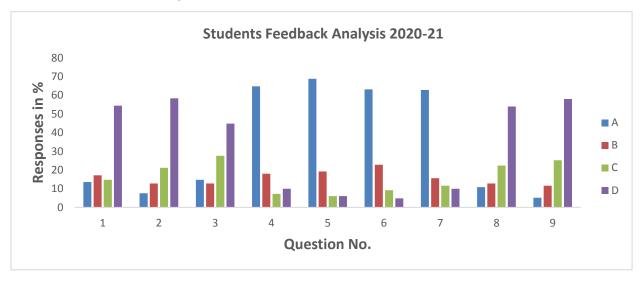


# School of Mechanical & Construction Department of Mechanical Engineering

#### Stakeholders' Feedback on Curriculum

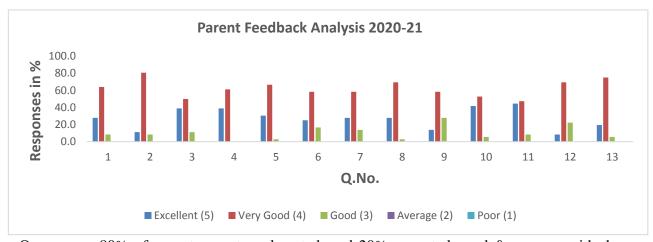
#### **Students Feedback Analysis – 2020-21**



# Based on the Students' feedback on curriculum design, the following are the observations:

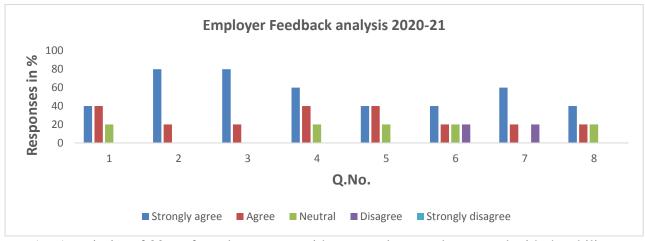
- 1. 70% of the student are either fully satisfied or satisfied with the existing curriculum offered by the Department of Mechanical Engineering.
- 2. 80% of student's perception of the depth of the syllabus of the courses in relation to the competencies expected by industry/current global scenarios is adequate.
- 3. 72.4 % of students gave preference to studying Practical dominated integrated courses, and 11.7 % of students were willing to study lab courses.
- 4. Nearly 82% of students agreed that extra learning/self-learning courses offered by the department are sufficient.
- 5. On an average of 88% of students rated that the evaluation scheme designed for each of the courses is excellent.
- 6. More than 86% of students rated that the electives offered by the department is relevant to the specialization.
- 7. Nearly 78% of students rated that elective courses offered in relation to the specialization are either excellent or good.
- 8. Around 76% of students are either very happy or happy with the Total number of credits to be earned
- 9. Overall 83% of students either strongly agreed or agreed that CBCS regulation and curriculum are helping to learn courses at their own interest.

#### Parents Feedback analysis 2020-21



On average 80% of parents are strongly rated, and 20% are rated good & average with the current syllabus offered by the Department of Mechanical Engineering.

#### **Employer Feedback Analysis 2020-21**



- 1. A majority of 80% of employers were either strongly agreed or agreed with the ability of our students to find solutions to real-life problems and 20% commented neutrally with the above-mentioned statement.
- 2. Curriculum is designed to have a theoretical and practical amalgamation of the courses. More than 80% of our employers are highly satisfied with the Practical and theoretical knowledge of our students whereas nearly 20% of them feel neutral with the same.
- 3. Various skills like analytical, technical, and communication skills were imported to students through courses. The majority of the employers 60% are strongly agreed that the Professional enhancement/Communication skills capabilities of our students are adequate. However, 30% of them are neutral with the above statement.

#### Faculty Feedback Analysis on course handled 2020-21

- 1. More than 90% of faculty members were satisfied with recent curriculum advancements.
- 2. Around 85% of faculty members were highly satisfied with the breadth and depth of course content of the syllabus.
- 3. Nearly 75% of faculty members agreed that the availability of Text & Reference books is adequate.
- 4. Majority of 70% of faculty members were highly satisfied with the effectiveness of the course with respect to students' knowledge.

#### Alumni Feedback Analysis on CBCS curriculum 2020-21

1. More than 90% of Alumni are satisfied with the curriculum offered by the Department of Mechanical engineering.

## $Students\ Feedback\ Analysis-2020-21$

Sl.	Criteria		Respons	ses in 9	%
No.			В	С	D
1.	How do you rate the quality of the existing curriculum?	13.6	17.2	14.8	54.4
2.	Whether the curriculum focuses on program learning outcomes and technical skills required by industry?	7.6	12.8	21.2	58.4
3.	Which type of course do you prefer?	14.8	12.8	27.6	44.8
4.	Rate the curriculum in terms of extra learning or self-learning considering the design of the courses		18	7.2	10
5.	How do you rate the evaluation scheme designed for each of the course?	68.8	19.2	6	6
6.	How do you rate the offering of the electives in terms of their relevance to the specialization?	63.2	22.8	9.2	4.8
7.	How do you rate the relevance of the programme curriculum relevant to your placement or higher studies?	62.8	15.6	11.6	10
8.	• 1		12.8	22.4	54
9.	Do you agree that CBCS regulation and curriculum help to learn courses of your interest at your own place?	5.2	11.6	25.2	58

