for corrective measures.
- The PAC committee conducts meeting and takes the appropriate measures.

The process diagram of the mentoring system is as shown below
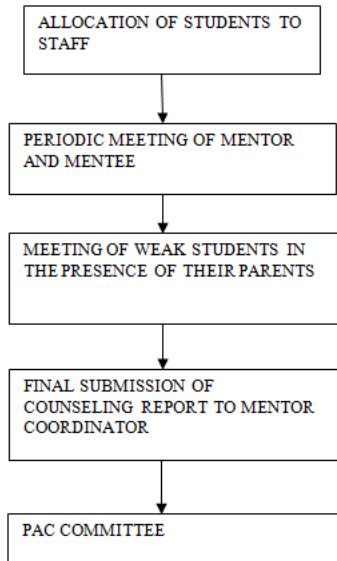
Figure 2.5 : flow diagram showing process diagram of mentoring system in department

The candidates having poor performance in academic and Curriculum activities are identified by the respective Class co-ordinators and reported to their respective Proctor, Now the Proctor is authoritative in counselling their Mentees .In the extreme cases, this counseling is done in the presence of the Mentee parents. The same report will be passed to the Parent-cell and other faculties handling the different subjects of the Mentee, as a proof of counseling.

2.2.1.3. Impact analysis of Innovative teaching learning process

The following are the positive outcomes observed after adopting the above mentioned innovative Teaching Learning Process

- Improved Attendance of students for every class.
- Active participation of students in OBE(*Outcome Based Education*) activities.
- New view points and new Project Ideas are derived in class.
- Better bondage between students and faculties.
- Appreciation from the parents.

2.2.1.4. Initiatives and implementation details of Encouraging Bright Students

- The College has the culture of encouraging bright students by providing them necessary guidance and moral support.

- The Bright students are identified based on their overall performance and their orientation towards Academics.
- Encouraged to attend Conferences, Workshops and Publish Papers.
- Encouraged to take up Industry Internship, Innovative Projects & apply for Projects Funding.
- Encouraged to participate in various competitions.
- The bright students having high academic track records are encouraged by faculties to achieve University Ranks, also encouraged to take up Competitive Examinations like

GATE, TOEFL, GRE,CAT etc.,

- Bright students are encouraged by felicitating in College Annual Day Program

  MANDARA for their Academic & Co curricular achievements.

2.2.1.5. Initiatives and implementation details of Assisting Weak Students

- The Department has well defined process of Monitoring, Guiding, Assisting weak students.
- A humble care is taken by the faculties in monitoring the performance of weak students on regular basis, the students deviations, if any, from Academics is observed and corrective measures are taken.
- The faculties also go a step ahead and have periodic interaction with the parents about the performance of weak students.
- A blended motivation and responsibility from both parents and faculties will create a positive mindset and will help to overcome the inabilities and hurdles faced by the weak students.
- Every parent is informed about the Internal Assessment marks and the attendance via SMS.
- Additional coaching is given to weak students through Remedial Classes, simplified exam oriented coaching and materials are provided.
- Special classes are conducted by the faculties for students failed in any Course(s).

Strategy for Improved Student Performance is indicated in Figure 2.6
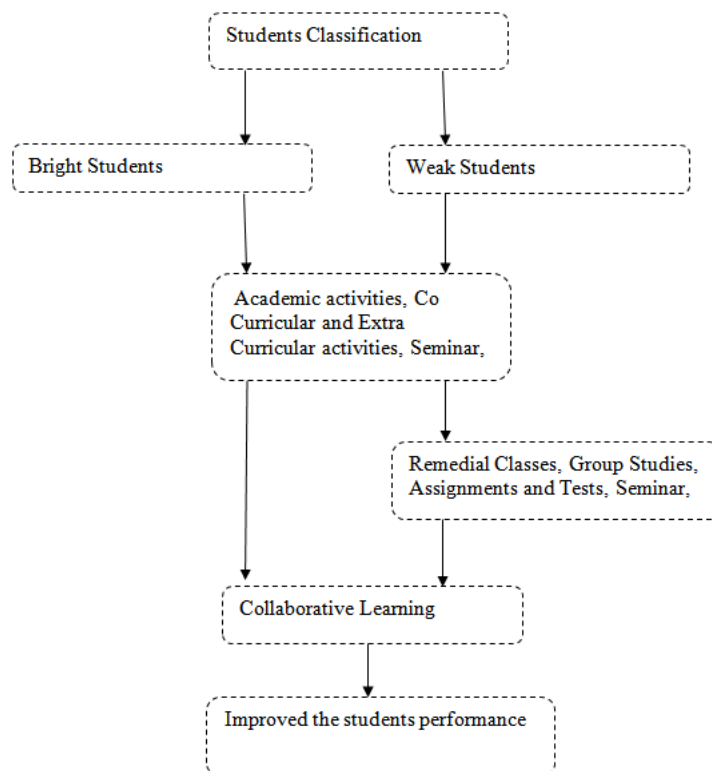
Fig 2.6: Strategy for Improved Student Performance.

2.2.1.6. Impact analysis

- The number of identifiable weak students reduced gradually.
- Improved results and less number of failures in certain courses

2.2.1.7. Initiatives and implementation details of improving Quality of Laboratory Experiments

- Faculty members of respective specialization along with Laboratory In charge will discuss about the preparation of Laboratory Manual, Requirements, if any, like Electronic Equipments/Computers/Software Tools/Consumables, Conduction of experiments before commencement of semester.
- The Laboratories are conducted in session of 3 hours, in each session the faculty explains the logic of the circuits/programs to be practically executed.
- The students will write the complete details like circuit/Logic diagram, truth table, nature of graph & other design parameters in the observation book, then execute it and interpret the results.
- The executed experiments is documented in the Laboratories record book by the students later.
- In each subject many students are made to work on number of additional circuits/programs for the better understanding of the subject.
- Viva questions will be prepared in advance for all the Laboratory Eexperiments/Programs.

The Laboratories are evaluated by the faculties for 20 marks at two levels

Table 2.7.: Lab Evaluation details (2015 Scheme)

Level	Evaluation Type	Marks
1.	Continuous Evaluation in every lab session	10
2.	Laboratory Internal Test	5
3.	Record submission	5

The Laboratories are evaluated by the faculties for 40 marks at two levels

Table 2.8.: Lab Evaluation details (2017 Scheme)

Level	Evaluation Type	Marks
1.	Continuous Evaluation in every lab session	20
2.	Laboratory Internal Test	10
3.	Record submission	10

Figure 2.7 : Lab Evaluation sheet(2015 scheme)

2.2.1.4. Impact analysis

- Very good results in laboratory examination.
- Improvement in analytical abilities of students.
- Students are able to carry out innovative Projects.

The stimulating environment made students to learn on subjects apart from regular curriculum.

2.2.2 Quality of internal semester Question papers, Assignments and Evaluation (20)   Institute Marks : 20.00

Quality of internal semester Question papers, Assignments and Evaluation.

Initiatives and Implementation details for improving the quality of Internal Semester Question papers (Internal Assessment Test)

- IA committee is formed for various activities consisting of HOD, IA coordinator, Course coordinator.

- The IA committee will frame the rules and monitor activities.

- The committee will follow the various activities

- Divide the enter course to three parts for three tests
- The question paper format will be formatted by committee.
- The question papers format circulated to course owners for IA TEST
- Before questions are printed they are verified by team for auditing.
  - a. After the test post activities are

- The scheme of evaluation are verified with questions

- The marks and attendance sent to parents
- The weak students are identified by mentors & counseled.
- The quality of question papers analyzed and discussed in meeting for further tests.

b. After final test

- The final IA marks sent to program coordinator for further activities.
- The faculties of the department conduct three internal assessment tests at 6th, 12th and 14th week respectively.
- The tests are conducted for a maximum of 20 marks for 2015 scheme & 40 marks for 2017 scheme.
- However there is no minimum marks criteria from the university with respect to internals marks.

I. **Question Papers:**

- For each subjects, question bank is prepared at the beginning of each semester
- Questions are prepared based on Bloom's Taxonomy.

II. **Assignments:**

- Assignment issue and submission dates are announced by the respective faculty members.
- Assignment questions are prepared using Bloom's Taxonomy process.
- Surprise tests, quizzes, video links are provided.

III. **Evaluation:**

- The faculties after every internal assessment test they explain the solution of the questions in the class which will enable them to perform well in the final examination.
- For any genuine reasons, if a student was unable to perform well in the given three internal assessment tests, improvement test is given to him/her.
- The average of the marks obtained from any best two test is chosen for the award of internal assessment marks.
- If a candidate remains absent for all the tests conducted, the Internal assessment marks are marked as "Absent" in the result.
- Assignments are used as a tool for practice and evaluation is based purely on Internal Assessment Test.

Choice Based Credit System (CBCS)

The university has introduced CBCS system for 2015 admitted batch.

- The new pattern for internal assessment was introduced where in the internal assessment is done for a total of 20 Marks.
- 15 marks assessment is done by tests and 5 marks by assignment, seminar, etc.

Table 2.9: Internal Assessment pattern for CBCS (2015)

Internal Assessment	Marks
Test	15
Assignments	5
Total Marks	20

Choice Based Credit System (CBCS)

The university has introduced CBCS system for 2017 admitted batch.

- The new pattern for internal assessment was introduced where in the internal assessment is done for a total of 40 Marks
- 30 marks assessment is done by tests and 10 marks by assignment, seminar, etc.

Table 2.10: Internal Assessment pattern for CBCS (2017)

Internal Assessment	Marks
Test	30
Assignments	10
Total Marks	40

Department Internal Assessment Process

- HOD will frame the IA Coordinator and committee and ask them to conduct the internals.
- The IA coordinator calls the meeting and discuss about the process of IA quality assessment and direct the committee members to follow the quality assurance activity as given below

1. The IA quality committee will give guidelines for IA Question paper preparation.
2. After the test, the committee will verify the quality of questions with guidelines given before the test.
3. IA committee will make the observations, the observations along with suggestions passed over to IA coordinator.
4. After finalization of IA marks, IA marks and attendance sent to parents and mentors for the process of intimation and counselling respectively.

5. After all the tests the summary of test are submitted to other committee in the department.

Process of Internal Assessment in the Department
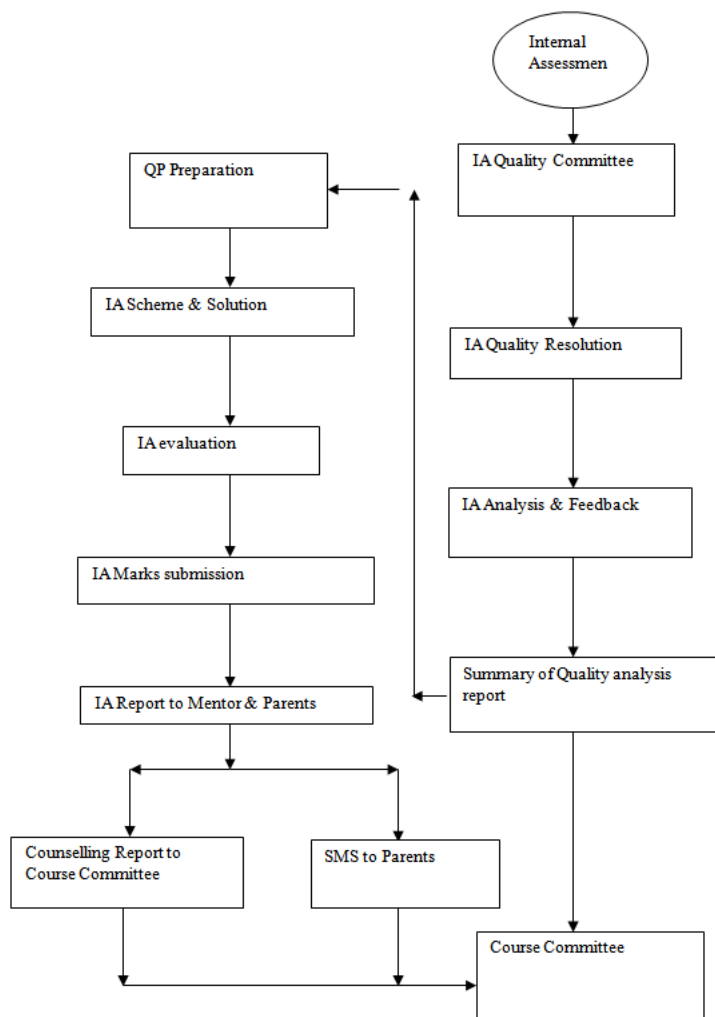
Fig 2.8: Flow Diagram of Internal Assessment

2.2.2.2. Impact analysis

- Very good results in Internal and External examination.

- Improvement in overall performance of students thus improves the placement

-                               The stimulating environment made students to plan their study plan for better performance. Internal Assessment

2.2.3 Quality of student projects (25)

Institute Marks : 25.00

2.2.3.1. Initiatives

- The student's projects are selected in line with Department Vision, Mission, and Program Outcomes.
- Students are provided with brief idea of various fields for selecting the project ideas.
- The list of previous year projects is displayed at notice board which ensures no repetition of project work & also encourages students to enhance the previous works.
- The faculties encourage students to participate in project exhibitions.
- The faculties encourage students to publish their project work in reputed Journals/Conferences.
- The faculties encourage students to avail the external funding schemes for their project work through KSCST, VTU project funding schemes.

Project allocation methodology

- Students will be asked to submit their project batches in Googleforms.
- Project batch numbering will be done in first come first served basis.
- Seven project domains are discussed and are decided in the meeting. The same will be circulated to both students and project guides.
- Project batches will be allocated to staff according to their domains.
- Project coordinator will circulate previous project titles to all project guides and students so that same projects should not repeat.
- Students will meet their respective guides and will discuss about project areas, interests and will finalize the project title.
- Students with the approval of their respective project guides and project assessment committee will submit project titles to project coordinator.

```
┌─────────────────────────────────┐
│   Project batch submission       │
└─────────────────────────────────┘
              │
              ▼
┌─────────────────────────────────┐
│ Project Batch Numbering on FCFS Basis │
└─────────────────────────────────┘
              │
              ▼
┌─────────────────────────────────┐
│   Project Areas Circulation      │
└─────────────────────────────────┘
              │
              ▼
┌─────────────────────────────────┐
│ Project batch allocation to staff based on Domains │
└─────────────────────────────────┘
              │
              ▼
┌─────────────────────────────────┐
│ Circulation of previous project titles │
└─────────────────────────────────┘
              │
              ▼
┌─────────────────────────────────┐
│   Students meet Project guides   │
└─────────────────────────────────┘
              │
              ▼
┌─────────────────────────────────┐
│ Finalize Project Title in the Project Areas Circulated │
└─────────────────────────────────┘
              │
              ▼
         Approval from project guide  (decision)
              │
              ▼
┌─────────────────────────────────┐
│ Approval of Project Title to project guide and Project coordinator │
└─────────────────────────────────┘
```

Fig 2.9: Flow diagram showing the process of student project batch allocation

- A well planned Project work Calendar of events is prepared by project co-ordinator which is communicated to all the students and project guides.

- The faculties encourage students to participate in project exhibitions.

- The faculties encourage students to publish their project work in reputed journals/conferences.
- The faculties encourage students to avail the external funding schemes for their project work. (Like KSCST, DIC, VTU project funding scheme).
- Process to identify the best projects is formulated for year 2014-2015.
- The best projects for the year 2012-13, 2013-14,2014-15,2015-16,2016-17 are identified.

2.2.3.1.1. Implementation

- Project Coordinators are identified by the Head of the Department who are responsible for Planning, Scheduling and Execution of all the activities related to the Students Project Work as shown below

Table 2.11: Project Planning

Timeline	Task	Particulars
Semester Seven		
8th week of 7th Semester	Call for project batches and Guide Allotment.	Students are informed to form the batch and get it registered with the Project Coordinator of the Department. Considering the areas of interest of Faculty and Students, guide is allotted. A unique Project Batch Identification number is used as reference throughout the academic year.
12th week of 7th Semester	Call for Project Titles	Students are instructed to submit the title of the project in consultation with their respective guide in a given proforma to the project coordinator.
13th week of 7th Semester	Synopsis submission	The student submitting project synopsis are pre-evaluated by a team of faculty.

14th week of 7th Semester	Project title finalization and Abstract submission	The submitted project titles are reviewed by a committee consisting of Project coordinator, Head of the department and two senior faculties.
Semester Eight		
5th week of 8th Semester	First Review (Phase I Evaluation)	Students are instructed to submit Hardware & Software requirements specification and give presentation for their project.
9th week of 8th Semester	Second Review (Phase II Evaluation)	Students are instructed to submit Design document of the project and give presentation for the project.
13th week of 8th Semester	Final Demonstration (Phase III Evaluation)	Students are instructed to submit complete project report with university compliances and give a PowerPoint presentation for the project.
14th week of 8th Semester	Project Internal Marks announcement	The marks for the project work is announced and processed according to the university regulations.

Rubrics for project evaluation

PROJECT EVALUATION RUBRICS-2018-19(PHASE-2)

Rubrics are scoring or grading tools used to measure a student's performance and learning across a set of criteria and objectives.

Table 2.12: Rubrics for Project Evaluation:

Component	Marks[M]	Criteria	Exceptionally Well Executed [M>90%]	Good with room for improvement [70%	Meets minimum requirement [M<70%]	Course Outcome Mapping	PO Mapping	BTL Mapping
Experimental observation	30	Validation	Program handles erroneous or unexpected input. Meets all requirements.	All obvious error conditions are checked. May not meet all the requirements.	Some error conditions are checked does not meet all specified requirements.	CO1, CO3	4,6	L4
		Testing	Testing is complete without being redundant..	All key items are tested, but testing may be redundant.	Testing was done, but is not sufficiently complete.			
Documentation	20	Thesis	The thesis is clearly stated with good flow and adequate content.	The thesis is clearly stated with adequate content. Flow was little difficult to follow.	The thesis is not clearly stated with inadequate content. Flow was little difficult to follow.	CO2, CO4	9,10,11	L3
Demonstration Presentation & Discussion	30	Demonstration	Team members were very well balanced and had clear articulation and power point presentation was excellent.	Team members are audible and fluent. Presentation was good.	Team members were inaudible but fluent. Poor presentation.	CO2	9,10,11	L3
Paper Presentation/ Project Exhibition	10	Paper Presentation/ Project Exhibition	Paper was presented in a very good conference or journal with good impact factor./ Participated in project Exhibition and won prizes	Paper was presented in a conference./ Participated in project Exhibition and not won prizes	Paper was presented in conference with no relevant data./ Not Participated in project Exhibition	CO2	9,10,11	L3
Team Work	10	Time Management	No adjustments of deadlines. Ensured timely productions. Routinely met the guide.	Usually uses time well. Had to adjust deadlines.	Rarely gets things done by deadlines. Rarely meet the guide.	CO2	1,9,10,11	L2,L3
		Team Work	Team worked with unity and mutual respect. Each member contributed well.	Team worked well with unity most of the times. Each member contributed to the project.	Team did not work well with unity and mutual respect. Contribution from few of the members was lacking.			

PROJECT EVALUATION RUBRICS-2018-19(PHASE-1)

Rubrics are scoring or grading tools used to measure a student's performance and learning across a set of criteria and objectives.

Table 2.13: Rubrics for Project Evaluation:

Component	Marks[M]	Criteria	Exceptionally Well Executed [M>90%]	Good with room for improvement [70%	Meets minimum requirement [M<70%]	Course Outcome Mapping	PO Mapping	BTL Mapping
Literature Survey & Problem Identification	20	Refer	Refer more number of standard research papers & understand the technology.	Refer more number of research papers & understand the technology.	Refer research papers & understand the technology.	CO1	1,2	L3,L4
		Sustainability	Identify a problem integrating and balancing economic, environmental and social factors.	Identify a problem in which one factor out of three is missing.	Identify a problem in which more than two factors out of three are missing.			
		Ethics	Identify a unique problem.	Identify an existing problem to be extended.	Identify a very poor existing problem.			

Synopsis	20	Synopsis	Synopsis submitted with well and clearly identified problem and very good literature survey.	Synopsis with a problem identified and a literature survey.	Synopsis with poor problem and literature survey of few papers.	CO4	8,9,10,11, 12	L3,L6
Objective & Methodology	20	Goal	Well defined Objective to meet the problem Identified.	Defined Objective nearly meets the problem Identified.	Objectives are poorly defined to meet the problem Identified.	CO2,CO3	1,2,3,4,5,6,PSO1	L1,L3,L5,L6
		Functionality	Problem is broken into well thought out elements with good length, reusability and efficiency.	Problem is broken into elements. Length, reusability and efficiency need to be taken care.	Code elements exist, no reusability and efficiency.			
		Use of Modern Technologies	Most recent and efficient technologies are used.	New technologies but not efficient technologies are used.	Old technologies and platform are used.			
Seminar on Synopsis	40	Demonstration	Team members were very well balanced and had clear articulation and power point presentation was excellent.	Team members are audible and fluent. Presentation was good.	Team members were inaudible but fluent. Poor presentation.	CO4	8,9,10,11, 12	L3,L6

PROJECT EVALUATION RUBRICS-2017-18

Rubrics are scoring or grading tools used to measure a student's performance and learning across a set of criteria and objectives.

Table 2.14: Rubrics for Project Evaluation:

Component	Marks[M]	Criteria	Exceptionally Well Executed [M>90%]	Good with room for improvement [70%	Meets minimum requirement [M<70%]	Course Outcome Mapping	PO Mapping	BTL Mapping
Problem Identification	10	Sustainability	Identify a problem integrating and balancing economic, environmental and social factors.	Identify a problem in which one factor out of three is missing.	Identify a problem in which more than two factors out of three are missing.	CO1,CO4	1,2,12	L1,L2
		Ethics	Identify a unique problem.	Identify an existing problem to be extended.	Identify a very poor existing problem.			
Documentation	20	Synopsis	Synopsis submitted with well and clearly identified problem and very good literature survey.	Synopsis with a problem identified and a literature survey.	Synopsis with poor problem and literature survey of few papers.	CO2, CO4	9,10,11	L3
		Thesis	The thesis is clearly stated with good flow and adequate content.	The thesis is clearly stated with adequate content. Flow was little difficult to follow.	The thesis is not clearly stated with inadequate content. Flow was little difficult to follow.			
Theoretical modeling/Source Code	20	Functionality	Problem is broken into well thought out elements with good length, reusability and efficiency.	Problem is broken into elements. Length, reusability and efficiency need to be taken care.	Code elements exist, no reusability and efficiency.	CO1,CO3	2,3,4,5,12,	L2,L3,L4
		Use of Modern Technologies	Most recent and efficient technologies are used.	New technologies but not efficient technologies are used.	Old technologies and platform are used.			
Experiment observation	10	Validation	Program handles erroneous or unexpected input. Meets all requirements.	All obvious error conditions are checked. May not meet all the requirements.	Some error conditions are checked does not meet all specified requirements.	CO1, CO3	4,6	L4
		Testing	Testing is complete without being redundant..	All key items are tested, but testing may be redundant.	Testing was done, but is not sufficiently complete.			
Presentation & Discussion	20	Demonstration	Team members were very well balanced and had clear articulation and power point presentation was excellent.	Team members are audible and fluent. Presentation was good.	Team members were inaudible but fluent. Poor presentation.	CO2	9,10,11	L3
Individual Performance	15	Time Management	No adjustments of deadlines. Ensured timely productions. Routinely met the guide.	Usually uses time well. Had to adjust deadlines.	Rarely gets things done by deadlines. Rarely meet the guide.	CO2	1,9,10,11	L2,L3
		Team Work	Team worked with unity and mutual respect. Each member contributed well.	Team worked well with unity most of the times. Each member contributed to the project.	Team did not work well with unity and mutual respect. Contribution from few of the members was lacking.			
		Subject Knowledge	Major and minor concepts were very well known with good research effort.	Major concepts were known with limited research effort.	Concepts were known but not clearly. Research effort was missing.			

| Paper Presentation/ Project Exhibition | 5 | Paper Presentation/ Project Exhibition | Paper was presented in a very good conference or journal with good impact factor./ Participated in project Exhibition and won prizes | Paper was presented in a conference./ Participated in project Exhibition and not won prizes | Paper was presented in conference with no relevant data./ Not Participated in project Exhibition | CO2 | 9,10,11 | L3 |

PROJECT EVALUATION RUBRICS-2016-17

Rubrics are scoring or grading tools used to measure a student's performance and learning across a set of criteria and objectives.

Table 2.15: Rubrics for Project Evaluation:

Component	Marks[M]	Criteria	Exceptionally Well Executed [M>90%]	Good with room for improvement [70%	Meets minimum requirement [M<70%]	Course Outcome Mapping	PO Mapping	BTL Mapping
Problem Identification	15	Sustainability	Identify a problem integrating and balancing economic, environmental and social factors.	Identify a problem in which one factor out of three is missing.	Identify a problem in which more than two factors out of three are missing.	CO1,CO4	1,2,12	L1,L2
		Ethics	Identify a unique problem.	Identify an existing problem to be extended.	Identify a very poor existing problem.			
Documentation	30	Synopsis	Synopsis submitted with well and clearly identified problem and very good literature survey.	Synopsis with a problem identified and a literature survey.	Synopsis with poor problem and literature survey of few papers.	CO2, CO4	9,10,11	L3
		Thesis	The thesis is clearly stated with good flow and adequate content.	The thesis is clearly stated with adequate content. Flow was little difficult to follow.	The thesis is not clearly stated with inadequate content. Flow was little difficult to follow.			
Theoretical modeling/Source Code	10	Functionality	Problem is broken into well thought out elements with good length, reusability and efficiency.	Problem is broken into elements. Length, reusability and efficiency need to be taken care.	Code elements exist, no reusability and efficiency.	CO1,CO3	2,3,4,5,12,	L2,L3,L4
		Use of Modern Technologies	Most recent and efficient technologies are used.	New technologies but not efficient technologies are used.	Old technologies and platform are used.			
Experiment observation	10	Validation	Program handles erroneous or unexpected input. Meets all requirements.	All obvious error conditions are checked. May not meet all the requirements.	Some error conditions are checked does not meet all specified requirements.	CO1, CO3	4,6	L4
		Testing	Testing is complete without being redundant..	All key items are tested, but testing may be redundant.	Testing was done, but is not sufficiently complete.			
Presentation & Discussion	20	Demonstration	Team members were very well balanced and had clear articulation and power point presentation was excellent.	Team members are audible and fluent. Presentation was good.	Team members were inaudible but fluent. Poor presentation.	CO2	9,10,11	L3
		Paper Presentation/ Project Exhibition	Paper was presented in a very good conference or journal with good impact factor./ Participated in project Exhibition and won prizes	Paper was presented in a conference./ Participated in project Exhibition and not won prizes	Paper was presented in conference with no relevant data./ Not Participated in project Exhibition			
Individual Performance	15	Time Management	No adjustments of deadlines. Ensured timely productions. Routinely met the guide.	Usually uses time well. Had to adjust deadlines.	Rarely gets things done by deadlines. Rarely meet the guide.	CO2	1,9,10,11	L2,L3
		Team Work	Team worked with unity and mutual respect. Each member contributed well.	Team worked well with unity most of the times. Each member contributed to the project.	Team did not work well with unity and mutual respect. Contribution from few of the members was lacking.			
		Subject Knowledge	Major and minor concepts were very well known with good research effort.	Major concepts were known with limited research effort.	Concepts were known but not clearly. Research effort was missing.			

2.2.3.1.2. Impact analysis

- Project work involves working on innovative ideas by the Students.
- Skills and abilities of students improved noticeably.
- Students were able to understand the various aspects of project management.
- Students were able to work with good confidence level.
- Improved teamwork spirit.
- Implementation and deployment of the project for social benefits.

- Document preparation and presentation.
- More tendencies to showcase their project work in project exhibition were observed.
- Students were able to present their Papers based on Project Work in Conferences/Journals.

The following Projects are approved by the Karnataka State Council for Science & Technology (KSCST) for the AY 2018-2019, 2017-2018, 2016-2017.

Table 2.16: Projects approved by KSCST:

Sl.no	Proposal Reference	Project title	Guide names	Academic year	Amount Sanctioned
		Student Projects Sponsored for State Government			
1.	42S_BE_0285	Dynamic Traffic Light Controller System for Ambulance based on IOT	Dr.S.Prabhavathi	2018-2019	7,000.00
2.	42S_BE_3030	LPG Gas Leakage Detection& Automatic Gas Booking based on Arduino UNO	Mr.Nagaraj Gowda	2018-2019	7,000.00
3.	41S2018	Antitheft system for Vehicle using Finger Print Sensor	Mrs.Suvarna Patil	2017-2018	5000.00
4.	40SBE0490	Intelligent Information systems for Blind.	Mr. Shridhar Bilagi	2016-2017	5500.00

Best Projects

- **Academic Year:2018-19**

Table 2.17: Best Projects

Sl.No	USN	Student Name	Guide Name	Project Title	Remarks
1	3VC15EC001	Anitha T	Dr. S Prabhavathi	Dynamic Traffic light Control System For Ambulance Based on IOT	Selected for KSCST and sanction Rupess Seven Thousand only
	3VC15EC058	Padmashree			
	3VC16EC420	Prema			
	3VC16EC414	Megha Shivappayya M			
	3VC16EC407	Jabiwulla S			
2	3VC16EC419	Pavan Kumar B K	Mr. Nagaraj Gowda H	LPG Gas Leakage detection and Automatic Gas Booking using Arduino Uno	Seletected for KSCST and sanction Rupess Seven Thousand only
	3VC16EC416	Nagaraja			
	3VC15EC032	Gabri Basavaraja			
3	3VC15EC035	Harini Gaduputi	Mr. Prashanth K	IOT Basd Air Monitoring System	Envioronment field Project
	3VC15EC037	Harshita Kowtal			
	3VC15EC038	Jahanvi T			
	3VC15EC056	Namratha Singi D			

- **Academic Year:2017-18**

Table 2.18: Best Projects

Sl.No	USN	Student Name	Guide Name	Project Title	Remarks
1	3VC13EC032	Lakshmi Tejshwani	Mrs.Suvarna.S. patil	Anti-Theft System for Vehicles using Fingerprint Sensor.	Seletected for KSCST and sanction Rupess five Thousand only
	3VC13EC053	Praveen			
	3VC14EC009	Anand Kumar			
	3VC15EC419	Praveen. H			
	3VC14EC087	Shwetha V			
2	3VC14EC101	Taslim Banu	Mrs.Chinna.V.Gowdar	Smart soil testing for farmers	Envioronment field Project
	3VC14EC107	Vaishnavi V			
	3VC14EC109	Vidya Shree R S			

- **Academic Year:2016-17**

Table 2.19: Best Projects

Sl.No	USN	Student Name	Guide Name	Project Title	Remarks
1	3VC13EC006	Annpurneshwari T	Dr.Savita Sonoli	Bluetooth based speech	Parctipated in SRISHTI project

	3VC13EC021	Devi Shree G		recognition notice board	Exhibition&Competitioin R.V. College,Bangalore
	3VC13EC022	P Divya			
	3VC13EC033	Lavanya Y			
	3VC13EC064	Sandhya H			
2	3VC13EC093	T Prathibha	Dr.S.Prabhavathi	Itegration of WSN trough IOT for agriculture monitoring using android mobile	Envioronment field Project
	3VC13EC097	Usha K			
	3VC13EC098	Vaishnavi			
	3VC13EC082	Srinivas Rao D			
3	3VC13EC092	Syed Shabuddin	Mr. Santosh Mugali	Alive Human Being Detection in War field	Parctipated in SRISHTI project Exhibition&Competitioin R.V. College,Bangalore
	3VC09EC085	T.Koirouhanba Meitei			
	3VC13EC094	Touseef Raza			

- **Academic Year:2018-19**
- **List Of Papers Published / Presented By Students:**

Table 2.20: List Of Papers Published / Presented By Students

Sl.No.	Name of the Student	Title of the Paper	Publication citation /Event
1	Bhagyashree A V	An Efficient power utilization Approach with secure Data Transmissionto Maximize the life Time of wireless sensor network with the help of duty cycle Mechanism	IJECS-2018,VOLUME 7 ISSUE 12 ,December 2018 ,IJECS ISSN :2319 -7242
2	Shaik Mohammed Wajid	Automated street lighting system using IOT	IJARIIT-2018 ,VOLUME 4 ISSUE 3 ,September 2017 ,IJARIIT ISSN :2454 -132X
3	Syed Zuber Ahmad	Automated street lighting system using IOT	IJARIIT-2018 ,VOLUME 4 ISSUE 3 ,September 2017 ,IJARIIT ISSN :2454 -132X
4	Rahimunnisa	Automated street lighting system using IOT	IJARIIT-2018 ,VOLUME 4 ISSUE 3 ,September 2017 ,IJARIIT ISSN :2454 -132X
5	Shruthi K	Automated street lighting system using IOT	IJARIIT-2018 ,VOLUME 4 ISSUE 3 ,September 2017 ,IJARIIT ISSN :2454 -132X
6	Sree vani k	Flood Monitoring System With Sms Notification	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
7	G Rajini	Flood Monitoring System With Sms Notification	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
8	Shruthi k y	Flood Monitoring System With Sms Notification	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
9	Vidya Nalavadad	Solid waste management Planning	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
10	Y M Priyanka	Solid waste management Planning	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
11	Gavisiddeshwari	Solid waste management Planning	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
12	Seema P	Cochlear Implant	IJERECE -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :239 4-6849
13	M Praveen kumar	Implementation of Drowsiness,Vehicle safety and Alcohol Intoxication Detection using Raspberry pi	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
14	Sumanth H K	Implementation of Drowsiness,Vehicle safety and Alcohol Intoxication Detection using Raspberry pi	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
15	Vinay Kumar B	Implementation of Drowsiness,Vehicle safety and Alcohol Intoxication Detection using Raspberry pi	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
16	Dheeraj pathi	Implementation of Drowsiness,Vehicle safety and Alcohol Intoxication Detection using Raspberry pi	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
17	Ms Farah Naaz	Smart Parking Guidance System using WSN	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
18	Sahana Yadav	Smart Parking Guidance System using WSN	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
19	Sushma	Smart Parking Guidance System using WSN	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
20	M Nivedita	Green Touch Green Meter core Network Energy Efficiency Improvement Measures and Optimization	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162

21	M sai Kavya	Domotics based on Egg waves and ocul gestures for Physically challenged	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
22	Divya Sree	Domotics based on Egg waves and ocul gestures for Physically challenged	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
23	Divya Shree M C	Domotics based on Egg waves and ocul gestures for Physically challenged	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
24	Padmashree	Dynamic Traffic Light Control system for Ambulance based on IOT	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
25	Prema	Dynamic Traffic Light Control system for Ambulance based on IOT	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
26	Anitha. T	Dynamic Traffic Light Control system for Ambulance based on IOT	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
27	Megha S.S	Dynamic Traffic Light Control system for Ambulance based on IOT	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
28	Ms Amrutha H	A low power Comparator Design for 8 bit Flash ADC in 90-nm CMOS	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
29	Pallavii S	A low power Comparator Design for 8 bit Flash ADC in 90-nm CMOS	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
30	Vanaja Devi vs	A low power Comparator Design for 8 bit Flash ADC in 90-nm CMOS	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
31	Soubhagya	A low power Comparator Design for 8 bit Flash ADC in 90-nm CMOS	JETIR -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2349 -5162
32	Aishwarya	Smart crop protection system from Animals and Fire using Arduino	IJERECE -2019 ,VOLUME 6 ISSUE 4 ,April 2019 ,JETIR ISSN :2394 -6849
33	kavita H M	Smart crop protection system from Animals and Fire using Arduino	IJERECE -2019 ,VOLUME 6 ISSUE 4 ,April 2019 ,JETIR ISSN :2394 -6849
34	Rashmi Reddy K	Smart crop protection system from Animals and Fire using Arduino	IJERECE -2019 ,VOLUME 6 ISSUE 4 ,April 2019 ,JETIR ISSN :2394 -6849
35	Soumya D B	Smart crop protection system from Animals and Fire using Arduino	IJERECE -2019 ,VOLUME 6 ISSUE 4 ,April 2019 ,JETIR ISSN :2394 -6849
36	Manasa .v	Application of IOT in Aquaculture	JETIR -2019 ,VOLUME 6 ISSUE 5 ,JUNE 2019 ,JETIR ISSN :2349 -5138
37	Sai Shilpa K	Application of IOT in Aquaculture	JETIR -2019 ,VOLUME 6 ISSUE 5 ,JUNE 2019 ,JETIR ISSN :2349 -5138
38	Bavitha B	Application of IOT in Aquaculture	JETIR -2019 ,VOLUME 6 ISSUE 5 ,JUNE 2019 ,JETIR ISSN :2349 -5138
39	Geethanjali T	Application of IOT in Aquaculture	JETIR -2019 ,VOLUME 6 ISSUE 5 ,JUNE 2019 ,JETIR ISSN :2349 -5138
40	Shreedeevi Hiremath	Smart Vehicle using Arduino	IJERECE -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2394 -6849
41	Deepashree G H	Smart Vehicle using Arduino	IJERECE -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2394 -6849
42	Basavarajeshwari K V	Smart Vehicle using Arduino	IJERECE -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2394 -6849
43	Amrutha	Smart Vehicle using Arduino	IJERECE -2019 ,VOLUME 6 ISSUE 5 ,May 2019 ,JETIR ISSN :2394 -6849
44	Namratha D	IOT Based Air Quality Monitoring system	JETIR -2019 ,VOLUME 6 ISSUE 5 ,JUNE 2019 ,JETIR ISSN :2349 -5138
45	Jahnavi T	IOT Based Air Quality Monitoring system	JETIR -2019 ,VOLUME 6 ISSUE 5 ,JUNE 2019 ,JETIR ISSN :2349 -5138
46	Harshita k	IOT Based Air Quality Monitoring system	JETIR -2019 ,VOLUME 6 ISSUE 5 ,JUNE 2019 ,JETIR ISSN :2349 -5138
47	Harini G	IOT Based Air Quality Monitoring system	JETIR -2019 ,VOLUME 6 ISSUE 5 ,JUNE 2019 ,JETIR ISSN :2349 -5138
48	Dilip A	Conservation of Trees in Forest based on IOT	JETIR -2019 ,VOLUME 6 ISSUE 5 ,JUNE 2019 ,JETIR ISSN :2349 -5138
49	Vijayalakshmi .K	Advanced Headlight Monitored and Collision Preventation System in Automobiles	JETIR -2019 ,VOLUME 6 ISSUE 6 ,JUNE 2019 ,JETIR ISSN :2349 -5138
50	Shirisha k	Advanced Headlight Monitored and Collision Preventation System in Automobiles	JETIR -2019 ,VOLUME 6 ISSUE 6 ,JUNE 2019 ,JETIR ISSN :2349 -5138
51	Aditya C N	Advanced Headlight Monitored and Collision Preventation System in Automobiles	JETIR -2019 ,VOLUME 6 ISSUE 6 ,JUNE 2019 ,JETIR ISSN :2349 -5138
52	Seema T B	Smart Street Lighting with Light Intensity control using Power Electronics	JETIR -2019 ,VOLUME 6 ISSUE 6 ,JUNE 2019 ,JETIR ISSN :2349 -5145
53	Divya Bharathi	Smart Street Lighting with Light Intensity control using Power Electronics	JETIR -2019 ,VOLUME 6 ISSUE 6 ,JUNE 2019 ,JETIR ISSN :2349 -5145

