

<b>1` CRITERION 2</b>	<b>PROGRAM CURRICULUM AND TEACHING LEARNING PROCESS</b>	<b>120</b>
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### **Program Curriculum**

**State the Process to identify extent of compliance of the University Curriculum for Attaining the Program Outcomes and Program Specific Outcomes as Mentioned in Annexure I of SAR. Also mention the identified Curricular Gaps, if any (10)**

Rajarajeswari College of Engineering is affiliated to Visvesvaraya Technological University (VTU), Belagavi, Karnataka. Hence program curriculum is as per the scheme and syllabus of VTU that contains core, professional and elective courses. The curriculum is formulated and reviewed once in 4 years through Board of Studies (BoS) of VTU comprising a Chairman, senior Professors of ISE discipline and representative members from Industry.

Generally, Curriculum maintains the balance in the composition of *Basic Science, Humanities, Professional Courses* and their distribution in *Core and Electives* with the specified depth and breadth offerings. If some components to attain COs/POs are not included in the curriculum provided by the VTU, then the Institution makes additional efforts to impart such knowledge by covering concepts through “*Contents beyond Syllabus*” which is added by proper “*GAP analysis*” process.

A typical action plan deployed by the Department for effectively operation alizing the given curriculum is detailed below:

- **Subject Allotment:** At the end of each semester, the HoD conducts a departmental meeting to get the next semester’s academic requirements. After a thorough discussion, the subjects and labs are allotted to the faculty members based on their priority, previous experience, specialization, the individual interest shown and, in some cases, the HoD may map subjects to a faculty based on the previous semester’s results, student’s feedback, staff position or similar demands, etc.,

- **Subject Preparation:** The faculty prepares the lesson plan, notes, question bank, assignment questions, presentation materials/hand-outs, etc. of the allotted subjects for the entire syllabus during the vacation. The academic material prepared by the staff is scrutinized / reviewed by HoD/Senior faculty and suitable feedback/suggestions are provided. After corrective measures, the prepared academic materials made available to the students.

- **Lab Requirement:** The labs are allotted with one *Lab In-Charge* and groups are made for each lab. The concerned *Lab In-Charge* goes through the syllabus, takes stock of new requirements, replacements needed,

servicing issues, etc. and submits a report to HoD for concerned action plan (calling quotations, purchase, etc.) during vacation. Also, the *Lab In-Charge* prepares and updates the lab manuals along with other group members. All the staff members allotted to a particular lab are required to be familiar and thorough with the entire experiment set. They are required to rig up (for hardware) and run (for software) the experiments. In specific cases HoD along with senior faculty may conduct a test for the faculty in the concerned lab to evaluate their competency.

- **Calendar of Events:** The Chief Time Table Officer (CTTO) along with the Principal and HoDs prepares and publishes at the beginning of every semester an **academic calendar** which depicts the schedule of internal tests, holidays, cultural events, lab internals, online teacher appraisal, etc. which applies to the entire college.

- **Coverage of Syllabus:** The faculty estimates the number of probable classes available for the given academic semester and prepare lesson plan accordingly for coverage of entire syllabus. For lab involved / mathematical subjects, where more emphasis is required say Mathematics, Basic Electrical Engineering, Data Structures & Applications, Automata Theory and Computability etc., five hours per week with the fifth hour devoted for tutorials is allotted in the class time table itself. The entire syllabus is supposed to be covered by each staff with proportionate spreading out for the internals.

- **IA Question Papers:** The department maintains high standards in the preparation of IA Question papers based on the motto that “if students are properly trained and evaluated in the internal tests, they can perform better in the final exams and also during placements”. The questions in the question papers are set based on Bloom’s learning Levels. These question papers are scrutinized for framing of question, the coverage of syllabus, break up of marks, complexity level, etc. by the Course Coordinator, PAC & HoD.

- **Monitoring Student’s Performance on Regular Basis:** After the each test the faculty has to evaluate the answer scripts of every student based on the scheme of evaluation prepared in advance by the faculty and discussed with the students. Once the assessment scores are available the assigned class teacher circulates the student’s performance that is marks scored and attendance in all subjects with the two proctors allotted. The proctor has to communicate and guide the student on his performance and in case of poor attendance and performance the proctor has to communicate with parent or care takers or guardians of the students about his performance. The communication could be preferably done in person or through telecommunication mandatorily. The proceedings of proctoring after every 15 days and after each assessment is recorded in the student’s proctor book regularly with signature of faculty and student as well with date.

• **Periodic Feedback:** The HoD meets students periodically (once in every two weeks) to ascertain the understanding and difficulties faced by the students in delivery by the teachers and coverage of syllabus. After the interactions, suitable actions are taken – such as arranging tutorial classes for particular subjects, extra classes for coverage and in cases where sufficient portion is covered, rearrangement of the time table, etc. Corrective measures are initiated on the basis of feedback received.

• **Academic Audit:** To assess the effectiveness of curricular implementation plan, the IQAC of RRCE reviews the roles and responsibilities, academic preparation, orientation of faculty towards the subject, understanding of the curriculum requirements, covering content beyond syllabus, teaching practices adopted by the faculty for each subject, projects guided, previous appraisal and percentage results obtained. Based on this, specific aspects of the action plan to be contemplated are revisited.

**Tables 2.1.1.1 and 2.1.1.2 list the POs and PSOs respectively.**

PO1	Apply knowledge of mathematics and science, with fundamentals of Computer Science & Engineering to be able to solve complex engineering problems related to CSE.
PO2	Apply mathematical foundations, algorithmic principles, and computer Science theory in the modelling and design of computer based systems in a way that demonstrates comprehension of tradeoffs involved in design choices.
PO3	Analyze a problem, and identify and define the computing requirements appropriate to its solution
PO4	Design and development principles in the construction of software systems of varying complexity.
PO5	Design, implement, and evaluate a software or a software/hardware system, component, or process to meet desired needs within realistic constraints such as memory, runtime efficiency, as well as appropriate constraints related to economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability considerations;
PO6	Use the techniques, skills, and modern engineering tools necessary for practice as a CSE professional;
PO7	Work effectively as an individual, and as a member or leader in diverse teams and in multidisciplinary environment.
PO8	Demonstrate knowledge of contemporary issues and understand professional, ethical, legal, security and social issues and responsibilities;
PO9	Analyze the local and global impact of computing on individuals, organizations, and society;
PO10	Demonstrate knowledge and understanding of the engineering and management principles including financial implications and apply these to his/her work, as a member and leader in a team, and to manage project work as part of a multidisciplinary team.
PO11	Communicate effectively in both verbal and written forms
PO12	Recognize the need for, and be motivated to engage in life-long learning and continuing professional development.

**PSOs of CSE Program:**

PSO1	Understand, apply and demonstrate advanced technical skills in problem solving and leadership, as well as an understanding of system integration and the practical technological problems of end users.
PSO2	An ability to design, implement, and evaluate a software or a software/hardware system, component, or process to meet desired needs within realistic constraints such as memory, runtime efficiency, as well as other socio-economic constraints.

**Table 2.1.1.3 Extent of compliance of the University Curriculum for attaining the Program Outcomes:**

SUBJECT CODE	SUBJECT	P O1	PO2	PO3	PO4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2	PSO 1	PSO 2
15PCD23	Programming in C and Data Structures	✓	✓	✓	✓								✓	✓	✓
15CPL27	C Programming Laboratory	✓	✓	✓	✓								✓	✓	✓
15MAT31	Engineering Mathematics - III	✓	✓	✓	✓	✓							✓		
15CS32	Analog And Digital Electronics	✓	✓	✓	✓	✓							✓	✓	✓
15CS33	Data Structures and Applications	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
15CS34	Computer Organization	✓	✓	✓	✓						✓	✓	✓	✓	✓
15CS35	Unix And Shell Programming	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
15CS36	Discrete Mathematical Structures	✓	✓	✓	✓	✓							✓	✓	✓
15CSL37	Analog And Digital Electronics Laboratory	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
15CSL38	Data Structures Laboratory	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
15MAT41	Engineering Mathematics-IV	✓	✓	✓	✓	✓							✓	✓	✓
15CS42	Software Engineering	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
15CS43	Design And Analysis of Algorithms	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
15CS44	Microprocessors And Microcontrollers	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
15CS45	Object Oriented Concepts	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
15CS46	Data Communication	✓	✓	✓	✓	✓		✓	✓	✓			✓	✓	✓
15CSL47	Design And Analysis of Algorithm Laboratory	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
15CSL48	Microprocessor And Microcontroller Laboratory	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓



	and Simulation														
15CS84	Internship / Professional	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
15CSP85	Project Work	✓		✓		✓	✓		✓	✓	✓			✓	✓
15CSS86	Seminar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

**Table 2.1.1.4: Extent of compliance of the University Curriculum CBCS 2017 Scheme for attaining the Program Outcomes and Program Specific Outcomes.**

SUBJECT CODE	SUBJECT	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
17PCD23	Programming in C and Data structures	✓	✓	✓	✓								✓	✓	✓
17CPL26	Computer Programming Lab	✓	✓	✓	✓								✓	✓	✓
17MAT31	Engineering Mathematics-III	✓	✓	✓	✓	✓							✓		
17CS32	Analog And Digital Electronics	✓	✓	✓	✓	✓					✓	✓	✓	✓	✓
17CS33	Data Structures and Applications	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
17CS34	Computer Organization	✓	✓	✓	✓						✓	✓	✓	✓	✓
17CS35	Unix And Shell Programming	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
17CS36	Discrete Mathematical Structures	✓	✓	✓	✓	✓							✓	✓	✓
17CSL37	Analog And Digital Electronics Laboratory	✓	✓	✓	✓	✓							✓	✓	✓
17CSL38	Data Structures Laboratory	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
17MAT41	Engineering Mathematics-IV	✓	✓	✓	✓	✓							✓		
17CS42	Object Oriented Concepts	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
17CS43	Design And Analysis of Algorithms	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
17CS44	Microprocessors And Microcontrollers	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
17CS45	Software Engineering	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
17CS46	Data Communication	✓	✓	✓	✓	✓		✓	✓	✓			✓	✓	✓
17CSL47	Design And Analysis of Algorithm Laboratory	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
17CSL48	Microprocessor And Microcontroller Laboratory	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
17CS51	Management And Entrepreneurship for It Industry	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓		
17CS52	Computer Networks	✓	✓	✓	✓	✓	✓	✓					✓	✓	✓



**Table 2.1.1.5: Extent of compliance of the University Curriculum CBCS 2018 Scheme for attaining the Program Outcomes and Program Specific Outcomes.**

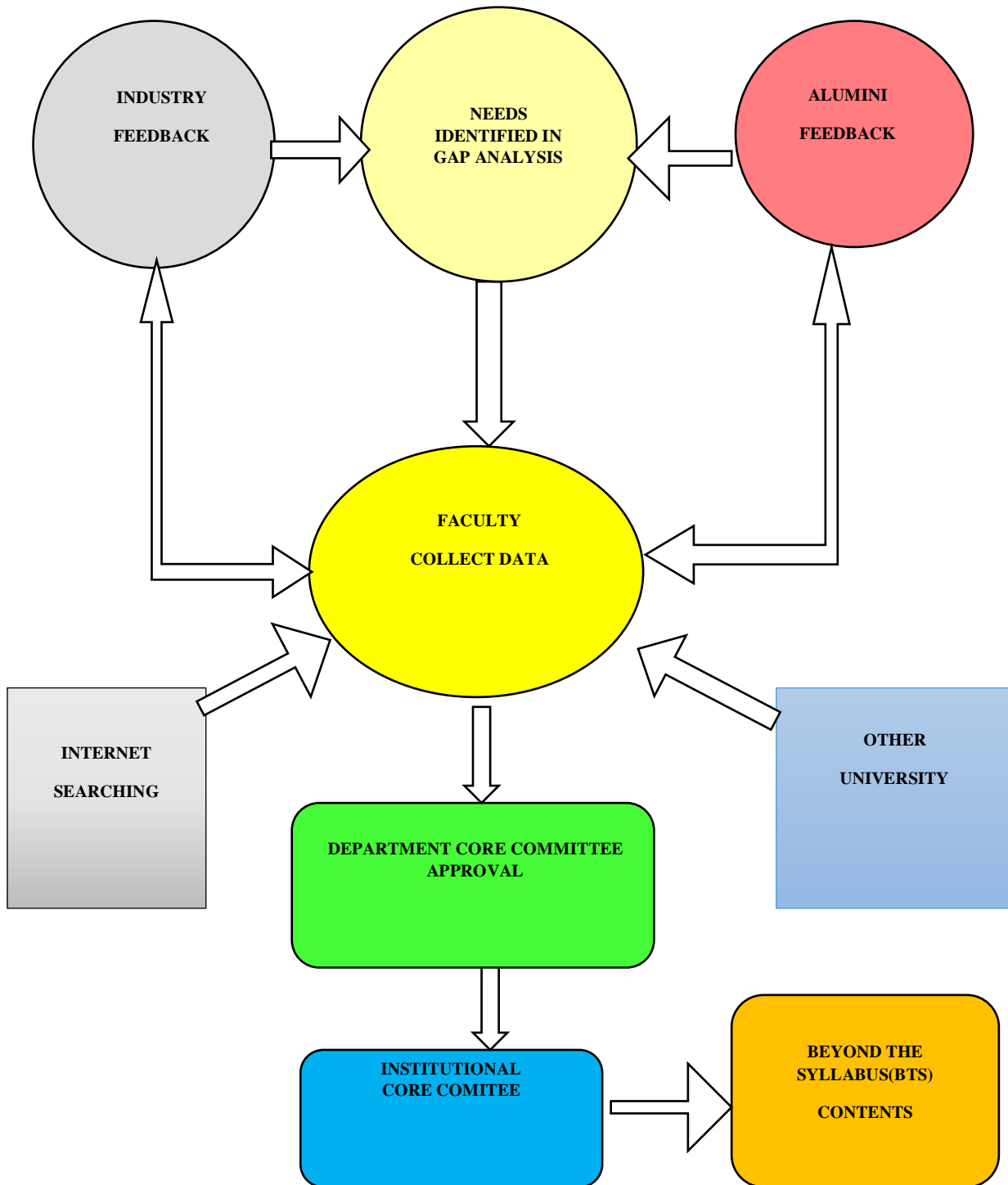
SUBJECT CODE	SUBJECT	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
18CPS23	C Programming for problem solving	✓	✓	✓	✓								✓	✓	✓
18CPL27	C Programming Laboratory	✓	✓	✓	✓								✓	✓	✓
18MAT31	Transform Calculus, Fourier Series and Numerical Techniques	✓	✓	✓	✓	✓							✓		
18CS32	Data Structures and Applications	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
18CS33	Analog and Digital Electronics	✓	✓	✓	✓	✓							✓	✓	✓
18CS34	Computer Organization	✓	✓	✓	✓						✓	✓	✓	✓	✓
18CS35	Software Engineering	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
18CS36	Discrete Mathematical Structures	✓	✓	✓	✓	✓							✓	✓	✓
18CSL37	Analog and Digital Electronics Laboratory	✓	✓	✓	✓	✓							✓	✓	✓
18CSL38	Data Structures Laboratory	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
18MAT41	Complex Analysis, Probability and Statistical Methods	✓	✓	✓	✓	✓							✓		
18CS42	Design and Analysis of Algorithms	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
18CS43	Operating Systems	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
18SC44	Microcontroller and Embedded Systems	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
18CS45	Object Oriented Concepts	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
18CS46	Data Communication	✓	✓	✓	✓	✓		✓	✓	✓			✓	✓	✓
18CSL47	Design and Analysis of Algorithm Laboratory	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
18CSL48	Microcontroller and Embedded Systems Laboratory	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
18CS51	Management, Entrepreneurship for IT industry	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓		
18CS52	Computer Networks and Security	✓	✓	✓	✓	✓	✓	✓					✓	✓	✓
18CS53	Database Management System	✓	✓	✓	✓	✓					✓	✓	✓	✓	✓
18CS54	Automata theory and Computability	✓	✓	✓	✓	✓							✓	✓	✓
18CS55	Application Development using Python	✓	✓	✓	✓	✓							✓	✓	✓
18CS56	Unix Programming	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
18CSL57	Computer Network Laboratory	✓	✓	✓	✓	✓				✓			✓	✓	✓



