

**VIGNAN'S**

Foundation for Science, Technology &amp; Research

(Deemed to be University)

-Estd. u/s 3 of UGC Act 1956

**DEPARTMENT OF INFORMATION TECHNOLOGY****Action Taken Report on MCA Program R 18 Feedback  
Implemented in R20 introduced in the AY 2020 - 21****Action taken based on the suggestions from Students:**

- Q1.Course Contents of Curriculum are in tune with the Program Outcomes
- Q2.Course Contents are well designed to enable Problem Solving Skills and Core competencies
- Q3.Courses placed in the curriculum serve the needs of both advanced and slow learners
- Q4.Contact Hour Distribution among the various Course Components (LTP) is Satisfiable
- Q5.Electives have enabled the passion to learn new technologies in emerging areas
- Q6.Curriculum is providing opportunity towards self-learning to realize the expectations
- Q7.Courses with laboratory sessions are sufficient to improve the technical skills
- Q8.Research Projects improved the technical competency and leadership skills
- Q9.Tools and technologies described in the curriculum are enough to design and develop new applications.

**Analysis of Overall Feedback given by the Students on R18**

Parameters	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	45.8	52.5	0.8	0	0	4.414	Excellent
Q2	45.8	50.8	2.5	0	0	4.397	Excellent
Q3	29.7	58.5	8.5	0.8	1.7	4.113	Excellent
Q4	11	54.2	23.7	0.8	9.3	3.538	Very Good
Q5	24.6	67.8	5.9	0	0.8	4.127	Excellent
Q6	30.5	44.1	23.7	0.8	0	4.016	Excellent
Q7	16.1	61	5.9	0	16.1	3.583	Very Good
Q8	21.2	65.3	11.9	0.8	0	4.045	Excellent
Q9	55.1	31.4	8.5	1.7	2.5	4.325	Excellent

**Itemized responses to the Suggestions of Students**

**Suggestion:** Include more importance in problem-solving skills in curriculum

**Action Taken:** Introduced skills and activities for each course to get the real-time/industry usage of each course

**Suggestion:** Freedom to select advanced courses from electives courses

**Action Taken:** Professional elective courses were offered from 2<sup>nd</sup> II semester onwards. Students can select professional elective based on their interest

**Suggestion:** Add employability courses like the internet of things, scripting languages, and could computing, etc.

**Action Taken:** Courses like Mobile application development, Internet of things, Statistical Programming in R, Cloud Computing, and Advanced mobile application development were introduced as professional electives

**Suggestion:** Introduction of emerging courses like blockchain technologies, mobile application development, multimedia computing, etc and more focus on practical learning

**Action Taken:** Introduced mobile application development as a core course in 4<sup>th</sup> year I semester and multimedia systems as a core course in 4<sup>th</sup> year I semester

#### **Action taken based on the suggestions from Alumni:**

- Q1. Curriculum has paved a good foundation in understanding the basic engineering concepts  
 Q2. Course Contents of Curriculum are in tune with the Program Outcomes  
 Q3. Curriculum enriched the research abilities to pursue higher education in the thrust areas of Computer Science  
 Q4. Professional and Open Electives of Curriculum served the technical advancements needed to serve in the industry  
 Q5. Tools and Technologies learnt during laboratory sessions has enriched the problem-solving skills  
 Q6. Competing with your peers from other Universities  
 Q7. Curriculum is superior to your studied Curriculum

#### **Analysis of Overall Feedback given by the Alumni on R 18**

Parameters	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	56.7	28.3	3.3	11.7	0	4.3	Excellent
Q2	63.3	11.7	18.3	6.7	0	4.316	Excellent
Q3	48.3	8.3	15	11.7	16.7	3.598	Very Good
Q4	41.7	23.3	15	6.7	13.3	3.734	Very Good
Q5	48.3	15	6.7	13.3	16.7	3.649	Very Good
Q6	55	13.3	6.7	3.3	21.7	3.766	Very Good
Q7	63.3	18.3	3.3	0	15	4.146	Excellent

#### **Itemized responses given to the suggestions of Alumni**

**Suggestion:** Include more courses on Web technologies and rapid software development tools

**Action Taken:** Introduced Internet and web technologies as a core course in 1<sup>st</sup> year I semester and Web Scripting through PHP & MYSQL as a core course in 2<sup>nd</sup> year II semester. Thereby students can development web applications for local industries from 1<sup>st</sup> year

**Suggestion:** Strengthen the coding skills by allocating at least 50% of course to laboratories in the curriculum

**Action Taken:** Introduced integrated theory and laboratory courses. More than 50% of core courses are designed in this mode

**Suggestion:** Courses like Cloud Computing, Big data analytics, machine learning, and the internet of things can be made as a core category

**Action Taken:** Cloud computing, Big data analytics, and the Internet of things were introduced as a professional elective, core course, and professional elective course respectively.

