

**DEPARTMENT OF MECHANICAL ENGINEERING****Action Taken Report on B. Tech Mechanical Engineering Program R19  
Feedback****Implemented in R21 introduced in the AY 2021 – 22****Action taken based on the suggestions from Students:**

- Q1. Course Contents of Curriculum in tune with the Program Outcomes
- Q2. Course Contents designed and value added courses offered enriches Core Competencies
- Q3. Courses offered in the curriculum serves the needs of both Mechanical Industries and IT sector
- Q4. Contact Hour Distribution among the various Course Components (LTP) is Satisfiable
- Q5. Electives have enabled the passion to learn new technologies in emerging and Interdisciplinary Areas
- Q6. Curriculum providing enable towards self-learning
- Q7. Composition of Basic Sciences, Engineering, Humanities and Management Courses is a right mix and satisfiable
- Q8. No. of Laboratory sessions and Theory Courses have been sufficient to improve the technical skills

**Analysis of Overall Feedback given by the Students on R19**

Parameter	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	60	24	12	4	0	4.4	Excellent
Q2	52	28	16	4	0	4.28	Excellent
Q3	60	24	8	8	0	4.36	Excellent
Q4	72	20	8	0	0	4.64	Excellent
Q5	52	28	16	4	0	4.28	Excellent
Q6	56	20	20	4	0	4.28	Excellent
Q7	64	20	12	0	4	4.4	Excellent
Q8	60	28	8	4	0	4.44	Excellent



**Itemized responses given to the Suggestions of Students**

**Suggestion:** Burden on the students while writing records and observation books need to be reduced

**Action Taken:** Only one record book is enough, calculations can be done in observations

**Suggestion:** Need to continue project based learning

**Action Taken:** Continued project based learning from previous curriculum

**Suggestion:** Change the college timings

**Action Taken:** Same timings has been continued

**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 fulfilled the specified Program Outcomes
- Q3. Curriculum imparted all the required Job Oriented Skills / prerequisite to pursue higher education
- Q4. Electives of Curriculum served the technical advancements needed to serve in the industry
- Q5. Tools and Methodologies followed during practical sessions has enriched the required practical knowledge to serve in Industry
- Q6. Competency with your peers from other Institutions
- Q7. Current curriculum meets the present industry demands

**Analysis of Overall Feedback given by the Alumni on R19**

Parameter	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	92	8	0	0	0	4.92	Excellent
Q2	76	24	0	0	0	4.76	Excellent
Q3	84	16	0	0	0	4.84	Excellent
Q4	84	16	0	0	0	4.84	Excellent
Q5	84	16	0	0	0	4.84	Excellent
Q6	88	12	0	0	0	4.88	Excellent
Q7	100	0	0	0	0	5	Excellent



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

**Suggestion:** Machine learning can be introduced.

**Action Taken:** Introduced Machine learning along with prerequisite of Statistical Methods for Engineers

**Suggestion:** Need some knowledge on Industry 4.0

**Action Taken:** A course on this is introduced in Final year

**Suggestion:** Experiments related to non-conventional machining is needed

**Action Taken:** Experiments related to EDM is introduced in Machining technology

**Suggestion:** Knowledge on few programming like python, AI can be introduced

**Action Taken:** Python programming is introduced as core and AI is given as elective in the curriculum

**Suggestion:** Projects related to programming need to be incorporated

**Action Taken:** Interdisciplinary project is introduced in III year and Miniproject is also introduced related to programming

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

- Q1. Curriculum designed is in tune with program Vision and Mission
- Q2. Contents of the curriculum enhances the core competencies and employability skills
- Q3. Allocation of Credits to the Courses Satisfiable
- Q4. Contact Hour Distribution among the various Course Components (LTP) is Satisfiable
- Q5. Electives offered in the program makes the faculty to explore latest technologies
- Q6. Curriculum providing opportunity towards self-learning to meet the expectations
- Q7. Composition of Basic Sciences, Engineering, Humanities and Management Courses Satisfiable
- Q8. Number of theoretical courses and laboratory sessions sufficient to improve the technical skills of students



**Analysis of Overall Feedback given by the Faculty on R19**

Parameter	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	69.6	16.1	14.3	0	0	4.553	Excellent
Q2	92.9	7.1	0	0	0	4.929	Excellent
Q3	42.9	57.1	0	0	0	4.429	Excellent
Q4	94.6	5.4	0	0	0	4.946	Excellent
Q5	42.9	57.1	0	0	0	4.429	Excellent
Q6	85.7	14.3	0	0	0	4.857	Excellent
Q7	92.9	5.4	1.8	0	0	4.915	Excellent
Q8	78.6	21.4	0	0	0	4.786	Excellent

**Itemized responses given to the suggestions of Faculty**

**Suggestion:** To have prior knowledge CFD should be learned before appearing internship in industries.

**Action Taken:** CFD is offered as professional elective which students can opt in III year onwards

**Suggestion:** Project based learning can be continued

**Action Taken:** Project based curriculum introduced in R19 is continued in the R21 also

**Suggestion:** Topics related to characterization tools

**Action Taken:** Introduced in Advanced Materials and Characterization a professional elective

**Suggestion:** Benefits of 3D printing need to be provided to all the students irrespective of discipline

**Action Taken:** Concepts of 3D printing have been incorporated in manufacturing technology (mandate course), 3D printing and Design offered as professional elective



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

- Q1. Course Contents of B.Tech Mechanical Engineering Curriculum is in tune with the Program Outcomes
- Q2. Relevance of the Course Contents in tune with the Industry Demands
- Q3. Elective are in-line with the technology advancements in Modelling and Manufacturing Sectors
- Q4. Applicability of the tools and technologies described in the curriculum will be enough to practice in Industry
- Q5. Problem Solving and Soft Skills acquired by the students through the course contents will enable them to be placed in product and process industry

**Analysis of Overall Feedback given by the Employers on R19**

Parameters	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	21.4	71.4	7.1	0	0	4.139	Excellent
Q2	50	50	0	0	0	4.5	Excellent
Q3	78.6	14.3	7.1	0	0	4.715	Excellent
Q4	64.3	35.7	0	0	0	4.643	Excellent
Q5	57.1	42.9	0	0	0	4.571	Excellent

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

**Suggestion:** Students need interdisciplinary skills to deal with software knowledge of automation machinery.

**Action Taken:** Several courses related to coding has been introduced which helps the students to improve their interdisciplinary skills.

**Suggestion:** Need training on programming in Robots.

**Action Taken:** Robotics and Automation course has been introduced with lab component in which students will learn programming related to Robotics.

**Suggestion:** Knowledge on digital manufacturing is needed.

**Action Taken:** Courses such as Industry 4.0, Machine learning, AI etc. has been introduced.

**Suggestion:** Impart basic IT related courses to Mechanical Engineers also helpful in the present Industry 4.0 era.





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## Department of Mechanical Engineering

**Action Taken:** More emphasis on IT related courses has been provided in the curriculum.

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