54	Priyanka s p	Smart Street Lighting with Light Intensity control using Power Electronics	JETIR -2019 ,VOLUME 6 ISSUE 6 ,JUNE 2019 ,JETIR ISSN :2349 -5145
55	sai Ram B	Smart Bus Tracking System	IJERECE -2019 ,VOLUME 6 ISSUE 4 ,April 2019 ,JETIR ISSN :2394 -6849
56	Praveen kumar N	Smart Bus Tracking System	IJERECE -2019 ,VOLUME 6 ISSUE 4 ,April 2019 ,JETIR ISSN :2394 -6849
57	S Akshay	Smart Bus Tracking System	IJERECE -2019 ,VOLUME 6 ISSUE 4 ,April 2019 ,JETIR ISSN :2394 -6849
58	Pavan	Smart Bus Tracking System	IJERECE -2019 ,VOLUME 6 ISSUE 4 ,April 2019 ,JETIR ISSN :2394 -6849
59	M Basavaraj Chakrasali	Electronic Toll Collection System and Theft Detection Using RFID	IJERECE -2019 ,VOLUME 6 ISSUE 4 ,April 2019 ,JETIR ISSN :2394 -6849
60	Jainu Llabuddin	Electronic Toll Collection System and Theft Detection Using RFID	IJERECE -2019 ,VOLUME 6 ISSUE 4 ,April 2019 ,JETIR ISSN :2394 -6849

- **ACHIVEMENTS OF STUDENTS**

Table 2.21: STUDENTS ACHIVEMENTS

Sl.No.	Name of the Student	Events	Organized by
1	Balaji B	IMAS Asian Open Kumite Championship	INDIAN MARTIAL ART SANSTHAN
2	Balaji B	8th IMAS National Karate Championship	INDIAN MARTIAL ART SANSTHAN
3	Mushahira	World space week -2018	SHAR ,ISRO in BITM ballari
4	Tatti Pragnya	World space week -2018	SHAR ,ISRO in BITM ballari
5	Balaji	IMAS Asian Kumite Championship 1st place with Gold Medal ,jan 2019	INDIAN MARTIAL ART SANSTHAN
6	Mushahira	3rd State Level Project Exhibition 2k19 &Code-athon	Rao Bahadur Y Mahabaleswarappa Dept of Computer Science
7	Tatti Pragnya	4th State Level Project Exhibition 2k19 &Code-athon	Rao Bahadur Y Mahabaleswarappa Dept of Computer Science
8	Mushahira	INNOVISION 2019 State Level Technical Project Exhibition	Proudhadevaraya Institute of Technology ,Hosapete
9	Tatti Pragnya	INNOVISION 2020 State Level Technical Project Exhibition	Proudhadevaraya Institute of Technology ,Hosapete
10	Gousiya Banu R	3 days State Level Workshope EnTuple Technologies ,Analog VLSI Design Using CADENCE Tool	Rao Bahadur Y Mahabaleswarappa Dept of Electronics and Communication
11	K Akhilesh	4 days State Level Workshope EnTuple Technologies ,Analog VLSI Design Using CADENCE Tool	Rao Bahadur Y Mahabaleswarappa Dept of Electronics and Communication
12	Gahanika G S	5 days State Level Workshope EnTuple Technologies ,Analog VLSI Design Using CADENCE Tool	Rao Bahadur Y Mahabaleswarappa Dept of Electronics and Communication
13	Tatti Pragnya	6 days State Level Workshope EnTuple Technologies ,Analog VLSI Design Using CADENCE Tool	Rao Bahadur Y Mahabaleswarappa Dept of Electronics and Communication
14	Divyashree B	7 days State Level Workshope EnTuple Technologies ,Analog VLSI Design Using CADENCE Tool	Rao Bahadur Y Mahabaleswarappa Dept of Electronics and Communication
15	Mushahira	8 days State Level Workshope EnTuple Technologies ,Analog VLSI Design Using CADENCE Tool	Rao Bahadur Y Mahabaleswarappa Dept of Electronics and Communication
16	T M Aishwarya	9 days State Level Workshope EnTuple Technologies ,Analog VLSI Design Using CADENCE Tool	Rao Bahadur Y Mahabaleswarappa Dept of Electronics and Communication

- **Academic Year:2017-18**
- **List Of Papers Published / Presented By Students**

Table 2.22: List Of Papers Published / Presented By Students

Sl.No.	Name of the Student	Title of the Paper	Publication citation /Event
1	Shwetha .v	Smart soil Testing for Farmers	IJCRT - 2018 ,VOLUME 6 ISSUE 2 April 2018 ,IJCRT ISSN :2320 -2882
2	Taslim Banu	Smart soil Testing for Farmers	IJCRT - 2018 ,VOLUME 6 ISSUE 2 ,IJCRT ISSN :2320 -2882
3	Vaishnavi v	Smart soil Testing for Farmers	IJCRT - 2018 ,VOLUME 6 ISSUE 2 ,IJCRT ISSN :2320 -2882
4	Vidya shree R S	Smart soil Testing for Farmers	IJCRT - 2018 ,VOLUME 6 ISSUE 2 ,IJCRT ISSN :2320 -2882
5	Divyashree p	Smart paroxysm prediction and life saver system	IJCRT - 2018 ,VOLUME 6 ISSUE 1,March 2018 ,IJCRT ISSN :2320 -2882
6	Divya N	Smart paroxysm prediction and life saver system	IJCRT - 2018 ,VOLUME 6 ISSUE 1,March 2018 ,IJCRT ISSN :2320 -2882
7	Chitra G S	Smart paroxysm prediction and life saver system	IJCRT - 2018 ,VOLUME 6 ISSUE 1,March 2018 ,IJCRT ISSN :2320 -2882
8	Gagana D N	Smart paroxysm prediction and life saver system	IJCRT - 2018 ,VOLUME 6 ISSUE 1,March 2018 ,IJCRT ISSN :2320 -2882
9	Madalgeri Rekha A	Bayesian Detection Based Cooperative Spectrum sensing for CRN	IJRASET-2017,VOLUME 5 ISSUE IX ,September 2017 ,IJCRT ISSN :2321 -9653
10	Shaik Mohammed Wajid	Automated street lighting system using IOT	IJARIIT-2018 ,VOLUME 4 ISSUE 3 ,September 2017 ,IJARIIT ISSN :2454 -132X
11	Syed Zuber Ahmad	Automated street lighting system using IOT	IJARIIT-2018 ,VOLUME 4 ISSUE 3 ,September 2017 ,IJARIIT ISSN :2454 -132X
12	Rahimunnisa	Automated street lighting system using IOT	IJARIIT-2018 ,VOLUME 4 ISSUE 3 ,September 2017 ,IJARIIT ISSN :2454 -132X
13	Shruthi K	Automated street lighting system using IOT	IJARIIT-2018 ,VOLUME 4 ISSUE 3 ,September 2017 ,IJARIIT ISSN :2454 -132X
14	Sheher Banu S	A safe Driving Embedded System Integrated with CAN protocol	2017 IEEE 7Th International Advance Computing Conference DOI 10.1109/IACC.2017.83
15	Shilpa N	Innovative smart car for safe drive	2nd International Conference on Advances in computing Applications ICACA -2018 & IJERCSE-2018VOLUME 5 ISSUE 4 ,April 2018 ,IJERCSE ISSN :2394 -2320
16	Soudamani M.C	Innovative smart car for safe drive	2nd International Conference on Advances in computing Applications ICACA -2018
17	Soumya K	Innovative smart car for safe drive	2nd International Conference on Advances in computing Applications ICACA -2018
18	Swapna I	Innovative smart car for safe drive	2nd International Conference on Advances in computing Applications ICACA -2018
19	Subba Lakshmi s v	Smart Security Device for women safety	IJLTEMAS-2018 ,VOLUME 7 ISSUE 6 ,April 2018 ,IJLTEMAS ISSN :2278 -2540
20	Sneha G	Smart Security Device for women safety	IJLTEMAS-2018 ,VOLUME 7 ISSUE 6 ,April 2018 ,IJLTEMAS ISSN :2278 -2540
21	Sowmya S M	Smart Security Device for women safety	IJLTEMAS-2018 ,VOLUME 7 ISSUE 6 ,April 2018 ,IJLTEMAS ISSN :2278 -2540
22	Shilpashreeyadav GC	Smart Security Device for women safety	IJLTEMAS-2018 ,VOLUME 7 ISSUE 6 ,April 2018 ,IJLTEMAS ISSN :2278 -2540
23	Renuka .s	ALU Implementation using CMOS Technology	IJLTEMAS-2018 ,VOLUME 7 ISSUE 5 ,May 2018 ,IJLTEMAS ISSN :2278 -2540
24	kavitha K	ALU Implementation using CMOS Technology	IJLTEMAS-2018 ,VOLUME 7 ISSUE 5 ,May 2018 ,IJLTEMAS ISSN :2278 -2540

25	krishna P	ALU Implementation using CMOS Technology	IJLTEMAS-2018 ,VOLUME 7 ISSUE 5 ,May 2018 ,IJLTEMAS ISSN :2278 -2540
26	Varun Kumar	Minimizing Electricity Theft by IOT	IJLTEMAS-2018 ,VOLUME 7 ISSUE 5 ,May 2018 ,IJLTEMAS ISSN :2278 -2540
27	Chetan Sastry	Minimizing Electricity Theft by IOT	IJLTEMAS-2018 ,VOLUME 7 ISSUE 5 ,May 2018 ,IJLTEMAS ISSN :2278 -2540
28	Shrinidhi W	Minimizing Electricity Theft by IOT	IJLTEMAS-2018 ,VOLUME 7 ISSUE 5 ,May 2018 ,IJLTEMAS ISSN :2278 -2540
29	Manjunath	Minimizing Electricity Theft by IOT	IJLTEMAS-2018 ,VOLUME 7 ISSUE 5 ,May 2018 ,IJLTEMAS ISSN :2278 -2540

- **ACHIVEMENTS OF STUDENTS**

Table 2.23: Students Achivements

Sl.No.	Name of the Student	Events	Organized by
1	Balaji B	IMAS International Open Dance Championship	INDIAN MARTIAL ART SANSTHAN 7th 8th Oct 2017 Jaipur
2	Balaji B	8 th IMAS International Open 1st Rank in Karate Below Black Belt 67+Kgs weight Championship	INDIAN MARTIAL ART SANSTHAN 27th 28th Jan 2018 Jaipur
3	Balaji B	9 th IMAS International Open 1st Rank in Kumite Below Black Belt 60+Kgs weight Championship	INDIAN MARTIAL ART SANSTHAN 28th 29 April 2018 Jaipur
4	Manoj Padmanabha murthy	VTU National Academy for skill Development ,Dandeli	eKLakshya
5	Mushahira A	VTU National Academy for skill Development ,Dandeli	eKLakshya
6	M pooja	2nd State Level Telecommunication Project Model Competation	GSSS Institute of Engineering &Technology for Women TELEUTSAV 2018 Mysuru
7	Hemavathi H	3rd State Level Telecommunication Project Model Competation	GSSS Institute of Engineering &Technology for Women TELEUTSAV 2018 Mysuru
8	K Vandhana	4th State Level Telecommunication Project Model Competation	GSSS Institute of Engineering &Technology for Women TELEUTSAV 2018 Mysuru
9	Harika V	5th State Level Telecommunication Project Model Competation	GSSS Institute of Engineering &Technology for Women TELEUTSAV 2018 Mysuru

Table 2.24: Students awarded with Cash Prize for academic excellence

III & IV SEMESTER BE - ELECTRONIC & COMMUNICATION ENGG

SL NO	USN	NAME	SGPA	Place	CASH PRIZE(Rs)
1	3VC16EC050	Mushahira	8.18	I	2,000
2	3VC16EC083	Sinduja K	7.82	II	1,500
3	3VC16EC027	G Sirisha	7.82	II	1,500
4	3VC16EC102	Vandana K	7.82	II	1,500
5	3VC16EC060	Payyavula Rachana Priya	7.75	III	1,000

V & VI SEMESTER BE - ELECTRONICS & COMMUNICATION ENGINEERING

SL NO	USN	NAME	%	Place	CASH PRIZE(Rs)

1	3VC15EC024	Dheeraj Pathi	8.75	I	2,000
2	3VC15EC045	Kommineni Kavya	8.67	II	1,500
3	3VC15EC052	Manasa V	8.63	III	1,000

VII & VIII SEMESTER BE - ELECTRONICS & COMMUNICATION ENGINEERING

SL NO	USN	NAME	%	Place	CASH PRIZE(Rs)
1	3VC14EC104	Uppara Vasavi	79.39	I	10,000
2	3VC14EC025	Deepti	79.09	II	1,500
3	3VC14EC047	Kavya Dh	78.06	III	1,000

- **Academic Year:2016-17**
- **List Of Papers Published / Presented By Students**

Table 2.25: List Of Papers Published / Presented By Students

Sl.No.	Name of the Student	Title of the Paper	Publication citation /Event
1	Nirmala Y	A Vitality utalization assessment of receptive and proactive directing conventions	IJEDR -Aug 2017 ,VOLUME 5 ISSUE 3 ,IJEDR ISSN :2321 -9939
2	Sripushpa C	Estimation of Reliable Routing and Maintenance for wireless sensor network	IJECS-AUG 2017,VOLUME 5 ISSUE 8 ,ISSN NO :2319-7242
3	Nuzhat Anjum	Air Quality Monitoring in Non Rural Areas	IJRASET -Aug 2017,VOLUME 5 ISSUE 8 ,IJRASET9499,DOI :10.22214
4	Manasa M	Rapid Entire Body Postural Analysis ans Assessment Device for Computer Operators	IJESC -May 2017,VOLUME 7 ISSUE 5,ISSN 2250-1371
5	Amrutha Rashmi	Rapid Entire Body Postural Analysis ans Assessment Device for Computer Operators	IJESC -May 2017,VOLUME 7 ISSUE 5,ISSN 2250-1371
6	Darakhshan Sadaf	Rapid Entire Body Postural Analysis ans Assessment Device for Computer Operators	IJESC -May 2017,VOLUME 7 ISSUE 5,ISSN 2250-1371
7	Md.Shah Nawaz Khazi	Rapid Entire Body Postural Analysis ans Assessment Device for Computer Operators	IJESC -May 2017,VOLUME 7 ISSUE 5,ISSN 2250-1371
8	Sai Kavya C, Swathi H A	Data Transmission and Internet Facilities using VLC	Talentronics Forum ,Dept od E&C ,Rymec ,ballari
9	Sai Kavya C, Swathi H A	V2V Communication and Data Transmission ,internet facilities using VLC	Talentronics Forum ,Dept od E&C ,Rymec ,ballari
10	Ekatha D	An Affricative Finger print Feature Extraction using Diagnostic Approach	IJECS-OCT 2017,VOLUME 6 ISSUE 10,ISSN 2319-7242
11	Swapna	Light weight Ciphers primarily based on Chaotic map -LFSR Architectures	IJRASET-Aug 2017,VOLUME 5 ISSUE 8,ISSN 2321-9653

- **ACHIVEMENTS OF STUDENTS**

Table 2.26: ACHIVEMENTS OF STUDENTS

Sl.No.	Name of the Student	Events	Organized by
1	Nagabhooshan Reddy K	IOT Application Development on Arduino and Raspberry Pi,	3days Dept of E&CE in Association with ISTE ,GM Institute of Technology ,Davangere
2	P.Dinesh	IOT Application Development on Arduino and Raspberry Pi,	3 days Dept of E&CE in Association with ISTE ,GM Institute of Technology ,Davangere

3	Mounika .N	IOT Application Development on Arduino and Raspberry Pi,	3daysDept of E&CE in Association with ISTE ,GM Institute of Technology ,Davangere
4	Madhurya .P	IOT Application Development on Arduino and Raspberry Pi,	3days Dept of E&CE in Association with ISTE ,GM Institute of Technology ,Davangere
5	Shaik Mohammed Wajid	Hands on Training using MATLAB and Simulink	2 days ,Dept of E&CE,RYMEC ,Ballari
6	Swapna I	Hands on Training using MATLAB and Simulink	2 days ,Dept of E&CE,RYMEC ,Ballari
7	Ramya R	Hands on Training using MATLAB and Simulink	2 days ,Dept of E&CE,RYMEC ,Ballari
8	Pavithra S.M	Hands on Training using MATLAB and Simulink	2 days ,Dept of E&CE,RYMEC ,Ballari
9	Yasmeen Begaum	Hands on Training using MATLAB and Simulink	2 days ,Dept of E&CE,RYMEC ,Ballari
10	Vaishnavi v	Hands on Training using MATLAB and Simulink	2 days ,Dept of E&CE,RYMEC ,Ballari
11	S.R.Sindhuja	Hands on Training using MATLAB and Simulink	2 days ,Dept of E&CE,RYMEC ,Ballari
12	Soumya k	Hands on Training using MATLAB and Simulink	2 days ,Dept of E&CE,RYMEC ,Ballari
13	Syed Zuber Ahmad	Hands on Training using MATLAB and Simulink	2 days ,Dept of E&CE,RYMEC ,Ballari
14	Subbalakshmi S.V	Hands on Training using MATLAB and Simulink	2 days ,Dept of E&CE,RYMEC ,Ballari

Table 2.27 Students awarded with Cash Prize for academic excellence

III & IV SEMESTER BE - ELECTRONIC & COMMUNICATION ENGG

SL NO	USN	NAME	%	Place	CASH PRIZE(Rs)
1	3VC15EC045	Kommineni Kavya	8.785	I	2,000
2	3VC15EC025	Dilip A	8.285	II	1,500
3	3VC15EC024	Dheeraj Pathi	8.215	III	1,000

V & VI SEMESTER BE - ELECTRONICS & COMMUNICATION ENGINEERING

SL NO	USN	NAME	%	Place	CASH PRIZE(Rs)
1	3VC14EC021	Chaitna	77.77	I	2,000
2	3VC14EC047	Kavya D H	77.56	II	1,500
3	3VC14EC104	Uppara Vasavi	76.56	III	1,000

VII & VIII SEMESTER BE - ELECTRONICS & COMMUNICATION ENGINEERING

SL NO	USN	NAME	%	Place	CASH PRIZE(Rs)
1	3VC13EC063	Sai Pallavi	82.97	I	10,000
2	3VC13EC042	Mounika	82.48	II	1,500
3	3VC13EC021	Devishree	82.00	III	1,000

- **Mini – Project Competition (AY2018-2019)**
- The following students are the winners of Mini-Project competition held on 15-10-2018 at Logic Design / Analog Electronics Lab.

Table 2.28: Winners of Mini-Project competition

Semester	USN	Name of Students	Topic
	3VC17EC074	Sunil P L	
III	3VC17EC084	Sai Swaroop	**"Automated Irrigation System LM324N"**
	3VC17EC065	Shiva Prajwal C	

V	3VC17EC403	Saniya Ashrafi	"Power Generation Using Road Speed Breakers With Auto ON/OFF Street Lights"
	3VC17EC400	G Pavithra	
	3VC15EC026	Divya B R	
	3VC16EC408	Kavya	
V	3VC15EC050	Madhuteja C H	"Laser Light Security System"
	3VC15EC057	Naveen Varma P	
	3VC15EC002	Abhishek Singh	
	3VC16EC400	Bharath B C	
V	3VC16EC032	H Megha	"Li-Fi in Space Communication"
	3VC16EC077	Sumeen	
	3VC16EC102	Vandana Kolli	
V	3VC16EC046	Manoj Padmanabha Murthy T	"OK Goolge! Lights ON.... (IOT Based)"

- **Mini – Project Competition (AY2017-2018)**
- The following students are the winners of Mini-Project competition held on 28-10-2017 at Communication Lab.

Table 2.29: Winners of Mini-Project competition

Semester	USN	Name of Students	Title of Mini Project
III	3VC16EC046	Manoj Padmanabha Murthy T R	"A Transport Facility for Blind People"
	3VC16EC089	Sricharan R	
V	3VC15EC045	Komminieni Kavya	"Automatic Drip Irrigation"
	3VC15EC006	Aishwarya K	
	3VC15EC094	Veena S	
	3VC15EC096	Vijaya Lakshmi K	
V	3VC15EC052	Manasa V	"2-way Mobile Charger using Renewable Resource"
	3VC15EC017	Bavitha B	
	3VC15EC033	Geethanjali	
	3VC15EC040	Shilpa K	
VII	3VC14EC037	H Yogaraj	"Automatic Irrigation System"
	3VC14EC036	Gurushruthi G T	
	3VC14EC039	Harshitha K	
	3VC15EC420	Ranganath A J	
VII	3VC15EC401	Akshay Deshapande	"Automatic Counter Display"
	3VC15EC406	Deepa S T	
	3VC14EC115	Yasmeen	
	3VC14EC411	Hemavathi H	

- **Mini – Project Competition (AY2016-2017)**

- The following students are the winners of Mini-Project competition held on 24-10-2016 at Logic Design / Project Lab.
- **Table 2.32: Details of Mini-Project**

Table 2.30: Winners of Mini-Project competition

Semester	USN	Name of Students	Topic
III	3VC15EC037	Harshitha K	Your Number our Display
	3VC15EC035	Harini G	
	3VC15EC038	Jhanavi T	
	3VC15EC058	Namratha D Singi	
III	3VC15EC050	Madhuteja C H	Vacuum Cleaner
	3VC15EC061	Praveen Kumar N	
	3VC15EC075	Sairam B	
	3VC14EC069	Pavan S J	
V	3VC15EC401	Akshay Arun Deshpande	Automatic Parking Gate Using Encoder & Decoder
	3VC14EC067	Nakulraj H T	

	3VC13EC033	Lavanya Y	
VII	3VC13EC022	Divya P	
	3VC13EC028	Hemavathi P	Touch Switch
	3VC13EC044	Nagalakshmi	

Seminar Conduction Process
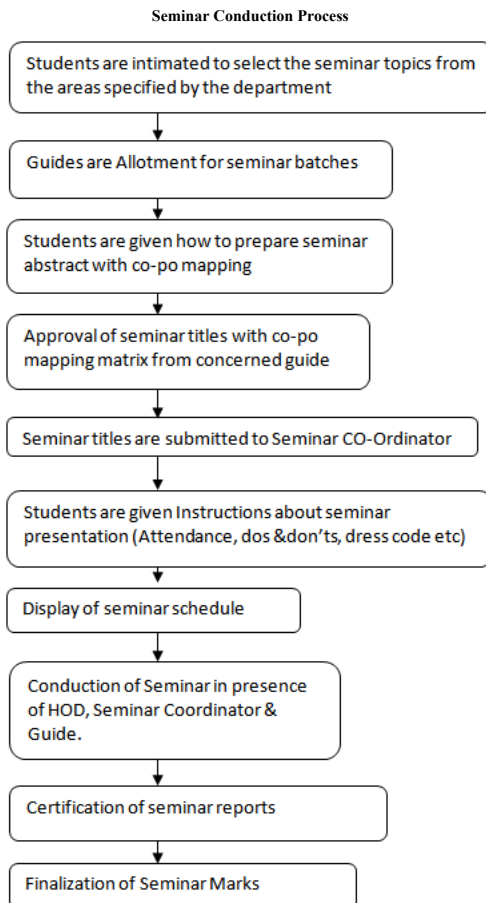
Fig 2.10: Flow diagram showing Seminar Conduction Process

SEMINAR EVALUATION RUBRICS-2018-19

Seminar Work Evaluation:

- A senior faculty member is designated as Seminar coordinator who along with other members will assess the Technical seminar presentations by students.
- Coordinator and members ensure that the students choose advanced topics in Electronics & communication and allied research areas with appropriate relevance and applicability.
- As per the schedule mentioned prior in Time Table, each student will present the seminar in chosen topic in VIII semester.

Seminar coordinator and members follow the rubrics for evaluation of seminar.

Table 2.31: SEMINAR RUBRICS-2018-19

Component	Marks[M]	Exceptionally Well Executed [M>90%]	Good with room for improvement [70%	Meets minimum requirement [M<70%]
Presentation Skills	20M	Varied rate of delivery, Changed pitch for emphasis, No distracting mannerisms, good eye contact, Confident body language, Connected with audience	Information presented in logical sequence; easy to follow , occasional eye contact	Hard to follow sequence of information, no or just occasional eye contact , reads most slides.
Use of Visuals (Efforts to Aid Presentation)	20M	Very good, relevant visuals, good font size/image size, Appropriate number of words and images per slide, good colour schemes, well explained	Good Visual and images per slide Majority of the figures are Reasonably explained	Some figures hard to read, Some figure explanations are lacking

Timing and Pace of Talk	10M	Right length and well paced Appropriate (30-35 min)	Adequate (25-30 min)	Short 30 min OR long >35
Audibility and Comprehensibility	10M	Very clear and very precise	Not Very clear and moderately precise	Poor audibility
Seminar Report	40M	Seminar report is submitted as per the VTU guidelines. Seminar is executed as per the Scheduled dates.	Most of the VTU guidelines are followed to prepare report Seminar is executed as per the Scheduled dates.	Most of the VTU guidelines are followed to prepare report Seminar is not executed as per the Scheduled dates.

SEMINAR EVALUATION RUBRICS-2017-18, 2016-17

Seminar Work Evaluation:

- A senior faculty member is designated as Seminar coordinator who along with other members will assess the Technical seminar presentations by students.
- Coordinator and members ensure that the students choose advanced topics in Electronics & communication and allied research areas with appropriate relevance and applicability.
- As per the schedule mentioned prior in Time Table, each student will present the seminar in chosen topic in VIII semester.
- Seminar coordinator and members follow the rubrics for evaluation of seminar.

Table 2.32: SEMINAR RUBRICS-2016-17, 2017-18

Component	Marks[M]	Exceptionally Well Executed [M>90%]	Good with room for improvement [70%	Meets minimum requirement [M<70%]
Presentation Skills	10M	Varied rate of delivery, Changed pitch for emphasis, No distracting mannerisms, good eye contact, Confident body language, Connected with audience	Information presented in logical sequence; easy to follow , occasional eye contact	Hard to follow sequence of information, no or just occasional eye contact , reads most slides.
Use of Visuals (Efforts to Aid Presentation)	10M	Very good, relevant visuals, good font size/image size, Appropriate number of words and images per slide, good colour schemes, well explained	Good Visual and images per slide Majority of the figures are Reasonably explained	Some figures hard to read, Some figure explanations are lacking
Timing and Pace of Talk	05M	Right length and well paced Appropriate (30-35 min)	Adequate (25-30 min)	Short 30 min OR long >35
Audibility and Comprehensibility	05M	Very clear and very precise	Not Very clear and moderately precise	Poor audibility
Seminar Report	20M	Seminar report is submitted as per the VTU guidelines. Seminar is executed as per the Scheduled dates.	Most of the VTU guidelines are followed to prepare report Seminar is executed as per the Scheduled dates.	Most of the VTU guidelines are followed to prepare report Seminar is not executed as per the Scheduled dates.

2.2.4 Initiative related to industry interaction (15)   Institute Marks : 15.00

2.2.4.1. Initiatives for industry interaction

- The Faculties of the Department interact with Industry Experts, Research Heads for Research/Project guidance and Organizing Workshops/Seminars/Conferences.
- To provide guidance for student internship programs.
- Establishing MOU's with Industries to bridge the gap between Academia-Industry.

2.2.4.2. Implementation

- Many invited talks and seminars from industry resource persons are arranged and department invites the participants from various Department and also participants from other Colleges.

Industry supported laboratories

Table 2.33: Industry supported laboratory.

Company Name	Laboratories	Outcomes

TATA Technologies Incubation Centre	Centre of Invention, Innovation, Incubation, & Training Cell	1.Students learn Latest technology Tools used in Industry. 2. Helps in Building good Career Opportunity.

2.2.4.3. Impact analysis

The following events were organized to bridge the gap between industry academies.

Activities Organised under MOU

Table 2.34: Events to bridge gap between industry academies.

SL No	Name of the Activity	Dates	MOU Partner
1.	One day Workshop on Multisim software	22/09/2018	ALS Advanced Electronic System, Bengaluru
2.	Placement Drive	29/01/2018	Costuco, Hyderabad
3.	Internship	22/01/2018	BSNL, Mysuru
4.	Seminar on Career Guidance	21/11/2017	Costuco, Hyderabad
5.	Hands on Training using Matlab & Simulink	7,8 October 2016	Corel Technology, Bengaluru
6.	State Level Workshop on Advanced Comprehensive Learning using Matlab & Simulink	24,25,26 August 2015	Corel Technology, Bengaluru
7	Talk on "Project Lab – A Concept"	20/08/2014	ALS Advanced Electronic System, Bengaluru

The list of MOUs

Table 2.35: Details of MOUs:

SL No	MOU Partner /Name of the Organisation	Type of Organisation	Linkage Area	MOU Date
1	Tech Trunk Ventures, Hyderabad	Company	Research/Training/Services/ Careers	24/07/2019 (03 Years)
2	Embiot Technologies(ET), Bengaluru	Company	Internship/IndustrialVisits/ Placement/Workshop/Seminars/ conferences/oppurtunities	30/05/2019
3	VTU-Friends Union for Engineering Lives(FUEL)	University-Centre	National Academy for Skill Development (NSAD)	20/05/2019
4	Institute for Engineering Research and Publication (IFERP), Chennai.	Company	Research and Publication/Conferences	07/01/2019
5	Costuco, Hyderabad.	Company	Placements/ EDA Tools	26/12/2017
6	BSNL, Mysuru.	Government Sector	Communication Systems/Vocational Course/Internship/FDP	26/12/2017 (03 Years)
7	Advanced Electronic System(ALS), Bengaluru.	Company	Electronic Equipments/Industrial Visit/Internship/Training/Placement	16/07/2015
8	Corel Technology Pvt Ltd, Bengaluru.	Company	EDA Tools/Infrastructure/Project/Internship/FDP	08/06/2015
9	Pragna Microdesigns, Bengaluru.	Company	Training/Industrial Visits/Internship/PE Kits	02/11/2015

| 10 | TRIDENT EdGate Technologies,Bangalore. | Company | Texas Instruments/ Industry Sponsered Lab (Innovation Center.) | 12/12/2013 |

Industry Visit Consolidated from 2012-2019:

Table 2.36: Industry visit Details :

Sl No	PLACE	DATE
1	SDSC SHAR Sriharikota	01/11/2019
2	BSNL Ballari	28/03/2018
3	BSNL Ballari	24/02/2018
4	SDSC SHAR Sriharikota	07/05/2018
5	ISRO , Bangalore	02/01/2018
6	JSW,Steels Ballari	08/10/2017
7	BSNL, Ballari	21/09/2015
8	Airport,Ballari	05/03/2015
9	Airport,Ballari	18/03/2014
10	Airport,Ballari	06/03/2013
11	BTS Cell Site	16/03/2012

2.2.5 Initiative related to industry internship/summer training (15)   Institute Marks : 12.00

Internship Details:

Table 2.37: Internship Details for Academic Year 2018-19:

Sl No	No of students attended	Company
1.	23	BSNL Ballari
2.	3	Hospet Steels Limited, Ginigera
3.	9	Magnum Technologies Banglore
4.	9	Mitron Technologies & Innovations Yelahanka Banglore
5.	2	MSPL LIMITED Hospete
6.	1	LIVEWIRE Ballari
7.	6	Phase Shift Hubli
8.	1	TATA MOTORS PUNE
9.	19	TechnoFly Solutions Vijaynagar Banglore
10.	2	BHUWALKA Pipes Industries Ballari
11.	3	Vishvajyoti Technologies PVT LTD Banglore
12.	1	ANA Battlefield Systems Banglore

Table 2.38: Internship Details for Academic Year 2017-18:

Sl No	No of students attended	Company
1	21	JSW Energy Centre of Excellence,Toranagal,Ballari
2	73	BSNL,Mysuru

Table 2.39: Internship Details for Academic Year 2015-16:

Sl No	No of students attended	Company
1	7	RTTC(Regional Telecom Training Center),Mysuru
2	7	KNOWX Innovations(p) Ltd.

3 COURSE OUTCOMES AND PROGRAM OUTCOMES (120)

Total Marks 110.00

Define the Program specific outcomes

3.1 Establish the correlation between the courses and the Program Outcomes (POs) and Program Specific Outcomes (PSOs) (20)

Total Marks 20.00

:

PSO1	Ability to Design, Develop and Test the Electronics Circuits & Communication Systems.
PSO2	Ability to Develop Excellent Programming and problem solving skills in the field of Embedded System.

3.1.1 Course Outcomes(COs)(SAR should include course outcomes of one course from each semester of study, however, should be prepared for all courses and made available as evidence, if asked) (5)

Institute Marks : 5.00

Note : Number of Outcomes for a Course is expected to be around 6.

Course Name :	C2 02	Course Year :	2016-2017

Items	2018-19
C2 02.1	Acquire knowledge of Working principles, characteristics and Frequency response BJT and FET, feedback amplifier configurations and Power amplifier classifications.
C2 02.2	Analyze the performance of BJT & FET amplifier & Power amplifier.
C2 02.3	Interpretation of performance characteristics of transistors amplifiers, frequency Response and Oscillators.
C2 02.4	Apply the knowledge gained from transistorized circuits, to design amplifiers and Oscillators.

Course Name :		C2 13	Course Year :	2016-2017

Items	2018-19
C2 13.1	Determine the performance of analog modulation schemes in time and frequency domains and systems for generation and detection of modulated analog signals.
C2 13.2	Characterize analog signals in time domain as random processes and in frequency domain using Fourier transforms.
C2 13.3	Characterize the influence of channel on analog modulated signals & determine the performance of analog communication systems.
C2 13.4	Understand the characteristics of pulse amplitude modulation, pulse position modulation and pulse code modulation systems.

Course Name :		C3 03	Course Year :	2017-2018

Items	2018-19
C3 03.1	Demonstrate Digital Circuit Design using Verilog programming by understanding different operators & data-types.
C3 03.2	Model Digital Logic Circuit using different programming styles (data-flow, behavioral& structural).
C3 03.3	Describe the art of mixing different types of descriptions, subroutines.
C3 03.4	Express the importance of programming by mixing both VHDL & Verilog and synthesis & mapping process.

Course Name :		C3 12	Course Year :	2017-2018

Items	2018-19
C3 12.1	Describe the layering architecture of OSI reference model and TCP/IP protocol suite.
C3 12.2	Understand the protocols associated with each layer.
C3 12.3	Understand the different networking architectures and their representations.
C3 12.4	Construct the various routing techniques and the transport layer services.

Course Name :		C4 02	Course Year :	2018-2019

Items	2018-19
C4 02.1	Understand the image formation and the role of human visual system places in perception of gray and color image.
C4 02.2	Apply the image processing techniques in both spatial and frequency domains.
C4 02.3	Conduct independent study and analysis of image enhancement techniques.
C4 02.4	Design image analysis techniques in the form of image segmentation and to evaluate methodologies for segmentation.