**Action taken based on the suggestions from Faculty:**

- Q1.Course Contents of Curriculum are in tune with the Program Outcomes
- Q2.Course Contents enhance the Problem-Solving Skills and Core competencies
- Q3.Curriculum enable the research abilities of the students in thrust areas of Computer Science
- Q4.Contact Hour Distribution among the various Course Components (LTP) is Justifiable
- Q5.Electives enable the passion to learn new technologies in emerging areas
- Q6.Curriculum is providing opportunity towards self-learning
- Q7.Apply tools and technologies described in the curriculum are enough to design and develop new applications to serve the local needs.
- Q8.Courses with laboratory sessions are sufficient to improve the technical skills of students
- Q9.Inclusion of Minor Project/ Mini Projects improved the technical competency and leadership skills among the students

**Analysis of Overall Feedback given by the Faculty on R 18**

Parameters	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	67.2	29.3	3.4	0	0	4.634	Excellent
Q2	51.7	43.1	5.2	0	0	4.465	Excellent
Q3	74.1	22.4	0	0	3.4	4.635	Excellent
Q4	70.7	19	10.3	0	0	4.604	Excellent
Q5	77.6	13.8	8.6	0	0	4.69	Excellent
Q6	63.8	22.4	10.3	0	3.4	4.429	Excellent
Q7	69	17.2	13.8	0	0	4.552	Excellent
Q8	74.1	17.2	3.4	0	5.2	4.547	Excellent
Q9	70.7	20.7	3.4	5.2	0	4.569	Excellent

### Itemized responses given to the suggestions of Faculty

**Suggestion:** Suggested to have courses for exclusive IoT technologies related courses from V semester onwards like network programming, embedded systems, IoT with cloud and IoT with web

**Action Taken:** Introduced IoT course with python programming to develop real-time projects as a professional elective course

**Suggestion:** Suggested that it is essential to include the primitive operations on Queue in Unit-I. Better to remove searching techniques from this course and include them in any basic programming language course.

**Action Taken:** Revised the Data Structure course with many activities and case studies

**Suggestion:** It is better to include more practical oriented topics from the 2nd Unit onwards instead of theoretical issues in the Big Data Analytics course.

**Action Taken:** Big data analytics course is revised based on given suggestions and introduced laboratory experiments

**Suggestion:** It is better to include basic issues on data analytics in the first and second units of Data mining and data analytics course. From 3rd units, data analytics issues and practical exposure to various data analytics algorithms are more appropriate for IT students

**Action Taken:** Revised the data mining and bigdata analytics course in industrial perspective and introduced a weka tool to carry out laboratory experiments and minor projects of the course.

### Action taken based on the suggestions from Employers:

Q1.Course Contents of Curriculum are in tune with the Program Outcomes

Q2.Curriculum has the scope for improving the required skills of IT and IT enabled Industry Demands

Q3.Professional and Open Electives are fulfilling the ever- evolving needs of IT industries

Q4.Tools and technologies described in the curriculum are sufficient to design and develop new applications of IT Industry.

Q5.Problem Solving and Soft Skills acquired by the students through the curriculum will enable them to be placed in IT Industry.

### Analysis of Overall Feedback given by the Employers on R 18

Parameters	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	6.7	6.7	40	46.7	0	2.737	Moderate
Q2	0	20	66.7	13.3	0	3.067	Good

Q3	6.7	46.7	33.3	13.3	0	3.468	Good
Q4	0	53.3	20	26.7	0	3.266	Good
Q5	13.3	20	33.3	26.7	6.7	3.065	Good

#### **Itemized responses given to the suggestions of Employers**

**Suggestion:** Better to include some content related to mobile application development and simulation & modelling. In today's scenario students need to focus on simulation tools also.

**Action Taken:** Offered Mobile application development and Advanced mobile application development courses as professional elective courses

**Suggestion:** It is essential to include functional and scripting languages for the students very early in the programme and also include the various case studies on programming knowledge.

**Action Taken:** Introduced python programming, R programming, and PHP languages in the curriculum

**Suggestion:** Database design, data retrieval, and backup related issues need to discuss in the courses. Many industries are concentrating on database operations and backup issues.

**Action Taken:** Added a greater number of case studies in Database Management System course in line with database design, data retrieval issues, and backup strategies, and those case studies can be implemented as minor projects

**Suggestion:** Better to Include Embedded Systems and IoT related fundamental courses may include in the curriculum. Thereby students can understand the internal architecture of microprocessors and microcontrollers.

**Action Taken:** Introduced Embedded Systems and Internet of Things as professional elective courses

**Suggestion:** It is better to include the design and analysis of algorithms in detail. Further, introduce the same course in two semesters to get to understand every problem-solving technique and case studies in design

**Action Taken:** Included minor projects in the Design and Analysis of Algorithms course to strengthen the course content and to improve the problem-solving skills.

#### **Action taken based on the suggestions from Parents:**

Q1. Curriculum enhances the intellectual aptitude of your ward

Q2. Curriculum realizes the personality development and technical skilling of your ward

Q3. Satisfaction about the Academic, Emotional Progression of your ward

Q4. Competency of your ward is on par with the students from other Universities/Institutes

Q5. Course Curriculum is of global standard and is in tune with the needs of IT and IT enabled industries

### Analysis of Overall Feedback given by the Parents on R 18

Parameters	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	34.5	43.6	20	0	1.8	4.087	Excellent
Q2	34.5	38.2	18.2	7.3	1.8	3.963	Very Good
Q3	27.3	50.9	20	0	1.8	4.019	Excellent
Q4	34.5	41.8	21.8	0	1.8	4.069	Excellent
Q5	34.5	38.2	18.2	7.3	1.8	3.963	Very Good

#### Itemized responses given to the suggestions of Parents

**Suggestion:** The curriculum must improve the placements of the department

**Action Taken:** Increased number of laboratory hours by integrating theory with laboratory courses. Also, minor projects in core courses are introduced to make the student's industry ready

**Suggestion:** Introduce the courses related to job oriented

**Action Taken:** Introduced the courses like competitive programming, data analytics, and data visualization

**Suggestion:** Include more importance in problem solving skills in curriculum

**Action Taken:** Introduced skills and activities for each course to get the real-time/industry usage of each course.

**Suggestion:** Minimize the number of evaluation schemes and include the courses based on the feedback from industry experts

**Action Taken:** Our employers are also one of the stakeholders to design the curriculum and department BOS committee must contain at least 30% of members from industry



HOD, IT