## Parents Feedback analysis 2020-21

Sl.No.	Particular	Excellent (5)	Very Good (4)	Good (3)	Average (2)	Poor (1)
1.	How do you rate the program that your ward undergoing in terms of the load of the courses in different semesters?	27.8	63.9	8.3	0	0
2.	How do you rate the availability of the text and reference books in the market?	11.1	80.6	8.3	0	0
3.	How do you rate the quality and relevance of the courses included into the curriculum?	38.9	50.0	11.1	0	0
4.	How do you rate the treatment of the students by the faculty irrespective of the background of the student (Gender, cast, community, creed etc.) in teaching and evaluation?	38.9	61.1	0	0	0
5.	How do you rate the ambience of the college for effective delivery of the academic process?	30.6	66.7	2.8	0	0
6.	How do rate the courses in terms of their relevance to the latest and/or future technologies?	25.0	58.3	16.7	0	0
7.	How do you rate the programs based on the comfort of your ward in coping with the workload?	27.8	58.3	13.9	0	0

8.	How do you rate the quality of the teaching in the Institution?	27.8	69.4	2.8	0	0
9.	How do you rate the outcomes that your ward has achieved from the courses?	13.9	58.3	27.8	0	0
10.	How do you rate the transparency of the evaluation system in the College?	41.7	52.8	5.6	0	0
11.	How do you rate the college activities that help your ward in getting jobs and placements?	44.4	47.2	8.3	0	0
12.	How do you rate the transformation of your ward after the completion of the course?	8.3	69.4	22.2	0	0
13.	How do you rate the scholarship/ concessions given to your ward by the college	19.4	75.0	5.6	0	0

# **Employer Feedback Analysis 2020-21**

S.No.	Particular	Excellent (5)	Very Good (4)	Good (3)	Average (2)	Poor (1)
1.	How do you rate the program that your ward undergoing in terms of the load of the courses in different semesters?	27.8	63.9	8.3	0	0
2.	How do you rate the availability of the text and reference books in the market?	11.1	80.6	8.3	0	0
3.	How do you rate the quality and relevance of the courses included into the curriculum?	38.9	50.0	11.1	0	0
4.	How do you rate the treatment of the students by the faculty irrespective of the background of the student (Gender, cast, community, creed etc.) in teaching and evaluation?	38.9	61.1	0.0	0	0
5.	How do you rate the ambience of the college for effective delivery of the academic process?	30.6	66.7	2.8	0	0
6.	How do rate the courses in terms of their relevance to the latest and/or future technologies?	25.0	58.3	16.7	0	0
7.	How do you rate the programs based on the comfort of your ward in coping with the workload?	27.8	58.3	13.9	0	0
8.	How do you rate the quality of the teaching in the Institution?	27.8	69.4	2.8	0	0
9.	How do you rate the outcomes that your ward has achieved from the courses?	13.9	58.3	27.8	0	0
10.	How do you rate the transparency of the evaluation system in the College?	41.7	52.8	5.6	0	0
11.	How do you rate the college activities that help your ward in getting jobs and placements?	44.4	47.2	8.3	0	0

12.	How do you rate the transformation of your ward after the completion of the course?	8.3	69.4	22.2	0	0
13.	How do you rate the scholarship/ concessions given to your ward by the college	19.4	75.0	5.6	0	0

#### Action taken

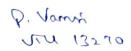
- ✓ Three, new program elective courses namely Automotive Testing and Certification, Structural Vehicle Dynamics & Vehicle Body Engineering were introduced for Automobile specialization during AY 2019-20.
- ✓ Microprocessor and Microcontroller Embedded, System & Device Drivers, and Sensors and actuators program elective courses were introduced for Mechatronics specialization during AY 2019-20.
- ✓ NPTEL course on Environmental studies was considered in the approved list of NPTEL courses.
- ✓ Project competition was conducted to improve design and Analysis skills
- ✓ Placement enhancement skills were imported through Soft skills and Aptitude skills training
- ✓ New program elective courses namely, Wire Electrical Discharge Machining Process and Experimental Design, Optimization and Validation courses will be offered during the forthcoming semesters.
- ✓ As per Computer Aided Design and Drafting lab course handling faculty / in-charge feedback, the credit may reduce from 2 to 1.