18CSL58	DBMS Laboratory with mini project	✓	✓	✓	✓	✓	✓	✓					✓	✓	✓
18IS61	File structures														
18IS62	Software Testing														
18CS63	Web Technology and its applications	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
18CS641	Data Mining and Data Warehousing	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
18EE653	Renewable Energy Sources														
18ME651	Non-Conventional Energy Sources														
18ISL66	Software Testing Lab														
18ISL67	File structures Lab with Mini Project	✓	✓	✓	✓	✓							✓	✓	✓
18CS63	Web Technology and its Applications Lab	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
18CSMP68	Mobile Application Development	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
18CS71	Artificial Intelligence and Machine Learning	✓	✓	✓										✓	✓
18CS72	Big Data Analytics	✓	✓	✓	✓	✓							✓	✓	✓
18CS73	User Interface Design	✓	✓	✓	✓	✓				✓			✓	✓	✓
18CS744	Cryptography	✓	✓	✓	✓	✓				✓			✓	✓	✓
18CS751	Energy & Environment	✓	✓	✓	✓	✓	✓	✓					✓	✓	✓
18CSL76	Artificial Intelligence and Machine Learning Laboratory	✓	✓	✓	✓	✓				✓			✓	✓	✓
18CS81	Internet of Things	✓	✓	✓										✓	✓
18CS821	Mobile Computing														
18CS822	Storage Area Networks	✓	✓	✓	✓	✓			✓	✓			✓	✓	✓
18CSP83	Project Work	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
18CSS84	Technical Seminar	✓		✓		✓	✓		✓	✓	✓			✓	✓
18CSI85	Internship	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Further, the following processes are used to identify extent of compliance of the curriculum for attaining the Program Outcomes and Program Specific Outcomes.

Fig.2.1.1.1 Process for “Curriculum GAP ANALYSIS”



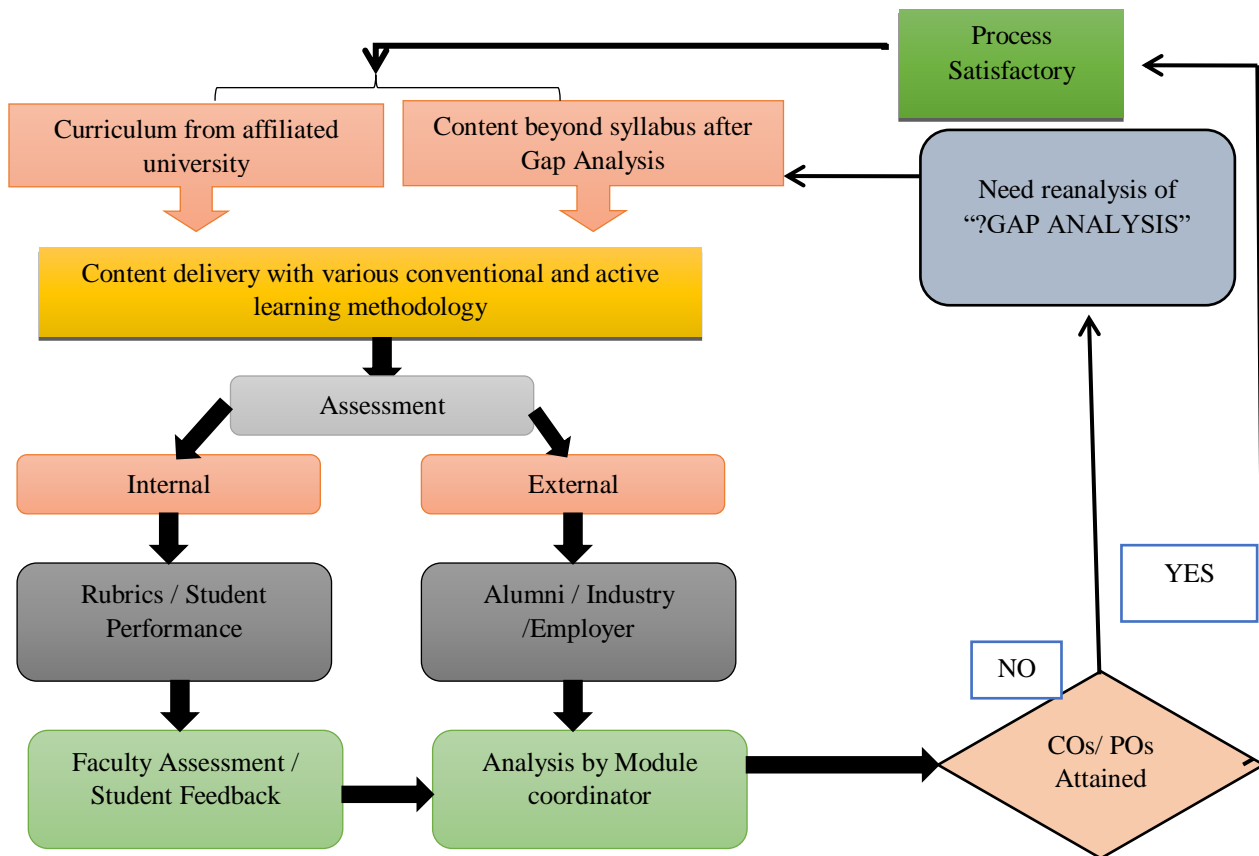


Fig. 2.1.1.2 Process of assessment of gap analysis

### Feedback from Students – Course End Survey

A questionnaire about the course is prepared by the course coordinator and the program coordinator, and is distributed to students to get their feedback at the end of the semester to see whether the POs and PSOs are strongly or loosely attained. The details of feedback parameters for course end survey shown in the figure.

### Feedback from students – Graduate Exit Survey

A questionnaire is prepared by the program coordinator, and is given to students at the end of the Program to get their feedback of that program. The results are analyzed to see whether the program outcomes are strongly or loosely attained. A sample of graduate survey is shown in the figure.

### Feedback from parents

The Program coordinator will collect the feedback from the parents about their experience and also their wards opinion on the program. It will be done once in every semester. It helps to improve the overall system. Sample of parent's feedback is shown in the figure.

#### **Feedback from the Recruiters**

A questionnaire is prepared by the program coordinator and is given to the recruiters during recruitment process to see whether the program outcomes are strongly or loosely attained. Sample of survey questionnaire to employer is shown in the figure

#### **Feedback from alumni**

A questionnaire is prepared by the program and course coordinator and is given to the alumni. It will be done **once in every year** on **26<sup>th</sup> January** to see whether the PO's and PSO's are strongly or loosely attained. A sample of feedback form from alumni is shown the figure.

**RAJARAJESWARI COLLEGE OF ENGINEERING**

(Approved by AICTE, New Delhi. Affiliated to the Visvesvaraya Technological University, Belagavi)  
#14. Ramohalli Cross, Kumbalagodu, Mysuru Road, Bengaluru-560074

**TEACHER FEEDBACK ON CURRICULUM**

Name of the Teacher:	J. Rajalekshmi
Name of the Department:	CSE
Academic Year:	2018

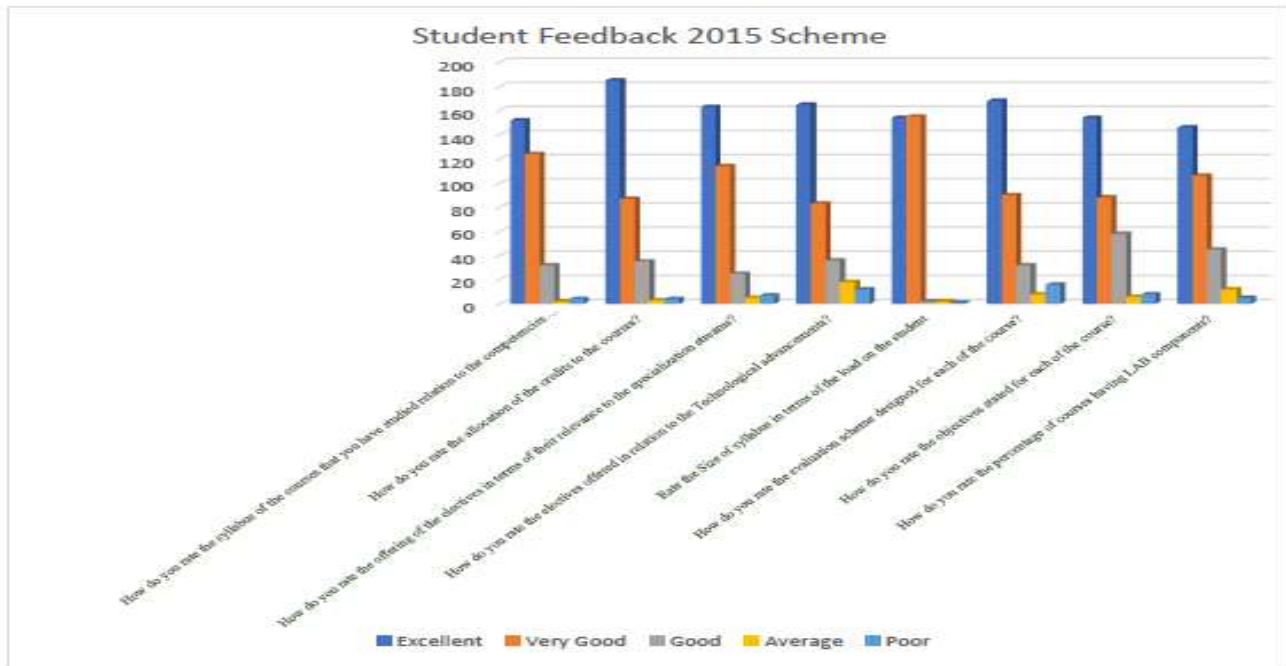
This questionnaire is intended to collect information relating to your satisfaction towards the curriculum, teaching, learning and evaluation. The information will be used as important feedback for quality improvement of the program of studies/institution.