Course Name :		C4 09	Course Year :	2018-2019

Items	2018-19
C4 09.1	Understand the system architecture and the functional standard specified in LTE 4G.
C4 09.2	Analyze the role of LTE radio interface protocols and EPS Data convergence protocols to set up, reconfigure and release data and voice from users.
C4 09.3	Demonstrate the UTRAN and EPS handling processes from set up to release Including mobility management for a variety of data call scenarios.
C4 09.4	Evaluate the Performance of resource management and packet data processing and transport algorithms.

3.1.2 CO-POmatrices of courses selected in 3.1.1(Six matrices to be mentioned; one per semester from 3rd to 8th semester) (5)   Institute Marks : 5.00

1 . course name : C202

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C202.1	-	-	-	-	-	-	-	-	-	-	-	-
C202.2	3	3	-	-	-	-	-	-	-	-	-	-

Course												
C202.3	-	-	-	3	-	-	-	-	-	-	-	-
C202.4	2	2	3	-	-	-	-	-	-	-	-	-
Average	2.5	2.5	3	3								

2 . course name : C213

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C213.1	3	3	2	-	-	-	-	-	-	-	-	-
C213.2	2	2	-	-	-	-	-	-	-	-	-	-
C213.3	2	2	-	-	-	-	-	-	-	-	-	-
C213.4	2	2	-	-	-	-	-	-	-	-	-	-
Average	2.25	2.25	2									

3 . course name : C303

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C303.1	2	2	-	-	-	-	-	-	-	-	-	-
C303.2	3	3	3	-	-	-	-	-	-	-	-	-
C303.3	2	2	2	-	-	-	-	-	-	-	-	-
C303.4	2	2	2	-	-	-	-	-	-	-	-	-
Average	2.25	2.25	2.33									

4 . course name : C312

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C312.1	-	-	-	-	-	-	-	-	-	-	-	-
C312.2	-	-	-	-	-	-	-	-	-	-	-	-
C312.3	2	2	2	-	-	-	-	-	-	-	-	-
C312.4	3	3	3	-	-	-	-	-	-	-	-	-
Average	2.5	2.5	2.5									

5 . course name : C402

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C402.1	2	2	2	-	-	-	-	-	-	-	-	-
C402.2	3	3	3	2	3	-	-	-	-	-	-	-
C402.3	3	3	3	2	-	-	-	-	-	-	-	-
C402.4	3	3	3	3	-	-	-	-	-	-	-	-
Average	2.75	2.75	2.75	2.33	3							

6 . course name : C409

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C409.1	-	-	-	-	-	-	-	-	-	-	-	-
C409.2	3	3	-	-	-	-	-	-	-	-	-	-
C409.3	2	2	-	-	-	-	-	-	-	-	-	-
C409.4	3	3	-	-	-	-	-	-	-	-	-	-

Average	2.67	2.67											

---

1 . Course Name : C202

Course	PSO1	PSO2
C202.1	- ▼	- ▼
C202.2	2 ▼	- ▼
C202.3	- ▼	- ▼
C202.4	3 ▼	- ▼
Average	2.5	

---

2 . Course Name : C213

Course	PSO1	PSO2
C213.1	1 ▼	- ▼
C213.2	1 ▼	- ▼
C213.3	1 ▼	- ▼
C213.4	1 ▼	- ▼
Average	1	

---

3 . Course Name : C303

Course	PSO1	PSO2
C303.1	- ▼	2 ▼
C303.2	- ▼	2 ▼
C303.3	- ▼	3 ▼
C303.4	- ▼	2 ▼
Average		2.25

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4 . Course Name : C312

Course	PSO1	PSO2
C312.1	- ▼	- ▼
C312.2	- ▼	2 ▼
C312.3	- ▼	2 ▼
C312.4	- ▼	2 ▼
Average		2

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5 . Course Name : C402

Course	PSO1	PSO2
C402.1	2 ▼	- ▼
C402.2	2 ▼	- ▼
C402.3	2 ▼	- ▼
C402.4	2 ▼	- ▼
Average	2	

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6 . Course Name : C409

Course	PSO1	PSO2
C409.1	- ▼	1 ▼
C409.2	- ▼	2 ▼
C409.3	- ▼	- ▼
C409.4	- ▼	2 ▼
Average		1.67

3.1.3 - A Program level Course-PO matrix of all courses INCLUDING first year courses (10)　　　　　Institute Marks : 10.00

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	2.5	2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C102	3	2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C103	3	2.5	1	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C104	2.67	2.33	PO3	PO4	2.67	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C105	3	2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C106	PO1	PO2	PO3	PO4	3	PO6	PO7	3	3	3	PO11	2
C107	2	3	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C108	2	PO2	PO3	PO4	PO5	PO6	1	PO8	PO9	PO10	PO11	PO12
C109	2.25	2.25	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C110	2.67	2.67	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C111	2	2.4	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C112	2	2	PO3	PO4	PO5	2	2	PO8	PO9	PO10	PO11	PO12
C113	1.5	2.33	2.33	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C114	2.33	2	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C115	2.67	2.67	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C116	PO1	PO2	PO3	PO4	PO5	2.5	PO7	3	PO9	PO10	PO11	2
C201	2.25	2.5	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C202	2.5	2.5	3	3	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C203	2.5	2	2.33	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C204	3	2.25	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C205	2.5	2.75	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2.5
C206	3	2	1	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C207	2	2	2.67	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C208	3	2.67	3	PO4	3	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C209	2.5	2.25	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C210	2.5	2.5	2.5	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C211	3	2.25	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C212	3	2.5	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C213	2.25	2.25	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C214	1.67	2.25	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C215	2.5	2.25	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C216	3	3	2.5	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C301	PO1	PO2	PO3	PO4	PO5	2.67	2.5	2.25	2.5	2.25	3	2.75
C302	3	3	2.5	2.5	3	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C303	2.5	2.25	2.33	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12

Course												
C304	3	3	2.5	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C305	1.75	1.5	2.25	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C306	3	3	2.5	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C307	2	2	2	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C308	3	2.75	2.67	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C309	2.33	2.33	2.33	PO4	2.33	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C310	2.25	2.67	2.33	3	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C311	3	2.75	2.33	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C312	1.25	1.25	2.67	2.5	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C313	3	2.5	2.5	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C314	3	3	2.5	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C315	2.25	2.75	2.75	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C316	2.67	2.33	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C317	2.25	2.5	3	3	3	PO6	PO7	PO8	PO9	PO10	PO11	2
C401	2	2.25	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C402	2.75	2.75	2.75	2.33	3	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C403	2.5	2.5	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C404	2	2.33	2.5	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C405	1.75	1	1	PO4	2	1	1	PO8	1	PO10	PO11	1.25
C406	2.5	2.5	3	3	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C407	3	2.5	2.25	3	2.5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C408	3	3	3	3	3	2	PO7	3	3	3	3	2
C409	2.33	2.67	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C410	2	2.25	2.25	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	3
C411	3	2.5	2.33	2.5	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C412	PO1	3	3	PO4	3	PO6	PO7	PO8	PO9	3	3	3
C413	2.59	2.88	2.77	2.52	2.36	2.71	2.57	2.33	2.86	2.76	2.84	2.73
C414	2.35	2.46	1.52	2.58	2.43	2.27	2.32	2.07	2.87	2.51	2.38	2.71

3.1.3 - B Program level Course-PSO matrix of all courses INCLUDING first year courses

Course	PSO1	PSO2
C101	PSO1	PSO2
C102	PSO1	PSO2
C103	PSO1	PSO2
C104	PSO1	PSO2
C105	PSO1	PSO2
C106	PSO1	PSO2
C107	PSO1	PSO2
C108	PSO1	PSO2
C109	PSO1	PSO2
C110	PSO1	PSO2
C111	PSO1	PSO2
C112	PSO1	PSO2
C113	PSO1	PSO2
C114	PSO1	PSO2

C115	PSO1	PSO2
C116	PSO1	PSO2
C201	PSO1	PSO2
C202	2.5	PSO2
C203	1	PSO2
C204	2	PSO2
C205	PSO1	PSO2
C206	PSO1	PSO2
C207	3	PSO2
C208	2.67	PSO2
C209	PSO1	PSO2
C210	PSO1	2.5
C211	PSO1	PSO2
C212	2.5	PSO2
C213	1	PSO2
C214	PSO1	PSO2
C215	PSO1	2
C216	2.5	PSO2
C301	PSO1	2.5
C302	PSO1	PSO2
C303	PSO1	2.25
C304	2.75	PSO2
C305	PSO1	PSO2
C306	PSO1	3
C307	2	2
C308	PSO1	2.75
C309	PSO1	1.47
C310	2	PSO2
C311	PSO1	2.75
C312	2	PSO2
C313	PSO1	2
C314	2.75	PSO2
C315	PSO1	2.25
C316	PSO1	2.67
C317	PSO1	3
C401	2	PSO2
C402	2	PSO2
C403	2.5	PSO2
C404	PSO1	PSO2
C405	1	1
C406	2.5	PSO2
C407	3	PSO2
C408	3	PSO2
C409	PSO1	2.5

C410	PSO1	PSO2
C411	2	PSO2
C412	2	2
C413	2.92	2.43
C414	2.25	2.25

3.2 Attainment of Course Outcomes (50)

Total Marks 45.00

3.2.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based (10)

Institute Marks : 10.00

In the Outcome Based Education (OBE), assessment is done through one or more processes, carried out by the institution, that identify, collect and prepare data to evaluate the achievement of course outcomes (COs).

CO Assessment Processes

Assessment tools are categorized into two methods to assess the course outcomes:

Direct methods and Indirect methods:

Direct methods display the student's knowledge and skills from their performance in continuous Internal Assessment Tests, Semester End Examination, Internship, Projects, Seminars and Assignments etc. These methods provide a sampling of what students know and/or can do and provide strong evidence of student learning.

Indirect methods are Surveys such as course exit survey which reflect student's learning.

Table 3.1: Direct and Indirect Methods for CO Assessment

Sl. No.	Direct Assessment Method	Description
Direct Assessment Methods		
1	Internal Assessment Test	It is a metric to continuously assess the attainment of course outcomes, student's learning domains and thus improve the teaching –learning process. The Internal Assessment marks in a theory subject is based on three tests, generally conducted at the end of 8th and 12th week of each semester. An additional test may be conducted for the desirous students before the end of the semester to give an opportunity to such students to improve their Internal Assessment Marks. It is a metric to continuously assess the attainment of course outcomes. Average of best marks obtained from any two tests shall be the Internal Assessment Marks for the relevant subject.
2	Lab Assessment Test	Lab Assessment test is a metric to mainly assess student's practical knowledge with their designing capabilities. In the case of a Practical, the IA marks shall be based on the attendance, laboratory journals/reports and one practical test.
3	Semester End Examination	Semester end examination (Theory or Practical) are the metric to assess whether all the course outcomes are attained or not with respect to course outcomes framed by the instructor. Semester end examination is more focused on attainment of course outcomes and uses a descriptive exam.
4	Practical Semester End Examination	
5	Project Phase –I evaluation	The IA marks in the case of project work in the final year is based on the evaluation at the end of 7th semester by a committee consisting of the Head of the Department, Coordinators and two Senior Faculty members of the Department, one of whom shall be the Project / Seminar guide
6	Seminar	The IA marks in the case of Seminar, Internship and project work in the final year is based on the evaluation at the end of 8th semester by a committee consisting of the Head of the Department, Coordinators and two Senior Faculty members of the Department, one of whom shall be the Project / Seminar guide.
7	Project Work	
8	Internship	
9	Project Work Viva-Voce	Viva-Voce examination of Project work is conducted batch-wise at the end of 8th semester.
10	Internship Viva-Voce	Viva-Voce examination of Internship is conducted batch-wise at the end of 8th semester.
11	Assignment	Assignment is a metric to mainly assess student's knowledge/skills/attitude with their capabilities.
\multicolumn{3}{Indirect Assessment Methods}		
12	Course Exit Survey	Collect information from the students to assess the course outcomes of the course at the end of the semester.

Table 3.2: Course Outcome Assessment methodology, tools and frequency of use for direct and indirect method

Direct Assessment Methods

Sl No	Assessment Method	Assessment frequency	Assessment Tool	Incharge	Reviewer
1	Internal Assessment Test	At the end of 8th and 12thweeks of each semester.	Student's Performance in internal assessment booklets.	Course owner	CC PAC
2	Lab Assessment Test	At the end of the semester	Student's performance in conducting experiments and journal writing.	Course owner	CC PAC
3	Semester End Examination	At the end of the semester	Student's performance in university exam.	University Evaluators	
4	Practical Semester End Examination	At the end of the semester	Student's performance in conducting experiments during university exam.	University Evaluators	
5	Project Phase –I evaluation	During the 7thsemester	Rubrics	Project Guide/ Project Coordinator	PAC PC/HOD
6	Seminar	During the 8thsemester	Rubrics	Seminar Guide/Seminar Coordinator	PAC PC/HOD
7	Project Work	During the 8thsemester	Rubrics	Project Guide/ Project Coordinator	PAC PC/HOD
8	Internship	During the 8thsemester	Rubrics	Project Guide/ Project Coordinator	PAC PC/HOD
9	Project Work Viva-voce	At the end of the 8thsemester	Student's performance in university exam	University Evaluators	
10	Internship Viva-voce	At the end of the 8thsemester	Student's performance in university exam	University Evaluators	
Indirect Assessment Methods					
11	Course Exit Survey	At the end of the semester	Student survey	Course Owner	CC PAC PC

Course Outcome Assessment Process
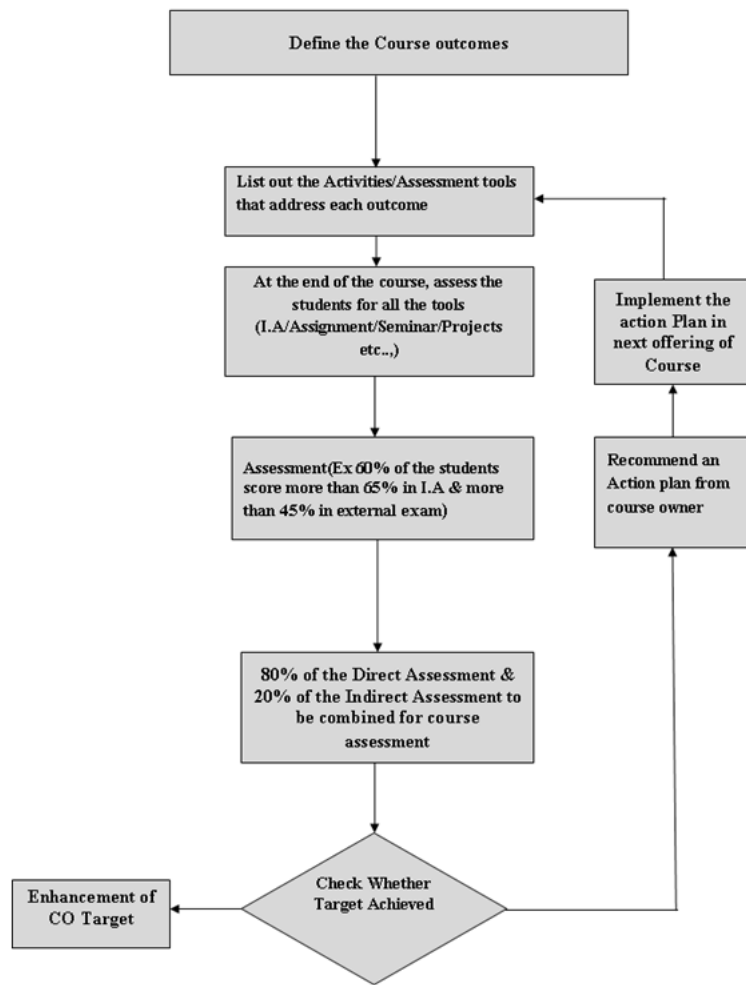
Fig 3.1 : Course Outcome Assessment Process

3.2.2 Record the attainment of Course Outcome of all courses with respect to set attainment levels (40)

<div style="text-align: right">Institute Marks : 35.00</div>

Measuring CO Attainment through Internal Assessments:

Attainment Levels Vs Target

        Attainment Level 1: 60% Students scoring more than **65%** marks out of maximum marks.

        Attainment Level 2: 70% Students scoring more than **65%** marks out of maximum marks.

Attainment Level 3: 80% Students scoring more than **65%** marks out of maximum marks.

Measuring CO Attainment through University Examination:

Attainment Levels Vs Target

        Attainment Level 1: 60% Students scoring more than **45%** marks out of maximum marks.

        Attainment Level 2: 70% Students scoring more than **45%** marks out of maximum marks.

        Attainment Level 3: 80% Students scoring more than **45%** marks out of maximum marks.

CO Attainment has been calculated by assuming **80%** weightage to university examination and **20%** weightage to Internal Assessments

Final CO Attainment has been calculated by assuming **80%** weightage to Direct Attainment and **20%** weightage to Indirect Attainment (using Survey)

INDEX	SUBJECT	SUBJECT CODE	C01	C02	C03	CO4
C101	Engineering Maths-I	15MAT11	55.55	55.89	59.83	57.98
C102	Engineering Chemistry	15CHE12	79.23	79.02	78.49	77.64
C103	Programming in C & Data Structure	15PCD13	56.67	60.71	52.2	57.23
C104	Computer Aided Engineering Drawing	15CED14	67.96	78.43	78.38	78.43
C105	Basic Electronics	15ELN15	67.24	67.64	67.4	67.86
C106	Computer Programming Lab	15CPL16	68.75	71.53	66.9	70.52
C107	Engg. Chemistry Lab	15CHEL17	73.28	73.28		
C108	Environmental Studies	15CIV18	93.25	90.27	92.41	92.18

INDEX	SUBJECT	SUBJECT CODE	C01	C02	C03	CO4
C109	Engineering Maths-II	15MAT21	58.83	61.39	61.93	61.67
C110	Engineering Physics	15PHY22	79.91	79.15	82.35	
C111	Elements of Civil Engg. & Mechanics	15CIV23	78.26	75.84	77.71	82.21
C112	Elements of Mechanical Engg	15EME24	86.41	87.07	87.7	87.12
C113	Basic Electrical Engg	15ELE25	71.66	72.13	72.26	71.58
C114	Workshop Practice	15WSL26	92.96	92.96	100	
C115	Engg. Physics Lab	15PHYL27	78.47	94.16	78.47	
C116	Constitution of India, Professional Ethics and Human Rights	15CPH28	52.46	52.48	61.79	60.41

INDEX	SUBJECT	SUBJECT CODE	C01	C02	C03	CO4
C201	Engineering Mathematics –III	15EC31	64.56	66.37	67.6	69.3
C202	Analog Electronics	15EC32	74.97	75.38	73.56	76.41
C203	Digital Electronics	15EC33	64.49	67.28	67.37	
C204	Network Analysis	15EC34	69.73	72.34	73.23	71.86
C205	Electronic Instrumentation	15EC35	67.54	68.6	69.52	69.99
C206	Engineering Electromagnetics	15EC36	54.7	54.7	54.36	55.77
C207	Analog Electronics Lab	15ECL37	93.09	91.99	92.84	
C208	Digital Electronics Lab	15ECL38	96.41	96.26	96.29	96.45

INDEX	SUBJECT	SUBJECT CODE	C01	C02	C03	CO4
C 209	Engineering Mathematics –IV	15EC41	68.93	68.41	69.11	70.09
C 210	Microprocessor	15EC42	45.63	45.53	47.15	46.53
C 211	Control Systems	15EC43	46.27	44.71	47.21	46.84
C 212	Signals and Systems	15EC44	55.45	55.14	53.88	54.81
C 213	Principles of Communication Systems	15EC45	78.44	77.3	77.26	78.39
C 214	Linear Integrated Circuits	15EC46	55.86	52.35	54.54	56.13
C 215	Microprocessor Lab	15ECL47	59.68	59.68	59.68	59.68
C 216	Linear ICs and Communication Lab	15ECL48	77.38	77.19	76.98	76.93

INDEX	SUBJECT	SUBJECT CODE	C01	C02	C03	CO4
C 301	Management and Entrepreneurship Development	15ES51	88.55	89.43	91.77	93.58
C 302	Digital Signal Processing	15EC52	71.2	71.59	73.73	75.2
C 303	Verilog HDL	15EC53	77.71	76.5	76.94	75.65
C304	Information Theory & Coding	15EC54	85.81	85.22	84.77	84.71
C 305	Operating System	15EC553	80.38	80.13	80.95	80.31
C 306	Object Oriented Programming Using C++	15EC562	80.58	81.25	79.97	82.8
C 307	8051 Microcontroller	15EC563	68.87	66.26	72.03	68.08
C 308	DSP LAB	15ECL57	91.18	91.16	90.81	90.6
C 309	HDL LAB	15ECL58	88.03	87.07	87.29	87.29

INDEX	SUBJECT	SUBJECT CODE	C01	C02	C03	CO4
C 310	Digital Communication	15EC61	81.68	80.81	81.08	80.78
C 311	ARM Microcontroller & Embedded Systems	15EC62	93.58	93.51	92.95	93.31
C 312	VLSI Design	15EC63	72.91	71.49	72.34	71.77
C 313	Computer Communication Networks	15EC64	68.37	71.93	74.13	73.83
C 314	Digital Switching Systems	15EC654	93.68	94.48	92.36	93.44
C 315	Digital System Design using Verilog	15EC663	81.41	80.92	81.43	81.26
C 316	Embedded Controller Lab	15ECL67	69.38	69.28	69.18	
C 317	Computer Networks Lab	15ECL68	69.87	68.96	69.16	68.96

INDEX	SUBJECT	SUBJECT CODE	C01	C02	C03	CO4	CO5
C 401	Microwave and Antennas	15EC71	53.34	51.38	49.61	50.53	50.53
C 402	Digital Image Processing	15EC72	81.84	82.2	81.53	81.25	
C 403	Power Electronics	15EC73	76.29	77.13	74.92	76.36	
C 404	Real Time Systems	15EC743	83.6	82.61	82.47	81.67	
C 405	IoT and Wireless Sensor Networks	15EC752	87.09	86.47	87.19	87.03	
C 406	Advanced Communication Lab	15ECL76	81.39	80.44	80.74	80.63	
C 407	VLSI Lab	15ECL77	89.72	88.78	89.08	88.97	

| C 408 | Project Work Phase–I + Project work Seminar | 15ECP78 | 92.31 | 93.16 | 93.16 | 93.16 |

INDEX	SUBJECT	SUBJECT CODE	C01	C02	C03	CO4
C 409	Wireless Cellular and LTE 4G Broadband	15EC81	86.97	86.64	87.45	86.93
C 410	Fiber Optics & Networks	15EC82	87.92	88.5	88.66	88.1
C 411	Speech Processing	15EC832	81.01	80.62	78.85	79.2
C 412	Internship/Professional Practice	15EC84	94.87	90.87	94.87	94.87
C 413	Project Work	15ECP85	99.02	98.24	97.4	97.45
C 414	Seminar	15ECS86	95.78	96.89	98.05	97.63

3.3 Attainment of Program Outcomes and Program Specific Outcomes (50)   Total Marks 45.00

3.3.1 Describe the assessment tools and processes used for measuring the attainment of each of the Program Outcomes and Program Specific Outcomes (10)   Institute Marks : 10.00

PO Assessment Tools

Assessment tools are categorized into direct and indirect methods to assess the Program Outcomes and Program specific Outcomes.

Direct methods display the student's knowledge and skills from their performance in the continuous Internal Assessment Tests, Semester End Examination, Internship, Projects, Seminars and Assignments etc, these methods provide a sample of what students know and/or can do and provide strong evidence of student learning.

Indirect methods are Surveys such as course exit surveys and program exit surveys which reflect student's learning.

Table 3.3: PO Direct Assessment Methods

PO Direct Assessment Methods		
Sl. No.	**Direct Assessment Method**	**Description**
1	**Internal Assessment Test**	It is a metric to continuously assess the attainment of course outcomes, student's learning domains and thus improve the teaching –learning process. The Internal Assessment marks in a theory subject is based on three tests, generally conducted at the end of 8th and 12th week of each semester. An additional test may be conducted for the desirous students before the end of the semester to give an opportunity to such students to improve their Internal Assessment Marks. It is a metric to continuously assess the attainment of course outcomes. Average of best marks obtained from any two tests shall be the Internal Assessment Marks for the relevant subject.
2	**Lab Assessment Test**	Lab Assessment test is a metric to mainly assess student's practical knowledge with their designing capabilities. In the case of a Practical, the IA marks shall be based on the attendance, laboratory journals/reports and one practical test.
3	**Semester End Examination**	Semester end examination (Theory or Practical) are the metric to assess whether all the course outcomes are attained or not with respect to course outcomes framed by the instructor. Semester end examination is more focused on attainment of course outcomes and uses a descriptive exam..
4	**Practical Semester End Examination**	
5	**Project Phase –I evaluation**	The IA marks in the case of project work in the final year is based on the evaluation at the end of 7th semester by a committee consisting of the Head of the Department, Coordinators and two Senior Faculty members of the Department, one of whom shall be the Project / Seminar guide
6	**Seminar**	The IA marks in the case of Seminar, Internship and project work in the final year is based on the evaluation at the end of 8th semester by a committee consisting of the Head of the Department, Coordinators and two Senior Faculty members of the Department, one of whom shall be the Project / Seminar guide.
7	**Project Work**	
8	**Internship**	
9	**Project Work Viva-Voce**	Viva-Voce examination of Project work is conducted batch-wise at the end of 8th semester.

10	Internship Viva-Voce	Viva-Voce examination of Internship is conducted batch-wise at the end of 8th semester.

Table 3.4: PO Indirect Assessment Methods

PO Indirect Assessment Methods		
Sl No	Indirect Assessment Method	Description
1.	Program Exit Survey	Collect the feedback about the program at the time of graduation.
2.	Course Exit Survey	Collect information from the students to assess the learning outcomes of the course at the end of the semester.

Program Outcome Assessment methodology, tools and frequency of use for direct and indirect method is described in the Table 3.5

Table 3.5: PO Assessment Methodology, tools and frequency of use for direct and indirect method

Direct Attainment

Sl No	Assessment Method	Assessment frequency	Assessment Tool	Incharge	Reviewer
1	Internal Assessment Test	At the end of 8th and 12thweeks of each semester.	Student's Performance in internal assessment booklets.	Course owner	CC PAC
2	Lab Assessment Test	At the end of the semester	Student's performance in conducting experiments and journal writing.	Course owner	CC PAC
3	Semester End Examination	At the end of the semester	Student's performance in university exams.	University Evaluators	
4	Practical Semester Examination	At the end of the semester	Student's performance in conducting experiments during university exams.	University Evaluators	
5	Project Phase –I evaluation	During the 7thsemester	Rubrics	Project Guide/ Project Coordinator	
6	Seminar	During the 8thsemester	Rubrics	Seminar Guide/Seminar Coordinator	PAC PC/HOD
7	Project	During the 8thsemester	Rubrics	Project Guide/ Project Coordinator	PAC PC/HOD
8	Internship	During the 8thsemester	Rubrics	Project Guide/ Project Coordinator	PAC PC/HOD
9	Project Work Viva-voce	At the end of the 8thsemester	Student's performance in university exams	University Evaluators	

| 10 | Internship Viva-voce | At the end of the 8thsemester | Student's performance in university exam | University Evaluators |

Indirect Attainment

Sl No	Assessment Method	Assessment frequency	Assessment Tool	Incharge	Reviewer
1.	Program Exit Survey	Annually	Exit report from graduates	Alumni Association Committee (AAC)	IQAC
2.	Course Exit Survey	Semester end	Student survey	Course Owner	CC PAC

Process for Assessing Program Outcomes

The process of Program Outcome Assessment is shown in the below figure 3.2
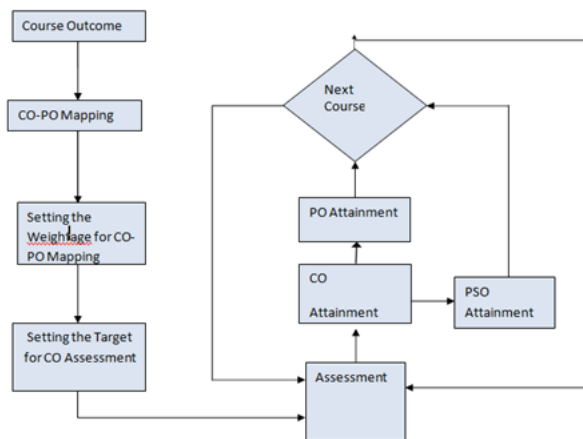
Fig 3.2: Process of Program Outcome Assessment

3.3.2 Provide results of evaluation of PO&PSO (40)

Institute Marks : 35.00

PO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	1.23	0.85	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C102	2.36	1.05	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C103	1.72	1.52	0.49	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C104	2.09	1.60	PO3	PO4	2.09	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C105	2.03	0.90	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C106	PO1	PO2	PO3	PO4	2.47	PO6	PO7	2.47	2.47	2.47	PO11	0.88
C107	1.17	2.28	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C108	1.10	PO2	PO3	PO4	PO5	PO6	0.27	PO8	PO9	PO10	PO11	PO12
C109	1.09	1.01	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12

C110	2.13	2.11	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C111	0.92	1.55	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C112	1.16	1.15	PO3	PO4	PO5	1.16	1.16	PO8	PO9	PO10	PO11	PO12
C113	0.54	1.31	1.30	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C114	1.76	1.29	0.76	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C115	2.23	2.23	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C116	PO1	PO2	PO3	PO4	PO5	1.43	PO7	2.06	PO9	PO10	PO11	0.92
C201	1.00	1.12	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C202	2.08	2.08	2.50	2.00	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C203	0.81	0.66	0.76	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C204	2.00	1.50	1.33	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C205	1.04	1.13	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1.04
C206	1.10	0.81	0.33	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C207	2.00	2.00	2.67	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C208	2.75	2.75	3.00	PO4	3.00	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C209	1.24	1.12	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C210	0.49	0.49	0.49	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C211	0.56	0.42	0.37	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C212	0.76	0.64	0.51	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C213	1.67	1.67	1.33	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C214	0.43	0.58	0.65	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C215	0.83	0.75	1.00	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C216	2.00	2.00	1.67	1.33	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C301	PO1	PO2	PO3	PO4	PO5	2.67	2.50	2.25	2.67	2.25	3.00	2.75
C302	1.75	1.75	1.50	1.50	1.75	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C303	1.67	1.50	1.56	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C304	3.00	3.00	2.50	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C305	1.75	1.50	2.25	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C306	3.00	3.00	2.50	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C307	0.89	0.67	0.83	0.67	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C308	3.00	2.75	2.67	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C309	2.50	2.25	2.25	PO4	2.25	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C310	2.25	2.67	2.33	3.00	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C311	3.00	2.75	2.33	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C312	0.71	0.75	1.61	1.67	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C313	2.13	2.33	2.33	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C314	3.00	3.00	2.50	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C315	2.25	2.75	2.75	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C316	0.89	0.78	1.00	0.67	0.67	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C317	1.13	1.25	1.50	1.50	1.50	PO6	PO7	PO8	PO9	PO10	PO11	1.00
C401	0.46	0.51	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C402	2.75	2.75	2.75	2.33	3	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C403	1.42	1.42	1.5	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C404	1.67	1.78	1.83	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C405	1.75	1	1	PO4	2	1	1	PO8	1	PO10	PO11	1.25
C406	1.75	1.67	2	2	2	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C407	3	2.5	2.25	3	2.5	PO6	PO7	PO8	PO9	PO10	PO11	PO12

C408	2	2	2	2	PO5	PO6	PO7	PO8	PO9	2	PO11	2
C409	2.33	2.67	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C410	2	2.25	2.25	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	3
C411	3	2.5	2.33	2.5	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C412	PO1	3	3	PO4	3	PO6	PO7	PO8	PO9	3	3	3
C413	2.58	2.88	2.78	2.49	2.33	2.67	2.5	2.3	2.86	2.76	2.84	2.71
C414	2.35	2.46	1.52	2.58	2.43	2.27	2.32	2.07	2.87	2.51	2.38	2.71

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO Attainment	1.88	1.87	1.89	2.01	2.28	2.01	1.79	2.27	2.43	2.54	2.77	2.07
Direct Attainment	1.73	1.71	1.74	1.90	2.21	1.87	1.62	2.23	2.37	2.50	2.80	1.93
InDirect Attainment	2.5	2.5	2.5	2.45	2.55	2.55	2.45	2.45	2.65	2.7	2.65	2.65

PSO Attainment

Course	PSO1	PSO2
C101	PSO1	PSO2
C102	PSO1	PSO2
C103	PSO1	PSO2
C104	PSO1	PSO2
C105	PSO1	PSO2
C106	PSO1	PSO2
C107	PSO1	PSO2
C108	PSO1	PSO2
C109	PSO1	PSO2
C110	PSO1	PSO2
C111	PSO1	PSO2
C112	PSO1	PSO2
C113	PSO1	PSO2
C114	PSO1	PSO2
C115	PSO1	PSO2
C116	PSO1	PSO2
C201	PSO1	PSO2
C202	2.08	PSO2
C203	0.32	PSO2
C204	1.33	PSO2
C205	PSO1	PSO2
C206	PSO1	PSO2
C207	3	PSO2
C208	2.75	PSO2
C209	PSO1	PSO2
C210	PSO1	0.49
C211	PSO1	PSO2
C212	0.64	PSO2
C213	0.75	PSO2
C214	PSO1	PSO2
C215	0.67	PSO2

C216	1.67	PSO2	
C301	PSO1	2.25	
C302	PSO1	PSO2	
C303	PSO1	1.33	
C304	2.75	PSO2	
C305	PSO1	PSO2	
C306	PSO1	3	
C307	0.67	0.89	
C308	PSO1	2.75	
C309	PSO1	2.25	
C310	2	PSO2	
C311	PSO1	2.75	
C312	1.17	PSO2	
C313	PSO1	1.78	
C314	2.75	PSO2	
C315	PSO1	2.13	
C316	PSO1	0.89	
C317	PSO1	1.5	
C401	0.48	PSO2	
C402	2	PSO2	
C403	1.42	PSO2	
C404	PSO1	PSO2	
C405	1	1	
C406	1.75	PSO2	
C407	3	PSO2	
C408	2	2	
C409	1.67	PSO2	
C410	PSO1	PSO2	
C411	2	PSO2	
C412	2	2	
C413	2.92	2.38	
C414	2.25	2.25	

PSO Attainment Level

Course	PSO1	PSO2
CO Attainment	1.84	1.92
Direct Attainment	1.73	1.86
InDirect Attainment	2.28	2.16

4 STUDENTS' PERFORMANCE (150)   Total Marks 87.61

:

Table 4.1

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2018-19 (CAY)	2017-18 (CAYm1)	2016-17(CAYm2)	2015-16(CAYm3)	2014-15(CAYm4)	2013-14 (CAYm5)	2012-13 (CAYm6)
Sanctioned intake of the program(N)	120	120	120	120	120	120	120
Total number of students admitted in first year minus number of students migrated to other programs/ institutions plus No. of students migrated to this program (N1)	63	77	103	94	109	95	111
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	0	5	8	30	35	40	29
Separate division students, If applicable (N3)	4	6	6	5	6	6	6
Total number of students admitted in the programme(N1 + N2 + N3)	67	88	117	129	150	141	146

Table 4.2

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successfully graduated without backlogs in any semester/ year of study (Without Backlog means no compartment or failures in any semester/ year of study)			
		I year	II year	III year	IV year
2018-19 (CAY)	67	0	0	0	0
2017-18 (CAYm1)	88	55	0	0	0
2016-17 (CAYm2)	117	55	46	0	0
2015-16 (CAYm3)	129	35	18	18	0
2014-15 (LYG)	150	53	28	28	25
2013-14 (LYGm1)	141	56	21	18	18
2012-13 (LYGm2)	146	90	68	46	43

Table 4.3

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successfully graduated in stipulated period of study) [Total of with Backlog + without Backlog]			
		I year	II year	III year	IV year
2018-19 (CAY)	67	0	0	0	0
2017-18 (CAYm1)	88	76	0	0	0
2016-17 (CAYm2)	117	92	78	0	0
2015-16 (CAYm3)	129	79	76	74	0
2014-15 (LYG)	150	77	101	90	78
2013-14 (LYGm1)	141	94	102	90	90
2012-13 (LYGm2)	146	109	132	112	112

4.1 Enrolment Ratio (20)   Total Marks 14.00

Institute Marks : 14.00

	N (From Table 4.1)	N1 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2018-19 (CAY)	120	63	52.50
2017-18 (CAYm1)	120	77	64.17
2016-17 (CAYm2)	120	103	85.83

Average [(ER1 + ER2 + ER3) / 3] : 67.50

Assessment : 14.00

4.2 Success Rate in the stipulated period of the program (40)   Total Marks 14.65

4.2.1 Success rate without backlogs in any semester / year of study (25)

<div align="right">Institute Marks : 5.00</div>

Item	Latest Year of Graduation, LYG (2014-15)	Latest Year of Graduation minus 1, LYGm1 (2013-14)	Latest Year of Graduation minus 2 LYGm2 (2012-13)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	150.00	141.00	146.00
Y Number of students who have graduated without backlogs in the stipulated period	25.00	18.00	43.00
Success Index [SI = Y / X]	0.17	0.13	0.29

Average SI [(SI1 + SI2 + SI3) / 3] : 0.20

Assessment [25 * Average SI] : 5.00

4.2.2 Sucess rate in stipulated period (15)

<div align="right">Institute Marks : 9.65</div>

Item	Latest Year of Graduation, LYG (2014-15)	Latest Year of Graduation minus 1, LYGm1 (2013-14)	Latest Year of Graduation minus 2 LYGm2 (2012-13)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	150.00	141.00	146.00
Y Number of students who have graduated in the stipulated period	78.00	90.00	112.00
Success Index [SI = Y / X]	0.52	0.64	0.77

Average SI[(SI1 + SI2 + SI3) / 3]: 0.64

Assessment [15 * Average SI] : 9.65

Note : If 100% students clear without any backlog then also total marks scored will be 40 as both 4.2.1 & 4.2.2 will be applicable simultaneously.

