

#### DEPARTMENT OF INFORMATION TECHNOLOGY

## Action Taken Report on MCA Program R 10 Feedback Implemented in R15 introduced in the AY 2015 - 16

## 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 R10

Parameters	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	63.6	36.4	0	0	0	4.636	Excellent
Q2	45.5	45.5	9.1	0	0	4.368	Excellent
Q3	54.5	27.3	18.2	0	0	4.363	Excellent
Q4	0	45.5	45.5	0	9.1	3.276	Good
Q5	18.2	72.7	9.1	0	0	4.091	Excellent
Q6	63.6	18.2	18.2	0	0	4.454	Excellent
Q7	18.2	54.5	18.2	0	9.1	3.727	Very Good
Q8	36.4	54.5	9.1	0	0	4.273	Excellent
Q9	0	100	0	0	0	4	Excellent

## Itemized responses to the Suggestions of Students

Suggestion: Add more laboratory hours to the curriculum

Action Taken: Introduced Internet and Web Technologies laboratory, Statistical Techniques laboratory, Operating systems laboratory, and Open systems for web technologies laboratory courses to increase the number of laboratory courses in the curriculum and allocated 3 hours per week to each laboratory course.

Suggestion: Improve the skill development courses in the curriculum

Action Taken: Introduced employability and skill-based courses like internet and web technologies, middleware technologies, open systems for web technologies, etc.

Suggestion: Introduce Advanced courses as department electives

Action Taken: Introduced advanced and emerging courses like multimedia systems, bigdata analytics, enterprise computing, cloud computing, and soft computing, etc.

Suggestion: Include employability courses to understand the industry prospective

Action Taken: Introduced Object Oriented Analysis and Design, Data Warehousing and Data

Mining, Software Project Management courses to make our students industry ready

Suggestion: Add courses focused on industry and include add-on courses on new technology Action Taken: Value added courses are introduced to have hands-on knowledge in emerging technologies used in industry like data visualization tools, rapid web development tools, and design & analysis tools for software development

Suggestion: Introduce mini projects from 2nd year onwards

Action Taken: Every student must complete two mini projects before final project. Two courses on mini projects with 4 credits were offered in 2<sup>nd</sup> year II semester and 3<sup>rd</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 10

Parameters	Strongly	Agree	Moderate	Disagree	Strongly	Avg.	Grade
	Agree				Disagree	Rating	
Q1	100	0	0	0	0	5	Excellent
Q2	100	0	0	0	0	5	Excellent
Q3	80	20	0	0	0	4.8	Excellent
Q4	60	40	0	0	0	4.6	Excellent
Q5	80	20	0	0	0	4.8	Excellent
Q6	100	0	0	0	0	5	Excellent
Q7	100	0	0	0	0	5	Excellent

Itemized responses to the suggestions of Alumni

**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.

Suggestion: Include E-commerce as a professional elective

Action Taken: Introduced E-commerce in development prospective as a professional elective Suggestion: Include more courses on Web technologies and rapid software development tools Action Taken: Introduced web technologies stream of courses that contains web technologies, opens systems of web technologies, middleware technologies, and enterprise computing as professional electives.

## 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 10

Parameters	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	71.4	28.6	0	0	0	4.714	Excellent
Q2	57.1	38.1	4.8	0	0	4.523	Excellent
Q3	81	14.3	0	0	4.8	4.67	Excellent
Q4	76.2	14.3	9.5	0	0	4.667	Excellent
Q5	81	14.3	4.8	0	0	4.766	Excellent
Q6	66.7	19	9.5	0	4.8	4.428	Excellent
Q7	76.2	14.3	9.5	0	0	4.667	Excellent
Q8	76.2	19	4.8	0	0	4.714	Excellent
Q9	76.2	19	4.8	0	0	4.714	Excellent

### Itemized responses to the suggestions of Faculty

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 remove the number systems and introduction to computer issues from Unit-I and better to add programming issues and problem-solving techniques in Problem-solving and Computer Programming course.

Action Taken: Revised the problem solving and computer programming and renamed as computer programming. Strengthen computer programming with a greater number of activities and minor projects

Suggestion: It is useful to include the basics of the cloud and various case studies on cloud technologies in the first two units. From the 3rd unit, it is useful to add practical concepts relating to anyone cloud technology.

Action Taken: Revised the cloud computing course in practical exposure and introduced AWS (Amazon Web Services) in the part of course to conduct experiments.

**Suggestion:** It is more appropriate to introduce discrete mathematical structures with computer applications than just discrete mathematical structures. This is to be designed as a pre-requisite for many-core courses of information technology programme.

Action Taken: Revised the discrete mathematical structures course in computer application point of view

# 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 10

Parameters	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	95.5	4.5	0	0	0	4.955	Excellent
Q2	86.4	13.6	0	0	0	4.864	Excellent
Q3	74.2	25.8	0	0	0	4.742	Excellent
Q4	56.1	43.9	0	0	0	4.561	Excellent
Q5	78.8	21.2	0	0	0	4.788	Excellent

### Itemized responses to the suggestions of Employers

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

Action Taken: Introduced Script Programming course as a professional elective course

**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:** It is very essential to teach security issues in web and information. Introduce case studies related to security in the database, cloud, and IoT technologies.

**Action Taken:** The information security course was revised by 30% to introduce various security threats in web technologies and information retravel systems.

**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:

- O1. 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 10

Parameters	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	27.3	54.5	18.2	0	0	4.091	Excellent
Q2	27.3	45.5	18.2	9.1	0	3.913	Very Good
Q3	9.1	72.7	9.1	0	9.1	3.727	Very Good
Q4	27.3	54.5	9.1	0	9.1	3.909	Very Good
Q5	27.3	54.5	9.1	9.1	0	4	Excellent

Itemized responses to the suggestions of Parents

Suggestion: Add employability courses in curriculum

Action Taken: Introduced employability and skill-based courses in every semester to make

the student's industry ready

Suggestion: Add more courses related to IT company

**Action Taken**: Advanced Programming Languages (like internet and web technologies, Script programming, middleware technologies, etc) can be included from the 2nd year onwards to implement projects in various advanced areas

Suggestion: It must support for higher education

**Action Taken**: Final examination question papers were drawn from premier institutions like IITs/NITs/Central Universities/IIITs to make our student to attempt written tests of higher education programmes like M.Tech/MS/integrated M.Tech and Ph.D.

**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

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: The curriculum will be more practical oriented than theory and suitable for project-oriented learning

**Action Taken**: Add a greater number of activities and lab experiments in programming courses like problem-solving through C, OOP through JAVA, Scripting language, and Internet and Web technologies to make student ready for placement drives

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