Directions: a score for each item please indicate your level of satisfaction with the following statement by choosing between 1 and 5

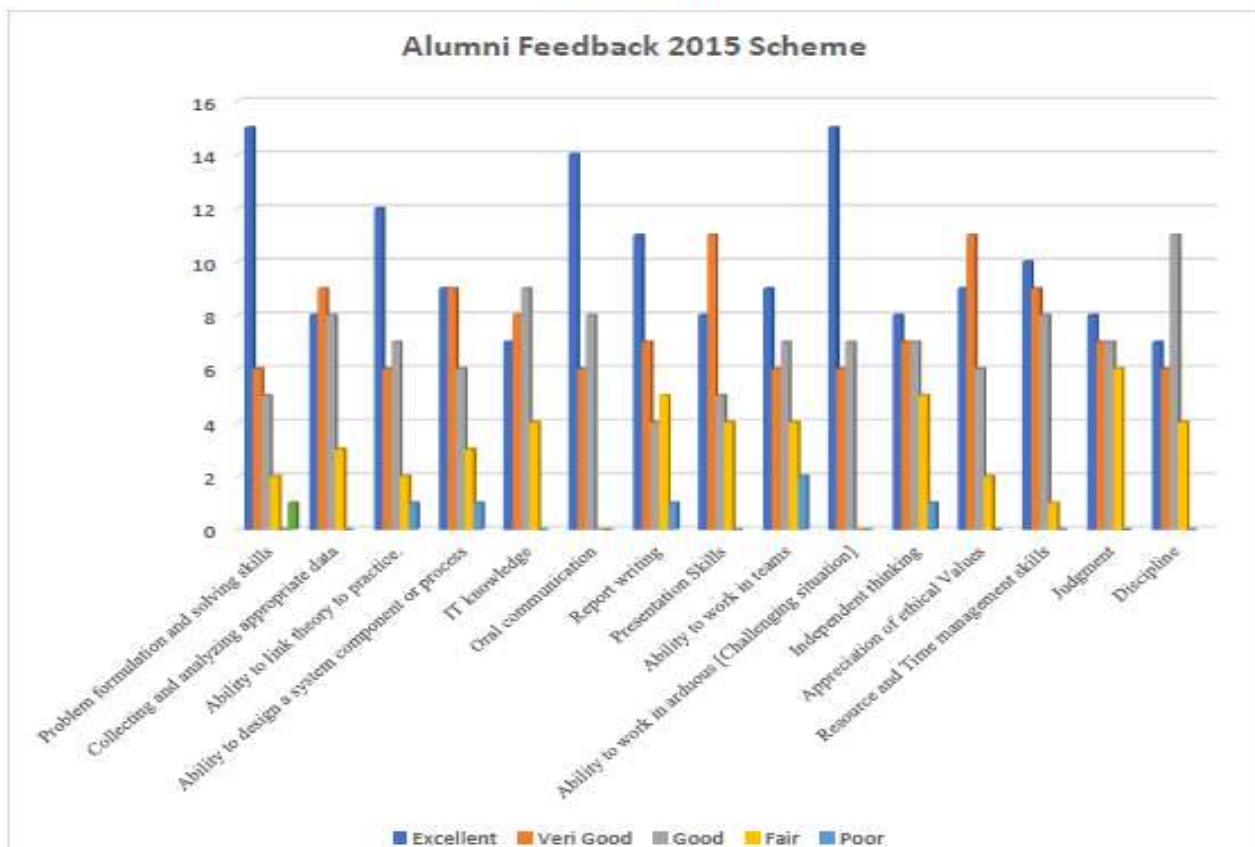
Excellent (5)	Very Good (4)	Good (3)	Average (2)	Poor (1)
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Sl. No.	Statements	Excellent	Very Good	Good	Average	Poor
1	Syllabus is suitable to the course	✓				
2	Syllabus is need based.	✓				
3	Aims and objectives of the syllabi are well defined and clear to teachers and students.	✓				
4	Course content is followed by corresponding: reference books/materials		✓			
5	The course/syllabus has good balance between theory and Lab.		✓			
6	The course/syllabus of this subject Increased my knowledge and perspective in the subject area.	✓				
7	The course/program of studies carries sufficient number of optional papers	✓				
8	The books prescribed/listed as reference materials are relevant, updated and appropriate.		✓			

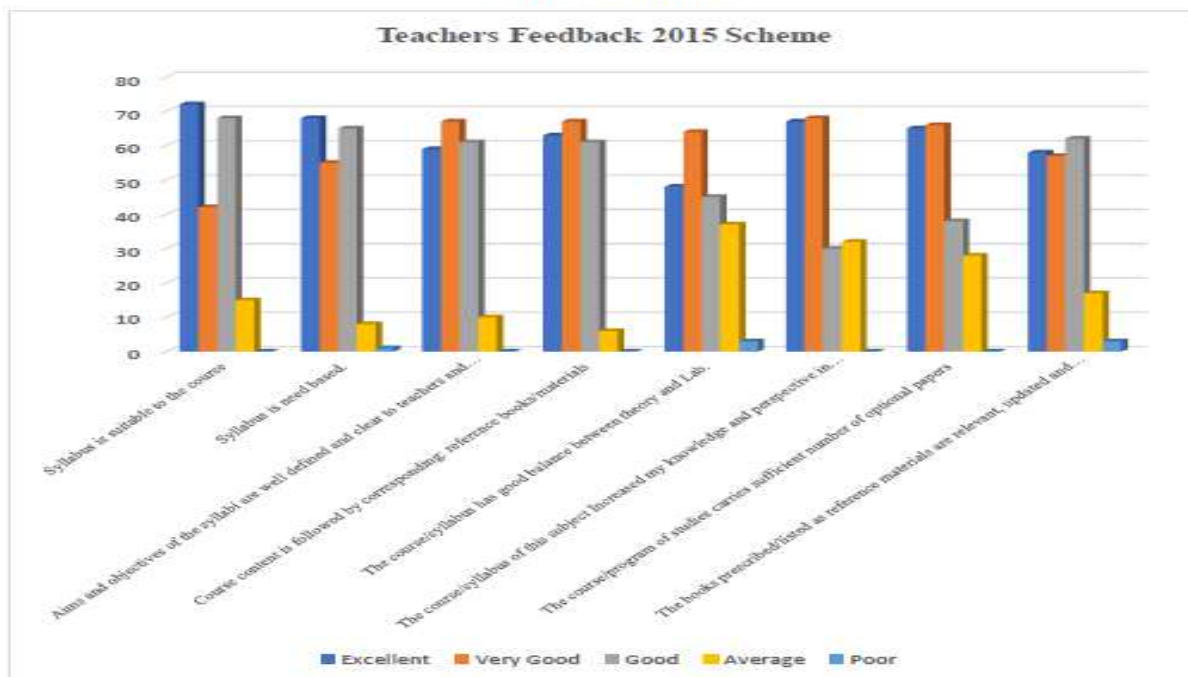
### Student Feedback Analysis 2015 Scheme



### Alumni Feedback Analysis 2015 Scheme



### Teachers Feedback Analysis 2015 Scheme



#### Action Taken Report on Feedback 2015 Scheme

- The Institute has all stakeholder feedback system in place for continuous improvement of the system.
- The objective of this system is to provide a framework for acquiring summarizing and documenting information on all stakeholder feedbacks.
- All the department have practice of taking feedback from stakeholders, namely, students through student exit survey, teachers through teachers' feedback on curriculum, parents through parent teaches meet once a semester, and alumni through alumni meet once a year.
- The collective feedback of all stakeholders were summarized and analysed by each department.

#### Based on summarized feedback recommendations, the Action taken is as below:

1. Effective Soft skill Training are provided
2. Students exposed to industry environment through industry visits.
3. Based on recent trends in software development, workshop, seminars and technical talk were initiated.
4. The institution initiated to estimate need of industry' and provide additional inputs for improving employability
5. Institution magazine was published for the benefits of the students
6. Facility of Extra guidance for weak Students
7. Effective student counselling and mentoring are provided
8. The institution continuously communicated to the parents pertaining to the progress of the students in academic and any other if any.

**RAJARAJESWARI COLLEGE OF ENGINEERING**

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#14. Ramohalli Cross, Kumbalagodu, Mysuru Road, Bengaluru-560074

**FEEDBACK FORM FOR EMPLOYERS**

Dear employers,

As industry is the ultimate customer of engineering graduates, its satisfaction about standards and content of RajaRajeswari College of Engineering graduates is important. RajaRajeswari College of Engineering always maintains a continuous dialogue accordingly. As the ultimate beneficiary of our quality product your support and feedback will help us to maintain the required standards of education. Here are some of the points to facilitate you in giving feedback about our students. You are requested to give marks in the box provided against each item as per the following norms.

Excellent (5)	Very Good (4)	Good (3)	Average (2)	Poor (1)
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Name of the Company/ Institute: *BMTC, Bangalore*

Name of the evaluating graduate with Designation: *Akash G.H*

About RajaRajeswari College of Engineering students already employed

Sl. No.	Statements	Excellent	Very Good	Good	Average	Poor
1	Ability to contribute to the goal of the organization	✓				
2	Technical knowledge/skill Ability to manage/leadership Innovativeness	✓				
3	Creativity		✓			
4	Relationship with seniors/peers/subordinates		✓			
5	Involvement in social activities		✓			
6	Obligation to work beyond schedule if required		✓			
7	Overall impression about their Performance	✓				



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Excellent (5)	Very Good (4)	Good (3)	Average (2)	Poor (1)
---------------	---------------	----------	-------------	----------

Name of the Company/ Institute: *Cognizant*

Name of the evaluating graduate with Designation: *Sachin Saxi*

About RajaRajeswari College of Engineering students already employed

Sl. No.	Statements	Excellent	Very Good	Good	Average	Poor
1	Ability to contribute to the goal of the organization	—				
2	Technical knowledge/skill Ability to manage/leadership Innovativeness	—				
3	Creativity		—			
4	Relationship with seniors/peers/subordinates		—			
5	Involvement in social activities		—			
6	Obligation to work beyond schedule if required	—				
7	Overall impression about their Performance	—				

Guest lecturer, expert lecturer, technical lecturer, technical Workshop (July 2020 -Aug21)						
Sl.No	GAP	Date	Action taken	Resource person with designation	% of students	Relevance to PO's and PSO's
1.	Three Day International Virtual Workshop on “Artificial Intelligence and Neural Network”	17/07/2020 to 19/07/2020	webinar	Mr. Bishwajit Pal .NetTech Lead, Cast Software (India) Pvt. Ltd, Bangalore. Mr. Suman Roy Senior Project Manager & Developer Source Edge Software Technologies	IV Year	
2.	Webinar on Expectations of an IT industry from an Engineering Graduate	31/8/2020	webinar	Mr. Sreenivasa Ramanujam, Academic Relationship Manager - Karnataka, Tata Consultancy Services (TCS) WhiteField, Bangalore.	II,III,IV Year	
3.	Writing and Publishing Research Articles in SCI Journals – A Framework	19/08/2020	webinar	Dr.P. PalPandian, Ph.D, Program Coordinator – Robotics and Mechatronics, School of Engineering & Technology, CHRIST (Deemed to be University), Bangalore.	IV Year	
4.	Business Analytics with Tableau, R & Python Programming	28/8/2020	webinar	Mr.Swarup Dutta, Team Lead & Coach , Quest Skills, New Delhi	IV Year	

5.	Skill Development for Industry 4.0	15/10/2020	webinar	Dr.P.PalPandian, Ph.D,Program Co-ordinator Dept. of Mechatronics & Robotics Christ	IV Year	
6.	International Webinar on “Industry Links and Career Opportunities in University of New South Wales, Australia”	5/11/2020	webinar	Dr. Lisa Jamberlan, Professor & Associate Dean, University of New South Wales (UNSW), Australia”	IV YEAR	
7.	Skill Requirements for Industry 4.0	15/10/2020	webinar	Dr.P.PalPandian, Ph.D Program Co-ordinator Dept. Of Mechatronics & Robotics,Christ, Kengeri campus,Bangaore	II,III,final Year	
8.	Webinar on “Business Analytics with Tableau, R & Python Programming”	28/8/2020	webinar	.Mr.Swarup Dutta, Team Lead & Coach , Quest Skills, New Delhi	III Year	
9.	“Writing and Publishing Research Articles in SCI Journals – A Framework”	19/8/2020	webinar	Dr.P. PalPandian, Ph.D, Program Coordinator – Robotics and Mechatronics, School of Engineering & Technology	IV Year	
10.	Webinar on “Expectations of an IT industry from an Engineering Graduate”	31/7/2020	Webinar	.Mr. Sreenivasa Ramanujam, Academic Relationship Manager - Karnataka, Tata Consultancy Services (TCS)	II,IV,VI, VII	

11.	International Virtual Workshop on “Artificial Intelligence and Neural Network”	17/7/2020 to 19/7/2020	Technical Workshop	Mr. Bishwajit Pal .NetTech Lead, Cast Software (India) Pvt. Ltd, Bangalore2. Mr. Suman Roy Senior Project Manager & Developer Source Edge Software Technologies	IVYear	
12.	National Webinar on “Preparing for the Next Phase of your Career”	13/7/2020	Webinar	Mr.Karthik Mathiyalagan, Practice Leader – Cyber Threat Response Services, Network Security Delivery Team	IVYear	
13.	International Confidence of Advances in Computing Technologies	18/06/2020 & 19/06/2020	Seminar	Dr. Usha	IV year	
14.	FDP:Microcontroller and Embedded Systems	06/01/2021	FDP			
15.	Design Validation through Double Diamond Approach	13/01/2021	Webinar	Dr G Vinoth, M.S., Ph.D (U.S.A), Founder CEO & Chief Startup Designer, Pongu Ventures, Chennai.	III Year	
16.	Recent Innovations and Research Trends in Medical Research	4/02/2021	Webinar	Swathi Jagannath, M.S., Ph.D (USA)	IV Year	
17.	Lean Canvas – A Precursor to Business Model Canvas	27/02/2021	Seminar	Mrs. Preethi, B.E. M.S. (USA),Start up Venture Designer,Pongu Ventures, Chennai	III Year	
18.	“Women Entrepreneurship & Empowerment”	8/03/2021	Seminar	Mrs V Preethi, B.E., M.S (USA),Start up Venture Builder, Pongu Ventures Er. S. KalaiPriya,Founder - Love2Farm, Coimbatore	III Year	