4.3 Academic Performance in Third Year (15)

<div align="right">Total Marks 8.58</div>
<div align="right">Institute Marks : 8.58</div>

Academic Performance	CAYm3 (2015-16)	LYG (2014-15)	LYGm1 (2013-14)
Mean of CGPA or mean percentage of all successful students(X)	6.66	6.15	5.90
Total number of successful students(Y)	74.00	90.00	90.00
Totalnumber of students appeared in the examination(Z)	76.00	101.00	102.00
API [X*(Y/Z)]:	6.48	5.48	5.21

Average API [(AP1 + AP2 + AP3)/3] : 5.72

Assessment [1.5 * AverageAPI] : 8.58

4.4 Academic Performance in Second Year (15)

<div align="right">Total Marks 6.25</div>
<div align="right">Institute Marks : 6.25</div>

Academic Performance	CAYm2 (2016-17)	CAYm3 (2015-16)	LYG (2014-15)
Mean of CGPA or mean percentage of all successful students(X)	5.08	5.11	5.99
Total number of successful students (Y)	78.00	76.00	101.00
Total number of students appeared in the examination (Z)	106.00	107.00	118.00
API [X * (Y/Z)]	3.74	3.63	5.13

Average API [(AP1 + AP2 + AP3)/3] : 4.17

Assessment [1.5 * AverageAPI] : 6.25

4.5 Placement, Higher Studies and Entrepreneurship (40)

<div align="right">Total Marks 24.13</div>
<div align="right">Institute Marks : 24.13</div>

Item	LYG (2014-15)	LYGm1 (2013-14)	LYGm2 (2012-13)
Total No of Final Year Students(N)	90.00	90.00	112.00
No of students placed in the companies or government sector(X)	54.00	60.00	52.00
No of students admitted to higher studies with valid qualifying scores(GATE or equivalent State or National Level tests, GRE, GMAT etc.) (Y)	2.00	2.00	4.00
No of students turned entrepreneur in engineering/technology (Z)	0.00	0.00	0.00
x + y + z =	56.00	62.00	56.00
Placement Index [(X+Y+Z)/N] :	0.62	0.69	0.50

Average Placement [(P1 + P2 + P3)/3] : 0.60

Assessment [40 * Average Placement] : 24.13

Program Name :
Assessment Year Name : CAYm1

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	VIDYA RS	3VC14EC109	TCS	TCSL/CT20172327843/Banglore
2	GURUSANGAPPA	3VC14EC035	TCS	TCSL/CT20172323286/Banglore
3	CHAITRA GS	3VC14EC022	TCS	TCSL/CT20172202867/Banglore
4	UMA	3VC14EC102	TCS	TCSL/CT20172202822/Banglore
5	SUBBALAKSHMI SV	3VC14EC094	TCS	TCSL/CT20172202790/Banglore
6	GURUSHRUTHI GT	3VC14EC036	TCS	TCSL/CT2016201250/Banglore
7	RAMYA R	3VC14EC075	TCS	TCSL/CT20161983281//Banglore
8	SANDHYA H	3VC14EC081	TCS	TCSL/CT20161979993/Banglore
9	SYED AHMAD	3VC14EC099	TCS	TCSL/CT20172323231/Banglore
10	VIVEKANANDA G	3VC14EC112	TCS	TCSL/CT20172323227/Banglore
11	CHAITNA K	3VC14EC021	TCS	TCSL/CT20172202833/Banglore
12	KAVYA B	3VC14EC045	TCS	TCSL/CT20161982767/Banglore
13	ANUROOPA M	3VC14EC012	TCS	TCSL/CT20161980305/Banglore
14	DEEPTHI	3VC14EC025	VEE TECHNOLOGIES	13/05/2018
15	GANNE MANOJ KUMAR	3VC14EC033	VEE TECHNOLOGIES	13/05/2018
16	MARY SOWMYA A	3VC14EC060	VEE TECHNOLOGIES	13/05/2018
17	SM VARUN KUMAR	3VC14EC061	PIN CLICK	30/05/2018
18	H YOGARAJ	3VC14EC037	PIN CLICK	30/05/2018
19	PAVITRA SM	3VC14EC071	PIN CLICK	30/05/2018
20	VAISHNAVI V	3VC14EC107	PIN CLICK	30/05/2018
21	DIVYA A	3VC14EC027	NTT DATA	22/03/2018
22	SWAPNA I	3VC14EC096	NTT DATA	22/03/2018
23	SHILPA SHREE YADAV	3VC14EC085	GLOBAL LOGIC	GL/02/19/2019
24	SINDHUJA S R	3VC14EC079	NTT DATA	12/01/2019
25	G BINDU	3VC14EC017	MPHASIS	APPS/1073310/07707116/PUNE/AUGUST
26	ANUSHA ARALI	3VC14EC013	EMPLAY ANALYTIC PVT LTD	10/06/2019
27	KAVYA DASANAGOUDRU	3VC14EC048	SLK SOFTWARE	12/12/2018
28	PRAVEEN KUMAR H	3VC15EC419	VELOCIS	VEL/D/0719/1940
29	VIDYA SHREE	3VC15EC434	CMSIT	19877
30	ANAND KUMAR HARTI	3VC14EC009	RAIL TEL	RCIL/23/10/19
31	AMBIKA	3VC14EC007	MEDINIC MEDICAL INST.INDUSTRIES	01/08/2019
32	MANJUNATH LAMBANI	3VC14EC059	INVENDIS	CL-01-2019-00466
33	SOWMYA S M	3VC14EC091	TCS	TCSL/DT20173843969/BANGALORE

34	SRIVIDYA	3VC14EC055	COGNIZANT	12679653
35	SHILPA N	3VC14EC084	TUVRheinland	03/01/2019
36	NAKUL RAJ H T	3VC14EC067	TCS	TCSL/DT20173843761/BANGALORE
37	MD ILIYAS	3VC14EC056	TRACXN TCH PVT LTD	14//02/2019
38	SNEHA G REDDY	3VC14EC088	ACCENTURE	08/02/2019
39	SHAIK MOHAMMED WAJID	3VC14EC082	DXC TECHNOLOGIES	19/12/2018
40	VANDANA	3VC14EC052	QUADGEN WIRELESS SOLUTION	06/08/2018
41	AISHWARYA K	3VC14EC005	[24]7	1
42	MEGHA M G	3VC14EC062	EMPOWERSYS	17/03/2018
43	HARISH R	3VC14EC038	EMPOWERSYS	17/03/2018
44	BINDUSHREE E	3VC14EC019	COMPASSITES PVT LTD	04/07/2019
45	CHILUKURI SUBBALAKSHMI	3VC14EC024	EMPOWERSYS	17/03/2018
46	KAVYA D H	3VC14EC047	EMPOWERSYS	17/03/2018
47	GOUTHAM TALAVAR	3VC14EC034	CMS IT SERVICES	8
48	GAGANA D N	3VC14EC032	COLABERA	9
49	ASHWINI	3VC14EC105	I10 SPIRAGE	01/03/2019
50	DINESH KAMALAPUR	3VC14EC026	CMS IT SERVICES	10
51	HARSHITHA K R	3VC14EC039	MTech	RYMEC BALLARI
52	RENUKA	3VC14EC076	MTech	KLE TECHNOLOGICAL UNIVERSITY HUBLI
53	ANIRUDH SHANBOG	3VC14EC010	PINCLICK	30/05/2018
54	LAXMAVVA	3VC14EC414	ORANGE BUSINESS SERVICE	11
55	YASMEEN BEGUM	3VC14EC115	EMPOWERSYS	17/03/2018
56	KAVYASHREE C H	3VC14EC049	TCS BANGALORE	TCSL/CT20172323156/BANGALORE

Assessment Year Name : CAYm2

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	Sangeetha	3VC13EC065	TCS, Bengaluru	TCSL/CT20161835923/BANGALORE-15/10/2016
2	Nitya Srivastava	3VC13EC046	TCS, Bengaluru	TCSL/CT20161836149/BANGALORE-15/10/2016
3	Devi Shree G	3VC13EC021	TCS, Bengaluru	TCSL/CT20161835978/BANGALORE-15/10/2016
4	Sai keerthana J	3VC13EC062	TCS, Bengaluru	TCSL/CT20161836018/BANGALORE-15/10/2016
5	Nagabhooshanareddy K	3VC13EC043	TCS, Bengaluru	TCSL/CT20161836031/BANGALORE-15/10/2016
6	Bhagyashree N R	3VC13EC013	TCS, Bengaluru	TCSL/CT20161836161/BANGALORE-15/10/2016
7	Lavanya Y	3VC13EC033	TCS, Bengaluru	TCSL//CT20161835905/BANGALORE-15/10/2016
8	Prathibha Thammineni	3VC13EC093	TCS, Bengaluru	TCSL/CT20161835893/BANGALORE-15/10/2016
9	Mamatha N S	3VC13EC036	TCS, Bengaluru	TCSL/CT20161835885/BANGALORE-15/10/2016
10	K Manjula	3VC13EC038	TCS, Bengaluru	TCSL/CT20161835871/BANGALORE-15/10/2016
11	Annapurneshwari T	3VC13EC006	TCS, Bengaluru	TCSL/CT20161835941/BANGALORE-15/10/2016
12	Raghavendra Shakhapur	3VC13EC056	TCS, Bengaluru	TCSL/CT20161835985/BANGALORE-15/10/2016
13	Mounika N	3VC13EC042	TCS, Bengaluru	TCSL/CT20161835902/BANGALORE-15/10/2016
14	Madhurya P	3VC13EC034	TCS, Bengaluru	TCSL/CT20161835901/BANGALORE-15/10/2016
15	Lahari T S	3VC13EC031	TCS, Bengaluru	TCSL/CT20161835880/BANGALORE-15/10/2016
16	Divya P	3VC13EC022	TCS, Bengaluru	TCSL/CT20161835907/BANGALORE-15/10/2016
17	Sai Pallavi	3VC13EC063	SLK SOFTWARE	13/10/2016
18	Sushmitha J	3VC13EC089	SLK SOFTWARE	13/10/2016
19	Vagesh Adhya	3VC14EC437	SLK SOFTWARE	13/10/2016
20	P DINESH	3VC13EC048	Sriram Transport Finance, Chennai	06/04/2017
21	SRIKANTA RM	3VC13EC081	Tech Mahindra, Chennai	21/02/2017
22	SHWETA H	3VC13EC074	Tech Mahindra, Chennai	21/02/2017

23	PALLAVI P	3VC13EC049	Tech Mahindra, Chennai	21/02/2017
24	SYED SHAHABUDDIN	3VC13EC092	UST Global	21/12/2018
25	BASAVARAJ T	3VC14EC404	HCL	21/12/2018
26	AJAY KUMAR K	3VC14EC400	Triangle Telecom, Indore	01
27	BASAVARAJ YADAV	3VC13EC012	Triangle Telecom, Indore	02
28	CHARAN RAJ	3VC13EC016	Triangle Telecom, Indore	03
29	GAVISIDDA	3VC13EC024	Triangle Telecom, Indore	04
30	GURUSHANTH	3VC13EC025	Triangle Telecom, Indore	05
31	HANUMESH G	3VC13EC026	Triangle Telecom, Indore	06
32	MD SHAH NAWAZ KHAZI	3VC13EC040	Triangle Telecom, Indore	07
33	MUTTAPPA H	3VC14EC421	Triangle Telecom, Indore	08
34	NAVEEN KUMAR	3VC13EC045	Triangle Telecom, Indore	09
35	PRAVEEN KUMAR NAIK	3VC14EC425	Triangle Telecom, Indore	10
36	RAJASHEKHARA NR	3VC13EC058	Triangle Telecom, Indore	11
37	RAJASHEKARA V	3VC13EC059	Triangle Telecom, Indore	12
38	KOTRESHA K	3VC14EC413	WEIWO COMM PVT LTD CHINNA	13
39	AMRITHA RASHMI	3VC13EC005	WEIWO COMM PVT LTD CHINNA	14
40	ASIF BASHA	3VC14EC431	WEIWO COMM PVT LTD CHINNA	15
41	SANTHOSH KUMAR J	3VC14EC430	SKY PRO	13/11/2017
42	HALEKOTE HANUMESH	3VC14EC409	HDFC BANK	191641
43	RAVICHANDRA	3VC14EC428	ANCIT CONSULTING	02/05/2019
44	Amitha Kumari V	3VC13EC004	CMSIT Services, Bangalore	CMS/SBRR/RYMEC:-17/08422
45	Arun Kumar SK	3VC14EC401	CMSIT Services, Bangalore	CMS/SBRR/RYMEC:-17/08452
46	Asha K S	3VC13EC007	CMSIT Services, Bangalore	CMS/SBRR/RYMEC:-17/08472
47	Kavya K R	3VC13EC029	CMSIT Services, Bangalore	CMS/SBRR/RYMEC:-17/0870
48	Rajalakshmi S	3VC13EC057	CMSIT Services, Bangalore	CMS/SBRR/RYMEC:-17/0901
49	Ramakanth	3VC13EC060	CMSIT Services, Bangalore	CMS/SBRR/RYMEC:-17/0842
50	Santhosh	3VC14EC429	CMSIT Services, Bangalore	CMS/SBRR/RYMEC:-17/0842
51	Santosh Kumar Patil	3VC13EC066	CMSIT Services, Bangalore	CMS/SBRR/RYMEC:-17/0842
52	Shrihari Upadya	3VC13EC072	CMSIT Services, Bangalore	CMSIT Services, Bangalore
53	Sri Harikrishna K	3VC13EC080	CMSIT Services, Bangalore	CMS/SBRR/RYMEC:-17/0842
54	KONERU PUSHPITA	3VC13EC030	MBA	MRU BANGALORE –MBA
55	Faheem	3VC12EC015	M.Tech	RYMEC Ballari
56	PAVANI D	3VC13EC051	MINDTREE	01/12/2017
57	Sneha Rudranna Budur	3VC13EC078	CMSIT Services, Bangalore	CMS/SBRR/RYMEC:-17/084
58	Usha K	3VC13EC097	CMSIT Services, Bangalore	CMS/SBRR/RYMEC:-17/0942
59	VEENA K	3VC13EC099	CMSIT Services, Bangalore	CMS/SBRR/RYMEC:-17/0945
60	RAJESHWARI	3VC14EC426	STRONG VISION BUSINESS SOLUTION	16
61	Sripriya P	3VC13EC083	CMSIT Services, Bangalore	CMS/SBRR/RYMEC:-17/084
62	Sushma	3VC13EC087	CMSIT Services, Bangalore	CMS/SBRR/RYMEC:-17/0932

Assessment Year Name : CAYm3

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	Sushma Akki	3VC12EC099	Tata consultancy services(TCS),Bangalore	TCSL/CT20151703228/Bangalore 29/09/2015
2	Rayanki Namratha	3VC12EC075	Tata consultancy services(TCS),Bangalore	TCSL/CT20141338971/Bangalore 29/09/2015
3	Sumalatha K	3VC12EC097	Tata consultancy services(TCS),Bangalore	TCSL/CT20141334674/Bangalore 29/09/2015
4	Nischala Moka	3VC12EC058	Tata consultancy services(TCS),Bangalore	TCSL/CT20141342018/Bangalore 29/09/2015
5	Vennela Mundluru	3VC12EC049	Tata consultancy services(TCS),Bangalore	TCSL/CT20151658509/Bangalore 29/09/2015

6	Gopal P V	3VC12EC018	Tata consultancy services(TCS),Bangalore	TCSL/CT20151717193/Bangalore 29/09/2015
7	Roopa V	3VC12EC103	Tata consultancy services(TCS),Bangalore	TCSL/CT20151702694/Bangalore 29/09/2015
8	Gowri Achappa	3VC12EC020	Tata consultancy services(TCS),Bangalore	TCSL/CT201517190398/Bangalore 29/09/2015
9	Nivedita	3VC12EC038	Tata consultancy services(TCS),Bangalore	TCSL/CT201517020826/Bangalore 29/09/2015
10	Lavanya S V	3VC12EC036	Tata consultancy services(TCS),Bangalore	TCSL/CT20151715483/Bangalore 29/09/2015
11	Jaypal Y	3VC12EC026	SLK Software	22/10/2015
12	Ghazala Fathima	3VC12EC016	MPHASIS	MPCTH2016-0711 26/10/2016
13	Aparna B	3VC12EC007	INNOVATIVE INTELLIGENT SOLN	14/04/2017
14	B Shruthi	3VC12EC008	HCL TSS	HCL/TSS/0616/113 10/6/2016
15	Mamatha M	3VC12EC048	GTT	1
16	Harika P	3VC12EC059	VOLVO	28/10/2016
17	pooja N	3VC12EC063	ACCORD SOFTWAVE AND SYSTEM	18/9/2017
18	Priya k	3VC12EC066	Maintree	EMP/OL/KP/07122018/45
19	Uthpala Vani	3VC12EC102	MINDTREE	8005105 17/09/2016
20	Vinod Kumar B	3VC12EC111	FUTURE ELECTRONICS	07/09/2018
21	Vinod Kumar K	3VC12EC112	ALIZA CONSULTANCY	01/07/2017
22	Vishwanath G	3VC12EC115	ASCENT H R	14/11/2018
23	I J Kiran Kumar	3VC12EC119	MED LIFE	M704939
24	Basavaraja D	3VC13EC400	EFS FACILITIES SERVICES	20/02/2018
25	Krishna Prasad K	3VC13EC404	HUGHES SYSTIQUE	HSPM/HR/APP/1766 23/11/2018
26	Gulappa K	3VC13EC406	AHANA	AHANA/IMS- HP/OFFER-2018-018 21/08/2018
27	Mahesh H	3VC13EC409	Concert Care	17/10/2017
28	Parveen Banu	3VC13EC414	QUESS	QS1338244 16/07/2018
29	Rahul T	3VC13EC416	OMNIGLOB INT	Omni- 2017 29208
30	Sadiha Nikhat	3VC13EC417	e TEAM	05/02/2018
31	NANDA B PATIL	3VC12EC052	TH BS	OL/THBS/0317/90
32	Umesh M S	3VC13EC426	AMAZON	19/12/2018
33	Madhu A M	3VC12EC040	TH BS	OL/THBS/0317/35
34	Kiran Rudugi	3VC12EC031	Pthinks	17/03/2017
35	Anita P S	3VC12EC004	MIND TREE	13/02/2017
36	Navya Desai	3VC12EC055	PRIMUS	19/10/2016
37	Sowmyashree H	3VC12EC094	CISCO SYSTEM	IT0868-IL047
38	Manasa S M	3VC12EC044	Tech Mahindra	1482776
39	Vikranth P N	3VC12EC109	ROBERT BOSCH	RBE1/HRL/2017/0018
40	Heena Umreen B	3VC12EC023	HP	02
41	AnuP Kumar B	3VC12EC005	Pthinks	3/10/2017
42	Pooja H	3VC12EC062	Techno Dreams Software	22/05/2017
43	Shireen Taj	3VC12EC086	HCL TSS	HCL/TSS/0616/113 10/6/2016
44	Girija Kuamari	3VC12EC017	HCL TSS	HCL/TSS/0616/113 10/6/2016
45	KRISHNA SASTRY	3VC12EC034	DELIVERY ON TIME LOGISTIC PVT LTD	BLR0083
46	Basavaraja Sm	3VC12EC011	POMPEII Technologies (P) Ltd	Pompeii/RECT/MUM2016-17/Bng 18/03/2016
47	Anuradha K	3VC12EC006	POMPEII Technologies (P) Ltd	Pompeii/RECT/MUM2016-17/Bng 18/03/2016
48	Komal Roy	3VC12EC033	POMPEII Technologies (P) Ltd	Pompeii/RECT/MUM2016-17/Bng 18/03/2016
49	Mahesh S R	3VC12EC041	UTTUNGA	10/04/2017
50	POORNIMA T R	3VC12EC064	FLINK	24/01/2017
51	Priyanka J S	3VC12EC068	M.Tech	BITM Ballari
52	Vannela Pragathi	3VC12EC106	M.Tech	Dayananda Sagar college of Engg

53	JAYA LALITHA P	3VC12EC025	POMPEII Technologies (P) Ltd	Pompeii/RECT/MUM2016-17/Bng 18/03/2016
54	BALAVANTH RAO	3VC13EC408	L& T	22/08/2017
55	HARSHITHA B	3VC12EC022	MTECH	RV College of Engineering
56	Nitin Kumar B	3VC12EC057	M.Tech	RV College of Engineering

4.6 Professional Activities (20)   Total Marks 20.00

4.6.1 Professional socities/ chapters and organizing engineering events (5)   Institute Marks : 5.00

4.6.1. Professional societies/chapters and organizing engineering events(5)

Events organized under professional activities

Sl. No	List of Programs	Date of Organization	Amounts Funded by ISTE
1	Two Days Student Activity Program, "Talentronics - 2019"	22nd & 23rd Feb, 2019	Rs. 5,000 (Five Thousand Rupees Only)
2	Two Days Department Fest, "Talentronics – 2016"	17th and 18th April, 2016	Rs. 4,000 (Four Thousand Rupees Only)
3	Three days State Level workshop on "Advanced Comprehensive Learning using MATLAB & Simulink"	24th to 26th August 2015	Rs. 5,000/- (Five Thousand Rupees Only)
4	Two Days state level workshop on fundamental of "Lab View & it's Applications"	25th & 26th July 2014	Rs. 3,000 (Three Thousand Rupees Only)
5	One Day Workshop on Role of "Professional Societies in Quality Enhancement of Technical Education"	21st May 2010	---
6	One Day Seminar on "Stress Relief Focus on Engineering Students"	5th May 2010	---

4.6.2 Publication of technical magazines, newsletters, etc. (5)   Institute Marks : 5.00

4.6.2 Publication of Technical Magazines,NewsLetters,etc.,

The department publishing a news letter under the name of **"TALENTRONICS"** from the year **2013-2014** in the month of **August**.And the news letter will be published **yearly two issues.**

Sl No	Academic Year	Year of ISSUE
01	2012-2013	August 2013 volume 1|Issue 1
02	2013-2014	February 2014 volume 2|Issue 1 August 2014 volume 2|Issue 2
03	2014-2015	February 2015 volume 3|Issue 1 August 2015 volume 3|Issue 2
04	2015-2016	February 2016 volume 4|Issue 1 August 2016 volume 4|Issue 2
05	2016-2017	February 2017 volume 5|Issue 1 August 2017 volume 5|Issue 2
06	2017-2018	February 2018 volume 6|Issue 1 August 2018 volume 6|Issue 2

4.6.3 Participationininter-institute events by students of the program of study (10)   Institute Marks : 10.00

Year 2017-18

III & IV SEMESTER BE - ELECTRONIC & COMMUNICATION ENGG

SL NO	USN	NAME	SGPA	Place	CASH PRIZE
1	3VC16EC050	MUSHAHIRA	8.18	I	2,000
2	3VC16EC083	SINDUJA K	7.82	II	1,500
3	3VC16EC027	G SIRISHA	7.82	II	1,500
4	3VC16EC102	VANDANA K	7.82	II	1,500
5	3VC16EC060	PAYYAVULA RACHANA PRIYA	7.75	III	1,000

V & VI SEMESTER BE - ELECTRONICS & COMMUNICATION   ENGINEERING

SL NO	USN	NAME	%	Place	CASH PRIZE
1	3VC15EC024	DHEERAJ PATHI	8.75	I	2,000
2	3VC15EC045	KOMMINENI KAVYA	8.67	II	1,500
3	3VC15EC052	MANASA V	8.63	III	1,000

VII & VIII SEMESTER BE - ELECTRONICS & COMMUNICATION   ENGINEERING

SL NO	USN	NAME	%	Place	CASH PRIZE
1	3VC14EC104	UPPARA VASAVI	79.39	I	10,000
2	3VC14EC025	DEEPTI	79.09	II	1,500
3	3VC14EC047	KAVYA DH	78.06	III	1,000

Sl.No.	Name of the Student	EVENT	Organized by
1	Balaji B	IMAS International Open Dance Championship	INDIAN MARTIAL ART SANSTHAN 7th 8th Oct 2017 Jaipur
2	Balaji B	8 th IMAS International Open 1st Rank in Karate Below Black Belt 67+Kgs weight Championship	INDIAN MARTIAL ART SANSTHAN 27th 28th Jan 2018 Jaipur
3	Balaji B	9 th IMAS International Open 1st Rank in Kumite Below Black Belt 60+Kgs weight Championship	INDIAN MARTIAL ART SANSTHAN 28th 29 April 2018 Jaipur
4	Manoj Padmanabha murthy	VTU National Academy for skill Development ,Dandeli	eKLakshya
5	Mushahira A	VTU National Academy for skill Development ,Dandeli	eKLakshya
6	M pooja	2nd State Level Telecommunication Project Model Competation	GSSS Institute of Engineering &Technology for Women TELEUTSAV 2018 Mysuru
7	Hemavathi H	3rd State Level Telecommunication Project Model Competation	GSSS Institute of Engineering &Technology for Women TELEUTSAV 2018 Mysuru
8	K Vandhana	4th State Level Telecommunication Project Model Competation	GSSS Institute of Engineering &Technology for Women TELEUTSAV 2018 Mysuru
9	Harika V	5th State Level Telecommunication Project Model Competation	GSSS Institute of Engineering &Technology for Women TELEUTSAV 2018 Mysuru

Year 2016 – 17

Sl.No.	Name of the Student	EVENT	Organized by
1	Nagabhooshan Reddy K	IOT Application Development on Arduino and Raspberry Pi,	3days Dept of E&CE in Association with ISTE ,GM Institute of Technology ,Davangere
2	P.Dinesh	IOT Application Development on Arduino and Raspberry Pi,	3 days Dept of E&CE in Association with ISTE ,GM Institute of Technology ,Davangere
3	Mounika .N	IOT Application Development on Arduino and Raspberry Pi,	3daysDept of E&CE in Association with ISTE ,GM Institute of Technology ,Davangere
4	Madhurya .P	IOT Application Development on Arduino and Raspberry Pi,	3days Dept of E&CE in Association with ISTE ,GM Institute of Technology ,Davangere
5	Shaik Mohammed Wajid	Hands on Training using MATLAB and Simulink	2 days ,Dept of E&CE,RYMEC ,Ballari
6	Swapna I	Hands on Training using MATLAB and Simulink	2 days ,Dept of E&CE,RYMEC ,Ballari
7	Ramya R	Hands on Training using MATLAB and Simulink	2 days ,Dept of E&CE,RYMEC ,Ballari
8	Pavithra S.M	Hands on Training using MATLAB and Simulink	2 days ,Dept of E&CE,RYMEC ,Ballari
9	Yasmeen Begaum	Hands on Training using MATLAB and Simulink	2 days ,Dept of E&CE,RYMEC ,Ballari
10	Vaishnavi v	Hands on Training using MATLAB and Simulink	2 days ,Dept of E&CE,RYMEC ,Ballari
11	S.R.Sindhuja	Hands on Training using MATLAB and Simulink	2 days ,Dept of E&CE,RYMEC ,Ballari

12	Soumya k	Hands on Training using MATLAB and Simulink	2 days ,Dept of E&CE,RYMEC ,Ballari
13	Syed Zuber Ahmad	Hands on Training using MATLAB and Simulink	2 days ,Dept of E&CE,RYMEC ,Ballari
14	Subbalakshmi S.V	Hands on Training using MATLAB and Simulink	2 days ,Dept of E&CE,RYMEC ,Ballari

2016-17

III & IV SEMESTER BE - ELECTRONIC & COMMUNICATION ENGG

SL NO	USN	NAME	%	Place	CASH PRIZE
1	3VC15EC045	KOMMINENI KAVYA	8.785	I	2,000
2	3VC15EC025	DILIP A	8.285	II	1,500
3	3VC15EC024	DHEERAJ PATHI	8.215	III	1,000

V & VI SEMESTER BE - ELECTRONICS & COMMUNICATION   ENGINEERING

SL NO	USN	NAME	%	Place	CASH PRIZE
1	3VC14EC021	CHAITNA	77.77	I	2,000
2	3VC14EC047	KAVYA D H	77.56	II	1,500
3	3VC14EC104	UPPARA VASAVI	76.56	III	1,000

VII & VIII SEMESTER BE - ELECTRONICS & COMMUNICATION   ENGINEERING

SL NO	USN	NAME	%	Place	CASH PRIZE
1	3VC13EC063	SAI PALLAVI	82.97	I	10,000
2	3VC13EC042	MOUNIKA	82.48	II	1,500
3	3VC13EC021	DEVISHREE	82.00	III	1,000

Year 2015 – 16

Sl.No.	Name of the Student	EVENT	Organized by
1	Pooja H	Poster Presentation	Exigent state Level Tech Fest ,RYMEC,Ballari
2	Navya Desai	Poster Presentation	Exigent state Level Tech Fest ,RYMEC,Ballari
3	Namratha Rayanki	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
4	Krishna Shastry	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
5	Revathi Shilpa	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru

6	Anup Deshpande	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
7	Namratha Rayanki	SMART-A-THON Shivamogga city corporation	Jawaharalal Nehru National college,Shivamogga
8	Anup Deshpande	SMART-A-THON Shivamogga city corporation	Jawaharalal Nehru National college,Shivamogga
9	Krishna Shastry	SMART-A-THON Shivamogga city corporation	Jawaharalal Nehru National college,Shivamogga
10	Ghazala Fathima	SMART-A-THON Shivamogga city corporation	Jawaharalal Nehru National college,Shivamogga
11	Pooja H	National Student Proect Exhibition	Alpha college of Engineering ,Bengaluru
12	Madhu A M	National Student Proect Exhibition	Alpha college of Engineering ,Bengaluru
13	Harshita B	National Student Proect Exhibition	Alpha college of Engineering ,Bengaluru
14	Navya Desai	National Student Proect Exhibition	Alpha college of Engineering ,Bengaluru
15	Shwetha N	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
16	Rahul T	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
17	Ulti Muttanna	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
18	M balvanthrao	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
19	Priya K	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
20	Lavanya B	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
21	Anitha P S	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
22	Krishna Shastry	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
23	Revathi Shilpa	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
24	Rayanki Namratha	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
25	Ghazala Fathima	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
26	Heena Umreen B	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
27	B Shruthi	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
28	Lavanya S.V	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
29	Anup Deshpande	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
30	sushma Akki	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
31	MallikarJun D M	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
32	Umesh M S	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
33	Shreedhara M	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
34	Vikranth P N	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru

35	SheKar Goud S	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
36	Pradeep Kumar H M	SRISHTI 2016 State Level Project Exhibition	CMR Institute of Tehnology,Bengaluru
37	Mr Kiran Kumar I J	NAYEE Disha 2016	BITM , Ballari
38	Mr Mohammed Junaid S	NAYEE Disha 2016	BITM , Ballari
39	Santhosh Kumar J M	NAYEE Disha 2016	BITM , Ballari
40	Ravipatihanisha	NAYEE Disha 2016	BITM , Ballari
41	Vishwanath G	NAYEE Disha 2016	BITM , Ballari
42	Vikranth P N	NAYEE Disha 2016	BITM , Ballari
43	jayapal y	NAYEE Disha 2016	BITM , Ballari
44	Harshita B	NAYEE Disha 2016	BITM , Ballari
45	Heena Umreen B	NAYEE Disha 2016	BITM , Ballari
46	Niveditha M	NAYEE Disha 2016	BITM , Ballari
47	Nanda B Patel	NAYEE Disha 2016	BITM , Ballari
48	Shainaz p	NAYEE Disha 2016	BITM , Ballari

5 FACULTY INFORMATION AND CONTRIBUTIONS (200)   Total Marks 185.49

Name	PAN No.	University Degree	Date of Receiving Degree	Area of Specialization	Research Paper Publications	Ph.D Guidance	Faculty receiving Ph.D during the assessment year	Current Designation	Date (Designated as Prof/Assoc. Prof.).	Initial Date of Joining	Associat Type
Dr.Savita Sonoli	AXMPS4737M	ME/M. Tech and PhD	04/07/2009	Embedded System&Design	40	6	1	Professor	04/04/2013	04/04/2013	Regular
Dr.Prabhavathi.S	AHNPP8659C	ME/M. Tech and PhD	16/06/2017	Wireless Sensor Networks	20	2		Professor	01/07/2017	26/02/1999	Regular
Dr.Shivakumar	AJQPS0478P	ME/M. Tech and PhD	10/02/2009	Artificial Intelligence Techniques	32	7		Professor	09/02/2018	09/02/2018	Regular
Dr.Netravathi	AERPN9644Q	ME/M. Tech and PhD	28/02/2017	Power Electronics	7			Professor	15/05/2017	15/05/2017	Regular
Mr.Dalal Shivakumar	AEDPS9360L	M.E/M.Tech	01/08/1996	Electronics Device	5			Assistant Professor		02/09/1996	Regular
Mrs. Rakhee Patil	AGRPP6813H	M.E/M.Tech	02/08/1999	Electrical mmt& Instruments	5			Assistant Professor		02/08/1999	Regular
Mrs. AshaBharathi	AVWPS7728N	M.E/M.Tech	06/08/2003	Digital Electronics				Assistant Professor		02/08/1999	Regular
Mr. H. Surendranath	ABLPH7870B	M.E/M.Tech	17/10/2002	BMI (Electronics)	7			Assistant Professor		21/08/2006	Regular
Mr. Khaja Moinuddin	ASTPM7870M	M.E/M.Tech	13/02/2006	Information & Communication system	9			Assistant Professor		08/02/2010	Regular
Mrs. Suvarna S.Patil	BNCPS2075P	M.E/M.Tech	26/02/2007	Computer Networking and Engineering	4			Assistant Professor		15/07/2015	Regular
Mrs. Girijavani	AEEPV2973F	M.E/M.Tech	17/02/2005	Digital Electronics	4			Assistant Professor		01/08/2005	Regular

Mrs. Chinna.V.Gowdar	ACLPY9295L	M.E/M.Tech	26/02/2007	Electronics	6			Assistant Professor		01/08/2008	Regular
Mr. K. Phanindra Reddy	ARYPR7082E	M.E/M.Tech	10/02/2009	Computer Networking and Engineering	3			Assistant Professor		21/01/2009	Regular
Mr. Shridhar.S.Bilagi	APCPB5714K	M.E/M.Tech	13/02/2006	Digital Electronics	5			Assistant Professor		22/01/2009	Regular
Mr. Lokesh.K.S	BCRPK5503Q	M.E/M.Tech	12/03/2008	VLSI & ESD	8			Assistant Professor		19/02/2011	Regular
Mrs. A. Anitha	ATBPA7084N	M.E/M.Tech	18/04/2011	Digital Electronics	8			Assistant Professor		01/07/2011	Regular
Ms. Kumuda	CSTPK3031I	M.E/M.Tech	09/04/2012	Digital Electronics	1			Assistant Professor		16/08/2012	Regular
Mr. Sharanagouda. V. Patil	AZKPP4399J	M.E/M.Tech	27/06/2011	Digital Electronics	5			Assistant Professor		16/08/2012	Regular
Mr. M. Md. Zakirulla	AAVPZ6024C	M.E/M.Tech	07/01/2010	Digital Electronics Communication System	2			Assistant Professor		04/08/2010	Regular
Mr. Srikanth N	AGEPN9888R	M.E/M.Tech	17/06/2013	Digiital Electronics	6			Assistant Professor		01/02/2010	Regular
Mr. Veera Reddy	AVAPR9770P	M.E/M.Tech	05/04/2013	Digiital Electronics	3			Assistant Professor		01/08/2014	Regular
Mr. SharanaBasavaraj B	COKPS3245F	M.E/M.Tech	03/05/2014	Industrial Electronics	5			Assistant Professor		01/08/2014	Regular
Mrs. Vani. H	APGPV5271B	M.E/M.Tech	27/10/2014	VLSI & ESD	3			Assistant Professor		01/08/2014	Regular
Ms. Rohini. H. M	BWKPR2659M	M.E/M.Tech	03/05/2014	VLSI & ESD	2			Assistant Professor		01/08/2014	Regular
Mr. Santosh Mugali	BOPPM2209M	M.E/M.Tech	03/05/2014	Signal Processing	5			Assistant Professor		01/08/2014	Regular
Mr. Manjunath K.M	BNYPM1342P	M.E/M.Tech	03/05/2014	VLSI	16			Assistant Professor		22/07/2015	Regular
Mrs. Manasa K.C	BLYPM4038A	M.E/M.Tech	05/05/2016	Digital Communication Networking	10			Assistant Professor		05/02/2016	Regular
Mr. Nagaraj Gowda.H	AJYPN4580D	M.E/M.Tech	21/05/2014	VLSI	2			Assistant Professor		22/04/2017	Regular
Mr. PawanKumar R	BOOPP0206G	M.E/M.Tech	29/05/2014	Digital Electronics	2			Assistant Professor		02/02/2017	Regular
Mr. Channaveerana Gouda	AZUPC5877E	M.E/M.Tech	05/05/2016	Digital Communication & Networking	2			Assistant Professor		01/08/2018	Regular
Mrs Ashwini G	BKAPA4572N	M.E/M.Tech	21/01/2017	Digital Communication Networking				Assistant Professor		10/04/2017	Regular
Mrs. Spoorthi Jain	AUIPJ4334J	M.E/M.Tech	05/05/2016	Digital Communication Networking				Assistant Professor		02/01/2017	Regular
Dr. Arun Kumar G	AKCPA7849P	ME/M. Tech and PhD	27/05/2016	Electronics & Communication				Professor	02/01/2017	02/01/2017	Regular
Mr. Ashwath Narayana	AQRPN4057F	M.E/M.Tech	09/01/2015	VLSI & System Design				Assistant Professor		22/07/2015	Regular
Mrs. Ashwini K	AQWPA7223P	M.E/M.Tech	24/09/2013	Digital Electronics	5			Assistant Professor		01/08/2014	Regular
Mrs. K. M. Manjuvani	BGLPM2065H	M.E/M.Tech	05/04/2013	VLSI & ESD				Assistant Professor		04/02/2016	Regular

Dr. Rohitha U M	AAOPU3666N	ME/M. Tech and PhD	09/05/2015	Communication	31	6		Professor	01/07/2016	01/07/2016	Contractu
Mr. Vinay.A	AROPA1220B	M.E/M.Tech	18/04/2011	Computer Networking and Engineering	1			Assistant Professor		18/07/2011	Regular
Mr. Sudharshan Banakar	EKMPS3714M	M.E/M.Tech	05/04/2013	Digital Electronics Communication System	4			Assistant Professor		01/08/2014	Regular
Mr. Prashanth Keni	BMTPK6538F	M.E/M.Tech	05/04/2013	Digital Electronics Communication System	4			Assistant Professor		04/08/2014	Regular

5.1 Student-Faculty Ratio (20)

Total Marks 20.00

Institute Marks : 20.00

UG

No. of UG Programs in the Department 1

Electronics & Communication Engineering						
Year of Study	**CAY**		**CAYm1**		**CAYm2**	
	(2018-19)		**(2017-18)**		**(2016-17)**	
	Sanction Intake	Actual admitted through lateral entry students	Sanction Intake	Actual admitted through lateral entry students	Sanction Intake	Actual admitted through lateral entry students
2nd Year	120	5	120	8	120	30
3rd Year	120	6	120	18	120	20
4th Year	120	16	120	20	120	17
Sub-Total	**360**	**27**	**360**	**46**	**360**	**67**
Total	**387**		**406**		**427**	
Grand Total	387		406		427	

PG

No. of PG Programs in the Department 1

Digital Communication and Networking			
Year of Study	**CAY(2018-19)**	**CAYm1(2017-18)**	**CAYm2 (2016-17)**
	Sanction Intake	Sanction Intake	Sanction Intake
1st Year	18	18	18
2nd Year	18	18	18
Total	**36**	**36**	**36**
Grand Total	36	36	36

SFR

No. of UG Programs in the Department 1
No. of PG Programs in the Department 1

Description	CAY(2018-19)		CAYm1 (2017-18)		CAYm2 (2016-17)	
Total No. of Students in the Department(S)	423 (UG+PG) students	Sum total of all	442 (UG+PG) students	Sum total of all	463 (UG+PG) students	Sum total of all
No. of Faculty in the Department(F)	34	F1	35	F2	32	F3
Student Faculty Ratio(SFR)	12.44	SFR1=S1/F1	12.63	SFR2=S2/F2	14.47	SFR3=S3/F3
Average SFR	13.18	SFR=(SFR1+SFR2+SFR3)/3				
F=Total Number of Faculty Members in the Department (excluding first year faculty)						

Note: 75% should be Regular/full time faculty and the remaining shall be Contractual Faculty/Adjust Faculty/Resource persons from industry as per AICTE norms and standards. The contractual faculty will be considered for assessment only if a faculty is drawing a salary as prescribed by the concerened State Government for the contractual faculty in the respective cadre.