19.	Motivational Talk cum Orientation Session	11/03/2021	Seminar	Dr.J.Amutharaj, M.E., Ph.D, FIE, FIETE, Professor and HoD – ISE Department MoE – Innovation Ambassador & President - RRIIC	III Year	
20.	Leadership Talk on Prototyping	17/03/2021	Seminar	Mr.Arun Venkatesh, CEO, Parts2 Product Mr. Sankaranarayan, CTO, Parts2 Product	IV Year	
21.	Innovative Research Ecosystem & Publishing Papers in High Impact Journals	26/03/2021	Webinar	Dr. Vijanth S Asirvadam, Associate Professor, Dept of EEE University Technology PATRONAS (UTP), Malaysia	Faculty	
22.	IPR and IP Management for start ups	27/03/2021	Webinar	Mr. O. Prasad Rao, Deputy Controller of Patents & Designs, Patents Office,	III Year	
23.	Mobile application development for innovation	11/3/2021	FDP	Mr. Sridhar Raghu Associate Engineer, Pseudo code, Bengaluru	Faculty	
24.	How to start a Start up – Legal & Ethical Steps	17/04/2021	Webinar	Dr.G.Vinoth, M.S., Ph.D (USA) CEO & Chief Start up Designer/Pongu Ventures (P) Ltd., Chennai.	IV Year	
25.	IoT based Innovative Applications for Healthcare and IoT for Medical Devices	22/06/2021	Webinar	Mr.Raghavendra Kulkarni Director, Cognizant Technology Solutions Bangalore.	IV Year	
26.	Innovative Skillset for Industry 4.0	26/06/2021	Webinar	Ms. Arpitha R System Engineer, Infosys Technologies, Bangalore	III Year	
27.	Japanese Career & Higher Education Opportunities	8/07/2021	webinar	Ms. Rama, Director – Operations Sakuraa Nohonga Resource Centre, Bangalore	IV Year	

28.	Block Chain Technology for Innovative Applications & Services	17/07/2021	webinar	Er. Ankayarkanni S, Senior Software Engineer, Torry Harris Business Solutions, Bangalore.	IV Year	
29.	E-commerce Innovations	21/07/2021	webinar	Dr. G.Vinoth, M.S., Ph.D, (USA), CEO & Chief Start up Designer, Pongu Ventures Private Ltd, Chennai. Mrs. B. Preethi, B.E. M.S.(USA) Start up Venture Developer, Pongu Ventures Private Ltd, Chennai.	IV year	
30.	Study Abroad – Made Easy	12/08/2021	webinar	Ms.Malavika Issar, Student Coach & Mentor, Mr.Aditya MiraniMentor, iSchool Connect,Mumbai.	II year	

Guest lecturer, expert lecturer, technical lecturer, technical Workshop (July 2020 -Aug21)						
Sl.No	GAP	Date	Action taken	Resource person with designation	% of students	Relevance to PO's and PSO's
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32.	Webinar on Expectations of an IT industry from an Engineering Graduate	31/8/2020	webinar	Mr. Sreenivasa Ramanujam, Academic Relationship Manager - Karnataka, Tata Consultancy Services (TCS) WhiteField, Bangalore.	II,III,IV Year	
33.	Writing and Publishing Research Articles in SCI Journals – A Framework	19/08/2020	webinar	Dr.P. PalPandian, Ph.D, Program Coordinator – Robotics and Mechatronics, School of Engineering & Technology, CHRIST (Deemed to be University), Bangalore.	IV Year	
34.	Business Analytics with Tableau, R & Python Programming	28/8/2020	webinar	Mr.Swarup Dutta, Team Lead & Coach , Quest Skills, New Delhi	IV Year	

35.	Skill Development for Industry 4.0	15/10/2020	webinar	Dr.P.PalPandian, Ph.D,Program Co-ordinator Dept. of Mechatronics & Robotics Christ	IV Year	
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37.	Skill Requirements for Industry 4.0	15/10/2020	webinar	Dr.P.PalPandian, Ph.D Program Co-ordinator Dept. Of Mechatronics & Robotics,Christ, Kengeri campus,Bangaore	II ,III,final Year	
38.	Webinar on “Business Analytics with Tableau, R & Python Programming”	28/8/2020	webinar	.Mr.Swarup Dutta, Team Lead & Coach , Quest Skills, New Delhi	III Year	
39.	“Writing and Publishing Research Articles in SCI Journals – A Framework”	19/8/2020	webinar	Dr.P. PalPandian, Ph.D, Program Coordinator – Robotics and Mechatronics, School of Engineering & Technology	IV Year	
40.	Webinar on “Expectations of an IT industry from an Engineering Graduate”	31/7/2020	Webinar	.Mr. Sreenivasa Ramanujam, Academic Relationship Manager - Karnataka, Tata Consultancy Services (TCS)	II,IV,VI, VII	



41.	International Virtual Workshop on “Artificial Intelligence and Neural Network”	17/7/2020 to 19/7/2020	Technical Workshop	Mr. Bishwajit Pal .NetTech Lead, Cast Software (India) Pvt. Ltd, Bangalore2. Mr. Suman Roy Senior Project Manager & Developer Source Edge Software Technologies	IVYear	
42.	National Webinar on “Preparing for the Next Phase of your Career”	13/7/2020	Webinar	Mr.Karthik Mathiyalagan, Practice Leader – Cyber Threat Response Services, Network Security Delivery Team	IVYear	
43.	International Confidence of Advances in Computing Technologies	18/06/2020 & 19/06/2020	Seminar	Dr. Usha	IV year	
44.	FDP:Microcontroller and Embedded Systems	06/01/2021	FDP			
45.	Design Validation through Double Diamond Approach	13/01/2021	Webinar	Dr G Vinoth, M.S., Ph.D (U.S.A), Founder CEO & Chief Startup Designer, Pongu Ventures, Chennai.	III Year	
46.	Recent Innovations and Research Trends in Medical Research	4/02/2021	Webinar	Swathi Jagannath, M.S., Ph.D (USA)	IV Year	
47.	Lean Canvas – A Precursor to Business Model Canvas	27/02/2021	Seminar	Mrs. Preethi, B.E. M.S. (USA),Start up Venture Designer,Pongu Ventures, Chennai	III Year	
48.	“Women Entrepreneurship & Empowerment”	8/03/2021	Seminar	Mrs V Preethi, B.E., M.S (USA),Start up Venture Builder, Pongu Ventures Er. S. Kalaipriya,Founder - Love2Farm, Coimbatore	III Year	

49.	Motivational Talk cum Orientation Session	11/03/2021	Seminar	Dr.J.Amutharaj, M.E., Ph.D, FIE, FIETE, Professor and HoD – ISE Department MoE – Innovation Ambassador & President - RRIIC	III Year	
50.	Leadership Talk on Prototyping	17/03/2021	Seminar	Mr.Arun Venkatesh, CEO, Parts2 Product Mr. Sankaranarayan, CTO, Parts2 Product	IV Year	
51.	Innovative Research Ecosystem & Publishing Papers in High Impact Journals	26/03/2021	Webinar	Dr. Vijanth S Asirvadam, Associate Professor, Dept of EEE University Technology PATRONAS (UTP), Malaysia	Faculty	
52.	IPR and IP Management for startups	27/03/2021	Webinar	Mr. O. Prasad Rao, Deputy Controller of Patents & Designs, Patents Office,	III Year	
53.	Mobile application development for innovation	11/3/2021	FDP	Mr. Sridhar Raghu Associate Engineer, Pseudo code, Bengaluru	Faculty	
54.	How to start a Start up – Legal & Ethical Steps	17/04/2021	Webinar	Dr.G.Vinoth, M.S., Ph.D (USA) CEO & Chief Start up Designer\Pongu Ventures (P) Ltd., Chennai.	IV Year	
55.	IoT based Innovative Applications for Healthcare and IoT for Medical Devices	22/06/2021	Webinar	Mr.Raghavendra Kulkarni Director, Cognizant Technology Solutions Bangalore.	IV Year	
56.	Innovative Skillset for Industry 4.0	26/06/2021	Webinar	Ms. Arpitha R System Engineer, Infosys Technologies, Bangalore	III Year	
57.	Japanese Career & Higher Education Opportunities	8/07/2021	webinar	Ms. Rama, Director – Operations Sakuraa Nohonga Resource Centre, Bangalore	IV Year	

58.	Block Chain Technology for Innovative Applications & Services	17/07/2021	webinar	Er. Ankayarkanni S, Senior Software Engineer, Torry Harris Business Solutions, Bangalore.	IV Year	
59.	E-commerce Innovations	21/07/2021	webinar	Dr. G.Vinoth, M.S., Ph.D, (USA), CEO & Chief Start up Designer, Pongu Ventures Private Ltd, Chennai. Mrs. B. Preethi, B.E. M.S.(USA) Start up Venture Developer, Pongu Ventures Private Ltd, Chennai.	IV year	
60.	Study Abroad – Made Easy	12/08/2021	webinar	Ms.Malavika Issar, Student Coach & Mentor, Mr.Aditya MiraniMentor, iSchool Connect,Mumbai.	II year	

The shortcoming of the syllabus is bridged by arranging guest lectures, expert lectures, technical talks and technical workshops. The details of guest lectures, expert lectures, technical talks and technical workshops conducted are given in the Table 2.1.1.6

## Subject wise Gaps and their relevance to POs:

Subject Code/ Scheme	Subject Name	Gap	Resource Person	Steps Taken	Date	Relevance to POs and PSOs
17PCD23	Programming in C and Data structures	Introduction to Hardware, Problem solving techniques	Dr. Neha	1.Demo Given in the lab for Hardware 2.Handouts for Algorithm and Flowchart are given	First week of the Semester beginning	PO1, PO2, PSO1,PSO 2
17CS32	Analog And Digital Electronics	1. VEM Technique 2. Explanation of Lab Components / Equipment 3. VHDL Coding 4. Simulation Tools	Ms Chaitra	1.Simplification explained 2.Lecture notes and demo given 3. Programs explained 4. Demo given	Regular practice during laboratory hours	PO1, PO3, PO5, PSO1, PSO2
17CS33	Data Structures and Applications	1. Application of Sorting and Searching Algorithms 2. Applications of Linked List	Mrs Ashwini R Malipatil	Explanation / implementation done in theory/Lab classes	Regular practice during laboratory hours	PO1, PO2, PO3, PO12, PSO1, PSO2
17CS34	Computer Organization	RISC and CISC architecture emphasis	Dr.Amutharaj J	Explanation / implementation done in theory	During regular classes	PO1, PO4, PO11, PSO1, PSO2
17CS35	Unix And Shell Programming	1. Introduction to various OS 2. Hands on UNIX commands, Shell programming, PERL scripts 3. Types of Editors, UNIX	Ms. Vinutha H	Explanation / implementation done in theory/Lab classes	During regular semester classes	PO2, PO3, PO5, PSO1, PSO2

		flavours				
17CS36	Discrete Mathematical Structures	Fundamentals of Set theory, Applications to Computer Science	Mr. Dinesh Kumar M	Extra classes on covering set theory fundamentals, Laws, operations, properties and applications	During first week of the semester	PO1, PO2, PSO1
17CS42	Object Oriented Concepts	1. Introduction to JDBC 2. IDE	Ms. Vinutha H	1. Bridge Course Conducted 2. Eclipse IDE Usage explained	One week Early to the commencement of the semester	PO1, PO2, PO3, PO5, PSO1, PSO2
17CS43	Design and Analysis Of Algorithms	Applications of algorithms	Mrs Ashwini R Malipatil	Demonstration through NPTEL Videos.	During the semester	PO2, PO3, PO12, PSO1

17CS44	Microprocessors and Microcontrollers	1. Overview of 8085 2. KIEL software	Ms. Chaitra S	1. Covered in introduction 2. Demo given	During the semester	PO1, PO5, PSO1, PSO2
17CS45	Software Engineering	SDLC – Case Study Software requirements application, Various SDLC models application	Ms. Rajeshwari S	Explanation done in theory classes	During regular semester classes	PO1, PO2, PO9, PSO1
17CS46	Data Communication	1. Connecting devices 2. Subnet, Supernet, CIDR	Dr. Amutharaj J	1. Demonstrated in Lab 2. Handouts given	During regular classes	PO1, PO2, PSO1
17CS51	Management and Entrepreneurship for IT Industry	Financial Institutes for start-ups	Ms. Vinutha H	Explained in regular class	During regular classes	PO6, PO8, PO11
17CS52	Computer Networks	1. NS-2/Wireshark tool 2. Security algorithms	Dr. Ananda Kumar K S	Hands on provided in Lab.	During the semester	PO1, PO2, PO5, PSO1
17CS53	Database Management System	1. Connectivity using JDBC 2. Frontend tools like VB, HTML, CSS	Mrs. Veda D	Demonstrated in Lab	During the semester	PO5, PO12, PSO1, PSO2
17CS551	Object Oriented Modelling Design		Ms. Rajeshwari S		During the semester	PO1, PO2, PO3, PO5, PO11, PSO1, PSO2
17CS562	Artificial Intelligence	Application of AI & Expert systems	Ms. Chaitra S	Invited lecture delivered.	During the semester	PO2, PO3, PO12, PSO1

17CS61	Cryptography, Network Security and Cyber Law	1. Cyber security and laws awareness	Mrs Ashwini R Malipatil	Notes on Indian IT act 2000 given.	During the semester	PO1, PO2, PSO1
17CS64	Operating Systems	1. Types of OS 2. Two-Process solution to solve critical section problems 3. Examples and problems in race condition	Mrs Vinutha H	1. Explained 2. Demonstrated in Lab with C programs	During the semester	PO1, PO2, PO3, PSO1
17CS651	Data Mining And Data Warehousing	Case studies	Mr. Dinesh Kumar M	Group discussion in class.	During the semester	PO1, PO2, PO3, PO9, PSO1
17CS664	Python Application Programming	Data structure representation	Mrs. Veda D	Demonstrated programs in Lab.	During the semester	PO1, PO2, PO3, PSO1

17CS71	Web Technology and Its Applications	Installation and configuration of XAMPP server	Mrs. Rajeshwari S	Explained and provided XAMPP Manuals	During Regular Lab	PO1, PO2, PO3, PSO1, PSO2
17IS72	Software Architecture And Design Patterns	Implementation of Library System	Mrs. Ashwini R Malipatil	Source code provided	During the semester	PO1, PO2, PO3, PSO1, PSO2
17CS73	Machine Learning	Data Science Concept	Mr. Dinesh Kumar M	1. Lecture notes given 2. Assignment and lab implementation	During the semester	PO1, PO2, PO3, PO5, PO12, PSO1, PSO2
17CS753	Information Management System		Mrs. Neha Singhal		During the semester	

Subject Code/ Scheme	Subject Name	Gap	Resource Person	Steps Taken	Date	Relevance to POs and PSOs
15PCD13/23	PCD	Introduction to Hardware, Problem solving techniques		1.Demo Given in the lab for Hardware 2.Handouts for Algorithm and Flowcharts given	First week of the Semester beginning	PO1, PO2, PSO1, PSO2
15CS32	Analog And Digital Electronics	1. VEM Technique 2. Explanation of Lab Components / equipment 3. VHDL Coding 4. Simulation Tools	Ms.Chaithra.S	1.Simplification explained 2.Lecture notes and demo given 3. Programs explained 4. Demo given	Regular practice during laboratory hours	PO1, PO3, PO5, PSO1, PSO2

15CS33	Data Structures and Applications	1. Application of Sorting and Searching Algorithms 2. Applications of Linked List	Ms.Ashwini R Malipati	Explanation / implementation done in theory/Lab classes	Regular practice during laboratory hours	PO1, PO2, PO3, PO12, PSO1, PSO2
15CS34	Computer Organization	RISC and CISC architecture emphasis	Dr.Amutharaj J	Explanation / implementation done in theory	During regular classes	PO1, PO4, PO11, PSO1, PSO2

15CS35	Unix And Shell Programming	1. Introduction to various OS 2. Hands on UNIX commands, Shell programming, PERL scripts 3. Types of Editors, UNIX flavors	Ms.Vinutha.H	Explanation / implementation done in theory/Lab classes	During regular semester classes	PO2, PO3, PO5, PSO1, PSO2
15CS36	Discrete Mathematical Structures	Fundamentals of Set theory, Applications to Computer Science	Mr.Dinesh Kumar	Extra classes on covering set theory fundamentals, Laws, operations, properties and applications	During first week of the semester	PO1, PO2, PSO1
15CS42	Software Engineering	SDLC – Case Study Software requirements application, Various SDLC models application	Ms.Rajeshwari S	Explanation done in theory classes	During regular semester classes	PO1, PO2, PO9, PSO1
15CS43	Design and Analysis Of Algorithms	Applications of algorithms	Ms.Ashwini R Malipati	Demonstration through NPTEL Videos.	During the semester	PO2, PO3, PO12, PSO1
15CS44	Microprocessors and Microcontrollers	1. Overview of 8085 2. KIEL software	Ms.Chaitra	1. Covered in introduction 2. Demo given	During the semester	PO1, PO5, PSO1, PSO2
15CS45	Object Oriented Concepts	1. Introduction to JDBC 2. IDE	Mr.Ananda Kumar K S	1. Bridge Course Conducted 2. Eclipse IDE Usage explained	One week Early to the commencement of the semester	PO1, PO2, PO3, PO5, PSO1, PSO2
15CS46	Data Communication	1. Connecting devices 2. Subnet, Supernet, CIDR	DR.Amutharaj	1. Demonstrated in Lab 2. Handouts given	During regular classes	PO1, PO2, PSO1
15CS51	Management And Entrepreneurship For IT Industry	1. Financial Institutes for start-ups	Mr.Dinesh Kumar	Explained in regular class	During regular classes	PO6, PO8, PO11

15CS52	Computer Networks	1. NS-2/Wireshark tool 2. Security algorithms	Mr.Ananda Kumar K.S	Hands on provided in Lab.	During the semester	PO1, PO2, PO5, PSO1
15CS53	Database Management System	1. Connectivity using JDBC 2. Frontend tools like VB,HTML,CSS	Mr.Neha Singhal	Demonstrated in Lab	During the semester	PO5, PO12, PSO1, PSO2

15CS54	Automata Theory and Computability	1. Grammar to model conversion application. 2. Usage of RE in Unix or Linux	Dr.Bala Krishna.R	Problems are explained Lecture notes given Students implemented Excercise problems	During the semester	PO1, PO2, PO5, PSO1, PSO2
15CS551	Object Oriented Analysis & Design		Ms Rajeshwari S			
15CS564	Dot Net Framework For Application Development		Mrs.Veda .D	Invited lecture delivered.	During the semester	PO2, PO3, PO12, PSO1
15CS61	Cryptography, Network Security and Cyber Law	1. Cyber security and laws awareness	Ms.Ashwini R Malipati	Notes on Indian IT act 2000 given.	During the semester	PO1, PO2, PSO1
15CS64	Operating Systems	1. Types of OS 2. Two-Process solution to solve critical section problems 3. Examples and problems in race condition	Ms.Ashwini R Malipati	1.Explained 2. Demonstrated in Lab with C programs	During the semester	PO1, PO2, PO3, PSO1
15CS651	Data Mining And Data Warehousing	Case studies	Mr.Dinesh Kumar M	Group discussion in class	During the semester	PO1, PO2, PO3, PO9, PSO1
15CS661	Python Application Programming	Data structure representation	Ms.Vinutha	Demonstrated programs in Lab.	During the semester	PO1, PO2, PO3, PSO1
15CS71	Web Technology and Its Applications	Installation and configuration of XAMPP server	Ms Rajeshwari S	Explained and provided XAMPP Manuals	During Regular Lab	PO1, PO2, PO3, PSO1, PSO2
15IS72	Software Architecture And Design Patterns	Implementation of Library System	Ms.Ashwini R Malipati	Demonstrated in lab.	During the semester	PO1, PO2, PO3, PSO1, PSO2
15CS73	Machine Learning	Data Science Concept	Mr.Dinesh Kumar M	1. Lecture notes given	During the semester	PO1, PO2,

				2. Assignment and lab implementation		PO3, PO5, PO12, PSO1, PSO2
15CS744	Unix System Programming		Mr.AnandKumar K.S		During the semester	PO1, PO2, PO3, PSO1, PSO2



Subject Name	Gap	Resource Person	Steps Taken	Date	Relevance to POs and PSOs
Data Structures and Applications		Mrs.Rajani S			
Analog and Digital Electronics		Mrs.Sowmya M			
Computer Organization		Dr.Amutharaj J			
Software Engineering		Dr.Neha Singhal			
Discrete Mathematical Structures		Mr.DineshKumar M			
Design and Analysis of Algorithms		Mrs Rajani S			
Operating Systems		Dr.Neha Singhal			
Microcontroller and Embedded Systems		Mrs Sowmya			

Object Oriented Concepts		Mrs T.RathiDev			
Data Communication		Mrs.Rashmi H			
Management, Entrepreneurship for IT industry		Ms.Bhoomika K S			
Computer Networks and Security		Dr Amutharaj J			
Database Management System		Dr.NehaSinghal			
Automata theory and Computability		Dr.RBalakrishna			
Application Development using Python		Mrs.Rajani S			

Unix Programming		Mrs.Rathidevi T			
File structures		Prof.Bhoomika K.S			
Software Testing		Prof.Priyanka. S			
Web Technology and its applications		Prof.Rathidevi T			
Data Mining and Data Warehousing		Prof.M.Dinesh Kumar			
Renewable Energy Sources		Dr.P.Ebby Darney			
Non-Conventional Energy Sources		Dr.Satheesha			

Mobile Application Development		Dr.Neha Singhal			
Artificial Intelligence and Machine Learning		Mr Dineshkumar M			
Big Data Analytics		Ms.Bhoomika K S			
User Interface Design		Ms S. Priyanka			
Cryptography		Mrs.Rashmi			
Energy & Environment		Dr.N.Sreenivas alu Reddy			
Internet of Things		Mr Dineshkumar M			

Mobile Computing		Ms S. Priyanka			
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Creative projects														
Guest Lectures/ Technical Talks/ Demonstrations	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Workshops	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Industrial Visits & Internships		✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓

**Table 2.1.2.1: Mapping of Content beyond Syllabus with POs and PSOs**

## Events conducted in department during July 2020-Aug 21

Sl.no	Invited Scholar Name	Title of Lecture deliver	% of students attended	Date of lecture	outcome
1.	Mr. R. Gopinath Rao, IEDS, Dy Director, MSME Development Institute, Bangalore	Webinar on MSME Schemes and Entrepreneurship	III year	17th July 2020	Basic laws of India which every entrepreneur needs to know to succeed as an entrepreneur, different types of entrepreneurs and financial schemes available with MSME.
2.	Mr. Sreenivasa Ramanujam, Academic Relationship Manager - Karnataka, Tata Consultancy Services (TCS) WhiteField, Bangalore	Webinar on “Expectations of an IT industry from an Engineering Graduate”	II Year	31st July 2020	Interview Process, Importance of Academic Performance, Importance of Technical Knowledge and Programming Skills, Fine tuning of Communicative English, How to prepare for the Interview, Drafting a better Resume, Project work, Mini Projects, Involvement in Professional Activities
3.	Dr.P. PalPandian, Ph.D, Program Coordinator – Robotics and Mechatronics, School of Engineering & Technology, CHRIST (Deemed to be University), Bangalore.	Webinar on “Writing and Publishing Research Articles in SCI Journals – A Framework”	IV Year	19th August 2020	Need for Publishing Research Articles & paper How to prepare before writing the manuscript & Data gathering Choosing appropriate title and writing better abstract
4.	Mr.Swarup Dutta, Team Lead & Coach , Quest Skills, New Delhi	Webinar on “Business Analytics with Tableau, R & Python Programming”	IV Year	28th August 2020	Data Science and Big Data Analytics Applications of Data Science & usage in the business Business Analytics & its widespread use in the online business
5.	Mr.George.M.Schulligen , Retired V.P. Mercedes Benz, Germany.	Webinar on Automotives & Spare Parts	IV Year	1/8/2020	importance of effective communication, body language& a professional resume too
6.	Dr. Om Deshmukh, CEO, TildeHat.	“Webinar on Demystifyin	III Year	Sep 19th 2020	Important techniques aspects and methodologies of data Science .

		g Data Sciences”			Research and future directions of Data Science Driven Product.
7.	Mr.AkashRaju.M, Co-founder, Paper Projects.	How Web Works	III Year	Oct 17th 2020	Tele Geography, Submarine cable map work flow. Important techniques aspects and methodologies used to develop website.
8.	Mr.Karthick HR Manager, HR Manager  Ms. THEJASWI HR Head,Rajdeep Info Techno	A Power Seminar On “Industry 4.0 Employers Expectations On Fresh Engineering Graduates”.	IV Year	07-11-2020	The programme educated the students on the methods to improve their skill sets as expected by the industry and made them understand current industry trends and future of job.
9.	Mr. Kanagal Raj. R	International Webinar on “Enterprise Mobile Computers”	III Year	26th November 2020	Students and faculties can understand about the Mobile computers available in the market for the Enterprise environment. Students and faculties can understand the software’s used in the Mobile computers, how they will communicate each other, types of inputs for Mobile computers and how it is reading the inputs.
10.	Dr.Sujatha Anbunathan.T, Associate Professor, CSE, Hindusthan Institute of Technology, Coimbatore	Webinar on Take the First Step towards Machine Learning	IV Year	November 27th 2020	Machine learning algorithms build a model based on sample data, known as “training data”. Machine learning algorithms are used in a wide variety of applications. A subset of machine learning is closely related to computational statistic, which focuses on making predictions using computers;
11.	Dr.G.Vinoth, B.E,M.S,Ph.D (Startup Venture Designer), Pongu Ventures	Workshop Problem Solving and Ideation	IV Year	November 28th 2020	Students and faculty members are brainstorming on Problem Identification and assess the business potential, solution methodologies with hands on session on

					Ideation process. Student & faculty members are given orientation on best practices to be followed in ideation and better team building.
12.	Dr. A. Neela Madheshwari, Professor, CSE, Mahindra Engineering College, Namakkal.	Webinar on “Importance of Intellectual Property Rights”	IV Year	December 10th 2020	Essential Elements of Intellectual Property Rights. Patents for inventions, Copyrights for material, Trademarks for broad identity and Trade secrets. Intellectual Property is an asset that can be bought or sold, licensed and exchanged.
13.	Dr.T.Subha, Associate Professor, ISE, Sri Sai Ram Engineering College, Chennai.	Webinar on “A Beginner’s Guide to Data Science”	II Year	December 11th 2020	Extracting insights from vast amounts of data by the use of various scientific methods, algorithms, and processes. It helps you to discover hidden patterns from the raw data. The evolution of mathematical statistics, data analysis, and big data
14.	Dr.R.Ranjana, Associate Professor, ISE, Sri Sai Ram Engineering College, Chennai.	Webinar on “Virtual recruitment and employability”	IV Year	December 18th 2020	Virtual recruitment and employability is a hiring process that takes place remotely, without meeting the candidates face to face. It helps you to attend the virtual Recruitment. Give a Structure to your Hiring Process.
15.	Mr.Karthik, Developer and Academic, Head of Sookshmas Ms.Rashmi, Full Stack Developer	Webinar on Importance of Self Learning – Introduction to Sookshmas	III Year	23rd December 2020	It helps for students how to create web page with database(frontend and backend)
16.	Dr.Rajkumar, SRM Institute of technology Aditya.S.KTeqip Lab,	Fdp on Augmented Reality/Virtual Reality	25	15/2/2021-19/2/2021	Hands-on on AR and VR. Use Vuforia to make an AR sc
17.	Jointly organized by Centre for Research and Innovation & RajaRajeswari Institution Innovation	International Research and Innovation Webinar on “Innovative	35	26th March 2021	It helps for faculties and research scholars how to publish in journals.