5.1.1. Provide the information about the regular and contractual faculty as per the format mentioned below:

	Total number of regular faculty in the department	Total number of contractual faculty in the department
CAY(2018-19)	34	0
CAYm1(2017-18)	35	0
CAYm2(2016-17)	31	1

Average SFR for three assessment years :   13.18

Assessment SFR :   20

5.2 Faculty Cadre Proportion (25)   Total Marks 25.00

Institute Marks : 25.00

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY(2018-19)	2.00	4.00	4.00	0.00	14.00	30.00
CAYm1(2017-18)	2.00	4.00	4.00	0.00	14.00	31.00
CAYm2(2016-17)	2.00	1.00	5.00	0.00	15.00	30.00
Average Numbers	2.00	3.00	4.33	0.00	14.33	30.33

Cadre Ratio Marks [(AF1 / RF1) + [(AF2 / RF2) * 0.6] + [(AF3 / RF3) * 0.4]] * 12.5 :   25.00

5.3 Faculty Qualification (25)   Total Marks 17.49

Institute Marks : 17.49

	X	Y	F	FQ = 2.5 x [(10X + 4Y) / F)]
2018-19(CAY)	4	30	21.00	19.05
2017-18(CAYm1)	4	31	22.00	18.64
2016-17(CAYm2)	2	29	23.00	14.78

Average Assessment :   17.49

5.4 Faculty Retention (25)   Total Marks 25.00

Institute Marks : 25.00

Description	2017-18	2018-19
No of Faculty Retained	29	29
Total No of Faculty	31	31
% of Faculty Retained	94	94

Average : 94.00

Assessment Marks : 25.00

5.5 Innovations by the Faculty in Teaching and Learning (20)   Total Marks 20.00

Institute Marks : 20.00

Innovations by the Faculty in Teaching and Learning

Following are the Innovative Tools used by the Faculty in Teaching and Learning Process in addition to the conventional methods like, Blackboard teaching, sharing learning materials and questioning in every class.

Sl.No.	Innovations	Goals	Advantage/ Outcome
1	Power Point Presentations	To enhance the overall comprehension of students and allows teachers to present their lessons in a more dynamic way.	1. It provides the ability to equip presentations with different types of media - including images, sounds, animations, and much more. 2. This enhances the students abilities to retain what is being taught, especially to those who are visual learners. 3. Teachers can focus on the class and interacting with the students instead of writing on a board, because the text and the entire presentation are already there in the form of a PowerPoint file.
2	Student Seminars	The overall objective of this activity is to motivate students for self Study and Group Study.	1.This best practice enhances the Listening ability. 2.Being working in a team builds up Leadership quality of students.. 3. The communication skill gets build up by Oral Communication in seminars. 4. Sharing of Knowledge uplifts while preparing. 5. Students learn Time Management skill. 6. Students learn to deal with conflicting opinions. 7. For delivering seminars students prepare, Produce and use visual aids for presentation.
3	Group Discussion	To develop skills in Interpersonal communication and in expressing views in a Clear and concise manner.	1. Learn from other people experiences and background knowledge. 2. Gain perspective and point of view which increases the listening and interpersonal skill. 3. Identify and sort out the communication opinions.
4	Industry Institute Interaction	To provide students an insight regarding internal working of companies and Industries, Undertaking Internship, Establishing MOU with Industries to Train Students.	1. Industrial visit is considered as one of the tactical methods of teaching. 2. The main reason behind this is helps student to know things practically through interaction, working methods and employment practices. 3. It also provides a good opportunity to the students to gain awareness about industrial practices. 4. Through industrial visit students get awareness about new technologies.
5	Self Learning / Skill Up gradation.	To Provide Online Certification for Students in Collaboration with Other Universities/ Institutions. (MOOC/NPTEL/IIT/NITTTR/Webinars)	1. Moodle is used for blended learning,distance education and other e-learning projects in institute. 2. With customized management features, it is used to create private websites with online courses for educators and trainers to achieve learning goals.

6	Mini projects	To expand technical understandings through development in terms of software solutions and hardware implementation for industrial/societal Problems.	Create opportunities to explore theory, to research and present a pilot project with a possibility of further development, to test a technical insight, to apply intellectual learning, or to challenge skills as well as understandings Within a particular field.
7	English Language Laboratory	To improve verbal skills for effective public speaking, acquire Employment & Workplace Communication Skills	1. The practice enhances Listening and Oral Communication dexterity. 2. To build Technical writing & Presentation Skills. 3. Pronunciation Skill gets personified. 4. Dealing with conflicting rules of English & effectively tackle grammatical rules. 5. Have a good word power & communication.
8	One to one internal viva voce in labs	To groom students for technical interview skills	1.Increases the performance level of Candidate in the Interview and help them to enhance the overall personality. 2. Increases Technical Knowledge.
9	A-View E-Sikshana /Edusat	To provide remote-access to Theory & Labs in various disciplines of Science and Engineering in Collaboration with VTU.	1. This helps them in learning basic and advanced concepts. 2. This practice provides a complete Learning through web-resources, video-lectures, animated demonstrations and self Evaluation.
10	Contents beyond syllabus in theory and labs hours	To bridge the gap between syllabus & recent trends in Engineering & Technology.	1. It is empirically proven that interests in subjects are sparked by factors that are not always related to the curriculum. 2. It makes students curious and encourages them to take more interest in the topic and enhance their learning process. 3. Students shall be encouraged to work with innovative ideas and shall focus on current technological trends to do their Seminars and Projects.
11	Workshop/Seminar/ Invited Talks	To enhance Technical Skills apart from Curriculum	1. Students are trained in Advanced Technical Topics. 2. Enhance Learning by Interacting with Technical Expert. 3.Improve Lifelong Learning
12	Conference	To encourage students for Research Activities	1. Technical writing skill gets Enhanced. 2. Learn to Present Technical Papers. 3. Enhance Publishing Skills.
13	NAIN Project	To motivate Students for Product Development.	1. Best student Project Ideas gets Funded from Incubation Centre. 2. Incubation Centre arrange various innovative activities for students to enhance Research skills.
14	Symposium	To Build Technical & Non Technical Skills	Students learn to Develop Project Prototypes.Educated with Innovative Ideas.
15	TATA Techgnologies	Centre of Invention, Innovation, Incubation,& Training cell (CIIT) motivates students for innovation and to provide training in latest Technology Tools.	1. Students learn latest Technology Tools used in Industry 2.Helps in building good career opportunity. 3. R & D Activities

5.6 Faculty as participants in Faculty development/training activities/STTPs (15)   Total Marks 15.00

Institute Marks : 15.00

Name of the faculty	Max 5 Per Faculty		
	2017-18 (CAYm1)	2016-17 (CAYm2)	2015-16 (CAYm3)
Dr. Savita Sonoli	5.00	5.00	3.00
Dr.Prabhavathi S	5.00	5.00	5.00
Dr Shivakumar	0.00	0.00	0.00
Dr Netravathi	0.00	0.00	0.00
Mr. Dalal Shivakumar	5.00	5.00	3.00
Mrs. Rahkee Patil	3.00	3.00	5.00
Mrs. Ashabharathi S	0.00	5.00	3.00
Mr. Surenrdranath.H	3.00	5.00	5.00
Mr. Khaja Moinuddin	5.00	5.00	3.00
Mrs. Suvarna Patil	5.00	5.00	3.00
Mrs. Girija Vani	3.00	3.00	3.00
Mrs. Chinna V Gowdar	5.00	5.00	5.00
Mr. K.P.Reddy	3.00	5.00	3.00
Mr. Shridhar S Bilagi	5.00	5.00	5.00
Mr. Lokesh.K.S	5.00	5.00	5.00
Ms. Anitha.A	5.00	5.00	3.00
Mr. Vinay A	0.00	5.00	5.00
Ms. Kumuda	3.00	3.00	3.00
Mr. Sharanagouda.V. Patil	3.00	5.00	5.00
Mr. Md. Zakirulla	5.00	3.00	5.00
Mr. Srikanth.N	5.00	5.00	3.00
Mr. Veera Reddy	5.00	5.00	5.00
Mr. Sudharshan B	5.00	5.00	5.00
Mr. Prashanth K Y	3.00	3.00	5.00
Mr. Sharana Basava Raj B	3.00	5.00	5.00
Mrs. Vani. H	5.00	5.00	3.00
Ms. Rohini H M	5.00	5.00	5.00
Mr. Santosh M	3.00	3.00	5.00
Mr. Manjunath K M	0.00	5.00	3.00
Ms. Manasa K C	3.00	5.00	3.00
Mr. Nagaraj Gowda .H	0.00	0.00	0.00
Mr. Pawan Kumar .R	0.00	3.00	0.00

Mr.Channaveerana Gouda	3.00	0.00	0.00
Mrs Ashwini K	0.00	0.00	5.00
Mrs Ashwini G	3.00	0.00	0.00
Mrs. Spoorthi Jain	0.00	5.00	0.00
Mrs. K. M. Manjuvani	3.00	5.00	0.00
Mr. Ashwath Narayana	0.00	5.00	0.00
Dr B Dodda Basavanagouda	5.00	3.00	3.00
Sum	119.00	149.00	122.00
RF = Number of Faculty required to comply with 20:1 Student Faculty Ratioas per 5.1	21.15	22.10	23.15
Assessment [3*(Sum / 0.5RF)]	33.76	40.45	31.62

Average assessment over 3 years: 35.28

5.7 Research and Development (30)

Total Marks 23.00

5.7.1 Academic Research (10)

Institute Marks : 10.00

I. **Number of Quality Publications**

Sl.No	Name of the Faculty	Number of quality publications in refereed/SCI Journals		
		2018-19	2017-18	2016-17
1	Dr. Savita Sonoli	3	3	1
2	Dr.Prabhavathi S	1	-	-
3	Mr. Sudharshan Banakar	1	-	-
4	Mr. Channaveerana gouda	1	-	-

II.Books/Book Chapters

Academic year:2017-18			
Sl.No.	Name of the Author	Title of the Book	Publication Details (ISBN,Edition & Name Publication
1	Dr. Arun Kumar G Mrs. Spoorthi J Jainar	Basic Electronics	Subhas Publication, Bangalore
2	Dr. Arun Kumar G Mrs. Spoorthi J Jaina	Microcontroller & Its Application Theory	Subhas Publication, Bangalore, ISBN:9789383214839

III. Research Guidance

Research Supervisors in the Department

SL.No	Research Supervisors	Research Scholar	Research Center	University
1	Dr. SavitaSonoli	Mrs. Chayalaxmi C L	Dept. of IT,BEC, Bagalkot	VTU, Belagavi
		Mr. Naveen I G	Dept. of ECE, SMVIT, Bangaluru	VTU, Belagavi
		Mr. G. Shashibhushan	Dept. of ECE, SMVIT, Bangaluru	VTU, Belagavi
		Mr.Mahindra B M	Dept. of E&CE, RYMEC, Ballari	VTU, Belagavi
		Mrs.Chinna V Gowdar	Dept. of E&CE, RYMEC, Ballari	VTU, Belagavi
		Mrs.Manasa K C	Dept. of E&CE, RYMEC, Ballari	VTU, Belagavi
2	Dr. Prabhavathi	Mr. Khajamoiniddin	Dept. of E&CE, RYMEC, Ballari	VTU,Belagavi
		Ms. Rohini H M	Dept. of E&CE, RYMEC, Ballari	VTU,Belagavi
3	Dr.Shivakumar	Mr. Shivakumar L N	VTU, RRC, Belagavi	VTU, Belagavi
		Mr. Sampath Kumar	VTU, RRC, Belagavi	VTU, Belagavi

		Mr. Dhanajay D	VTU, RRC, Belagavi	VTU, Belagavi
		Mr. Elia Sundaram H	VTU, RRC, Belagavi	VTU, Belagavi
		Mr. Zuhaib Baig	VTU, RRC, Belagavi	VTU, Belagavi
		Ms. Divya S	VTU, RRC, Belagavi	VTU, Belagavi
		Shivashankar	VTU, RRC, Belagavi	VTU, Belagavi
4	Dr. Rohita U	Fareuddin Ahamed Y	Dept. of ECE,PDIT, Hospet	VTU, Belagavi
		Swamy A M	Dept. of ECE, PDIT, Hospet	VTU, Belagavi
		Surendranath H	Dept. of ECE, BITM,Ballari	VTU, Belagavi
		Prasanth Keni	Dept. of ECE, PDIT , Hospet	VTU, Belagavi
		Annarao Patil	Dept. of ECE, PDIT, Hospet	VTU, Belagavi
		Srikanth K M	Dept. of ECE, PDIT , Hospet	VTU, Belagavi

IV.Faculty Pursuing Ph.D.

Details of Faculty Pursuing Ph.D. in E&CE Department

Sl.No	Research Scholar	University Register Number	University & Date of Registration	Research Topic	Course Work (Completed/Not Completed)	Submission of Comprehensive Viva / Thesis
1	Mrs. Suvarna S Patil	3BR15PEJ08	VTU, Belagavi Dec, 2014	"A Frame Work of Data Mining for Wireless Sensor Network Based Application"	Completed	-
2	Mr.Manjunath K M	4PS15PEJ08	VTU, Belagavi Dec, 2014	"A Novel Approach To Design A High Speed, Low-Power, Energy And Area Efficient Reconfigurable Arithmetic And Logic Unit"	Completed	Comprehensive Viva Completed
3	Mr.Surendranath H	3BR16PEJ01	VTU, Belagavi 2015	"Efficient Spectrum Sensing Methods for Cognitive Radio Network	Not Completed	-
4	Mrs.S.AshaBharathi	4KV16PEJ03	VTU, Belagavi 2015	"Application of Watershed Transform to detect cracks in steel strips"	Completed	-
5	Mrs.Girija vani G	5VZ16PEJ79	VTU, Belagavi 2015	"Energy efficient routing techniques in wireless body area network"	Completed	-
6	Mr.PhanindraReddy.K	5VZ16PEJ55	VTU, Belagavi 2015	"Energy Efficient Opportunistic Routing Techniques in Presence of selfish Nodes for MANETs"	Completed	-
7	Mrs. Rakhee Patil	3PD17PEA01	VTU, Belagavi 2016	Design and optimization of Sierpinski fractal Antenna		-
8	Mrs.Chinna VGowdar	3VC17PEA05	VTU, Belagavi 2016	Design and Performance Analysis of Low-Power Compact Sequential Circuits with Independent-Gate FinFETs"	Completed	-
9	Mr.Prashanth Keni	3PG17PES01	VTU, Belagavi 2016	"Efficient Alogorithms for the communications between physical objects and machines to human through internet of things"	Not Completed	-
10	Mrs. Manasa K C	3VC18PEC01	VTU, Belagavi 2017	"Integrated Analysis of HSV colour histogram characteristics with shape based edge detection to improve the the retrieval system preformance in CBIR"	Not Completed	-
11	Mr. Khajamoinuddin	3VC19PEC01	VTU, Belagavi 2018	Implementation of Security Services at Edge Layer in IoT Enviroment	Not Completed	-
12	Ms. Rohini H M	3VC19PEC02	VTU, Belagavi 2018	Information mining from Animal Sound Signals in the Controlled Environment for Health Monitoring	Not Completed	-

V. Ph.D. awarded during the assessment period

Faculty name	Research Topic	University	Date of Completion

Mrs.S.Prabhavathi	"Design Issues of Energy Efficient Communication Protocol for WSN"	JNTU Ananthapur	June 2017

Research Supervisors	Research Scholar	Research Topic	University	Date of Completion
Dr. SavitaSonoli	Mrs. Chayalaxmi C L	Design and Development and analysis of Embedded System based Data Acquisition and Control for an industrial boiler.	VTU, Belagavi	August 2018

VI. Research Centre Details

Details of Research Scholar under E&CE Research Centre

SL.No	Research Supervisors	Research Scholar	Register No	Title	University
1	Dr. SavitaSonoli	Mr.Mahindra B M	3VC16PEJ01	Augmentation in Driver's drows iness Monitoring System across Uniform and Non-Uniform Motion Blur.	VTU, Belagavi
		Mrs.Chinna V Gowdar	3VC17PEA05	"Design and Performance Analysis of Low-PowerCompact Sequential Circuits with Independent-Gate FinFETs"	VTU, Belagavi
		Mrs.Manasa KChigateri	3VC18PEC01	"Integrated Analysis of HSV colour histogram characteristics with shape based edge detection to improve the the retrieval system preformance in CBIR"	VTU, Belagavi
2	Dr. S.M.Shashidhara	Mrs.Ashakulkarni	3VC16PEJ02	" Non Invasive Method to Analyze Carolid Plaque for Assessment of Stroke Risk"	VTU, Belagavi
3	Dr. Prabhavathi S	Mr.Khaja Moinuddin	3VC19PEC01	Implementation of Security Services at Edge Layer in IoT Enviroment	VTU, Belagavi
		Rohini H M	3VC19PEC02	Information mining from Animal Sound Signals in the Controlled Enviroment for Health Monitoring	VTU, Belagavi
4	Dr. Arun Kumar	Mrs. Joshi Shubhangi Milind	7VC17PED01	"Control of n-link flexible robotic manipulators in 3D Euclidean space"	VTU, Belagavi

5.7.2 Sponsored Research (5)   Institute Marks : 5.00

2017-18 (CAYm1)

Project Title	Duration	Funding Agency	Amount
Antitheft system for Vehicle using Finger Print Sensor	6 months	KSCST	5000.00
Science, Engineering & Society	6 months	KSTA, GOK	60000.00
Information Mining from Animal Sound Signals in the Controlled Environment for Health Monitoring	36 months	V. V. Sangha, Ballari	1100000.00
			Total Amount(X): 1165000.00

2016-17 (CAYm2)

Project Title	Duration	Funding Agency	Amount
Establishment of lab for VLSI design with current Technology (Level)	2 years	VGST-KFIST L1	2000000.00
Intelligent Information systems for Blind.	6 months	KSCST	5500.00
			Total Amount(Y): 2005500.00

2015-16 (CAYm3)

Project Title	Duration	Funding Agency	Amount

Cumulative Amount(X + Y + Z) =

5.7.3 Development Activities (10)

Institute Marks : 8.00

I. Product Development:

Details of projects developed at Research Centre

Sl.No	USN	Name of the student	Title	Guide	Remarks
CAY (2018-19)					
1	3VC15EC001	Anitha T	Dynamic Traffic light Control System For Ambulance Based on IOT	Dr. S Prabhavathi	Selected for KSCST & sanctioned Rupees Seven Thousand only
	3VC15EC058	Padmashree			
	3VC16EC420	Prema			
	3VC16EC414	Megha S M			
2	3VC16EC407	Jabiwulla S	LPG Gas Leakage detection and Automatic Gas Booking using Arduino UNO	Mr. Nagaraj Gowda H	Selected for KSCST & sanctioned Rupees Seven Thousands only
	3VC16EC419	Pavan Kumar B K			
	3VC16EC416	Nagaraja			
	3VC16EC407	Jabiwulla S			
	3VC15EC032	Gabri Basavaraja			
3	3VC15EC035	Harini Gaduputi	IOT based Air Monitoring System	Mr. Prashanth K	Environment field Project
	3VC15EC037	Harshita Kowtal			
	3VC15EC038	Jahanvi T			
	3VC15EC056	Namratha Singi D			
CAYm1 (2017-18)					
1	3VC13EC032	Lakshmi Tejashwani	Anti-Theft System for Vehicles using Fingerprint Sensor.	Mrs.Suvarna.S. patil	Selected for KSCST and sanctioned Rupees five Thousand only
	3VC13EC053	Praveen			
	3VC14EC009	Anand Kumar			
	3VC15EC419	Praveen. H			
2	3VC14EC087	Shwetha V	Smart soil testing for farmers	Mrs.Chinna.V.Gowdar	Environment field Project
	3VC14EC101	Taslim Banu			
	3VC14EC107	Vaishnavi V			
	3VC14EC109	Vidya Shree R S			
CAYm2 (2016-17)					
1	3VC13EC006	Annpurneshwari T	Bluetooth based speech recognition notice board	Dr. Savita Sonoli	Participated in SRISHTI project Exhibition & Competition R.V. College, Bangalore and won Consolation Prize
	3VC13EC021	Devi Shree G			
	3VC13EC022	P Divya			
	3VC13EC033	Lavanya Y			
2	3VC13EC064	Sandhya H	Integration of WSN through IOT for agriculture monitoring using android mobile	Dr.S. Prabhavathi	Environment related Project
	3VC13EC093	Thammineni Prathibha			
	3VC13EC097	Usha K			
	3VC13EC098	Vaishnavi			
3	3VC13EC092	Syed Shabuddin	Alive Human Being Detection in War field	Mr. Santosh Mugali	Participated in SRISHTI project Exhibition & Competition R.V. College, Bangalore
	3VC09EC085	Thokchom Koirouhanba Meitei			
	3VC13EC094	Touseef Raza			
	3VC13EC092	Syed Shabuddin			

II. Research Laboratories:

The following is the list of major Equipment/Software available at the Research Centre

Sl no	Equipment/Software	Quantity/User

1	Cadence EDA Tool	20
2	MATLAB Software	05
3	NI LABVIEW Software	10
4	Intel Optiplex 3020	05
5	Raspberry pi-3	05
6	Arduino Boards	14
7	Interfacing Kits & Sensors	
8	I3 Computers	8

Technology Research & Development Centre

RYMEC has signed **MOU** with TATA Technologies Ltd., Pune in association with Science & Technology Park under National Skill Development Programme, initiated through MHRD, Government of India, with nomenclature "**Centre for Invention, Innovation, Incubation & Training**". These competency centres will expose our students to advanced technology adapted in the industry, provides hands-on experience, enhances employability skills and makes them Industry ready. These centres will help Mechanical, Electrical, Electronics and Management students in enhancing their core skills. These centres are geared with facilities which will make possible that our students can apply the theoretical knowledge gained in their academics and create conceptual projects and products that will solve many industrial and social problems.

The Competency centres established are:

A. "**Technology Research & Development Centre**" having high-end Industrial workstations with Commercial licensed S/W tools.

This competency centre is equipped with the following facilities:

1. Workstation Configuration: Intel Xeon Processor, 32 GB RAM, 8GB Quadro Graphics with dual Bezel monitors.

   Make: HP

2. List of Softwares available
   a. Dassault Systems suite package comprises of 40 modules for Industrial Design & Development, Research and Consultancy.
   b. MSC Software Suite package comprises of 81 different modules of Adams, Easy5, Marc, Apex, Nastran and SCFlow for CAE analysis.
   c. ISRO-FEAST comprises of 10 tools for Linear static, Free Vibration, Buckling, Transient, Frequency response, Random response, Base excitation, Thermal analysis and many more.
   d. I-GET IT for E-Learning on advanced technologies in CAD, CAM, CAE and PLM
3. The centre can deliver domain trainings on:
   a. Product Design
   b. Product Modelling
   c. Analysis
   d. Product Life cycle and Data management.

B. "**Advanced Manufacturing Engineering Centre**" Equipped with Advanced Digital manufacturing facilities.

   This centre can deliver hands on domain trainings on:

a. Digital Manufacturing.
b. Robotic Operations & Programming.
c. Reverse Engineering.
d. Re- Engineering.
e. Computer Integrated Manufacturing.

III.Instructional materials:

Sl No	Location	Audio Facility	Video Facility	Instructional materials
1	VLSI Lab	Creative Speakers 5.1, Amplifiers	Sony Projector, Kodak Camera, Panasonic Camera, Sony DVD CAM, Dell Tab	VLSI ,HDL Lab Manuals
2	DOS Lab	Mercury Speakers(2)	Sony Projector, Dell Tab	DSP, Embedded Controller lab Manuals
3	IC & MP	--	Dell Tab	DSD, MP Lab Manual
4	Communication Lab	I ball Speakers (1)	Dell Tab	LIC, Advanced Communication, Lab Manual
5	AEC & PE Lab	I ball Speakers (1)	Sony Projector, Dell Tab, Laptop	ED & I, CN Lab Manual
6	EDUSAT- Seminar Hall	Amplifier (Bosch Plenamixere), Wireless Microphone (mipro), 2W RF Transmitter, Stereo Speakers (5), VGA Cable (1), Collar mike(1)	Benq Projector, Sony Digital Handy Cam	Video Lecture CD's

IV. Working models /charts/monograms:

Sl. No	Charts Available in Laboratory
1	Basic Electronics
2	Communication Electronics
3	Instrumentation
4	Field Theory

5.7.4 Consultancy(from Industry) (5)   Institute Marks :

2017-18 (CAYm1)

Project Title	Duration	Funding Agency	Amount

2016-17 (CAYm2)

Project Title	Duration	Funding Agency	Amount

2015-16 (CAYm3)

Project Title	Duration	Funding Agency	Amount

Cumulative Amount(X + Y + Z) =

5.8 Faculty Performance Appraisal and Development System (FPADS) (30)   Total Marks 30.00

Institute Marks : 30.00

A Faculty Performance Appraisal and Development System is essential to each academic institution looking forward to the long-term promotion of faculty competence and academic excellence.

The objectives of Faculty Performance Appraisal Development System

1. To Assess and promote excellence in the teaching/learning process.
2. To Meet the educational needs of students and community by continually monitoring instructional performance.
3. To provide a constructive framework for evaluating faculty performance by identifying areas of strength and areas for improvement in classroom instruction.
4. To Provide a basis for professional growth and development.

I. Components of Faculty Performance Appraisal Development System

1. Students Feedback
2. Faculty Self Appraisal

1. **Students Feedback**

Following are the components considered for Students Feedback

1. Presentation of the subject matter
2. Preparation for the class
3. Oral communication
4. Regularity and punctuality in conducting classes.
5. Coverage of syllabus
6. Clearing the doubts inside/outside the class

7. Level of interest shown in the class.
8. Maintenance of discipline and relationship with the students
9. Availability of teacher in department for discussion
10. How comfortable are you with the teacher.

Each component is rated by giving 1 to 10 points.

- Below average:1-4
- Average:5-6
- Good:7-8
- Excellent:9-10

The performance analysis of faculty is carried out by calculating the average rating and the number of student responses for each component of the student feedback.

2. Faculty Self Appraisal form:

Individual faculty members rate themselves by completing the Faculty Self-Evaluation Form, being as objective as possible. Based upon self-evaluation findings or related areas of interest for self-improvement, the faculty member notes proposed professional development opportunities. The components of the Faculty Self- Appraisal Form are

- **Faculty contribution towards Research**

1. Publications in conferences and Journals
2. Submission of Research proposal
3. Contribution to growth of any industry, consultancy to industry, any solution developed by you is used in industry
4. Books, Printed lab journals, compendium, or any printed contribution to your academic area
5. Invited talks, workshops, conferences organized by you as coordinator or important role in the organization of the event
6. Funds received from funding agencies in last three years
7. Membership with Professional bodies (IEE,ISTE)

- **Faculty contribution towards curriculum**

1. Best practice that is introduced to improve teaching and learning process
2. Abstract why student should join your department for pursuing higher education (BE course)
3. Course taught by you which contributes to contents beyond syllabus
4. What is your role in publishing newsletter of the college/Department
5. Contribution to E-Learning contents
6. List students under your guidance acquired certificates that can be used as proof of Lifelong Learning
7. Your contribution to help direct and indirect analysis of NBA. Collection of feedback forms of Alumni, Parent, and Employer for assessment of PEO and PO.
8. What is the role played by you in finalization Vision, Mission, PEO, PSO's or any other document
9. Analysis of CO-PO mapping in last three years and suggestion to improve attainment of PO's. Expected target level shall be more than 50%
10. Analysis of course exit survey and suggestions to improve attainment of CO and PO's
11. Analysis of CO-PO mapping of Project works through rubric form in last three years

- **Faculty contribution at Department/Institute level**

1. What is your contribution to the department in the current academic year?
2. Philosophy of teaching that includes staff member conception of teaching and learning, description of how staff members teach and justification for why you teach that way
3. Visiting status in other engineering institutions/universities
4. Have you helped the department to have MOU with any industry, Specify industry name and its activities
5. Improvements in the department observed by you since last accreditation visit
6. List five strong and five weakness points about you
7. List at least three points why your presence or service is important to the department or college
8. List five strong and weakness of the department in preparation of NBA.
9. Role of Staff member at the institute level
10. Faulty publication in collaboration with peers of other institution
11. What is your contribution to improve campus placements /higher education etc.
12. Any other information that can help assessment of staff member or Help NBA process

Each faculty submits the Self Appraisal form annually to the HOD.

II Evaluation of faculty Form by Head of the department

Head of the department completes the Evaluation of Faculty Form using the

information from observation of instruction, review of syllabi, evaluation of other duties, feedback from students, and subject results. HOD evaluates each faculty based on the following parameters:

1. Character and conduct
2. Regularity and punctuality/availability during the working hours/frequency of leaves availed
3. Attitude towards work.
4. Papers published
5. Papers presented
6. Sponsored projects
7. Presentation in class rooms/labs
8. Communication skills
9. Shouldering responsibility /Extra Curricular activities
10. Memos

Each component on the evaluation is rated by giving 1 to 10 points.

- Poor (2)
- Fair(4)
- Good(8)
- Excellent(10)

Based on the observation, HOD recommends promotion/increment for the faculty to the principal office.

III. Evaluation by Principal office

1. Supports and monitor the execution of the system.

2. Verifies and accredits the results submitted by the respective departments.

3. Considers revaluation applications submitted by each faculty.

4. Prepares final college faculty evaluation report.

5. Sends final report/s to the Office of Evaluation.

Based on the feedback given by HOD, the principal office recommends for further action.

IV. The Office of Evaluation:

1. General supervision of the application of the Faculty Performance Review and Development System.

2. Cooperation with the various departments of the colleges to implement the Review and Development System.

3. Contribution in overcoming problems arising at the time of implementation of the Review and Development System.

4. Preparation of the final Faculty Review and Development Report and submits to the management

5. Document Confidentiality: Evaluation documents and materials prepared and gathered in this process are treated as confidential and limited to authorized persons.

After completion of the system, the concerned Head of the Department is required to meet with every faculty member in person to provide necessary feedback on strengths and weaknesses of the faculty performance, so as to launch a better future plan.