	Council (RRIIC)	Research Ecosystem & Publishing Papers in High Impact Journals”			
18.	G.S Kumar ,Career Coach & Job Search Consultant	Webinar ON Job Search Opportunity During COVID-19”	IV Year	April 1 st 2021	It helps you to understand free internship in details. It helps you to attend free online Education(Technical and Non-Technical) Give Fastest Growing Industries in India and Top Skills to learns.
19.	Mr. Shekar Suman Soft skills Trainer,  and Mrs. Priyadharshini Technical trainer	Employability Skill Training in Trending Technology on My SQL Database & Soft skills	III Year	15-03-2021 to 05-04-2021	The programmed educated the students on the methods to improve their soft skill sets and technical program as expected by the industry and made them understand current industry trends and future of job.
20.	Mr. Sridhar Raghu, Associate Engineer,Pseudo code, Bengaluru	MOBILE Application Development for Innovation( FDP)	III Year	05/4/2021 to 09/04/2021	Develop Innovative Mobile App Solutions for the Industrial and Societal Problems.
21.	Mr. Supreeth, Tequed Labs, Bangalore, India. Mr. Aravind, Tequed Labs, Bangalore, India.	WEBINAR “Orientation : Summer Internship 2021”	III Year	18th May 2021	This orientation program is aimed at empowering the students by exposing them to different Industry ready skill to which they were unawares.
22.	Mr.CHAITHANYA.P HITACHI SOLUTIONS	ALUMINI TALK CRM Introduction and Overview of Microsoft Dynamics 365	II Year	05/06/2021	Improve project management Improve operational efficiency
23.	Mr.Naveen Chander C, Founder – 3Q SUTANTRA	Power talk on Innovative Career Opportuniti	III Year		Fundamentals of objective setting of their career, 5 Why Implement to analyze the Root of requirements. 5W1H tool to understand

		es				the 2nd level of Career setting path.
24.	Dr. Ganesh Kumar. C, Faculty, IIPM.	Webinar on Digital Marketing	III Year	10th June 2021		Fundamental idea about digital marketing  Digital marketing requirements and its importance.  Future of digital marketing career for students.
25.	Mr.P.Ramesh B.E.MTech, (PhD) GATE/ESE TRAINER, ACE Engineering Academy ,Bangalore	Webinar on Career Guidance - Preparing Youth to succeed	III Year	03rd July 2021		Important subjects and marks distribution for GATE-PSU's – CS

Table 2.1.2.2 Events conducted in department during July 2020-Aug 21

## Events conducted in department during July 2019-Aug 2020

Sl. No	Invited Scholar Name	Title Of Lecture Deliver	% Of Students Attended	Date Of Lecture	Outcome
1.	Mr.Nirmal Kumar, ICT Academy,Chennai	FDP Program On “Salesforce Essentials For Business Specialists”	CSE Faculty	22/07/2019 To 26/07/2019	<ul style="list-style-type: none"> <li>Data Security</li> <li>Sales And Marketing Managers</li> </ul>
2.	VANI INSTITUTE Bangalore.	Career Guidance Programme On Higher Education	III Year CSE Students	6th August 2019	<ul style="list-style-type: none"> <li>Competitive Exam Preparations For Doing M.S Or M.B.A In Abroad</li> <li>Preparation Ideas For GRE, TOFEL, IELTS,GATE Examinations</li> <li>Internship And</li> </ul>

					<p>Scholarship For The Meritorious Students</p> <p>Materials To Be Referred For The Preparation &amp; Internet Resources</p> <ul style="list-style-type: none"> <li>Job Opportunities In Abroad After MBA Or M.S Abroad</li> </ul>
3.	Mrs.Bhanu Dasgupta,CRM, Salesforce,India	Salesforce Faculty Interaction Meet 2019		08 August 2019	Benefits Of Taking Up And Completing This Course In Terms For Placements For The Final Year Students And Very Promising Internship For The Pre-Final Year Students.
4.	<p>Mr.Mahesh Narayan Senior Principal, AA&amp;AI Team Global Consulting Firm</p> <p>Mr.Vishwanadh Raju Global Head Talent Acquisition, Axiscades</p>	Seminar On “EMPLOYABILITY SKILLS FOR THE FUTURE”	Third Year Students	24th August 2019	<p>ICT Academy Conducted A Power Seminar On Employability Skills For The Future At RRCE On 24th August 2019. The One-Day Programme Educated The Students On The Methods To Improve Their Skill Sets As Expected By The Industry And Made Them Understand Current Industry Trends And Future Of Job.</p>
5.	Mr. R.S. Sachin Kumar, Regional Program Manager- AP&J, Vmware, IT Academy	Academic Community Meet 2019 On “Mware IT Academy”		6th September 2019	
6.	ENGINOMATIC & DEVELOPHOWTO INDIA	SDP – “3 DAYS HANDS-ON TRAINING	143 Students	4 Th SEP To 6th SEP 2019	Creation Of Github Profile And Update Files.



		WORKSHOP ON WEB DEVELOPMENT “			2. Built A Personal Portfolio Website.
7.	Dr.Kalpana Gopalan IAS Additional Chief Secretary Department Of Youth Empowerment And Sports Government Of Karnataka.	Bridge Event On “THE LARGEST INDUSTRY INSTITUTE INTERACTION EVENT OF INDIA”		24 September 2019	
8.	Mr. Mohan, Digital Shark Technology, Bengaluru.	“Technical Talk” On Artificial Intelligence And Its Applications”	: 4 Th Year UG Students.	- 30/09/2019	Gained Knowledge About Artificial Intelligence And Its Applications. Discussed About Deep Learning.→ Overview About Different Sensors And Internet Of Things.→ Discussed About Machine Learning Concepts.→
9.	Ms. Farheen Farhath And Mr. Asif Akhter, Electrical Engineer, Prinston Smart Engineers, New-Delhi.	Technical Seminar On User-Interface Development And Scope Of IT In The Software Field	Second Year UG Students.	11/10/2019	Discussed About The Gap Between Fresher And Industry. ➤ Importance Of The Placement. ➤ Hands On Session With The Web Page Development.
10.	Mr.Rahul & Mr.Vishwanath,Livewire ,Bangalore	Career Guidance Program On LIVEWIRE Career Guidance Program On 22-10-19	CSE Pre-Final Year Students	On 22-10-19	Knowledge On Aptitude
11.	Teaching Faculty And Students Of CSE Department	Educational Outreach Program 2019”	35 Students ( 6th And 7th Standard)	7th November 2019;	This Program Will Be A Platform For Government School Students To Learn And Explore About Computer And Its Applications Like Microsoft Word, Excel And Power-Point Presentation. The Educational Outreach Program Is Intended To Encourage Learning And This Will Lead To Enhance The

					Generic Knowledge Among Student Communities And To Inspire The Developing Students With Better Exposure Of Computer And Its Applications.
12.	Mr. S R Deviyaprasanth Sr. Technical Trainer – ICT Academy, Bengaluru.	Student Workshop Program On “SALESFORCE BUSINESS ESSENTIAL-ADX 201”	53 Students	04/11/2019 To 09/11/2019	Customize Your Application, Including Page Layouts, Fields, Tabs, And Business Processes In Lightning Experience. Learn How Security Settings Created In Salesforce Classic Are Applied In Lightning. Maintain And Import Clean Data In Lightning. Use Lightning Features To Create High-Value Reports And Dashboards Understand How Workflow Automation Complies With Lightning
13.	RRCE –CSE Department	National Level Technical; Symposium TRIGGER 2K19	ALL CSE Students	14th November 2019	Technical Event: 1. Block Coding 2. Technical Quiz 3. Web Design 4. Ideathon Non- Technical Event: Gaming: Pubg Call Of Duty NFS Eat And Win Triple Tango Photograph
14.	Mr. Vishram Thatte, Technical Project Manager, AWS Academy	FDP On “AWS Certified Cloud Practitioner	20 Students	09/12/2019 To 13/12/2019	The Outcomes Are To Provide The AWS Global Infrastructure, Category Overview, Examine

					The AWS Global Infrastructure, Understand The Difference Between AWS Regions, Availability Zones (Azs), And Edge Locations. It Is One Of The Most Popular Tools Used By Statisticians, Data Analysts, Research Marketers To Retrieve, Clean, Analyze, Visualize And Present Data Of Well Framework, Well Due To Its Expressive Syntax And Easy Recent Years
15	All The Teaching Faculties Of CSE & ECE	Five Day Training Program On “OUTCOME BASED EDUCATION (OBE) AND NBA ACCREDITATION”		20th -24th January, 2020	
16	Mrs.T.Subha, Associate Professor/IT, SSEC	SDP On “Introduction To Machine Learning”	170 Participants	17thfeb – 22nd FEB 2020	Introduction To Python, Numpy And Pandas Gradient Descent Data Visualization, Data Pre-Processing (Handling Missing Data, Data Cleaning, Transformation), Implementation Of Gradient Descent Linear Regression With Multiple Variables
17					The Outcome Of The Programme Was To Create Awareness Among Students About Basic Computer Hardware And Its Functionality And Educate Them

						Basic Word Processes And Power Point Presentation Skills Using MS Office Application.
18	Teaching Staff, Non-Teaching Staff And Students Of CSE Department	Educational Outreach Program 2020	60 Students(5th And 6th Standard)	17th February 2020		The Outcome Of The Programme Was To Create Awareness Among Students About Basic Computer Hardware And Its Functionality And Educate Them Basic Word Processes And Power Point Presentation Skills Using MS Office Application.
19	: Ms. Kamatchi Devi Sr.Technical Trainer – ICT Academy, Bengaluru.	A Workshop On “Salesforce Declarative Development For Platform App Builders (DEV 402).”	53 Students	25/02/2020 To 29/02/2020		Design And Manage The Correct Data Model Based On Business Requirements. It’s A Must For New Administrators, And We Recommend Completing This Course Before Starting A Salesforce Deployment Or When Taking Over An Existing Deployment. This Means That User Interface Design Isn’t About How A Product Looks, But Rather About How It Works. It’s Not Just About Arranging Buttons And Picking Colors, But Rather About Choosing The Right Tools For The Job.
20	Hemanko Baidya	Current Market Trends	III & IV YEAR	04/05/2020		

			STUDE NTS.		
21	Usha Rani J	Java Coding	III & IV YEAR STUDE NTS.	05/05/202 0	
22	Akash Mannari	Career Option After Engineering	III & IV YEAR STUDE NTS.	06/05/202 0	
23	Gaurav Singh	Life With Machine Learning	III & IV YEAR STUDE NTS.	07/05/202 0	
24	Manjunath Ms	Performance Optimization Using Reactjs	III & IV YEAR STUDE NTS.	08/05/202 0	
25	Rajkumar Kaliamani Sr System Engineer Infosys	Webinar On Getting Started With Web		11/05/202 0	
26	Joel A J Sr. Rpa Developer RR Donnelley	Webinar On Python		12/05/202 0	
27	Balaji S Technical Head Oneyes Technologies	Webinar On Robotics		13/05/202 0	
28	Bharath Sekar Android Developer Assetpulse	Webinar On Android App Development		14/05/202 0	
29	Soorya V Sr. Application Developer Vikudha Overseas Corporation	Webinar On Web Dev And Latest Technology		15/05/202 0	
30	KSCST Project	KSCST Project	Final Year Students	23/05/202 0	
31	1) Mr.Joshi Kumar, Practice Lead, Robotics, QBE Insurance ,Singapore 2) Mr. Arul Bharathi, Senior Data Scientist, Realtor.Com, Canada	Webinar On “A New Era Of Data Science”	Registere d : 450 Participa nts Across India Attended : 253 Participa nts Are Benefited From The Webinar	26/05/202 0	Science And Technologies

32	Gomathy Periathiruvadi, Management Consultant, AT&T, Yoga Trainer (SKY System For Meditation), Texas, USA	Webinar On Successfully Managing Stress During Lock Down	Registered : 700 Participants Across Globe (7 Each From USA And Malaysia ) Attended : 370 Participants Are Benefited From The Webinar	28/05/2020	
33	Dr. B. Janet, National Institute Of Technology Tiruchirappalli	Introduction To Deep Learning And Algorithms		08/06/2020 To 12/06/2020	
34	Dr. K. Nandhini, Central University Of Tamil Nadu, Thiruvavur	Introduction To Deep Learning And Algorithms		08/06/2020 To 12/06/2020	
35	Dr. J. Jayapriya, Manonmaniam Sundaranar University, Tirunelveli	Emerging Challenges Of Deep Learning In Bioinformatics		08/06/2020 To 12/06/2020	
36	Mr. Gopinath Rao, IDES, Deputy Director, MSME Development Institute , Ministry Of MSME, Govt Of India	Webinar On “ MSME Schemes And Entrepreneurship	300 Participants	July 17th 2020	
37	Mr. Sreenivasa Ramanujam, Academic Relationship Manager - Karnataka, Tata Consultancy Services (TCS) Whitefield, Bangalore.	Webinar On “Expectations Of An IT Industry From An Engineering Graduate		31st July 2020	
38	Dr.P. Palpandian, Ph.D, Program Coordinator – Robotics And Mechatronics, School Of Engineering & Technology, CHRIST (Deemed To Be University), Bangalore.	Webinar On “Writing And Publishing Research Articles In SCI Journals – A Framework”		19th August 2020	

39	Mr.Swarup Dutta, Team Lead & Coach , Quest Skills, New Delhi EVENT DURATION : 28th August 2020 (11.00 A.M)	Webinar On “Business Analytics With Tableau, R & Python Programming”		28th August 2020	
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Table 2.1.2.3 Events conducted in department during July 2019-Aug 2020

## Events conducted in department during July 2018-Aug 19

Sl.no	Invited Scholar Name	Title of Lecture deliver	% of students attended	Date of lecture	outcome
1.	Mr. Srinivas, Scientist	Industrial Visit to ISRO Satellite Centre		24/08/2018	Gained Knowledge of application of remote sensing in agriculture, weather monitoring, Disaster Recovery etc. To differentiate between PSLV and GSLV.  Gained knowledge about TV Broadcast mechanism with the help of demo model.  Gained knowledge about different Satellites.
2.	Dr GuruPrasad N, Professor, New Horizon College of Engineering, Bengaluru	Guest Lecture on How to Plan and Prepare for Campus Placement ”		25th August 2018	Top 10 Company profiles. Time Management. Aptitude Skills Required for Placements. Group Discussion on Current Affairs.
3.	Supreeth Y S & Aditya , Preva Systems Ltd,Bengaluru.	“3-Days SDP on IoT”		30/08/2018-01/09/2018	Applications of IOT in :Smart Cities, Smart Homes ,Smart Agriculture ,Smart Transportation Smart Healthcare  Introduction and Hands on session with ESP8266 NodeMCU, Sensors (IR-sensor, LDR sensor,DHT).
4.	Mr.Deek Parassini, Motivational Speaker & Positivity Influencer,Abu Dhabi ,UAE.	Motivational Talk – Life is all Positive		7th September 2018	How to lead a positive life
5.	Dr Sunil, Professor, International Business School, Bangalore	Motivational Talk – Campus to corporate		25th September 2018	This session was all about to Motivate students and guide them to positivity, This was

					more of Q&A session where many students asked their personal and professional life questions and got positive replies and motivated. This was a great step to shape the future of students.
6.	Mr Tokola Durga Rao Senior Technical Manager Oracle, Bengaluru.	Guest lecturer- Database Management Systems	140 Students from third year of CSE	29/09/2018	Learnt the design of frontend and backend with JDBC and ODBC connection with basics of DBMS including the schema diagram.
7.	Mr. Shanmugavel and Mr. Hariprasath, IT Trainer – ICT Academy, Chenn	SDP On “Cloud Computing Architecture raining”	109 Students.	01/10/2018 to 05/10/2018	The objectives are to provide the AWS Global Infrastructure, AWS Service and Service Category Overview, Examine the AWS Global Infrastructure, Understand the Difference between AWS Regions, Availability Zones (Azs), and Edge Locations.
8.	RRCE	Trigger 2K18	All RRCE students	26 October 2018	Department of CSE is conducting National Level Technical Symposium Trigger 2K18 on 26 October 2018
9.	Mr.Anil Nair, Founder and CEO, AnilNairClasses.com, Hyderabad. (Former Academic Head – Career Launcher, Bangalore)	Placement Training Programme	IV and final year CSE Students	30th – 31st October 2018	Career Options for Engineering Graduates after Graduation Importance and Usage of Aptitude Problem Solving Skills for Competitive Examinations Tips to prepare for Competitive Examinations
10	Dr. Punal M Arabi Head of Bio Medical Department ACS College of Engineering.	MINI PROJECT EXPO – 2018	26 Teams (100 students) from 3rd and 5th sem	02 Nov 2018	CSE Department is conducting Mini Project Exhibition since last four years keeping in mind the pursuance of student’s natural curiosity and imagination to showcase their creativity. This exhibition is also providing an unique platform to the participating students for their innovations and new experiences with the



					community.
11	Mr. Jayakrishnan C P	Industrial Visit to ICAT	Pre Final Year UG Students	14/11/2018	Gained Knowledge of Gaming Industry. Gave an Overview of different tools and software used in mobile and film industry for creation of games and animation effects.
12	-----	AWS Certification Test	-----	19 November 2018.	-----
13	Mrs. Poonam Kumari M.tech, (Ph.D) Research Schoaar, ACS Coaaege of Engineering, Bangaore.	Expert Lecture on “Discrete Mathematcaa Structures”		19th November 2018	Gained Fundamentaa Knowaedge about the Discrete Mathematcaa Structures and their appaicatons to soave reaa aife probaems Soaving the probaems on Principae of Incausion-Excausion.ω
14	Mr. Azib, Technical Lead, Tequed Labs, Bangalore	FDP on Explainable Artificial Intelligence and the Future	25 students	19th – 23rd Nov 2018	The outcomes are to provide to learn about concepts.
15	Dr. Naveen N C, Prof and HOD, JSSAT Bangalore.	Guest Lecture on Machine Learning	UG final year students of CSE department, 96 Students	30/11/18	The outcome of the workshop was to bring out the advanced Concept of Machine Learning Techniques.
16	Supreeth Y S & Aditya Tequeds Lab,Bengaluru	Days Faculty Development Program- Data Sciences Using R	CSE Faculties	24/01/2019-31/01/2019	Hands on Sessions using R studio. R Environment and Basic Commands Creating Calculated Fields Sorting→ Data Exploration Validation and Cleaning
17	Dr.Peturaj Chelliah, Chief Architect, Reliance Jio, Bangalore	SDP on Cloud Computing and Network Security		11th FEB – 15th FEB 2019	Unauthorized Access. Insecure Interfaces/APIs. Hijacking of Accounts
18	Ms. Manjit Saini and Team	Training session on - India Smart City Micro Accelerator Program - UC Berkeley		25/02/2019 To 01/03/2019	
19	Mr Amin Sama, Network Security Engineer, X-Ciencia Technologies India Pvt Ltd	Technical Talk on-BLOCK CHAIN TECHNOLOGY	Final Year UG Students.	02/03/2019	Gained Knowledge of the technology. Provided with the different insights of the technology.  Educated with the different

					<p>applications of the technology.</p> <p>Hands on session with the application development was provided.→</p>
20	IISc Professors and Students	Industrial Visit to IISc OPEN DAY	3 nd year UG Students	23/03/2019	<p>Gained Knowledge of application of Robotics in various domains. Online quizzes enriched the knowledge on current affairs. Our student Ms. Apoorva→ D P of 6th sem A section won the prize. Gained knowledge about Machine learning techniques.→</p>
21	Teaching faculty, Non-teaching faculty and students of CSE Department	Educational Outreach Programme	50 students 6th and 7th standard	28-03-2019	<p>To create awareness among students about basic computer hardware and its functionality and to educate them about basic word processes and power point presentations, paint skills using MS Office applications.</p>
22		To create awareness among students about basic computer hardware and its functionality and to educate them about basic word processes and power point presentations, paint skills using MS Office applications.	UG/PG students of all related Engineering fields are invited to participate	10th April 2019	<p>In code storm is related to programming, many students have participated in this event and executed given problem statement. In idea presentation – different groups of different college's students with different innovative ideas were presented. This event has created a common platform to present the work done in their academic. QUIZ and DEBATE events for students to present their talents</p>

23	Gireesh H R, Senior Software Engineer, Western Digital Bangalore Pvt Ltd	Workshop on Big Data & Hadoop Two Days	80students	4th , 13th April 2019	Big data and Data and hadoop Workshop, hands-on program trained students how to Design and work with different hadoop tools.Training program taught the philosophy of working with Big Data environment. By the end of the program each student was able to build their own mapper and reducer programs and were comfortable in working with different hadoop tools. Also students got confidence in working with Big data environment.
24	Dr. J Anitha, Professor, Dept. of CSE, DSATM,Bengaluru Mr. SelvaRaju, Corporate Trainer, Bengaluru	Project Expo 2019	CSE , ISE, MCA Students and Faculties	22nd May 2019	CSE Department is conducting Final Year Project Exhibition since last four years keeping in mind the pursuance of student's natural curiosity and imagination to showcase their creativity. This exhibition is also providing an unique platform to the participating students for their innovations and new experiences with the community. Overall PROJECT EXPO 2019, highly motivated the other students, apart from the participants to come up with their ideas in the future.
25	Department of CSE	Educational Outreach Program 2019	55 Students(6th and 7th standard)	22nd July 2019	The outcome of the programme was to create awareness among students about basic computer hardware and its functionality and educate them basic word processes and power point presentation

					skills using MS Office application.
26	Mr Divyanshu Verma, Senior Manager, Intel India		ICT Academy collaborated Institutes' academicians,	24th July 2019	Promoting the benefits and usage of AWS for the students and institutions. It is the event addressing the academicians involved in promoting the AWS through the institutions by ICT Academy.  SuperBadge Attainment Challenge
27	Mr.Nirmal Kumar, ICT Academy,Chennai	FDP on "SalesForce Essentials for Business Specialists"	CSE Faculties	22/07/2019 to 26/07/2019	Reports & Dashboards for Lightning Experience Reports & Dashboards for Lightning Experience SuperBadge Attainment Challenge
28	Vani institute bangalore	Career Guidance Programme on Higher Education	3 <sup>rd</sup> year students	06-08-2019	Competitive exam preparaton

Table 2.1.2.4 Events conducted in department during July 2018-Aug 19

## Content beyond the syllabus for the attainment of POs and PSOs in 2020-2021

Sl.no	GAP	Date	Action taken	Resource person with designation	% of students	Relevance to pos and psos
1.	Basic laws of India which every entrepreneur needs to know to succeed as an entrepreneur, different types of entrepreneurs and financial schemes available with MSME.	17/6/ 2020	webinar	Mr. R. Gopinath Rao, IEDS, Dy Director, MSME Development Institute, Bangalore	35	PO3, PO4, PO5, PO6, PO7, PO10, PO11, PSO1, PSO2
2.	Interview Process, importance of Academic Performance, Importance of Technical Knowledge and Programming Skills, Fine tuning of Communicative English, How to prepare for the Interview, Drafting a better Resume, Project work, Mini Projects, Involvement in Professional Activities	31/7/ 2020	webinar	Mr. Sreenivasa Ramanujam, Academic Relationship Manager - Karnataka, Tata Consultancy Services (TCS) WhiteField, Bangalore	27	PO3, PO4, PO5, PO6, PO7, PO10, PO11, PSO1, PSO2
3.	Need for Publishing Research Articles & paper, How to prepare before writing the manuscript & Data gathering, Choosing appropriate title	19/8/2020	Webinar	Dr.P. PalPandian, Ph.D, Program Coordinator – Robotics and Mechatronics, School of Engineering & Technology, CHRIST (Deemed to be University), Bangalore.	30	PO3, PO4, PO5, PO6, PO7, PO10, PO11, PSO1, PSO2

	and writing better abstract					
4.	Data Science and Big Data Analytics, Applications of Data Science & usage in the business Business Analytics & its widespread use in the online business	2/8/ 2020	Technical Webinar	Mr.Swarup Dutta, Team Lead & Coach , Quest Skills, New Delhi	30	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO10, PO11, PSO1, PSO2
5.	importance of effective communication, body language& a professional resume too	1/8/2020	Webinar on Automotives & Spare Parts	Mr.George.M.Schulligen, Retired V.P. Mercedez Benz, Germany.	30	PO3, PO4, PO5, PO6, PO7, PO10, PO11, PSO1, PSO2
6.	Knowledge on ARM Processor LPC2148	11/9/2017	Technical Seminar	Mr.Mathan, Head-Institutional Sales, QTRONICS,Kengeri Bangalore	27	PO3, PO4, PO5, PO6, PO7, PO10, PO11, PSO1, PSO2
7.	Important techniques aspects and methodologies of data Science. Research and future directions of Data Science Driven Product.	19/9/ 2020	Webinar	: Dr. Om Deshmukh, CEO, TildeHat.	27	PO3, PO4, PO5, PO6, PO7, PO10, PO11, PSO1, PSO2
8.	Tele Geography, Submarine cable map work flow. Important techniques aspects and	17/10/ 2020	Webinar	Mr.AkashRaju.M, Co-founder, Paper Projects.	35	PO3, PO4, PO5, PO6, PO7, PO10,

	methodologies used to develop website .					PO11, PSO1, PSO2
9.	Current industry trends and future of job.	07/11/2020	Webinar	Mr.Karthick HR Manager, HR Manager  Ms. THEJASWI HR Head,Rajdeep Info Techno	30.	PO3, PO4, PO5, PO6, PO7, PO10, PO11, PSO1, PSO2
10	Mobile computers available in the market for the Enterprise environment, how they will communicate each other, types of inputs for Mobile computers and how it is reading the inputs.	26/11/2020	Webinar	Mr.Kanagal Raj .R, Solutions Architect, Zebra Technologies, New York, USA	35	PO3, PO4, PO5, PO6, PO7, PO10, PO11, PSO1, PSO2
11	Machine learning algorithms build a model based on sample data, known as “training data”, Machine learning algorithms are used in a wide variety of applications, A subset of machine learning is closely related to computational statistic, which focuses on making predictions using computers;	27/11/2020	Webinar	Dr.Sujatha Anbunathan.T, Associate Professor, CSE, Hindusthan Institute of Technology, Coimbatore	30	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO10, PO11, PSO1, PSO2
12	Brainstorming on Problem Identification and assess the	28/11/2020	Virtual Workshop	Dr.G.Vinoth, B.E,M.S,Ph.D (Startup Venture Designer), Pongu Ventures	30	PO1, PO2, PO3, PO4,

	business potential, solution methodologies with hands on session on Ideation process, Orientation on best practices to be followed in ideation and better team building.					PO5, PO6, PO7, PO10, PO11, PSO1, PSO2
13	Essential Elements of Intellectual Property Rights. Patents for inventions, Copyrights for material, Trademarks for broad identity and Trade secrets. Intellectual Property is an asset that can be bought or sold, licensed and exchanged.	10/12/2020	Webinar	Dr. A. Neela Madheshwari, Professor, CSE, Mahindra Engineering College, Namakkal.	30	PO3, PO4, PO5, PO6, PO7, PO10, PO11, PSO1, PSO2
14	Extracting insights from vast amounts of data by the use of various scientific methods, algorithms, and processes. Discover hidden patterns from the raw data. The evolution of mathematical statistics, data analysis, and big data	11/12/2020	Webinar	Dr.T.Subha, Associate Professor, ISE, Sri Sai Ram Engineering College, Chennai.	27	PO3, PO4, PO5, PO6, PO7, PO10, PO11, PSO1, PSO2
15	Virtual recruitment and employability in a hiring process that takes place	18/12/2020	Webinar	Dr.R.Ranjana, Associate Professor, ISE, Sri Sai Ram Engineering College, Chennai.	30	PO3, PO4, PO5, PO6, PO7,



	remotely, without meeting the candidates face to face.					PO10, PO11, PSO1, PSO2
16	Augmented Reality/Virtual Reality	15/2/2021-19/2/2021	fdp	----		PO3, PO4, PO5, PO6, PO7, PO10, PO11, PSO1, PSO2
17	Innovative Research Ecosystem & Publishing Papers in High Impact Journals	26/3/2021		jointly organized by Centre for Research and Innovation & RajaRajeswari Institution Innovation Council (RRIIC)	30	PO3, PO4, PO5, PO6, PO7, PO10, PO11, PSO1, PSO2
18	Job Search Opportunity During COVID-19	1/4/2021	Webinar	G.S Kumar ,Career Coach & Job Search Consultant	30	PO3, PO4, PO5, PO6, PO7, PO10, PO11, PSO1, PSO2
19	Employability Skill Training in Trending Technology on My SQL Database & Soft skills	15/03/2021 to 05/04/2021	Webinar	Mr. Shekar Suman Soft skills Trainer,  and Mrs. Priyadharshini Technical trainer	1	PO3, PO4, PO5, PO6, PO7, PO10, PO11, PSO1, PSO2
20	MOBILE Application Development for Innovation	05/4/2021 to 09/4/2021	FDP	Mr. Sridhar Raghu, Associate Engineer,Pseudo code, Bengaluru	1	PO3, PO4, PO5, PO6, PO7, PO10, PO11, PSO1, PSO2