Administrative Responsibilities at Institution level

Sl.No	Faculty Name	Responsibility
01	Dr. Savita Sonoli	Vice Principal & HOD
02	Dr. S. Prabhavathi	Grievance Cell
03	Mrs. Rakhee Patil	IQAC-Secretary
04	Mr. Khaja Moinuddin	AISHE Nodal Officer, Anti Raging committee member, E-Attestation officer.
05	Mr. K.P.Reddy	Alumni Joint Secretary, Display committee member, campus Boys Hostel Warden.
06	Mrs.Chinna V Gowdar	EDUSAT
07	Mr. Shridhar S.B	A-VIEW Co-ordinator, Anti Raging committee member.
08	Mr. Lokesh K S	News Letter, Display committee member.
09	Mr. Sudharshan Banakar	Cultural Cell member, Main Auditorium In charge
10	Mr.Sharnagouda V Patil	Class Monitoring member, Grievance Cell member.
11	Mr Veera Reddy	Display committee member.
12	Mr. Prashanth K	NSS, IAC, Display committee member.
13	Mr.SharanaBasavaraj B	Display committee
14	Ms. Vani H	Cultural Cell member
15	Ms. Rohini H M	Residential Warden, Anti Raging committee ,Cultural Cell member

Awards and Ranks received by the Faculty

Sl.No	Faculty Name	Particulars	Year
01	Dr.Savita Sonoli	Excellence in Teaching	2019
02	Dr. S.Prabhavathi	Excellence in Teaching	2019
03	Dr.Savita Sonoli	Best Research Paper Presented	2019
04	Mr. Sharana Basavaraj.B	Best Research Paper Presented	2019
05	Mr.Manjunath .K.M	Qualified in GATE Exam	2019
06	Dr.Savita Sonoli	Samaaj Seva Ratna Award	2018
07	Mr.Manjunath .K.M	Remote Centre Coordinator	2018
08	Mr.Manjunath .K.M	Qualified in KSET	2017
09	Dr.Savita Sonoli	Best Research Paper Published	2016
10	Dr.Savita Sonoli	Best Research Paper Published	2012
11	Dr.Savita Sonoli	Project of the Year	2012
12	Mr.Santosh Mugali	M.Tech 3rd Rank in VTU	2012
13	Dr.Savita Sonoli	Project of the Year	2010
14	Mr.Khaja Moinuddin	M.Tech 1st Rank in VTU	2006

Faculty Interaction with outside world

Year : 2015-16		
Sl. No	Faculty Name	Interaction
1	Dr. Savita Sonoli	Research review meeting on 12-03-2016 at research Center department of E&CE BKIT, Balki.
		Spiritual talk on Viswa Guru Basavanna on account of Basava Jayanthi Organized by Basavadala at Basaveshwara Nagar, Ballari.
2	Dr. Prabhavathi .S	Review of manuscript: #SCN-15-0533 Entitled "Efficient stream cipher modes of Authencryption for secure communication in wireless sensor networks"
3	Mr. Md. Zakirulla	Question Paper setting of subject "Electronics Circuits " Sri INDU College of Engineering & Technology

Year : 2016-17		
Sl. No	Faculty Name	Interaction
1	Dr. Savita Sonoli	"Create awareness talk about the Woman legal rights at institute level"
		VTU BOE member
		VTU LIC member
		Talk The Hindu Edge CET counseling at BPSE College on 03/06/2017 "Engineering Carrier options after PUC"
		Special talk on topic"Life history of shree Basavanna and vachanas" at BTPS,KPCl,Kudathini
2	Mr. Md. Zakirulla	Question Paper setting of subject "Digital Logic Design"for Sri INDU College of Engineering & Technology

Year : 2017-18		
Sl. No	Faculty Name	Interaction
1	Dr. Savita Sonoli	Member Board of Studies-BOS Department of ECE –SVCE Bengaluru for 5 Years
		Technical Session Chairperson
		One day Syllabus Blowup workshop scheme and Syllabus VTU,Belagavi
		Technical Advisory board of NCIC3 -2017 at Sir MVIT,Bangalore
		Technical Advisory Committe for ICACA-2018
		Revier of papers ICACCI-2017
		Advisory Committe MEMBER for ISRASE (Explore Digital Library)-2018
		Talk The Hindu Edge CET counseling at RYMEC College on 27/05/2018 "Engineering Carrier options after PUC"
2	Dr. Prabhavathi .S	Question Paper setting JNTU of Subject "Digital Communication Systems" & "Linear Integrated Circuits"
		IFERP Session Chairperson for "2nd International Conference on Advances in Computing Applications(ICACA-2018)"
3	Mr.. Khaja Moinuddin	Guest Lecture talk on 'Modulation Techniques & it's Applications" at HSK polytechnic Ballari

Year : 2018-19		
Sl. No	Faculty Name	Interaction
1	Dr. Prabhavathi .S	VTU BOE member
		RYMEC(VEC) Reunion Alumni meet 2019 @DALLA'S,USA
2	Dr. Savita Sonoli	RYMEC(VEC) Reunion Alumni meet-2019 @DALLA'S,USA

5.9 Visiting/Adjunct/Emeritus Faculty etc. (10)   Total Marks 10.00

Institute Marks : 10.00

Visiting/Adjunct/Emeritus Faculty

Name of Adjunct Faculty	Designation	Subject Handled	Subject Code	Sem
Dr. Rohitha U M	Professor, Department of ECE, PDIT, Hospet	Network Analysis (NA)	15EC34	3rd
		Signals & Systems(S&S)	15EC44	4th

6 FACILITIES AND TECHNICAL SUPPORT (80)

Total Marks 80.00

6.1 Adequate and well equipped laboratories, and technical manpower (30)

Total Marks 30.00

Institute Marks : 30.00

Sr. No	Name of the Laboratory	Number of students per set up(Batch Size)	Name of the Important Equipment	Weekly utilization status(all the courses for which the lab is utilized)	Technical Manpower Support		
					Name of the Technical staff	Designation	Qualification
1	ANALOG ELECTRONICS CIRCUITS LAB	3	• 1MHz 30MHz Cathode Ray Oscilloscope, • 2MHz Function Function Generator • Power Generator, • Electronics kits • PowerScope.	18hrs	Sree Ranga Sushmitha K	Asst.Instructor	DIP (E&CE)
2	LOGIC DESIGN LAB	2	• Digital IC Trainers • Digital IC Tester	18hrs	Sowjanya.I.	Asst.Instructor	BE (E&CE)
3	MP LAB	1	MP-Kits &PCs	18hrs	Shambulingana Gouda	Asst.Instructor	DIP(E&CE)
4	LIC+COMMUNICATION LAB	3	• 30MHz Cathode Ray Oscilloscope, • 2MHz Function Generator, • 10MHz Function Generator, • Digital Storage Oscilloscope 100MHz 4 channel	18hrs	Sree Ranga Sushmitha K	Sree Ranga Sushmitha K	DIP (E&CE)
5	DSP LAB	1	• TMS320C6713-DSP Starter Kit(DSK), Floating Point DSP • MATLAB Software 2015	18hrs	Shambulingana Gouda	Asst.Instructor	DIP(E&CE)
6	HDL LAB	1	• Cadence VLSI design software package with Perpetual license of 20 users for 3 years • Server Intel Xeon with peripherals, PCs	18hrs	Chandra Shekara Reddy P.	Instructor	BE (E&CE)
7	VLSI LAB	1	• Cadence VLSI design software package with Perpetual license of 20 users for 3 years • Server Intel Xeon with peripherals, PCs	18hrs	Chandra Shekara Reddy P.	Instructor	BE (E&CE)
8	ADVANCED COMMUNICATION LAB	3	• 30MHz Cathode Ray Oscilloscope, • 2MHz Function Generator, • 10MHz Function Generator, • Digital Storage Oscilloscope 100MHz 4 channel • Fiber Optic trainer • Klystron Source Microwave setup • GUNN Source Microwave Setup • Micro strip setup C Band	18hrs	Sree Ranga Sushmitha K	Asst.Instructor	DIP (E&CE)
9	EMBEDDED CONTROLLER LAB	1	• ARM CORTEX M3 1768 Evaluation Board with USB to Serial Converter with JTAG Debugger	18hrs	Shambulingana Gouda	Asst.Instructor	DIP(E&CE)
10	COMPUTER NETWORKS LAB	1	NCTUns Software, PCs	18hrs	Sowjanya.I.	Asst.Instructor	BE (E&CE)
11	POWER ELECTRONICS LAB	3	• 30MHz Cathode Ray Oscilloscope, • 2MHz Function Generator, • 1MHz Function Generator • Power Electronics kits Power scope	18hrs	Sree Ranga Sushmitha K	Asst.Instructor	DIP (E&CE)
12	MICROCONTROLLER LAB	1	• 8051 MC Trainer ALS –SDA-51ME PCs	18hrs	Shambulingana Gouda	Asst.Instructor	DIP(E&CE)

6.2 Additional facilities created for improving the quality of learning experience in laboratories (25)

Total Marks 25.00

Institute Marks : 25.00

Sr. No	Facility Name	Details	Reason(s) for creating facility	Utilization	Areas in which students are expected to have enhanced learning	Relevance to POs/PSOs
1	MSP430 (MC/MP/DSP Lab)	ALS SDA- MSP 430 Microcontroller Board	To Provide required resources to carryout Academic Projects.	UG and PG students.	Embedded systems	PO4,PO5,PO12, PSO2

2	SPJ C Complier for 8051 family (MC/MP/DSP Lab)	SPJ C Complier for 8051 family (SC 1+9Licenses)	To Provide required resources to carryout Academic Projects	UG and PG students.	Embedded systems	PO4,PO5,PO12, PSO2
3	XILINX ISE evaluation n Boards (VLSI & Embedded Design Lab)	XILINX ISE software Chip scope pro logic analyzer Embedded Dev. Software(EDK) XILINX Xtreme DSP System generator	To Provide required resources to carryout Research work and Academic Projects in VLSI domain.	UG and PG students.	Embedded systems & VLSI Design	PO4,PO5,PO12, PSO2
4	FPGA-Adv Server (5 user lic) (VLSI & Embedded Design Lab)	Design Category-1 IC Designs & Verification Tools Training on IC Design & Verification Tools i)Cygnus GNU pro-tool kit release June 2000 ii) Adv. Design Tool box ver-2	To Provide required resources to carryout Research work and Academic Projects in VLSI & Embeddeded domain.	UG and PG students.	Embedded systems & VLSI Design	PO4,PO5,PO12, PSO2
5	Arduino Boards/Raspberry PI kits (PG/Research Lab)	Raspberry PI Kits Arduino Mega Arduino UNO Arduino NANO	To Provide required resources to carryout Research & Academic Projects	UG and PG students.	Embedded systems	PO4,PO5,PO12, PSO2
6	Spectrum analyzer	SA 3011 Frequency range 0.15MHz to 1050MHz.	Facility for doing academic projects in Communication Domain.	UG and PG students.	Communication systems.	PO4,PO5,PO12, PSO1
7	Frequency synthesizer	MFG206 Arbitrary Function Synthesizer 1mHz – 20MHz	To Provide required resources to carryout Academic Projects in Communication systems.	UG and PG students.	Communication Systems.	PO4,PO5,PO12, PSO1
8	NI Lab VIEW	Software with toolkits PDS, Control design, system identification, DFD, Modulation, Signal Express, Vision, Measurement, DIAdem(Package Contains DELL1014- Vostro,320GB Laptop) ii) Close Loop Learning System (NI ELVIS Board+FPGA Board + Multisim + Ultiboard)	To Provide required resources to carryout Research work and Academic Projects.	Research scholars, UG and PG students.	Embedded systems	PO4,PO5,PO12, PSO1
9	CNC vertical milling machine	ACE Micromatics 3-Axis machining center (Model 430V)	Content beyond syllabus , training students, R&D and Consultancy	Students, R&D work and Consultancy	Advanced Manufacturing	PO1 PO3 PO5 PSO1 PSO2
10	Industrial Robot for arc welding applications	YASKAWA, MOTOMAN arc welding robot	Content beyond syllabus , training students, R&D and Consultancy	Students, R&D work and Consultancy	Advanced Manufacturing	PO1 PO3 PO5 PSO1 PSO2
11	3D Experience Suite from Dassaults systems	3D Experience Suite comprise of 40 different tools for industrial design & development, research, digital manufacturing & consultancy	Content beyond syllabus to make students industry ready, R&D and consultancy	Training, R&D and consultancy	Industrial Design & Development, Digital Manufacturing and PLM	PO1 PO3 PO4 PO5 PSO1
12	nCyclo-Turn	Software for training on CNC turning	Content beyond syllabus to make students industry ready	Training	Digital Manufacturing	PO1 PO3 PO4 PO5 PSO1
13	nCyclo-Mill	Software for training on CNC milling.	Content beyond syllabus to make students industry ready.	Training	Digital Manufacturing	PO1 PO3 PO4 PO5 PSO1
14	CFD	CFD Software	Projects and Research	Students and Research scholars	Simulation and Testing	PO11 PO12 PSO1 PSO2
15	3D Printer	ULTIMAKER 3 EXTENDED	Content beyond syllabus , training students, R&D and Consultancy	Students, R&D work and Consultancy	Advanced Manufacturing	PO1 PO3 PO5 PSO1 PSO2
16	3D Scanner	EINSCAN SE 3D Scanner For Reverse Engineering	Content beyond syllabus , training students, R&D and Consultancy	Students, R&D work and Consultancy	Advanced Manufacturing	PO1 PO3 PO4 PO5 PSO1 PSO2

17	ISRO FEAST	Software for linear , non linear and thermal analysis	Content beyond syllabus to make students industry ready, R&D and consultancy	Training, R&D and consultancy	Industrial Design & analysis	PO1 PO3 PO4 PO5 PSO1
18	Communication Lab	Globarena – Eclient Software	Enhance Communication Skill	Students & Staff	Language	PO5 PO10
19	Internet Facility	10Mbps	Essential tool for information & Communication	Students & Staff	Information & Communication	PO12
20	High end Work stations(21 Nos)	HP Z4G4 intel Xeon Processor, 32 GB RAM, 8GB Quadro Graphics	Training, R&D & Consultancy	Training, R&D and consultancy	Information Technology	PO4 PO5 PO12

6.3 Laboratories: Maintenance and overall ambiance (10)

Total Marks 10.00

Institute Marks : 10.00

Infrastructure and Facility	Maintenance Description
Laboratories	The Laboratory In-charge, Faculty handling the laboratory and the Technical Staff put together, propose the Budget for the required Consumables and new Equipments / Software. Lab instructors look after the maintenance of each laboratory, Repairs and Calibration.
Seminar Halls	Seminar Hall of the Department is equipped with Projector, AC, Furniture's, Audio-Video Facilities and maintained by Technical staff.
Equipments	Lab instructors maintain the ledger book for equipment of the laboratory. They prepare the preventive maintenance schedules and maintain as per the schedules.
Computers	Lab instructors of each laboratory are responsible for maintenance of equipments, systems and software. Instructors' carryout maintenance of each computer at regular intervals. Need based service is taken if required
Department Library	Faculty members of departments can borrow books from Department Library and students in their free time can make use of the books available in the Department Library. Faculty member is in-charge of the Department Library.
Internet /Intranet	Internet related matters are maintained by a team of instructors and programmers. They maintain the daily band width, usage, band width allocation, sharing etc.
Electricity	Technicians and attender's look after the maintenance of electricity.

All the Laboratories, Class rooms, Seminar Halls and Department Library are cleaned by sweepers on daily basis.

Maintenance:

1. Servicing of Lab equipments/components/probes are carried out regularly and on need basis.

2. Computer/Internet Maintenance and software installations are carried out by the technical staff.

Ambience:

1. Separate work Tables are provided in each laboratory.

2. Backup UPS power supply of 80KVA for computer labs.

3. Backup generator supply for circuit labs & class-rooms.

4. Projector and White board provided in all the Labs.

5. Store facility to keep laboratory equipments/consumables.

6. Students are assisted for mini projects and academic projects in laboratories.

6.4 Project laboratories (5)

Total Marks 5.00

Institute Marks : 5.00

Sl.no	Project Lab	Remarks
1.	LOGIC DESIGN/PROJECT LAB	Students are provided with basic facilities to carry out the project works.
2.	PG/ RESEARCH LAB	Research scholars and UG students work in the domain of digital communication , networking & Embedded systems.

1. Laboratory is provided for carrying out project work.
2. Licensed software's and software's downloaded from open source are provided to students according to the requirements.
3. Training programs are conducted to initiate the project work.
4. Every project batch has been allotted with a guide in order to pursue with the project work.
5. Network and Internet facilities are provided to students.
6. Digital library facility has been extended to the students.
7. Students are encouraged to participate in exhibitions and competitions.
8. Lab attender's and instructors help indirectly in doing their project work.

PG /RESEARCH LAB

LOGIC DESIGN & PROJECT LAB
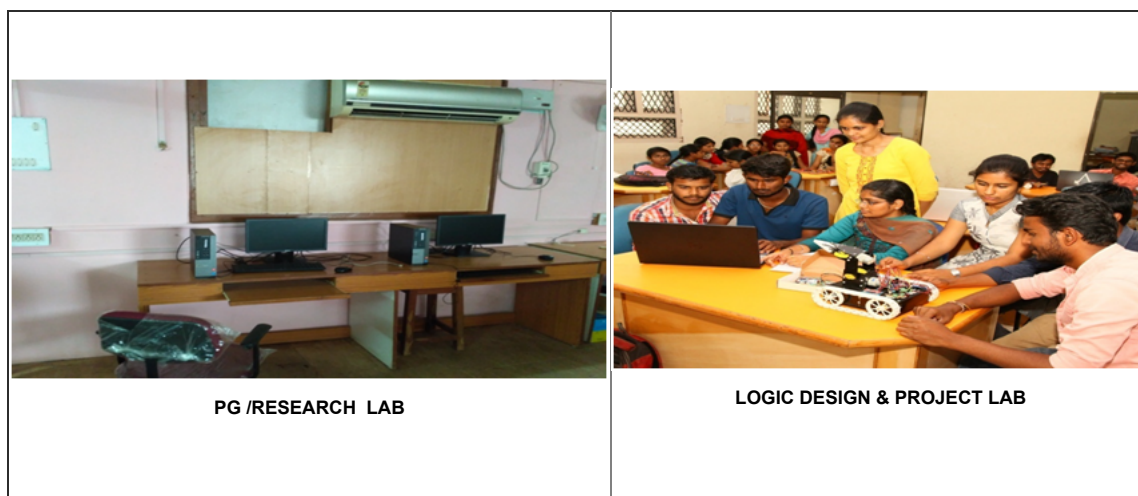
6.5 Safety measures in laboratories (10)

Total Marks 10.00

Institute Marks : 10.00

Sr. No	Laboratory Name	Safety Measures
1	Analog Electronics Lab & PE Lab. Logic Design & Project Lab. MC/MP/DSP Lab. Communication Lab & MWR OFC Lab. VLSI & Embedded Design Lab PG & Research Lab.	Fire Extinguisher Earthing First Aid Kit CC Cameras surveillance.

7 CONTINUOUS IMPROVEMENT (50)

Total Marks 44.00

7.1 Actions taken based on the results of evaluation of each of the POs & PSOs (20)

Total Marks 20.00

Institute Marks : 20.00

POs Attainment Levels and Actions for Improvement- (2017-18)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	1.86	1.88	Target Achieved
Actions Taken: 1. Remedial classes for control systems, principles of communication systems, Linear integrated circuits, Engineering electromagnetics, Network analysis, signals and systems			
PO 2 : Problem Analysis			
PO 2	1.86	1.79	The problem solving and analyzing skills helps the students to apply the gained knowledge in real time applications.

| Actions Taken: 1. Remedial classes for control systems, principles of communication systems, Linear integrated circuits, Engineering electromagnetics, Network analysis, signals and systems. |

PO 3 : Design/development of Solutions

| PO 3 | 1.86 | 1.82 | Not all the courses/projects developed by the Student's as hobby projects/major projects (final year) are completely focusing on the health, societal and environmental issues |

| Actions Taken: 1. Orientation program on IOT in association with RV college Bengaluru. 2. Conference on emerging trends in engineering,science & management |

PO 4 : Conduct Investigations of Complex Problems

| PO 4 | 1.86 | 1.79 | Although most of the Seminar's, project abstract's and literature survey's are research based approach but does not end with valid conclusions. |

| Actions Taken: 1. Orientation program on IOT in association with RV college Bengaluru. 2. Conference on emerging trends in engineering,science & management |

PO 5 : Modern Tool Usage

| PO 5 | 1.86 | 2.04 | Target Achieved |

| Actions Taken: 1. Up gradation of VLSI Laboratory with cadence software (20 user license). 2. Orientation program on IOT in association with RV college Bengaluru. 3. Conference on emerging trends in engineering,science & management. 4. Workshop on MultiSim Software. |

PO 6 : The Engineer and Society

| PO 6 | 1.86 | 2.09 | Target Achieved |

| 1. Workshop on Entrepreneurship & Development 2. Conference on emerging trends in engineering,science & management. |

PO 7 : Environment and Sustainability

| PO 7 | 1.86 | 1.84 | The societal and environmental issues and its awareness among the students need to be improved.. |

| Actions Taken: 1. Workshop on Entrepreneurship & Development |

PO 8 : Ethics

| PO 8 | 1.86 | 1.97 | Target Achieved |

| Actions Taken: 1. Seminar on " IEEE EXPLORE" 2. Workshop on Entrepreneurship & Development 3. Workshop on Engineering & Society- Life, Health & Happiness 4. Conference on emerging trends in engineering,science & management. |

PO 9 : Individual and Team Work

| PO 9 | 1.86 | 2.15 | Target Achieved |

| Actions Taken: 1. Conference on emerging trends in engineering,science & management 2. Workshop on Entrepreneurship & Development 3. Workshop on Engineering & Society- Life, Health & Happiness 6.One day Industrial Visit to BSNL office for 6th sem students |

PO 10 : Communication

| PO 10 | 1.86 | 2.25 | Target Achieved |

| Actions Taken: 1. Conference on emerging trends in engineering,science & management 2. Workshop on Entrepreneurship & Development |

PO 11 : Project Management and Finance

| PO 11 | 1.86 | 2.36 | Target Achieved |

| Actions Taken: 1. Conference on emerging trends in engineering,science & management 2. Workshop on Entrepreneurship & Development |

PO 12 : Life-long Learning

| PO 12 | 1.86 | 1.84 | The pre final year and final year courses of the program needs to demonstrate the resource for contemporary issues and lifelong learning. |

| Actions Taken: 1. Workshop on Entrepreneurship & Development 2. Workshop on Engineering & Society- Life, Health & Happiness |

PSOs Attainment Levels and Actions for Improvement- (2017-18)

PSOs	Target Level	Attainment Level	Observations

PSO 1 : Ability to Design, Develop and Test the Electronics Circuits & Communication Systems.

PSO 1	1.86	1.72	Moderately involved in designing and developing electronics circuits

Actions Taken: 1. Orientation program on IOT in association with RV college Bengaluru. 2. Conducted several events under Department Student Forum -"TALENTRONICS".

PSO 2 : Ability to Develop Excellent Programming and problem solving skills in the field of Embedded System.

PSO 2	1.86	1.99	Target Attained

Actions Taken: 1. Activities under Department Student Forum -"TALENTRONICS".

7.2 Academic Audit and actions taken thereof during the period of Assessment (10)

Total Marks 10.00

Institute Marks : 10.00

Academic Audit system/process and its implementation in relation to Continuous Improvement)

Academic Audit Report For The Academic Year 2016-17 To 2018-19

Academic audits are conducted in order to monitor and evaluate the teaching learning process. It consists of internal audit and external audits. Audits are conducted for teaching learning process, laboratory maintenance and departmental activities.

The institute established Internal Quality Assurance Cell (IQAC) in the year 2017 -18, whose major responsibility is to conduct periodical audits and take corrective/preventive measures for assuring/improving the academic performance.

Audit Process and its implementation:

1. Professor Dr. Veeragangadhara Swamy T.M of Computer Science & Engineering is the IQAC Convener. He with the consensus of the Principal constitutes a committee for assessing the academic performance of the different departments. The members in the audit committee are drawn from the IQAC, Heads of the various Departments and senior faculty in the institution.

2. Generally, an academic audit is conducted every semester and the details are mentioned below:

Table : Internal Audit Details

Sl No	Audit Date	Audit Members	Cell
01	16/09/2019	1. Dr. Veeragangadhara swamy T.M, Prof, CSE,RYMEC 2. Mrs. Rakhee Patil Prof, ECE,RYMEC 3. Mr Shivananda K B Asst. Placement Officer, RYMEC	IQAC
02	28/06/2019	1. Dr. Kori Nagaraj Prof, MECH, RYMEC 2. Mr. Raghu Kumar K S Asst Prof, CSE, RYMEC	NBA Internal audit Committee

Table : External Audit Details

Sl No	Audit Date	Members	Cell
01	19/11/2019	1. Dr. Anil D Devangavi Associate Professor, Basaveshwar Engg College, Bagalkot	Department of E&CE
02	04/11/2019	1. Dr. Prashanth B.G Prof. Dept of Mech. JSS academy of Technical education Bengaluru. 2. Dr. Bhimasen Soragaon. Prof. Dept of Mech. JSS academy of Technical education Bengaluru.	IQAC

03	04/01/2019	1. Dr. Maya V Karki Prof, ECE MSRIT Bengaluru		IQAC
04	31/05/2019	1. Dr. Maya V Karki Prof, ECE MSRIT Bengaluru		Department of E&CE
05	19/12/2018	1. Dr. Mohamed Rafi Prof ,CSE UBDT Davangere		IQAC
06	03/07/2017	Range forest officer(RFO), Ballari		NSS

3. Every committee member is assigned with the responsibility of auditing of one or two departments.

4. The auditor will visit the department as per the schedule given by IQAC to inspect the correctness and completeness of academic documents:

Faculty audit: The following are the records of the faculty members that are verified during the internal academic audits.

- Calendar of Events.
- Lesson Plan, Execution Plan.
- Syllabus, Attendance Registers.
- Individual Time Table.
- IA Question Paper, Scheme of Evaluation And Assignment Questions.
- Model Question Papers, Previous University Question Papers.
- Lab Records, Lab Manuals, Ledger
- Course File
- Personal File
- Remedial and Tutorial Class Records.
- Result Analysis
- Counseling and Mentoring Records.
- Additional Resources to Students (Notes, PPT, Etc.)
- Co-Curricular Activities: Seminar/Conference/Workshop/Guest Lecture Conducted And Attended.
- Industrial Visits, Faculty Achievements: Paper publications, Books etc.
- Feedback mechanism for assessing the Teaching-Learning Process.

5. Auditor will then prepare a report of his findings and submits the same to the IQAC Convener and also shares it with the concerned Head of the Department.

6. IQAC Convener shall consolidate the reports submitted by all the members and prepares corrective/preventive actions as necessary and also shares it with the concerned Head of the Department.

7. The report of the IQAC Convener is further submitted to the Principal to deliberate implementation of the suggested actions in the academic council. The Head of the department discusses audit findings with the faculty and prepares plan of action in the DAC meeting for addressing any concern(s) identified by the auditor.

Corrective Measures for the improvement of academic performance.

Feedback from Students – Course End Survey: A questionnaire about the course is prepared by the course coordinator and the program - coordinator for the students. This serves as a feedback at end of the semester to gauge the degree of attainment of POs and PSOs.

Feedback from students – Course Exit Survey: A questionnaire is prepared by the program coordinator, and given to students at end of the program to get their feedback of the program. The results are analyzed to gauge the degree of attainment of program outcomes.

Feedback from parents: The Program coordinator will collect the feedback from parents about their experience and their wards opinion on the program. This activity is carried out once in every semester for the betterment of the system.

Feedback from the recruiters: A questionnaire is prepared by the program coordinator and is given to the recruiters during recruitment process. Their feedback is analyzed to gauge the degree of attainment of program outcomes

Feedback from the academic/industry experts: Curriculum reviews by Industry/Academic experts provide a broad-based internal and externalØ feedback regarding the relevance and organization of a program's curriculum. Their feedback serves as an evidence for assessing significant changes (individual course competencies) required within a program when the change is inevitable.

Feedback from alumni: A questionnaire is prepared by the program and course coordinator and is given to the alumni. ItØ will be done once in every year on August 15 to gauge the degree of attainment of POs and PSOs. Open ended questions/experiments in the lab Open ended questions are designed for which students formulate meaningful solutions using subject knowledge. These open-ended questions tend to be more objective and less leading than closed-ended questions.

The Improvement in the PO Attainment Summary of the for CAY, CAYm1,CAYm2 is shown below :

POs	_**2016-17**_			_**2017-18**_			_**2018-19**_		
	Target (60 % of 3)	Attainment	Target Achieved	Target (62 % of 3)	Attainment	Target Achieved	Target (64 % of 3)	Attainment	Target Achieved
PO1	1.8	2.05	Y	1.86	1.88	Y	1.92	1.89	N
PO2	1.8	1.91	Y	1.86	1.79	N	1.92	1.86	N
PO3	1.8	1.95	Y	1.86	1.82	N	1.92	1.89	N
PO4	1.8	1.96	Y	1.86	1.79	N	1.92	2.01	Y

PO5	1.8	2.2	Y	1.86	2.04	Y	1.92	2.28	Y
PO6	1.8	2.14	Y	1.86	2.09	Y	1.92	2	Y
PO7	1.8	1.82	Y	1.86	1.84	N	1.92	1.79	N
PO8	1.8	1.84	Y	1.86	1.97	Y	1.92	2.27	Y
PO9	1.8	1.99	Y	1.86	2.15	Y	1.92	2.43	Y
PO10	1.8	2.29	Y	1.86	2.25	Y	1.92	2.54	Y
PO11	1.8	2.51	Y	1.86	2.36	Y	1.92	2.77	Y
PO12	1.8	2.01	Y	1.86	1.84	N	1.92	2.07	Y
PSO1	1.8	1.9	Y	1.86	1.72	N	1.92	1.88	N
PSO2	1.8	1.95	Y	1.86	1.99	Y	1.92	1.92	Y

7.3 Improvement in Placement, Higher Studies and Entrepreneurship (10)   Total Marks 7.00

Institute Marks : 7.00

7.3.1 Placement Details: (2018-2019)

SI No	Name of the Company	No. of Students Placed	Salary offered per annum (in Rupees)
1	Infosys	04	3,00,000
2	TCS	03	3,36,000
3	JARO	01	4,92,000
4	NTT Data	01	3,50,000
5	COGNIZANT	02	3,38,005
6	WIPRO	01	3,50,004
7	SLK Software	02	2,40,000
8	VEE TECHNOLOGIES	07	2,16000
9	UNIVERSAL EDUCATION	02	3,00,000
10	SHRIRAM TRANSPORT COMPANY LTD	01	2,44,920
Total number of students placed		24	
Total number of Final year students		78	
Percentage of students placed		30.76	

Placement Details: (2017-2018)

SI No	Name of the Company	No. of Students Placed	Salary offered per annum (in Rupees)
1	TCS	16	3,36,875
2	NTT DATA	03	3,00,000
3	VEE TECHNOLOGIES	01	1,80,000
4	[24]7	04	2,40,000
5	ANORA SEMICONDUCTORS	01	3,60,000
6	SHRIRAM TRANSPORT FINANCE	01	2,44,920
7	PIN CLICK	05	2,40,000
8	YANTRA DIGITAL	01	2,50,000
9	CMSIT	11	1,80,000
10	Cognizant	01	3,38,005
11	Mphasis	02	2,50,000
12	SLK SOftware	01	2,40,000
13	TUVRheinland	01	2,73,312
14	TRACXN TCH PVT LTD	01	2,49,396
15	INVENDIS	01	2,40,000
16	ACCENTURE	01	3,50,000
17	DXC TECHNOLOGIES	02	3,70,000
18	QUADGEN WIRELESS SOLUTION	01	2,45,000
Total number of students placed		54	
Total number of Final year students		94	
Percentage of students placed		57.44	

Placement Details: (2016-2017)

SI No	Name of the Company	No. of Students Placed	Salary offered per annum (in Rupees)
1	TCS,Bengaluru	17	3,36,875

2	WEIWO Comm Pvt Ltd, China	03	2,63,928
3	SLK Software	03	2,40,000
4	Triangle Telecom, Indore	12	2,00,000
5	Mphasis	01	2,50,000
6	Sriram Transport Finance, Chennai	01	2,16,000
7	Tech Mahindra, Chennai	04	1,23,600
8	Sequential technology internation PVt ltd(through CMSIT)	01	1,95,270
9	Bioclinica India Pvt Ltd	01	2,64,000
10	LTI	01	3,18,000
11	Pthinks	01	3,84,000
12	UST Global	01	3,00,000
13	HCL	01	3,00,000
14	GoodThrough	01	2,40,000
15	Aricent Technologies	01	4,00,000
16	SKY PRO	02	1,33,396
17	CMSIT Services, Bangalore	08	1,80,000
18	VVDN Technologies	01	3,20,000
Total number of students placed		60	
Total number of Final year students		132	
Percentage of students placed		45.45	

Summary of Placement Details 2016-2019

Placement Details	2016-17	2017-18	2018-19
No of Students Placed	60	54	24
Total number of Final year students	132	94	78
% OF STUDENT PLACED	45.45	57.44	30.76

7.3.2 Higher Studies: (2017-2019)

Year	2016-17	2017-18	2018-19
Total No of Students Perusing Higher Studies	02	02	04

7.3.3 Entrepreneur List

Year	2016-17	2017-18	2018-19
Total No of Entrepreneurs	Nil	Nil	Nil

7.4 Improvement in the quality of students admitted to the program (10)

Total Marks 7.00

Institute Marks : 7.00

Item		2018-19	2017-18	2016-17
National Level Entrance Examination Nil	No of students admitted	0	0	0
	Opening Score/Rank	0	0	0
	Closing Score/Rank	0	0	0
State/ University/ Level Entrance Examination/ Others Karnataka CET	No of students admitted	67	83	109
	Opening Score/Rank	13855	29072	22663
	Closing Score/Rank	145597	168066	123462
Name of the Entrance Examination for Lateral Entry or lateral entry details Diploma KCET	No of students admitted	5	8	30
	Opening Score/Rank	7188	5945	5544
	Closing Score/Rank	16260	13644	24090
Average CBSE/Any other board result of admitted students(Physics, Chemistry&Maths)		77	74	77

8 FIRST YEAR ACADEMICS (50)

Total Marks 44.37

8.1 First Year Student-Faculty Ratio (FYSFR) (5)

Total

Institute

Please provide First year faculty information considering load for the particular program

Name of the faculty member	PAN No.	Qualification	Date of Receiving Highest Degree	Area of Specialization	Designation	Date of joining	Teaching load (%)			Currently Associated (Yes / No)	Nature Of Association (Regular / Contract)	D
							CAY	CAYm1	CAYm2			
Dr.J.Phakirapp	ABZPP1752G	M.Sc. and PhD		fLUDYNNUMLANALYSIS	Professor	24/02/1988	100	100	100	Yes	Regular	
Dr.Sumangala.	BJOPS5236E	M.Sc. and PhD		DIFFERENTIAL GEOMETRY	Associate Professor	23/07/2015	100	100	100	Yes	Regular	
H.M.manjunath	AFSPM3162L	M.Sc		FLUID DYNAMICS and GRAPH THEORY	Assistant Professor	10/11/1997	100	100	100	Yes	Regular	
K.Sangameshv	AMJPK1027C	M.Sc		FLUID DYNAMICS and CAGD	Assistant Professor	08/12/1997	100	100	100	Yes	Regular	

Dr.P.Shaikshav	BUGPS5396N	M.Sc. and PhD		FLUID DYNAMICSAND GRAPH THEORY	Assistant Professor	23/02/2006	100	100	100	Yes	Regular	
A.Sivamma	DGXPS2403B	M.Sc		FUZZY SETS FLUID MECHANICS	Assistant Professor	13/08/2007	100	100	100	Yes	Regular	
Dr.Shruti R	BOLPR2695G	M.Sc. and PhD		GRAPH THEORY	Assistant Professor	27/07/2012	100	100	0	Yes	Regular	
Dr.Nagabhusha	AHJPN8422B	M.Sc. and PhD		PHYSICS	Assistant Professor	24/08/2016	100	100	100	Yes	Regular	
Dr.Nagaraj N	AHHPN0995R	M.Sc. and PhD		PHYSICS	Professor	24/01/2018	100	100	0	Yes	Regular	
Bhagya K R	BPGPB2907F	M.Sc		MOLECULAR BIOPHYSICS	Assistant Professor	01/08/2009	100	100	100	Yes	Regular	
AnandThipperu	AFKPT7174B	M.Sc		PHYSICS	Assistant Professor	27/08/2012	100	100	100	Yes	Regular	
Dr.Hiremath Su	ABDPB5162C	M.Sc. and PhD		ORGANIC CHEMISTRY	Professor	02/02/1987	100	100	100	Yes	Regular	
Dr.Kottureshwa	ACQPN3434K	M.Sc. and PhD		PHYSICAL CHEMISTRY	Professor	01/01/2003	100	100	100	Yes	Regular	
M.Jayashree	AHNPJ0297Q	M.Sc		ORGANIC CHEMISTRY	Assistant Professor	01/09/2002	100	100	100	Yes	Regular	
R M Sunitha	EEQPS7963A	M.Sc		ORGANIC CHEMISTRY	Assistant Professor	01/09/2010	100	100	100	No	Regular	3
R.P.Rajeshwar	AMUPR4622F	M.E/M.Tech		CSE	Assistant Professor	30/11/2006	100	0	100	Yes	Regular	
Jagadeesh G N	AHKPJ7367G	M.E/M.Tech		CSE	Assistant Professor	11/01/2018	100	0	0	Yes	Regular	
Shivaprasad K	CCEPK3972P	M.E/M.Tech		CCT	Assistant Professor	01/08/2011	100	0	100	Yes	Regular	
Punneth GJ	BTTPP9481M	M.E/M.Tech		COMPUTER SCIENCE AND ENGINEERING	Assistant Professor	13/10/2014	100	100	0	Yes	Regular	
SwamyAradhya	AHOPA1959P	MCA		PCM	Assistant Professor	13/08/2008	100	100	0	Yes	Regular	
A T Satya Nara	BGAPS9165H	MCA		Electronics	Assistant Professor	04/09/2003	100	100	100	Yes	Regular	
K B Shivanand	BEMPS5384A	MCA		Electronics	Assistant Professor	30/09/2003	100	100	100	Yes	Regular	
B Mallikarjuna	BLTPM0095G	MCA		Computers	Assistant Professor	01/01/2010	100	0	0	Yes	Regular	
Achyuthaanand	AIWPA1969Q	M.E/M.Tech		TOOL DESIGN ENGG	Assistant Professor	12/09/2013	100	100	100	Yes	Regular	
B Basavapraka	AGRPP5813I	M.E/M.Tech		THERMAL POWER ENGG	Assistant Professor	02/08/2014	100	100	100	Yes	Regular	
V Chetan	AOLPV8561L	M.E/M.Tech		CAMS	Assistant Professor	01/08/2014	100	0	0	Yes	Regular	
H M Naveen	AGRPP4813H	M.E/M.Tech		MACHINE DESIGN	Assistant Professor	04/08/2014	100	0	0	Yes	Regular	
Rajashekar K	BLKPR3121P	M.E/M.Tech		DIGITAL ELECTRONICS	Assistant Professor	02/08/2014	100	0	0	Yes	Regular	
Shasidhar R	ASMPR9050K	M.E/M.Tech		Power Electronics	Assistant Professor	17/04/2017	100	0	0	Yes	Regular	
R Basava Raj	DAIPP8552B	M.E/M.Tech		STRUCTURAL ENGINEERING	Assistant Professor	23/07/2018	100	100	0	No	Regular	2
Mubarak Moha	CHCPM7552G	M.E/M.Tech		SURVEYING	Assistant Professor	02/04/2018	100	100	0	No	Regular	1
Monica Bhutad	CNBPB9046H	M.E/M.Tech		CASE	Assistant Professor	23/08/2017	100	100	0	No	Regular	0