21	Internship	18/5/2021	WEBINAR	Mr. Supreeth, Tequed Labs, Bangalore, India. Mr. Aravind, Tequed Labs, Bangalore, India.	35	PO3, PO4, PO5, PO6, PO7, PO10, PO11, PSO1, PSO2
22	Overview of Microsoft Dynamics 365	05/06/2021	ALUMINI TALK	Mr.CHAITHANYA.P HITACHI SOLUTIONS	30	PO3, PO4, PO5, PO6, PO7, PO10, PO11, PSO1, PSO2
23	Innovative Career Opportunities			Mr.Naveen Chander C, Founder – 3Q SUTANTRA	20	PO3, PO4, PO5, PO6, PO7, PO10, PO11, PSO1, PSO2

## Content beyond the syllabus for the attainment of POs and PSOs in 2019-2020

Sl. no	GAP	Date	Action taken	Resource person with designation	% of students	Relevance to pos and psos
1.	Data Security and Sales and Marketing Management	22/07/2019 to 26/07/2019	FDP Program on “Sales Force Essentials for Business Specialists”	Mr.Nirmal Kumar, ICT Academy, Chennai	15	PO3, PO4, PO5, PO6, PO7, PO8, PO9,PO10, PO11, PSO1, PSO2
2.	competitive Exam preparations for doing M.S or M.B.A in abroad, Preparation ideas for GRE, TOFEL, IELTS,GATE Examinations, Internship and Scholarship for the meritorious students, Materials to be referred for the preparation & Internet resources and Job opportunities in abroad after MBA or M.S abroad	6/8/2019	Career Guidance Programme on Higher Education	VANI INSTITUTE Bangalore.	45	PO3, PO4, PO5, PO6, PO7, PO8, PO9,PO10, PO11, PSO1, PSO2
3.	Employability Skills for the Future	24/8/2019	Seminar on “EMPLOYABILITY SKILLS FOR THE FUTURE”	Mr.Mahesh Narayan Senior Principal, AA&AI team Global Consulting Firm  Mr.Vishwanadh Raju Global Head Talent Acquisition, Axiscades	35	PO3, PO4, PO5, PO6, PO7, PO8, PO9,PO10, PO11, PSO1, PSO2
4.	Creation of Github Profile and update files and Built a personal portfolio website.	4/9/2019	SDP – “3 DAYS HANDS-ON TRAINING WORKSHOP ON WEB	ENGINOMATI C & DEVELOP HOWTO INDIA	30	PO3, PO4, PO5, PO6, PO7, PO8, PO9,PO10, PO11, PSO1,

			DEVELOPMENT “			PSO2
5.	Artificial Intelligence and its Applications, Deep Learning, Overview about different Sensors and Internet of Things and Machine Learning Concepts.	30/09/2019	“Technical Talk” on Artificial Intelligence and its Applications”	Mr. Mohan, Digital Shark Technology, Bengaluru.	30	PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PSO1, PSO2
6.	Gap between fresher and industry, Importance of the placement and Hands on session with the web page development.	11/10/2019	Technical seminar on User-Interface Development and Scope of IT in the Software Field	Ms. Farheen Farhath and Mr. Asif Akhter, Electrical Engineer, Prinston Smart Engineers, New-Delhi.	35	PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PSO1, PSO2
7.	Knowledge on aptitude	22/10/19	Career Guidance Program on LIVEWIRE career guidance program on 22-10-19	Mr. Rahul & Mr. Vishwanath, Livewire, Bangalore	30	PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PSO1, PSO2
8.	Getting started with web	11/05/2020	Webinar on Getting started with web	Rajkumar kaliamani Sr System engineer Infosys	30	PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PSO1, PSO2
9.	Python Programming	12/05/2020	Webinar on python	Joel A J Sr. RpA developer RR Donnelley	30	PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PSO1, PSO2
10	Scope of Data Science, Jargon Busting, Crisp DM Framework, Machine Learning, Introduction to Deep Learning, Insight into Generalized Linear Models, Tree Based Models and	26/05/2020	Webinar on “A New Era of Data Science”	1) Mr. Joshi Kumar, Practice Lead, Robotics, QBE Insurance, Singapore 2) Mr. Arul Bharathi, Senior Data Scientist, Realtor.com, Canada	30	PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PSO1, PSO2

	Data Science Applications.					
11	Pranayama, Few Simple yoga poses and Few Stress relieving activities	28/05/2020	Webinar on Successfully Managing Stress During Lock Down	Smt. Gomathy Periathiruvadi, Management Consultant, AT&T, Yoga Trainer (SKY System for Meditation), Texas, USA	30	PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PSO1, PSO2
12	Deep Learning and Algorithms	08/06/2020 to 12/06/2020	Introduction to Deep Learning and Algorithms	Dr. B. Janet, National Institute of Technology Tiruchirappalli Dr. K. Nandhini, Central University of Tamil Nadu, Thiruvarur	30	PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PSO1, PSO2
13	Emerging Challenges of Deep Learning in Bioinformatics	08/06/2020 to 12/06/2020	Emerging Challenges of Deep Learning in Bioinformatics	Dr. J. JayaPriya, Manonmaniam Sundaranar University, Tirunelveli	30	PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PSO1, PSO2
14	Entrepreneurial process, Important qualities and role of an entrepreneur, Basic laws of India which every entrepreneur needs to know to succeed as an entrepreneur, different types of entrepreneurs and financial schemes available with MSME.	17/7/2020	webinar on “MSME Schemes and Entrepreneurship	Mr. Gopinath Rao, IDES, Deputy Director, MSME Development Institute, Ministry of MSME, Govt of India	35	PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PSO1, PSO2
15	Interview Process, Importance of Academic Performance, Importance of Technical Knowledge and Programming Skills, Fine tuning	31/7/2020	Webinar on “Expectations of an IT industry from an Engineering Graduate”	Mr. Sreenivasa Ramanujam, Academic Relationship Manager - Karnataka, Tata Consultancy Services (TCS) WhiteField,	60	PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PSO1, PSO2

	of Communicative English, How to prepare for the Interview, Drafting a better Resume, Project work, Mini Projects and Involvement in Professional Activities.			Bangalore		
16	Need for Publishing Research Articles & paper, How to prepare before writing the manuscript & Data gathering Effective Written Language to improve the, Practice scientific manuscript writing and proof reading and English correction.	19/8/2020	Webinar on “Writing and Publishing Research Articles in SCI Journals – A Framework”	Dr.P. PalPandian, Ph.D, Program Coordinator – Robotics and Mechatronics, School of Engineering & Technology, CHRIST (Deemed to be University), Bangalore.	40	PO3, PO4, PO5, PO6, PO7, PO8, PO9,PO10, PO11, PSO1, PSO2
17	Data Science and Big Data Analytics Applications of Data Science & usage in the business, Business Analytics & its widespread use in the online business	28/8/2020	Webinar on “Business Analytics with Tableau, R & Python Programming”	Mr.Swarup Dutta, Team Lead & Coach , Quest Skills, New Delhi EVENT DURATION : 28th August 2020 (11.00 A.M)	35	PO3, PO4, PO5, PO6, PO7, PO8, PO9,PO10, PO11, PSO1, PSO2

## Content beyond the syllabus for the attainment of POs and PSOs in 2018-2019

Sl.no	GAP	Date	Action taken	Resource person with designation	% of students	Relevance to POs and PSOs
1.	Time Management, Aptitude Skills Required for Placements and Group Discussion on Current Affairs.	25/8/2018	Guest Lecture on How to Plan and Prepare for Campus Placement	Dr GuruPrasad N, Professor, New Horizon College of Engineering, Bengaluru	30	PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PSO1, PSO2
2.	Applications of IOT in :Smart Cities, Smart Homes ,Smart Agriculture ,Smart Transportation Smart Healthcare Introduction and Hands on session	30/08/2018-01/09/2018	3-Days SDP on IoT	Supreeth Y S Aditya , Preva System Ltd, Bengaluru	30	PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PSO1, PSO2
3.	Frontend and backend with JDBC and ODBC connection with basics of DBMS including the schema diagram.	29/09/2018	Guest lecturer- Database Management Systems	Mr Tokola Durga Rao Senior Technical Manager Oracle, Bengaluru.	25	PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PSO1, PSO2
4.	AWS Global Infrastructure, AWS Service and Service Category Overview, Examine the AWS Global Infrastructure, Understand the Difference between AWS Regions, Availability Zones (Azs), and Edge Locations.	01/10/2018 to 05/10/2018	SDP On “Cloud Computing Architecture Training”	Mr. Shanmugavel and Mr. Hariprasath, IT Trainer – ICT Academy, Chennai	35	PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PSO1, PSO2

5.	Gained Fundamental Knowledge about the Discrete Mathematics Structures and their applications to solve real life problems Solving the problems on Principle of Inclusion-Exclusion.	19/11/2018	Expert Lecture on “Discrete Mathematics Structures”	Mrs. Poonam Kumari M.tech, (Ph.D) Research Schoaar, ACS College of Engineering, Bangalore.	30	PO3, PO4, PO5, PO6, PO7, PO8, PO9,PO10, PO11, PSO1, PSO2
6.	The outcomes are to provide to learn about concepts.	19/11/2018 – 23rd Nov 2018	FDP on Explainable	Mr. Azib, Technical Lead, Tequed Labs, Bangalore	30	PO3, PO4, PO5, PO6, PO7, PO8, PO9,PO10, PO11, PSO1, PSO2
7.	Bring out the advanced Concept of Machine Learning Techniques.	30/11/18	Guest Lecture on Machine Learning	Dr. Naveen N C, Prof and HOD,JSSAT Bangalore.	35	PO3, PO4, PO5, PO6, PO7, PO8, PO9,PO10, PO11, PSO1, PSO2
8.	R Environment and Basic Commands Creating Calculated Fields Sorting Data Exploration Validation and Cleaning	24/01/2019-31/01/2019	7Days Faculty Development Program- Data Sciences Using R	Supreeth Y S & Aditya ,Tequeds Lab,Bengaluru	10	PO3, PO4, PO5, PO6, PO7, PO8, PO9,PO10, PO11, PSO1, PSO2
9.	Unauthorized Access. Insecure Interfaces/APIs. Hijacking of Accounts	11/02/2019 – 15th FEB 2019	SDP on “Cloud Computing and Network Security	Dr.Peturaj Chelliah, Chief Architect, Reliance Jio, Bangalore	30	PO3, PO4, PO5, PO6, PO7, PO8, PO9,PO10, PO11, PSO1, PSO2
10	India Smart City Micro Accelerator	25/02/2019 To 01/03/2019	Training session on - India Smart City	Ms. Manjit Saini and Team	30	PO3, PO4, PO5, PO6, PO7, PO8,



	Program - UC Berkeley		Micro Accelerator Program - UC Berkeley			PO9,PO10, PO11, PSO1, PSO2
11	<p>Knowledge of the technology provided with the different insights of the technology.</p> <p>Education with the different applications of the technology.</p> <p>Hands on session with the application development.</p>	02/03/2019	Technical Talk on- BLOCK CHAIN TECHNOLOGY	Mr Amin Sama, Network Security Engineer, X-Ciencia Technologies India Pvt Ltd	30	PO3, PO4, PO5, PO6, PO7, PO8, PO9,PO10, PO11, PSO1, PSO2
12	Program trained students how to Design and work with different hadoop tools.	4/4/2019 , 13th April 2019	Two Days Workshop on Big Data & Hadoop	Gireesh H R,Senior Software Engineer, Western Digital Bangalore Pvt Ltd	30	PO3, PO4, PO5, PO6, PO7, PO8, PO9,PO10, PO11, PSO1, PSO2
13	Reports & Dashboards for Lightning Experience Reports & Dashboards for Lightning Experience SuperBadge Attainment Challenge	22/07/2019 to 26/07/2019	FDP on "SalesForce Essentials for Business Specialists"	Mr Divyanshu Verma, Senior Manager, Intel India	15	PO3, PO4, PO5, PO6, PO7, PO8, PO9,PO10, PO11, PSO1, PSO2