Vinay A	AROPA1220B	M.E/M.Tech		CNE	Assistant Professor	18/07/2011	100	0	0	Yes	Regular	
Kumuda B	CSTPK3011L	M.E/M.Tech		Digital Electronics	Assistant Professor	16/08/2012	100	0	0	Yes	Regular	
Nagaraj Gouda	AJYPN4580D	M.E/M.Tech		VLSI	Assistant Professor	22/04/2017	100	0	0	Yes	Regular	
H Victor Raviki	AEHPH2429H	MA		ENGLISH	Assistant Professor	01/02/2018	100	100	0	Yes	Regular	
Pushpa B M	CQTPP7389E	MA		ENGLISH	Assistant Professor	23/08/2018	100	0	0	Yes	Regular	
Dr.Chandra Go	AIKPC9836A	ME/M. Tech and PhD		ALTERNATIVE FUELS	Assistant Professor	20/01/2009	100	100	100	No	Regular	0
B.Veeresh	ACKPV6194N	M.Sc		FLUID DYNAMICSAND GRAPH THEORY	Assistant Professor	11/11/2000	0	0	100	Yes	Regular	
SHIVARAJ P	DPWPS7576B	MCA		CSE	Assistant Professor	21/07/2011	100	0	0	Yes	Regular	
K.S.Aparna	ALGPA6872M	M.E/M.Tech		CNE	Assistant Professor	14/02/2007	0	0	100	Yes	Regular	
K.Suresh	AYOPS7651P	M.E/M.Tech		CSE	Assistant Professor	01/08/2011	0	0	100	Yes	Regular	
B.Veeresha Go	AGNPV1571A	M.E/M.Tech		CSE	Assistant Professor	01/08/2013	0	100	0	Yes	Regular	
Sridevi Malipat	CNNPM1062J	M.E/M.Tech		CSE	Assistant Professor	01/08/2013	0	100	0	Yes	Regular	
Prasanna Kum	CLQPP0180B	M.E/M.Tech		CSE	Assistant Professor	20/10/2016	0	100	0	Yes	Regular	
Prashanth Ken	BMTPK6538F	M.E/M.Tech		DECS	Assistant Professor	04/08/2014	0	100	100	Yes	Regular	
Vani H	APGPV5271B	M.E/M.Tech		VLSIAND ESD	Assistant Professor	01/08/2014	0	100	100	Yes	Regular	
udharshanBana	EKMPS3714M	M.E/M.Tech		DECS	Assistant Professor	01/08/2014	0	100	100	Yes	Regular	
Nagaraj M K	BFGPK0562M	M.Sc		NUCLEAR PHYSICS	Assistant Professor	30/01/2008	0	0	100	No	Regular	0
S.Kotresh	AYLPS5544G	M.E/M.Tech		Biomedical instrumentation	Associate Professor	18/03/2006	0	100	100	Yes	Regular	
Shambulingana	CILPS9805G	M.E/M.Tech		Electrical Maintaince Engineering	Assistant Professor	27/08/2007	0	100	100	Yes	Regular	
T. Naga Anush	ASZPA7618M	M.E/M.Tech		STRUCTURAL ENGINEERING	Assistant Professor	04/08/2015	0	0	100	No	Regular	0
Shadakshari M	FCIPS1171K	M.E/M.Tech		STRUCTURAL ENGINEERING	Assistant Professor	08/01/2016	0	0	100	No	Regular	1
Ashwini.R	BBKPA1674J	M.E/M.Tech		STRUCTURAL ENGINEERING	Assistant Professor	08/08/2016	0	0	100	No	Regular	1
Vittal Rao Chav	APPPC2984R	M.E/M.Tech		PRODUCTION THERMAL	Assistant Professor	25/07/2011	0	100	100	No	Regular	3
Chidananda M	BUVPC8870Q	M.E/M.Tech		MACHINE DESIGN	Assistant Professor	23/02/2015	0	0	100	No	Regular	1
M Balaji	ALXPB1671J	M.E/M.Tech		PRODUCTION MANAGEMENT	Assistant Professor	05/10/2001	0	100	0	Yes	Regular	
Shaik Ghouse	AWAPM6628G	MA		LINGUSTIC	Assistant Professor	11/02/2017	0	0	100	No	Regular	3

Year	Number Of Students(approved intake strength) N	Number of Faculty members(considering fractional load) F	FYSFR (N/F)	*Assessment= (5*20)/FYSFR(Limited to Max.5)
2016-17(CAYm2)	600	35	17	5
2017-18(CAYm1)	600	36	17	5
2018-19(CAY)	760	39	19	5
Average	653	36	17	5

8.2 Qualification of Faculty Teaching First Year Common Courses (5)

Total Marks 4.33

Institute Marks : 4.33

Year	x (Number Of Regular Faculty with Ph.D)	y (Number Of Regular Faculty with Post graduate Qualification)	RF (Number Of Faculty Members required as per SFR of 20:1)	Assessment Of Faculty Qualification [(5x + 3y) / RF]
2016-17	8	34	30	4.00
2017-18	8	37	30	5.00
2018-19	9	37	38	4.00

Average Assessment: 4.33

8.3 First Year Academic Performance (10)

Total Marks 6.04

Institute Marks : 6.04

Academic Performance	2018-19	2017-18	2016-17
Mean of CGPA or mean percentage of all successful students(X)	7.15	6.44	6.32
Total Number of successful students(Y)	76.00	92.00	79.00
Total Number of students appeared in the examination(Z)	77.00	103.00	94.00
API [X*(Y/Z)]	7.06	5.75	5.31

Average API[(AP1+AP2+AP3)/3] :   6.04

Assessment [1.5 * Average API] :   6.04

8.4 Attainment of Course Outcomes of first year courses (10)

Total Marks 10.00

8.4.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcomes of first year is done (5)

Institute Marks : 5.00

 ACADEMIC Year 2018-19

2018-19	- Three internal tests for a maximum mark of 50 are conducted and reduced to 30marks, average of three internals is considered. The remaining 10 marks shall be awarded based on the evaluation of assignment/unit tests/written quizzes that support to cover some of the course/program outcomes and added to the average internal assessment test marks. The final marks out of 40 are considered as CIE marks. - The performance of a student in internal assessment with respect to the CO's is recorded. - End Semester university exam performance of student for the maximum mark of 100 is conducted. 60% of the marks is considered as external exam performance. - The summation of these two performances is considered as cumulative assessment for a prescribed course out come. - Continuous Internal Evaluation (CIE) and Semester End Examinations (SEE) to constitute the major evaluation prescribed for each course. SEE and CIE to carry 60% and 40% respectively, to enable each course to be evaluated for 100 marks, irrespective of its credits. - For Laboratory assessment, the performance of a student in conduction of each experiment, final lab internal test and external lab exam is considered. Marks are awarded by SEE and CIE to carry 60% and 40% respectively. **2018-19: CBCS Scheme** <table><tr><td>**Assessment**</td><td>**Marks**</td></tr><tr><td>IA</td><td>50 MARKS (Reduced to 30marks)</td></tr><tr><td>Assignment /Quiz/Test</td><td>10</td></tr><tr><td>Total for IA</td><td>40</td></tr><tr><td>External Exam (SEE)</td><td>60 (100 marks reduced to 60%)</td></tr><tr><td>**Total**</td><td>**100**</td></tr></table>

ACADEMIC Year 2017-18

2017-18	- Three internal tests for a maximum mark of 30 are conducted and average of three internals is considered. The remaining 10 marks shall be awarded based on the evaluation of assignment/unit tests/written quizzes that support to cover some of the course/program outcomes and added to the average internal assessment test marks. The final marks out of 40 are considered as CIE marks. - The performance of a student in internal assessment with respect to the CO's is recorded. - End Semester university exam performance of student for the maximum mark of 100 is conducted. 60% of the marks is considered as external exam performance. - The summation of these two performances is considered as cumulative assessment for a prescribed course out come. - Continuous Internal Evaluation (CIE) and Semester End Examinations (SEE) to constitute the major evaluation prescribed for each course. SEE and CIE to carry 60% and 40% respectively, to enable each course to be evaluated for 100 marks, irrespective of its credits. - For Laboratory assessment, the performance of a student in conduction of each experiment, final lab internal test and external lab exam is considered. Marks are awarded by SEE and CIE to carry 60% and 40% respectively.

2017:CBCS scheme

Assessment	Marks
IA	30
Assignment /Quiz/Test	10
Total for IA	40
External Exam (SEE)	60 (100 marks reduced to 60%)
Total	**100**

ACADEMIC Year 2016-17

2016-17	- Three internal tests for a maximum mark of 30 are conducted and reduced to 15 marks, best of two internal is considered. The remaining 5 marks shall be awarded based on the evaluation of assignment/unit tests/written quizzes. The final marks out of 20 are considered as CIE marks. - The performance of a student in internal assessment with respect to CO's is recorded. - End semester university exam performance of students for the maximum mark of 80 is considered for external exam performance. - The summation of these two performances is considered as cumulative assessment for a prescribed course out come. - For laboratory assessment, the performance of a student in conduction of each experiment (10 marks), final lab internal test (10marks) and external lab exam (80 marks) is considered.

2015:CBCS scheme

Assessment	Marks
IA	15
Assignment /Quiz/Test	5
Total for IA	20
External Exam (SEE)	80
Total	**100**

COURSE ATTAINMNET PROCEDURE 18-19

DIRECT ATTAINMENT
Attainment Tools used for Direct Attainment are 1. **Internal Assessment Test** 2. **Final Examination** 3. **Assignment**

1. **Internal Assessment Test -30% weightage to Internal Assessment**

- **60% of students score more than 60% marks out of the relevant marks**
- **70% of students score more than 60% marks out of the relevant marks**
- **80% of students score more than 60% marks out of the relevant marks**

Attainment Level 1: 60% of students score more than or equal to 18 marks out of the 30 marks

Attainment Level 2: 70% of students score more than or equal to 18 marks out of the 30 marks

Attainment Level 3: 80% of students score more than or equal to 18 marks out of the 30 marks

2. **Final Examination- 70% Weightage to Final Examination**

- **60% of students score more than or equal to 45% marks out of the relevant marks**
- **70% of students score more than or equal to 45% marks out of the relevant marks**
- **80% of students score more than or equal to 45% marks out of the relevant marks**

Attainment Level 1: 60% of students score more than or equal to 27 marks out of the 60 marks

Attainment Level 2: 70% of students score more than or equal to 27 marks out of the 60 marks

Attainment Level 3: 80% of students score more than or equal to 27 marks out of the 60 marks

NOT ATTAINED: <60%

3. **Assignment**

- **60% of students score more than or equal to 60% marks out of the relevant marks**
- **70% of students score more than or equal to 60% marks out of the relevant marks**
- **80% of students score more than or equal to 60% marks out of the relevant marks**

Attainment Level 1: 60% of students score more than or equal to 06 marks out of the 10 marks

Attainment Level 2: 70% of students score more than or equal to 06 marks out of the 10 marks

Attainment Level 3: 80% of students score more than or equal to 06 marks out of the 10 marks

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8.4.2 Record the attainment of Course Outcomes of all first year courses (5)

Institute Marks : 5.00

The CO attainment through all the first year courses for the year 2016-17.

Index	Course	CO-1	CO-2	CO-3	CO-4	CO-5
C101	15MAT11	66.46	72.66	56.31	60.37	
C102	15PHY12	68.2	69.3	69.84	56.21	
C103	15CIV13	58.662	60.266	58.92	58.576	
C104	15EME14	75.064	66.426	55.76	73.434	63.7
C105	15ELE15	75.374	82.568	72.47	63.318	
C106	15WSL16	64.4975	72.6325	64.8825	72.34	
C107	15PHYL17	80.1	80.14	79.29	79.23	
C108	15CPH18	52.01	53.154	58.238	58.786	
C110	15MAT11	65.66	77.87	47.36	56.35	
C111	15CHE12	67.258	66.738	68.24	67.716	

C112	15PCD13	62.262	64.076	62.53	59.992	
C113	15CED14	87.23	87.23	87.23	87.23	
C114	15ELN15	62.472	63.186	62.152	63.54	
C115	15CPL16	79.33	82.51	82.93	81.58	
C116	15CHEL17	81.682	81.682			
C117	15CIV18	95.014	96.54	95.41	95.686	
C119	15MAT21	51.31	44.61	44.08	41.47	
C120	15PHY22	69.22	69.79	69.84	69.64	
C121	15CIV23	58.24	61.466	58.73	58.68	
C122	15EME24	64.524	65.26	54.288	69.718	67.767
C123	15ELE25	79.08	81.008	73.966	62.106	
C124	15WSL26	63.3125	68.3225	59.895	70.1	
C125	15PHYL27	77.04	76.8	77.41	77.42	
C126	15CPH28	51.55	52.70	55.18	56.39	
C128	15MAT21	55.96	43.96	44.35	42.31	
C129	15CHE22	65.63	65.99	66.61	65.99	
C130	15PCD23	57.462	59.374	58.848	54.304	
C131	15CED24	83.79	83.83	83.95	83.858	
C132	15ELN25	68.132	68.154	69.002	69.29	
C133	15CPL26	78.244	81.378	81.378	80.48	
C134	15CHEL27	79.89	79.89			
C135	15CIV28	95.342	95.522	94.356	95.738	

CO attainment through all the first year courses for the year 2017-18

Index	Course	CO-1	CO-2	CO-3	CO-4	CO-5
C101	17MAT11	65.15	72.65	52.44	57.67	
C102	17PHY12	66.04	66.56	66.74	66.16	67.61
C103	17CIV13	57.115	61.948	54.255	56.19	
C104	17EME14	66.1	66.28	57.99	73.27	67.615
C105	17ELE15	90.668	81.343	75.923	62.133	
C106	17WSL16	58.45	67.3	59.35	64.95	
C107	17PHYL17	72.46	73.08	71.24	73.71	
C109	17MAT11	57.82	69.62	35.43	45.34	
C110	17CHE12	55.18	56.685	56.578	56.218	
C111	17PCD13	62.453	65.253	65.333	52.518	
C112	17CED14	84.2675	84.2975	84.375	84.3275	
C113	17ELN15	53.3	54.115	52.965	52.2	
C114	17CPL16	80.575	82.95	76.65	82.25	
C115	17CHEL17	79.963	79.963			
C116	17CIV18	95.323	97.198	97.193	95.04	
C117	17 MAT 21	71.58	65.27	64.5	65.84	
C118	17 PHY 22	61.76	62.26	63.12	62.54	
C119	17 CIV 23	57.615	58.198	56.005	59.133	
C120	17 EME 24	60.43	63.475	54.495	64.485	63.945
C121	17ELE25	78.21	67.41	70.77	53.98	
C122	17 WSL 26	65.7	75.04	66.085	73.875	
C123	17 PHYL 27	71.48	71.39	65.76	71.35	
C125	17 MAT 21	56.7	44.96	44.38	45.85	
C126	17 CHE 22	65.14	64.99	65.55	64.31	
C127	17 PCD 23	48.32	50.365	49.915	45.863	
C128	17 CED 24	81.5933	81.6266	81.6933	81.7266	
C129	17 ELN 25	60.18	59.71	58.515	59.57	
C130	17 CPL 26	83.5	77.338	77.338	77.338	
C131	17 CHEL 27	77.37	77.37			
C132	17 CIV 28	93.688	94.063	94.633	92.718	

CO attainment through all the first year courses for the year 2018-19

Index	Course	CO-1	CO-2	CO-3	CO-4	CO-5
C101	18MAT12	55.31	55.91	57.84	58.51	59.7

C102	18PHY12	41.37	40.24	37.42	39.7	
C103	18ELE14	43.16	54.4	46.8	37.95	
C104	18CIV15	55.67	57.98	58.25	58.97	
C105	18EGDL16	78.3966	78.37	78.21	78.3233	
C106	18PHYL16	79.09	78.86	78.6	78.63	
C107	18ELEL17	66.49	66.92	85.71	81.71	
C108	18EGH18	54.06	54.88	53.88	55.30	53.78
C109	18MAT11	56.92	57.79	57.71	60.20	60.00
C110	18CHE12	64.65	65.51	63.67	65.14	
C111	18CPS13	54.56	56.31	50.92	49.95	
C112	18ELN14	49.72	51.02	40.53	48.56	
C113	18ME15	67.48251	68.66	58.16	71.4075	65.595
C114	18CHEL16	81.66	81.63	67.46	80.45	
C115	18CPL17	77.05	69.37	69.37	69.37	
C116	18EGH18	53.59	54.17	53.68	54.79	54.80
C117	18MAT21	59.44	57.95	60.11	61.11	60.20
C118	18PHY22	61.95	60.6	60.82	60.25	
C119	18ELE23	44.068	55.016	47.506	39.182	
C120	18CIV24	52.38	52.7	53.67	54	
C121	18EGDL25	81.428	81.512	81.59	81.562	
C122	18PHYL26	74.82	77.57	78.07	78.63	
C123	18ELEL27	67.098	67.014	85.66	81.434	
C124	18EGH28	52.12	54.35	53.75	54.01	53.71
C125	18MAT22	66.44	67.76	65.82	66.7	66.12
C126	18CHE23	56.96	58.04	56.68	57.51	
C127	18CPS24	49.24	51.46	46.34	47.1	
C128	18ELN25	39.25	39.74	31.85	37.7	
C129	18ME25	54.328	54.436	51.366	60.178	54.668
C130	18CHEL27	78.83	78.82	66.21	78.83	
C131	18CPL28	79.28	71.34	71.34	71.34	
C132	18EGH28	51.64	54.33	54.77	54.88	54.686

8.5 Attainment of Program Outcomes from first year courses (20)

8.5.1 Indicate results of evaluation of ezch relevant PO and/ or PSO, if applicable (15)

Total Marks 19.00

Institute Marks : 14.00

POs Attainment:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C101	1.67	1.67	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C102	1.51	1.04	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C103	1.26	1.53	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C104	1.60	1.60	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C105	2.467	2.001	PO3	PO4	2.677	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C106	1.77	2.68	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C107	2.46	2.46	PO3	PO4	PO5	PO6	PO7	PO8	1.96	1.96	PO11	PO12
C108	PO1	PO2	PO3	PO4	1.87	PO6	PO7	PO8	PO9	1.77	PO11	1.77
C109	1.76	1.76	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C110	2.31	1.57	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C111	1.91	1.43	1.43	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C112	1.65	1.20	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C113	2.7	1.8	1.84	0.9	1.8	PO6	0.94	PO8	PO9	PO10	PO11	2.7
C114	2.12	2.51	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C115	2.08	2.16	2.16	2.08	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C116	PO1	PO2	PO3	PO4	1.81	PO6	PO7	PO8	PO9	1.83	PO11	1.75
C117	1.86	1.86	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C118	2.06	1.59	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C119	1.40	1.60	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C120	1.57	1.57	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C121	2.554	2.119	PO3	PO4	2.752	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C122	1.86	2.78	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C123	2.47	2.47	PO3	PO4	PO5	PO6	PO7	PO8	1.92	1.96	PO11	PO12
C124	PO1	PO2	PO3	PO4	1.87	PO6	PO7	PO8	PO9	1.83	PO11	1.80
C125	2.00	2.00	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C126	2.05	1.39	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C127	1.75	1.31	1.31	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C128	1.29	0.94	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C129	2.23	1.49	1.49	0.76	1.47	PO6	0.76	PO8	PO9	PO10	PO11	2.23
C130	2.08	2.46	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C131	2.14	2.22	2.22	2.14	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C132	PO1	PO2	PO3	PO4	1.76	PO6	PO7	PO8	PO9	1.82	PO11	1.83
PO Attainment	1.95	1.83	1.74	1.47	2.00	0	0.85	0	1.94	1.86	0	2.01

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	1.95	1.83	1.74	1.47	2.00	0	0.85	0	1.94	1.86	0	2.01

PSOs Attainment:

Course	PSO1	PSO2
	PSO1	PSO2

8.5.2 Actions taken based on the results of evaluation of relevant POs (5)   Institute Marks : 5.00

POs Attainment Levels and Actions for Improvement- (2017-18)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	2.2	2.05	Needs Improvement
Action 1: Basic knowledge in all relevant subjects were refreshed during classroom teaching in order to update themselves and refreshed in subjects. Action 2: Fundamental concepts were discussed in classroom periodically.			
PO 2 : Problem Analysis			
PO 2	2.2	1.89	Needs Improvement
Action 1: suggestions will be given to students to refer research article available in library.			
PO 3 : Design/development of Solutions			
PO 3	2.2	1.90	Needs Improvement
Action 1: Students will be encouraged to participate various model exhibitions organized by other institutes.			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	1.62	1.52	Needs Improvement
Action 1: Science model exhibition and poster exhibition conduced for first year students to develop their investigation skills.			
PO 5 : Modern Tool Usage			
PO 5	2.4	2.15	Needs Improvement
Action 1: organised orientation program on training & placement Action 2: Students will be advised to utilize digital library to know more about latest tools.			
PO 6 : The Engineer and Society			
PO 6	1	0	Needs Improvement
Action 1:Need scope on Engineering and society			
PO 7 : Environment and Sustainability			
PO 7	1.5	1.31	Needs Improvement
Action 1: Social awareness like green campus initiated and encouraged to participate in workshops conducted in various institutes			
PO 8 : Ethics			
PO 8	2	1.76	Needs Improvement
Action 1: Augmented course like Constitution and professional ethics, and human rights in the curriculum by University.			
PO 9 : Individual and Team Work			
PO 9	1	0	Needs Improvement
Action 1: Project teams are required by design to follow team work principles and the evaluation model necessitates each member to contribute in all aspects, Additionally teachers encourage students to participate in project exhibition.			
PO 10 : Communication			
PO 10	1	0	Needs Improvement
Action 1: classroom seminars in prior given topics were assigned and students were motivated to speak out fluently.			
PO 11 : Project Management and Finance			
PO 11	1	0	Needs Improvement
Action 1: Project exhibition to be conducted by physics & chemistry department			
PO 12 : Life-long Learning			
PO 12	2.2	1.98	Improved Compared to last Year
Action 1: Students are encouraged towards Research and Innovation.			

PSOs Attainment Levels and Actions for Improvement- (2017-18)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : Ability to Design, Develop and Test the Electronics Circuits & Communication Systems.			
PSO 1	1	0	Not applicable
Action 1:University curriculum does not satisfy/meets PSO 1			
PSO 2 : Ability to Develop Excellent Programming and problem solving skills in the field of Embedded System.			
PSO 2	1	0	Not applicable
Action 1:University curriculum does not satisfy/meets PSO 2			

9 STUDENT SUPPORT SYSTEMS (50)   Total Marks 50.00

9.1 Mentoring system to help at individual level (5)   Total Marks 5.00

Institute Marks : 5.00

The Institute is working towards enhancing the institutional culture to better serve the needs of an ever-changing and dynamic learning community. Effective mentoring begins with the mentor. In view of academic success and persistence, a healthy relationship between mentor and mentee is established. Mentoring and Guidance improves the Academic performance and skills of mentee.

Each mentor is assigned 10 to 15 mentees. The mentoring is for over-all development of the mentees. A proctor / mentor mentee report is maintained by mentor which includes attendance, examination marks and family details of mentee. The same is continued till the mentee completes his/her graduation. The periodic status will be submitted to the parents/Guardians.

Mentoring Activities

1.The interaction meeting will be conducted for departmental fresher's / new comers.

2.Mentor – Mentee meetings will be conducted periodically.

3.Mentoring also includes, encouraging students to participate in multi-faceted activities (group discussions, quiz, debate and other

co curricular,   extracurricular and sports activities).

4.Counselling will be done for those mentees having poor academic performance, as reported by the concerned class Co-ordinators, in

presence of their parents /guardians. Mentoring report shall be checked by co-ordinators and suitable action will be initiated.

POLICY MECHANISM OF MENTORING SYSTEM

Table 9.1: Policy mechanism of mentoring system

1	Mentors	Teaching faculty act as Mentor
2	No. of students per mentor	10 to 15
3	Frequency of meeting	Meeting conducted every month after internal assessment.
4	Parents feedback	The Parents feedback is collected after every meet.
5	Analysis	Based on feedback analysis corrective measures are taken.

9.2 Feedback analysis and reward /corrective measures taken, if any (10)   Total Marks 10.00

The feedback collection process is very important for improvement of the Institution. The faculty feedback is collected from the students every semester. This process contributes to evaluate the faculty performance for reward / corrective measures. The online feedback is collected from the students during regular class hours and monitored by the Dean Examination and Feedback monitoring committee.

Average Percentage of Students who participate: Students having attendance more than 75% will participate.

The feedback analysis process:

The online feedback will be collected from students by the Dean Examination and Feedback monitoring committee. The consolidated Report generated online is forwarded to the Principals Office for further Corrective measures. The same will be sent to respective HOD's.

Grading	Points
Excellent	9.01 - 10
Good	7.01 - 9.0
Average	4.01 - 7.00
Below Average	1.00 – 4.00

The teaching performance indices are analyzed by the Principals office and the same is conveyed to the concerned.

Basis of reward / corrective measures:

The indices used for measuring the quality of teaching, learning and summary of the index values are mentioned below.

1. Creating interest in the subject.
2. Regularity in handling class.
3. Presentation of the subjects.
4. Audibility / Clarity of speech.
5. Interaction with students.
6. Clarifying students doubts.
7. Fairness in Evaluation in IA and Assignment books.
8. Ability to design Quizzes /Tests/Assignments/Examinations and project to evaluate students understanding the course.
9. Interact and encourages students to ask question /participation.
10. Fulfilment of course objective and outcomes.

System of Reward:

Best performing faculty is rewarded by issuing a letter of appreciation. Performance rating of faculty through student feedback system is one of the factors in evaluating the annual performance and to release the annual increments.

Corrective Actions taken:

The faculties performing below average are trained continuously through Faculty Development Programme to improve the quality of the staff.

9.3 Feedback on facilities (5)   Total Marks 5.00

Institute Marks : 5.00

Assessment is based on student feedback collection, analysis and corrective action taken.

Feedback on facilities

A standard procedure for feedback on facilities is taken up in the college. Feedback is collected from the students on facilities available in the college such as Library facility, Internet facility, Canteen facility, Sports and Gymnastic facility Etc..

The feedback is analyzed and the necessary corrective measures are implemented after discussions with the Management.

Following is the process of feedback on facilities.

i) Feedback collection process

ii) Feedback analysis

iii) Corrective measures

i) Feedback collection process:

Table 9.3 : Details of feedback collection process

Items	Description
Feedback collected on all facilities provided by the college.	YES
Feedback collection process	Computerized
Feedback receiver	Administrative officer / Admin manager / Academic Dean
Frequency of feedback collection	Once in a semester
Metrics used for calculation	9 to10 --- Excellent
	7 to 8.9 --- Good
	4 to 6.9 --- Average
	1-3.9 --- Weak
Purpose of comments	For improving the quality of facilities.

FORMAT of Student Feedback on Facility

Questionnaires:

1. How do you rate the Internet facility at Internet Centre?
2. How do you rate House Keeping at College Campus?
3. How do you rate Drinking Water Facility?
4. How do you rate Washroom facilities and maintenance?
5. How do you rate Sports Activities?
6. How do you rate Mentor-Mentee System?
7. Are you happy with the food served in the present canteen?
8. Are you aware of the NSS Activities in our University?
9. Interaction with the Principal.
10. Interaction with HODs.
11. How is the responsiveness of Reception?
12. Is there a Good support/interaction from Office?
13. Availability of Staff in working Hours.
14. Extra Curricular Activities.
15. Discipline in Campus.

Rating of Scale

9 to10   ---   Excellent

7 to 8.9 ---   Good

4 to 6.9 ---   Average

1-3.9   ---   Weak

ii) Feedback analysis:

The feedback given by the students is consolidated and analyzed. Principal will discuss about the consolidated report with the management and come out with necessary actions.

iii) Corrective measures:

Corrective measures will be implemented at the college level with respect to the decision made by the management.

Some of the corrective measures taken are:

- Internet facility has been provided at hostel.
- Library has been computerised.

9.4 Self-Learning (5)   Total Marks 5.00

Self-learning helps the students to develop sense of responsibility that equips with the essential attributes required for their career. Self learning helps the students in gaining the knowledge and applying to larger domains. Self learning helps better understanding of the discipline.

Facilities, Materials and Scope for self learning

- E-learning
- Technical Talks
- Workshops
- Webinars
- Industrial Tour

- internship
- Project Exhibitions
- MOOC certificates

E-learning details:

Table 9.4: E-learning details

SI No	Facilities	Information Resources
1	Digital Library	Notes, Question Papers, Manual Solutions etc
2	VTU Edusat	CD's available for all the subjects
3	Language Lab	Communication skills, vocabulary, phonetics etc.
4	NPTEL online courses	Available Online
5	IIT Bombay -X	FDP101X ,SKANI 101X ,FDP 201 X, ET611TX , CS101.1X ,ET702X-MOOC ,SKVIZ101X .
6	TEACHING SKILLS	Available Online
7	Professional activities	Available Online
8	Soft skills	Available Online
9	Work place communication	Available Online
10	English for oral communication	Available Online
11	Financial literacy	Available Online
12	Handling large project	Available Online

13	NITTTR	Available Online
14	WEBINAR	Available Online
15	E-SHIKSHANA	Available Online

MOOC:

A massive open online course is an online course aimed at unlimited participation and open access via web. In addition to traditional course materials such as filmed lectures, readings and problem sets, many MOOCs provide interactive user forums to support community interactions between students, professors and teaching assistants (TAs). MOOCs are a recent and widely researched development in distance education which was first introduced in 2008 and emerged as a popular mode of learning in 2012.

Learning beyond syllabus and creation of facilities for self-learning is to make the students well-verse in all the directions. The format for this system is as specified below.

CONTENTS BEYOND SYLABUS

RYMEC supports for students to learn the subjects in a broader way so as to inculcate the skills of creativity, applying domain knowledge for practical problems and to improve the quality of self-learning. Contents beyond the syllabus are given to students by respective subject teachers in the form of:

- Case Studies
- Mini Projects
- Assignments

9.5 Career Guidance, Training, Placement (10)   Total Marks 10.00

Institute Marks : 10.00

CAREER GUIDANCE

Career guidance for engineering students is a must so that graduates can discover their strengths and weaknesses before venturing out into the highly competitive world, some Precautionary as well as career-boosting measures need to be taken by graduates. The Students are guided by mentors. and also career guidance program is conducted by companies like

 i) **Qtpi Robotics,**

 ii) **Elements 14,**

 iii) **TCS.**

iv) Career Development workshop is conducted by the Resource Persons Mr. Prashanth Rao Social Entrepreneur. (President Sudiksha Charitable Trust), Mr. H. C. Ravi Shankar Deputy General Manager Quick Silver Pvt Ltd. Mr. Madhu Kumar Orientation Program on Software engineer Tarsha systems.

v)TCS Bangalore team conducted career guidance program on **Industry 4.0 and Employability Skills.**

vi) technical session conducted on**" Scope of Date Analytics"**.

vii)International Student Exchange Program (Young Ambassador Program) on **"Design Thinking Workshop"** the students from Denmark, United Kingdom (U K), Icelland,germany,Belgium,Austria and Netherlands

Table no :9.5 Career guidance for students

SL.NO	ORIENTATION PROGRAM	RESOURCE PERSON/COMPANY
1.	Career opportunity for BE students in Japanese companies	Silver pack Globle, Bangalore
2.	Seminar on Study abroad	VideshConsultz, Bangalore
3.	Seminar on " Role of BE/MBA Students in Banking and insurance sector	Bret Solutions Pvt Ltd, Bangalore
4.	Technical talk on Cryptography and IT Employability	TCS, Bangalore
5.	Orientation Program on abroad Studies	Manya Institute, Bangalore
6.	Orientation Program on GATE examination	ACE Engineering Academy, Hydrabad
7.	Orientation Program on	Qspiders, Bangalore

TRAINING AND PLACEMENT CELL

Campus training and placements play a major role in shaping up the career goals of students. To cater this, an independent Training and Placement Cell is in function in the institute since 2001. The Training and Placement Cell is headed by Gururaj K.K ,Asst prof EEE Dept and supported by Departmental co-ordinators. The vision of the training and placement cell is "**Transforming every student – an employers** choice". Our mission is "Develop the students to face global competitive world with confidence and attain desired placement". Our industry partners are TCS, JSW. Our Trusted recruiters are TCS, HCL, Emphasis, IGATE, Cigital, SLK Software Services, Advanced electronics Ltd, Global Edge, Tech Mahindra, L&T, Accenture, Mind Tree, JSW, Kirloskarand many more.

Pre Placement Training:

During campus placements, recruiters test for an array of skill sets in their potential employees. In addition to being knowledgeable in their core subjects, students should also possess a great aptitude and soft skills. Hence pre placement training is necessary. The Pre placement training has been conducted by **Universal Education Bangalore, Bizotic, Bangalore GTT, Pune and Ethnus, Bangalore** the contents of Pre Placement training are mention as below.

<div align="center">

CONTENTS OF PRE-PLACEMENT TRAINING

</div>

Quantitative aptitude

- Basic math
- HCF,LCM and simple and compound interest
- Data sufficiency 1
- Data sufficiency 2
- Analytical Reasoning
- Logical Reasoning 2
- Progression
- Permutation and Combination
- Ratios and Proportion
- Averages and Blood Relations
- Percentages, Profit and loss
- Speed, time and distance
- Time and Work
- Logical Reasoning 1
- Data Interpretation 1
- Data Interpretation 2

Verbal aptitude

- Parts of speech & Vocabulary Building
- Synonyms, Antonyms
- Analogies
- Sentence Completion Sentence Correction & Incorrect sentence
- Reading comprehension 1
- Reading comprehension 2
- Error detection

Soft skills

- Group discussion
- Personal interviews
- Resume building
- Grooming

9.6 Entrepreneurship Cell (5)　　　　　　　　　　　　　　　Total Marks 5.00

Institute Marks : 5.00

EDC is headed by Dr.H.GIRISHA, Professor- Department of Computer Science and Engineering with a team of faculty coordinators from other departments of the college.

The goal of EDC is to assist students, entrepreneurs, including Institutes" faculty, with pre-venture, start-up or existing business with financial management, marketing, technology and product development, commercialization issues, to understand the employability options, opportunities to control unemployment and to create better opportunities for youngsters.

Working in collaboration with New Age Incubation Network (NAIN) Government of Karnataka and District Industry Centre – DIC, BALLARI and MSME-Incubation Centre – New Delhi. EDC has conducted various activities for the college students creating and promoting entrepreneurship awareness in the campus.

Recent activities carried out at college premises.

1. VTU TEQIP 1.3 Sponsored (STTP) 3 day short term training program for students Program on Employability & Entrepreneurial Skills On 6th - 8th September 2019 In Association with Visvesvaraya Technological University Belagavi, Karnataka Aryabhatta Knowledge University Patna, Bihar Biju Patnaik University of Technology Rourkela, Orissa

2. BOOT CAMP in association with K-Tech and Department of IT-BT, Government of Karnataka on 29th August 2019.Many students presented their ideas during above said activities.

9.7 Co-curricular and Extra-curricular Activities (10)　　　　　　　　　　　　　　　Total Marks 10.00

Institute Marks : 10.00

Co-curricular Activities

VIDHARA-TECH FEST conducted annually by CSE-FORUM by CSE staff and students, for tall the basic degree students and technical degree students. The various events conducted are both technical like debugging,coding,quiz etc and nontechnical event alike dancing,singing,video games, movie making etc

CSE-FORUM also has many other activities to improve the students all round personality development skills apart from prescribed syllabus. They are mentoring activities on technical skills.

i.Improving memory skills and how to face the exams through blended learning techniques.

- Python programming skills
- How to mentally strong/Real-life ethical values through videos.
- Career development through workshops

ii.The department of ECE having forum named has TALENTRONICS and objectives are:

- To encourage students to build their academic skills by organizing events such as paper presentation, quiz, circuit rigup.
- To encourage students to build their extra-curricular activities by organizing events such as pencil sketch, cooking without fire, cultural programs, sports events such as basket ball, cricket.

To build leadership skills & make them work in a group by involving students as volunteers to organize the events.
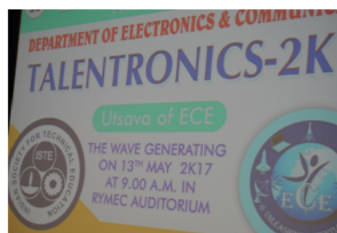
iii) Dept of Mechanical facilitate a techno cultural democracy for the students the department has inaugurated students forum with the title "MECH-   TANTRIKA"

iv) Department of EEE having forum named has "VIDYUTSAV" under this forum , the events   like Technical Talk, photo hunt, Brainstorming

Activities were conducted. also Competitions like Logo Design, Rangoli and Skits were organized.

i) NSS-UNIT RYMEC

NSS UNIT of RYMEC is headed by Prof. S. Kotresh of EEE dept. NSS UNIT of our college is functioning from many years and organizing several useful programs for the society. The programs like

- Voluntary Blood donation camps- around **1061 units of blood** were collected during last 3 camps organized.
- Tree plantation
- Health education & Health orientation programs
- Essay writing- Drawing competitions
- Free medical and Health check up camps,
- Helping towards flood affected people etc.

Objective of NSS

- Creating awareness of social service for the students
- Motivating the students to serve for society in tree plantation, blood donation etc.,
- Not only education also promoting the students towards moral ethics, healthy and sound thinking about society.
- Helping for the poor and disabled people by organizing health orientation programs.
  - Outcome of the programs:
  - From our NSS UNIT many patients, poor and disabled people were benefited.

AICTE SPONSORED WORK SHOP On Sansad Adarsh Grama Yojana

Dr.K Veeresh, Principal, RYMEC and Dr.Kotresh,S & Prashanth Keni of NSS UNIT, RYMEC participated in AICTE sponsored workshop on SANSAD ADARSH GRAMA YOJANA (SAGY) at Nagarjuna College of Engineering & Technology, Bengaluru on 25th & 26th of November-2017.

SAANSAD ADARSH GRAM YOJANA

M.P. Constituency: Ballari

Member of Parliament: Sri B. Sriramulu (during 2017)

Village : Tambrahalli: Taluk: H.B. Halli.

NSS UNIT: Rao Bahadur Y.Mahabaleswarappa Engineering College

ii) SPORTS -UNIT RYMEC

Sports unit of RYMEC is headed by Mr.Vijaya Mahantesh Physical director of our college, college sports unit is functioning from many years and organizing several competitions like Athletic meet, various sports-games for MANDARA (college day celebrations) and encouraging the students to participate in the university / national / international level competitions. Prizes/awards will be distributed in MANDARA celebrations.

Sports unit of RYMEC is having the following facilities:

1. College sports ground for Athletics

2. Indoor-stadium for shuttle badminton

3. Table tennis

4. Foot ball ground

5. Basket ball court

6. Carom

7. Chess.

8. Throw ball court

9. Volley ball court

Table no :9.7 List of Students participated in National and International Level

Sl.No	
01.	**Shiva kumar STM** MECHANICAL Department Selected for Indian Throw ball team for Indo-Bangladesh International Throw ball Championship held at Chhattisgarh and won the tournament. **Shiva kumar STM** MECHANICAL Department Selected for Indian Throw ball team for Indo-Thailand International Throw ball series held at Bangkok Thailand JUNE 2017, and won the tournament.

02.	**Chandrakala T** CSE Department Selected for Indian Throw ball team for Indo-Thailand International Throw ball series held at Bangkok Thailand JUNE 2017, and won the tournament. **Chandrakala T** CSE Department Selected for Indian Throw ball team for Indo-Sri lanka International Throw ball championship held at Kagalu Srilanka NOV 2017,and won the tournament.
03.	**Aruna kumari** IPE Department selected for Indian Throw ball team to participate at Indonesia
04.	**PRASHANTH KUMAR H** MECHANICAL Department Selected for VTU Hockey team Inter University tournament hel d at Bangalore university. Bangalore, 2018.
05.	**LAXMIKANTH N.** CIVIL Branch .Selected for VTU Hockey team Inter University tournament hel d at Bangalore university. Bangalore, 2018.
06.	**GIRISH KM .** MECHANICAL Department. Selected for VTU KHO-KHO team Inter University tournament held at Mysore University. Mysore 2018.
07	B Balaji ECE Dept has won BRONZE MEDAL in ASIAN LEVEL KARATE CHAMPIONSHIP held at Jaipur, Rajasthan on April 2018 among 48 countries participated and he is been selected for WORLD KARATE CHAMPIONSHIP of 2019 among 40+ countries .
08	**H Raja** has participated in the 1st anniversary Indo-Srilanka kenryukan karate championship -2018 held at saumiya moorthy thondaman auditorium holy trinity science college,HAWA ELIYA,NUWARA ELIYA .on Saturday 15th september 2018 and won first place in the KATA (above 15 years) event.

Events organized by RYMEC, Ballari

VTU Inter Zone Hockey tournament ,

VTU Zone volley ball tournament,

 VTU Kalaburagi Zone Hand ball tournament,

 VTU Kalaburagi   Zone basket ball for men tournament,

VTU Inter-Zone basket ball for men tournament,

VTU Inter -Zone cricket tournament,

VTU Kalaburagi Zone cricket tournament,

VTU Kalaburagi Zone KHO-KHO tournament.

iii) Youth Red Cross – Unit RYMEC

Youth Red Cross – Unit RYMEC is headed by Prof. A. Sharanabasappa of EEE dept. our college Youth Red Cross – Unit is functioning from last two years.

About YRC

Youth represent a substantial part of the membership of Red Cross for its humanitarian commitment. Young volunteers can make a significant contribution to meeting the needs of the most vulnerable people within their local communities through Red Cross youth programme. This has been designed to involve young people as much as possible in the movement and its activities not only as workers and beneficiaries, but as partners in management. The programme focuses on the following areas:

Promote life and health through training and education on safety and primary health care. Encourage community service through training and education. Disseminate the seven fundamental principles of Red Cross and Red Crescent movement through activities that encourage the Red Cross ideals Promote international friendship with activities that cultivate a humanitarian spirit Technical support in the development of youth programmes, fund-raising, identification of material and human resources.

OBJECTIVES

1. To serve as an information centre to the college community about any features of the Red Cross
2. To enable the college community to obtain Red Cross services available to students
3. To serve as a focal point to which incoming Red Cross services can be coordinated
4. To serve as an outlet for the College Youth Red Cross volunteer services in the community
5. To provide an atmosphere towards the all round development of its members

ACTIVITIES OF YRC

1. Orphanage Visits
2. Blood Donation camp
3. Awareness Programmes and seminars
4. First Aid Training

IV) LEAD activity

LEAD team of RYMEC is headed by **Prof. JAGADEESH.G.M of CSE dept.** our college LEAD team is functioning from last two years.

ABOUT LEAD

The LEaders Accelerating Development (LEAD) Program of Deshpande Foundation, Hubballi, Karnataka fosters innovative and entrepreneurial thinking within college students by exposing them to social issues and by encouraging them to volunteer their time and effort into the community. LEAD ignites their latent talent to come up with creative solutions. LEAD is an incubator where innovation meets implementation, knowledge meets experience, social issues meet solutions and efforts meet impact.

v) CULTURAL - UNIT RYMEC

CULTURAL - UNIT RYMEC of RYMEC is headed by **Prof. Netravathi of EEE dept. college CULTURAL - UNIT** is functioning from many years and organizing several competitions like : painting, photography, movie making, debate, essay writing, cooking without firing, Rangoli, mehendi, yogasana, best out of waste, cartooning etc. for MANDARA(college day celebrations). Our college is motivating the students to participate in university level cultural competitions. Prizes/awards will be distributed in MANDARA celebrations.

VI) SVEEP (Systematic Voters Educational and Electoral participation)

Aims at creating awareness about the moral voting and to ensure that all young voters are actively involved in the AWARENESS ACTIVITY by creating ELC(Electoral club) at the college level.

10 GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES (120)

Total Marks 115.00

10.1 Organization, Governance and Transparency (40)

Total Marks 40.00

10.1.1 State the Vision and Mission of the Institute (5)

Institute Marks : 5.00

Vision :
"To Produce Professionally Excellent, Knowledgeable, Globally Competitive and Socially Responsible Engineers and Entrepreneurs"
Mission :
M1: To provide quality education in Engineering and Management.
M2: To establish a continuous Industry Institute Interaction, Participation and Collaboration to contribute skilled Engineers.
M3: To develop Human values, Social values, Entrepreneurship Skills and Professional Ethics among the Technocrats.
M4: To focus on Innovation and Development of Technologies by Engaging in Cutting Edge Research areas.

10.1.2 Governing body,administrative setup,functions of various bodies,service rules, procedures, recruitment and promotional policies (10)

Institute Marks : 10.00

The Governing Body:

Governance is the key activity that connects between the management, staff, students and the community. The governing body of Institution is a legal structure responsible for the overall functioning of the college. In general, it is responsible for the Quality of service (QoS) the college offers to the student and other local community and society, as well as the college annual budget, health and strategic direction. Institution has a governing body in place wherein the members are drawn from distinguished cross-sections of the society as shown in Table 10.1.

Table 10.1 Structure of Governing Body

Sl. No.	Name	Designation	Occupation
1.	Sri Udeda Basavaraj	President	Advocate
2.	Sri J.S. Basavaraj	Chairman, RYMEC	Advocate
3.	Sri T.Kotrappa	Secretary	Retd. Dep. Director Kannada and Cultural Department
4.	Sri Kolur Mallikarjuna Gouda	Treasurer	Retd. Superintendent
5.	Dr. Kuppagal Veeresh	Member - Secretary	Principal, RYMEC, Bellary
6.	Dr. Anadinni	VTU Nominee	Principal, Vijaya Vittal College, Bangalore
7.	DTE Nominee, DTE Bangalore	Director, DTE	Director, DTE Bangalore
8.	AICTE Nominee (SWRO), Bangalore	Regional officer	Regional officer-AICTE Bangalore
9.	Sri H.R. Lal	Industrial Representative	Senior Vice-President (HR & Admin) JSW, Toranagallu, Bellary

The Administrative Setup:

Institute believes in dedicated work culture with love and affection to each and every stake-holder. Involvement of each and everyone in the decision-making and transparency associated therein also form the important features of the work culture. A core team of 24 to28 members lead the processes in the institute. The administrator list is given below.

Table 10.2 List of Administrators

Sl. No.	Name	Designation	Responsibility
1.	Sri J.S. Basavaraj	Chairman, RYMEC	Administration

2.	Dr. Kuppagal Veeresh	Principal	Administration & Mechanical Research Centre
3.	Dr. Savita Sonoli	Vice-Principal, Professor & HOD,ECE	Academic Work
4.	Dr. T. Hanumantha Reddy	Vice-Principal, , Professor & HOD,CSE	Admission Head
5.	Dr. Girisha H	Professor,CSE	Dean Academics.
6.	Dr. B Sreepathi	Professor & HOD Dean Examinations	EMS Coordinator, VTU Examinations, Network Maintenance, Digital Library, Online Placement Test, Consultancy Work for online Test.
7.	Dr. Hiregoudar Yerrenagoudaru	Professor & PG Coordinator	NBA-Co-ordinator and Dean R & D at Institute Level,
8.	Dr. C Thotappa	Professor & PG Coordinator	Dept NBA Co-ordinator.
9.	Dr. H.M.Somasekharaiah	Professor & PG Coordinator	Academic Work
10.	Dr. H M Mallikarajuna	Professor & HOD,Civil	Departmental Academic Work, Consultancy Work.
11.	Dr. Kori Nagaraj	Professor & HOD,Mech	Departmental Academic Work
12.	Sri. Shambulingana Gouda	Assistant Professor	Electrical Maintenance
13.	Dr. A Thimmana gouda	Professor, MBA Co-ordinator	Departmental Academic Work
14.	Dr. Phakirappa Jeevargi	Professor & HOD,Maths & 1st Year Coordinator	Departmental Academic Work, Dean (Academic & Student Welfare for first year).
15.	Dr. Hiremath Suresh Babu	Professor & HOD,Chem	Departmental Academic Work
16.	Dr. N M Nagabhushan	Professor & HOD,Phy	Research Coordinator(Physics)& NIRF Coordinator
17.	Dr. Veeragandharaiah Swamy	Professor	IQAC Coordinator
18.	Smt. Rakhee Patil	Associate Professor	Departmental Academic Work
19.	Sri. Gururaj K K	Assistant Professor & Placement Officer	Training & Placement
20.	Dr. S. G. Anuradha	Associate Professor	RYMEC Website Coordinator
21.	Sri. S. Kotresh	Associate Professor	NSS Coordinator
22.	Sri. Sharanabasappa Aladalli	Asst. Professor	Red Cross Co-ordinator
23.	Sri Khaja Mouinuddin	Asst. Professor	AISHE Co-ordinator
24.	Smt. Sridevi S Malipatil	Asst. Professor	Girls Hostel Warden
25.	Sri. K.M. Shiva Prasad	Asst. Professor	Boys Hostel Warden
26.	Smt. Rohini H.M	Asst. Professor	Girls Hostel Warden
27.	Sri. Phanindra Reddy	Asst.Professor	Boys Hostel Warden
28.	Smt. Chinna V Gowdar	Asst. Professor	EDUSAT Co-ordinator
29.	Sri Sridhar Bilagi	Asst. Professor	A-View Co-ordinator
30.	Sri Vishwanath Reddy	Librarian	Library

Functions of Various Bodies:

Table 10.3 Governing Council and its Functionalities

Position	Functions
Governing Council	- Frame directive principles and policies - Amend and approve policies from time to time - Approve budgets
Chairman	- Frame directive principles and policies. - Amend and approve policies from time to time - To look after the overall development of institute - Mobilize external resources to strengthen the institute - Plan & provide for necessary facilities / equipment for development.

Principal	- Design & define organization structure. - Delegates responsibilities of various positions in the organization - Ensure periodic monitoring & evaluation of various processes & sub-processes - Ensure effective purchase procedure - Define quality policy and objectives - Conduct periodic meeting of various bodies such as Governing Council, Women's Grievances Redressal Committee etc. - Manage accounts and finance - Employee recruitment process
Vice- Principals	- To discharge routine duty of Principal during absence of Principal - Annual Magazine - Resource Provision - Transport - Housekeeping including hostels - Prepare and execute academic calendar - Oversee the teaching-learning process - Carry out result analysis and submit corrective measures to Principal - Initiate supplementary teaching measures - Co-curricular activities - Formation of student council - Cultural activities - Sports activities - Student discipline - Student health care
Head of the Departments/ P.G Coordinators	- Plan and execute academic activities of the department - Maintain discipline and culture in the department - Maintain the department neat and clean - Pick and promote strengths of students / faculty / staff - Monitor academic activities of the department - Propose Department Budget - Maintain records of departmental activities and achievements
Administrative Officer	- Propose admission policy - Arrange campaign - Execute the admission process - Design and print admission brochure - Maintain and update college website - Maintain softcopy of photographs - Publicity of events
Training and Placement Officer	- Liaison with industry - Identify and provide for training needs of students - Arrange campus interviews - Proposing annual T & P budget
Superintendent-(Establishment, accounts, admissions)	- Corresponding with AICTE, DTE, VTU, etc - College roster - Service Books - Faculty personal files - Recruitment process - Maintain minutes of meeting - Co – ordinate day to day activities of office - AICTE, DTE, VTU, etc committee preparation - Annual College budget
Librarian	- Plan and execute modus operandi of routine activity of the library - Plan and propose expansion / development - Maintain library discipline and culture - Prepare annual budget for library
Alumni Association	- Arrange periodic meetings of student council - Ensure alumni registration - Prepare alumni news letter - Arrange annual alumni meet (" Apoorva Milana ") - Proposing annual budget
Director of Physical Education	- Ensure smooth conduct of sports - Ensure proper use of gymnastics - Purchasing of sport items - Encourage students to participate in zonal tournaments - Creation and upkeep of sports facilities - Proposing annual budget

Student Professional Activities	○ Organize events through students professional societies / chapters
	○ Encourage student participation
	○ Publication of technical magazine and news letters
	○ Record of student participation and achievements in Co-curricular and extra – curricular activities

Service Rules:

Service rules are constituted by V.V Sangha and mentioned in "V.V Sangha Institution service Manual".

Recruitment Procedure:

- The approval to the required posts for various departments as per statutory norms is taken from the Governing council and notification in the news papers, to invite applications as per AICTE norms.
- After receiving the applications, scrutinizing and short listing of eligible candidates is done on merit basis for various departments.
- Panel of experts comprise of VTU/DTE/AICTE/Industrial Nominee, Principal, HOD, subject expert will interview the eligible candidates.
- The selected candidates are appointed and orders are issued.
- Appointed Candidates should report to the duty on or before the given time.

Procedures and Promotional Policies:

- Policies regarding promotion are as per AICTE.
- Additional increments are given to faculty who excel in academics and research.

10.1.3 Decentralization in working and grievanceredressal mechanism (10)

Institute Marks : 10.00

**Decentralization in working**
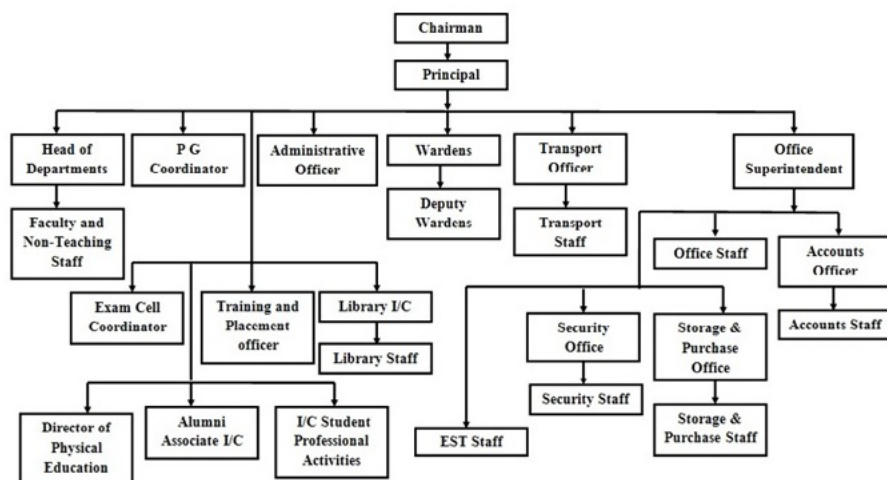
Fig 10.1 Decentralized administration

GRIEVANCE REDRESSAL CELL

The function of the cell is look into the complaints lodged by any student if any and then judge its merit. The grievance cell is also empowered to look into matters of harassment. Anyone with a genuine grievance may approach the department members in person or in consultation with officer in-charge student's grievance cell. In case person is unwilling to appear in self, grievance may be dropped in writing at the letter box/suggestion box of the grievance cell at administrative block.

Process for disposal of Grievances
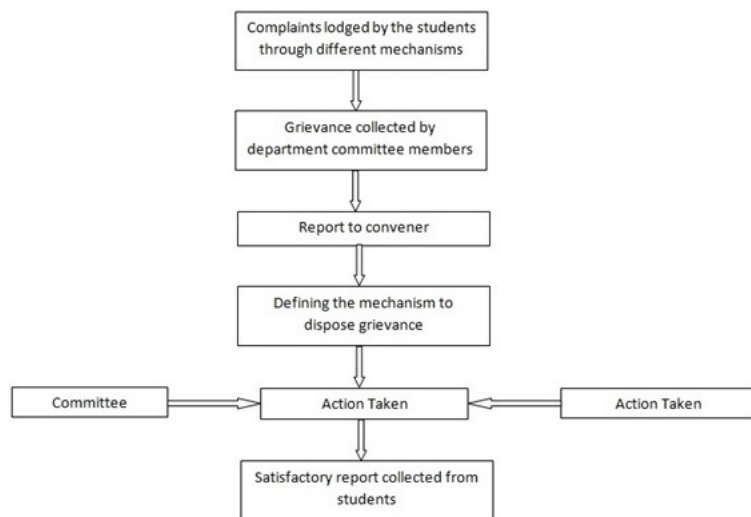
Fig 10.2 Grievance Disposal Mechanism

Table10.4 Central Grievance Redressal Cell Committee

Sl.No	Name of the Faculty	Designation	Department	Role	Contact Number
1	Dr.Prabhavathi.S	Professor	E&CE	Convener	8105289789
2	Dr.Kotresh.S	Associate Professor	EEE	Member	9986275325
3	Mr.A.M Shivaprakash Swamy	Assistant Professor	Mechanical	Member	9036900991
4	Mrs.Manjula Patil	Assistant Professor	ISE	Member	9986413377
5	Mr.Sharanagouda.V.Patil	Assistant Professor	E&CE	Member	9980376126
6	Mr.ShivaKumar	Assistant Professor	CSE	Member	9449556693
7	Mr.Sagar	Assistant Professor	Civil	Member	9731433646
8	Mr.Prabhakar Meti	Assistant Professor	Mathematics	Member	9036550309

Anti-Ragging Committee

- The following team members are informed to act members of Anti-Ragging group.
- Group members are informed to make surprise visits as per the schedule given and one of team members are requested to write a brief report after inspection.
- These groups are formed to prevent and curb the menace of Ragging.

Table 10.5: Anti Ragging Committee

Sl.No	Name of the Member	Designation	Department	Role	Contact Number
1	Dr. B.Doddabasavana Goud	Professor	EEE	Convener	9449171271
2	Dr.D.Sai Madhavi	Associate Professor	CSE	Member	9945829150
3	Sri.M.R.Vijaykumar	Associate Professor	Civil	Member	9886893258
4	Sri.Manjunatha H.M	Associate Professor	Mathematics	Member	9481709495
5	Smt.K.R.Bhagya	Assistant Professor	Physics	Member	8762707799
6	Sri.Vasanth Kumar	Police Sub-Inspector	Police	Member	
7	Sri.S.M.Sanna Basaiah	Parents/Guardian	Rtd. Health Inspector	Member	
8	Sri.M.Venu Gopal	Parents/Guardian	Govt.Official	Member	

Table10.6 : Anti Ragging Squad

Sl.No	Name of the Member	Designation	Department	Role	Contact Number
1	Sri.Shridhar Bilagi	Assistant Professor	E&CE	Member	8105828383
2	Sri.Adhana Gouda	Assistant Professor	Civil	Member	9972612107
3	Sri.K.Phanidra Reddy	Assistant Professor	E&CE	Member	9241220917
4	Sri.Prabhakar Meti	Assistant Professor	Mathematics	Member	9036550309
5	Sri.S.P.Jagadeesh	Associate Professor	Mechanical	Member	9481716642

Table10.7: Monitoring Cell on Ragging

Sl.No	Name of the Member	Designation	Department	Role	Contact Number
1	Sri. K.Raghavendra Prasad	Associate Professor	EEE	Member	9448035570
2	Sri.B.Veeresh	Associate Professor	Mathematics	Member	9449632718

3	Sri.Khaja Mouinuddin	Associate Professor	E&CE	Member	8105263354
4	Mrs.Sridevi Mali Patil	Assistant Professor	CSE	Member	9008055312
5	Mrs.Rohini.H.M	Assistant Professor	E&CE	Member	9902502026

Table10.8: Committee of wardens

Sl.No	Name of the Member	Designation	Department	Contact Number
1	Sri.K.M.Shivaprasad	Asst. Professor & Warden of GN Boys Hostel	CSE	7899964163
2	Sri.Phanidhar Reddy	Asst. Professor & Warden of Campus Boys Hostel	E&CE	9241220917
3	Mrs.Sridevi Mali Patil	Asst. Professor & Warden of WW Hostel	CSE	9008055312
4	Ms.Rohini.H.M	Asst. Professor & Warden of Gandhinagar Girls Hostel	E&CE	9902502026

10.1.4 Delegation of financial powers (10)

Institute Marks : 10.00

Financial powers are delegated/authorized to Principal to spend up to Rs. 1,00,000(One Lakh Rupees) and the HOD's of all the departments of this Institute are also authorized to spend up to Rs. 25,000(Twenty Five Thousand Rupees) for academic purposes.

10.1.5 Transparency and availability of correct/unambiguous information in public domain (5)

Institute Marks : 5.00

The institute has hosted its own website which is updated as and when required. The institute and programme specific information is made available to all aspirants through the web-site.

The web-site URL **is: www.rymec.in** (http://www.rymec.in)

10.2 Budget Allocation, Utilization, and Public Accounting at Institute level (30)

Total Marks 30.00

10.2.2 Utilization of allocated funds (15)

Institute Marks : 15.00

Table 6:Institute Budget Utilization 2015-2019

Finacial Year	2018-19	2017-18	2016-17	2015-16
Utilization of the Budget (%)	92.28	92.68	92.05	93.01

10.2.1 Adequacy of budget allocation (10)

Institute Marks : 10.00

The Budget proposal for the academic year is prepared by the individual departments as per the guidelines by V.V Sangha and Principal office. The collective budget proposals are scrutinized by the budget committee at the college level and further taken to governing council and management council for approval and sanction. Once it is sanctioned, the Principal will issue the budget order. The budget allocation and utilization is found to be adequate.

Summary of currentfinancial year's budget and actual expenditure incurred(for the institution exclusively)in the three previous financial years   :

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3
CFY : (Current Financial Year),
CFYm1 : (Current Financial Year minus 1),
CFYm2 : (Current Financial Year minus 2) and
CFYm3 : (Current Financial Year minus 3)

Table 1 - CFY 2018-19

Total Income 181956393				Actual expenditure(till…): 178111619			Total No. Of Students 2565
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
166855086	36000	63500	15001807	169149356	8962263		69439.23

Table 2 - CFYm1 2017-18

Total Income 210284966				Actual expenditure(till…): 193707423			Total No. Of Students 2590
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
174679277	38451	1000000	34567238	177751819	15955604		74790.51

Table 3 - CFYm2 2016-17

Total Income 185014727				Actual expenditure(till…): 198848544			Total No. Of Students 2966
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
165697193	59000	0	19258534	177580156	21268388		67042.66

Table 4 - CFYm3 2015-16

Total Income 184380992.93				Actual expenditure(till…): 239049215			Total No. Of Students 2944
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
164726847	0	0	19654145.93	174506460	64542755		81198.78

Items	Budgeted in 2018-19	Actual Expenses in 2018-19 till	Budgeted in 2017-18	Actual Expenses in 2017-18 till	Budgeted in 2016-17	Actual Expenses in 2016-17 till	Budgeted in 2015-16	Actual Expenses in 2015-16 till
Infrastructure Built-Up	3000000	2751639	12500000	11670452	12500000	9651979	30000000	28541462
Library	4000000	2414111	4000000	3039712	4000000	3207796	5000000	3782128
Laboratory equipment	5000000	4225128	10000000	3777440	15000000	10006429	35000000	33584020
Laboratory consumables	500000	415132	1000000	363180	1000000	928958	1000000	561566
Teaching and non-teaching staff salary	130000000	128157804	130000000	128768357	130000000	126835905	130000000	122148206
Maintenance and spares	12500000	9263565	12500000	11728486	12500000	12141483	15000000	12240269
R&D	1000000	563767	1000000	701299	1000000	749674	1000000	698473
Training and Travel	2000000	1209662	2000000	1407863	2000000	1739269	2500000	2014573
	2500000	1669763	3500000	2012649	3000000	3188497	2500000	2219718
Others, specify	32500000	27442444	32500000	30237985	35000000	30398554	35000000	33258800
Total	**193000000**	**178113015**	**209000000**	**193707423**	**216000000**	**198848544**	**257000000**	**239049215**

10.2.3 Availability of the audited statements on the institute's website (5)   Institute Marks : 5.00

The audit statements of the academic years are available in the institute website:

http://www.rymec.in/index.php/about-us/location

10.3 Program Specific Budget Allocation, Utilization (30)   Total Marks 25.00

10.3.2 Utilization of allocated funds (20)   Institute Marks : 15.00

Table 6: Program Budget Utilization 2015-2019

Year	2018-19	2017-18	2016-17	2015-16
Utilization of the Budget (%)	82.40	82.45	65.36	75.70

10.3.1 Adequacy of budget allocation (10)   Institute Marks : 10.00

The department wise budget is sanctioned by VV Sangha office and the sanction letters are sent to the Principal, RYMEC. The principal along with the respective HOD's further over sees the utilization of the sanctioned budget. After approval of the budget from governing council and management council the process of procuring is carried out as per the norms specified by the V.V.Sangha.

It is found that the budget allocated for the assessment years is sufficient for all the requirements of the department.

Institute Marks :

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3
CFY: (Current Financial Year),
CFYm1 : (Current Financial Year minus 1),
CFYm2 : (Current Financial Year minus 2) and
CFYm3 : (Current Financial Year minus 3)

Table 1 :: CFY 2018-19

2000000		Actual expenditure (till…): 1631464		Total No. Of Students 343
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
17,50,000	2,50,000	15,40,961	90,503	4756.45

Table 2 :: CFYm1 2017-18

1000000		Actual expenditure (till…): 766801		Total No. Of Students 402
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
5,00,000	5,00,000	4,70,166	2,96,635	1907.47

Table 3 :: CFYm2 2016-17

650000		Actual expenditure (till…): 398674		Total No. Of Students 474
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
1,00,000	5,50,000	31,072	3,67,602	841.08

Table 4 :: CFYm3 2015-16

4800000		Actual expenditure (till…): 3610952		Total No. Of Students 469
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
45,00,000	3,00,000	34,79,543	1,31,409	7699.26

Items	Budgeted in 2018-19	Actual Expenses in 2018-19 till	Budgeted in 2017-18	Actual Expenses in 2017-18 till	Budgeted in 2016-17	Actual Expenses in 2016-17 till	Budgeted in 2015-16	Actual Expenses in 2015-16 till
Laboratory equipment	750000	690961	500000	470166	100000	31072	4000000	3479543
Software	1000000	850000	0	0	0	0	500000	0
Laboratory consumable	100000	27991	100000	79744	100000	62388	50000	6667
Maintenance and spares	50000	25506	220000	196086	300000	267292	100000	60115
R & D	40000	25506	50000	11835	50000	28422	50000	46127
Training and Travel	20000	11500	50000	8970	50000	9500	50000	11000

	20000	0	10000	0	10000	0	20000	7500
Total	**1980000**	**1631464**	**930000**	**766801**	**610000**	**398674**	**4770000**	**3610952**

10.4 Library and Internet (20)   Total Marks 20.00

10.4.1 Quality of learning resources (hard/soft) (10)   Institute Marks : 10.00

10.4.1. Library

"Knowledge Centre" is established along with the parent institution in the year 1980 with prime objective of supporting the parent organization programs. It is having, functionally designed building and it is located in the convenient accessible place in the college campus to the different group of library users. The soul of the library builds with our ancient people's knowledge bricks. The prime motto of the knowledge centre is to building the knowledge empowered society. The mission of the knowledge centre is to meet the expectations of the library stakeholders with available resources and by integrating external emerging trends with internal factors. The main goal of the knowledge centre is improving the service effectiveness, economy and efficiency of library management system, Safeguard the interest and benefits of the stakeholders and facilitate to develop the innovative thoughts and knowledge sharing culture among the library users. The quiver of the knowledge centre enfolded the both print and digital form of global standard mass and scholarly knowledge contents.

Digital library:

Digital library system integrated with campus network to enhance the learners' body of knowledge. It is also fostered distribution units at the departments for timely access of needed information at the work place with zero foot print.

The library management system is automated with Easylib Software to improve the efficiency of library housekeeping operations and provide speed service to the library users. It is also collaborated with national information network agencies (VTU e-resources Consortium & DELNET) and provided Internet and Wi-Fi facility to access required information.

The library users can also access digital resources through Wi-Fi at Library. The users can access the digital resources by using web browsers (Chrome and Firefox) by clicking following url in the campus network:

- **192.168.8.4/gdlc1**
- **192.168.8.4/gdlc2**
- **192.168.8.4/gdlc3**
- **192.168.8.4/nptel**
- **192.168.8.4/qp**

Scope for self-learning:

The Institute believes that self-learning and learning beyond syllabus have a great scope in the development of the career of an engineer. Everything in engineering cannot be taught in the class room or laboratories. The explosion in knowledge related to applied science and engineering has been so much that four years is too short a period even to cover one branch of engineering. This fact calls for the relevance for self-learning for young engineers. Institution has done to provide adequate facilities for self-learning to students so that they get motivated to learn more and more and ultimately become life-long learners and innovators.

Motivation for self-learning should be provided in the classrooms. A teacher has a great role to play in this. Discussing subject beyond the syllabus, providing exposure to exciting developments in science and technology around the globe, attempting solutions to problems in daily life etc. are the ways to motivate students for self-learning. They should also be motivated to do things themselves so that they gain confidence to try anything with their own hands. Institution should provide ample opportunities and facilities for the students.

Self-Learning Facilities and Availability of Materials for Learning beyond Syllabus

Institution has provided the following facilities to students for their self-learning and learning beyond syllabus Infrastructure:

1. 24/7 internet access with Wi-Fi connectivity

2. Classrooms/Labs with audio & visual aids

3. Language lab, Computer Labs etc.

Learning resources:

1. Committed faculty who motivate students in the process of their learning

2. Reputed E-Journals from Science Direct, Springer, Emerald, T&F, etc.

3. Reputed E-Books from Spinger, CRC, Elsevier, T&F, McGraw Hill, New Age & Packt

3. Online Databases and Digital Video

4. Licensed Software's.

The institution supports teachers to make learning efficient. The college provides a central library with all latest books and journals which the faculty can utilize effectively and provide comprehensive latest information to students. Students are encouraged to use the library independently to enhance their skills and knowledge.

Apart from this institute provides seminar halls where the students can participate in group discussions, debates, seminars etc. The institution and faculty members support and encourage every student to make use of Internet, computers and latest technologies available to upgrade themselves in their respective field of studies.

Table 10.4.1 Library Details

a.	Carpet Area of library (in m^2)	943 sqm
b.	Reading Space (in m^2)	257 sqm
c.	Number of Seats in reading space	150 Seats
d.	Number of Users (Issue Book) per day (2018)	349
e	Number of Users (Reading space) per day (2018)	45
f.	Working days Timings(Monday –Friday)	8.00 am to 8.00 pm
	Weekend Timings: (Saturday)	8.00 am to 5.00 pm
	During Holidays /Sundays and Vacations	Closed
g.	Number of Library Staff	10

h.	Number of Library Staff with degree in Lib. Mgmt.	03
i.	Computerization for search, indexing, issue/return records	YES
J	Bar Coding Used?	Yes.
k.	Library Services on Internet/Intranet	Yes.
l.	INDEST/DELNET and other similar membership?	DELNET & VTU Consortium.

Table 10.4.2 Quality of Learning Resources (Hard/Soft)

	Availability of Digital library Contents	Yes
a.	Number of Courses	10
	Number of e-Books	24220
b.	Availability of exclusive server	Yes
c.	Availability over Internet/Intranet	Intranet
d.	Availability of exclusive space/room	Yes
e.	Number of users per day.	Campus wide Access on Intranet

- Computers are provided with Multimedia facility in central library where students can access all kinds of e-journals.
  - http://www.sciencedirect.com
  - http://www.link.springer.com
  - http://www.tandfonline.com
  - http://www.icevirtuallibrary.com
  - http://emerald.com/insight/
  - www.rbmec.new.knimbus.com
- Digital library is provided in central library where users can access kinds of e-resources on/off campus.
- The users can access the e-Books/e-journals through Wi-Fi and Digital Library at any time.
- The students can access eBooks/e-journals at library computer Centre as well as in College Campus and hostels with wifi.
- The learning resources centre is open 12 hours a day for use and will be extended on demand. The Library contains the Reference Section with wide verity of resources, a quiet study area, the office, and a photocopier room. There is a study area with computer facilities, and a group study/reading room. Library aims to offer focused provision for the subjects in which the College admits mature undergraduates as well as postgraduates. The collection comprises textbooks, general reference material, Question Bank and career-oriented resources.
- Video Course:
  - VTU e-Learning/NPTEL can accessed though Digital Library
  - NPTEL on online http://nptel.iitm.ac.in/

10.4.2 Internet (10)   Institute Marks : 10.00

Name of the Internet provider	AirTel
Available band width	125 Mbps
WiFi availability	Yes
Internet access in labs, classrooms, library and offices of all Departments	Yes
Security arrangements	Yes

Annexure I
(A) PROGRAM OUTCOME (POs)

Engineering Graduates will be able to:

1. **Engineering Knowledge :** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

2. **Problem Analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

(B) PROGRAM SPECIFIC OUTCOME (PSOs)

PSO1	Ability to Design, Develop and Test the Electronics Circuits & Communication Systems.
PSO2	Ability to Develop Excellent Programming and problem solving skills in the field of Embedded System.

Declaration

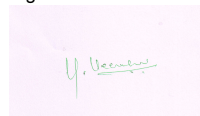The head of the institution needs to make a declaration as per the format given -

- I undertake that, the institution is well aware about the provisions in the NBA's accreditation manual concerned for this application, rules, regulations, notifications and NBA expert visit guidelines inforce as on date and the institutes hall fully abide by them.
- It is submitted that information provided in this Self Assessment Report is factually correct.
- I understand and agree that an appropriate disciplinary action against the Institute willbe initiated by the NBA. In case, any false statement/information is observed during pre-visit, visit, postvisit and subsequent to grant of accreditation.

Head of the Institute
Name : K Veeresh
Designation : Principal
Signature :

Seal of The Institution :

Place : Ballari
Date : 25-11-2019 17:02:44