Prof. Dr. N. Lenin
Head of the Department
Mechanical Engineering

Vel Tech
Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology

## VEL TECH RANGARAJAN Dr SAGUNTHALA R&D INSTITUTE OF SCIENCE & TECHNOLOGY

School of Mechanical and Construction Department of Mechanical Engineering Students Feedback - Curriculum Design



Academic Year: 2020 - 2021

1.	How do you rate the qua	lity of the existing cur	rriculum?							
	<b>\</b> •• • • • • • •	) Partly Satisfied		d) Fully Satisfied						
2.	Whether the curriculum of by industry?	focuses on program lo	earning outcome	s and technical ski	lls required					
	a)Needs Major Revision d) Fully covers the curren	•	erate Revision	c)Covers to Major	Extent					
3.	a) Theory course b) lab course  d) Practical dominated integrated course  d) Practical dominated integrated course									
4.	Rate the curriculum in te	rms of extra learning	or self-learning o	considering the des	ign of the					
		Good	c) Average	d) Poor						
5.	How do you rate the eval	uation scheme design Good	ned for each of the Average	ne course? d) Poor						
6.	How do you rate the offe	ring of the electives i		elevance to the sp	ecialization?					
	a) Excellent b	)Good	e) Average	d) Poor						
7.	How do you rate the rele higher studies?	vance of the program	me curriculum r	elevant to your pla	cement or					
	-	Good	c) Average	d) Poor						
8.	Are you happy with the T	otal number of credit	requirements o	f curriculum?						
		Happy to Some Exter			рру					
9.	Do you agree that CBCS re your own pace.	egulation and curricu	lum help to learr	o courses of your in	iterest at					
	a) Strongly Disagree b	Disagree Agre	e d) Stror	gly Agree						
10.	. What changes would you	recommend to impro	ve curriculum?							
	Advoced Unco	mechant +	lacking	Courses may	<u> </u>					
	intranced									
			À							

#### VEL TECH RANGARAJAN Dr.SAGUNTHALA R&D INSTITUTE OF SCIENCE AND TECHNOLOGY FACULTY FEEDBACK ON COURSE HANDLED

Faculty Name	: R. Ramesh Kumar	TTS Number: 2226	
Department	: Mechanical	Academic Year: 2020-	
Course Title & course Code	: Computer Aided	Design L Drafting L 11 (Lab dominent C	51ME203
Name of the Programme	: B. Tech.	(Lab dominent a	ourse)
Semester	: _		
Give your valuable suggestic option.	ons in the boxes below for furt	her improvement, if your response i	is third
1. Are the syllabus cont	tents of the course adequate to	o attain all the course outcomes?	
Well adequat	te / Just adequate / Not adequa	ate	
well a	dequate		
		he course available in our library? out less volumes/ inadequate titles &	ί
Adequati	i titles I volumes		
<ol> <li>Adequateness of the contents</li> <li>High / modera</li> </ol>		ed to complete the delivery of the co	ourse
High	<b>\</b> .		]
Extent of pre-requisit     contents     Excellent / Go		respect to learning of this course	
Excelle	ent		]
			]

5.	Freedom in accessing appropriate teaching aids for delivering the course Excellent / Good / poor
	Excellent
6.	Classroom ambiance for students' learning  Excellent / Good / poor
	Excellent
7.	Accessibility of e-learning resources for the students  High / moderate / low
	Moderate
8.	Have you attended any faculty development programme for this course?  More than two / one to two / Nil
	One
9.	Effectiveness of continuous assessments with respect to measurement of course outcomes  More effective / Less effective / Not effective
	More effective.
10.	Your suggestions/comments, if any.
	Based on CADD Syllabus, Credit may Change from two to One. (Lab dominat Course).

Signature of the Faculty
R. Ramesh Kumar.

# Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology

### School of Mechanical and Construction

## Department of Mechanical Engineering

# Employer Feedback on Curriculum

S.No	Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	The curriculum has been designed	-				uisagice
	to make you industry ready by					
	imparting analytical and reasoning	1				
	language and soft skills in addition	1/				
	to technical competencies as					
	desired by the industry					
2	The curriculum is outcome based	-				
	and through various courses the	1/				
	expected outcomes were attained					
3	The electives offered were relevant					
	to the programme and in relation to					
	the technological advancements					
4	Please comment on the adequacy of					
	balance between theory and		1/			
_	practice within the program.					
5	Curriculum has application-based					
	courses which caters the needs and					
	industry in terms of knowledge.					
6	skills, attitude and innovation.					
0	The curriculum was effective in					
7	enhancing team-working abilities.	V				
′	Current syllabus offers based on	-				
	needs and meets to the expectations of industry.					
8	0 1 1 1 1 1					
•	Curriculum bridges the gap between Industry & Academic.					
9	If there are specialized against					
,	If there are specialized equipment, te	XIDOOKS, SO	ftware or	other resou	arces which	you feel
	are not listed but would strongthen the	ne curriculu	m of this	program, p	please identi	ify those
	resources					
10	Are any specific/new/advace d a pi	cs to be in	cluded to	or remov	red from an	y of the
	course? If yes, please mention	<del></del>				5
11	Any additional comments					
	۸1.					

Name of Respondent

Designation/Position

Name of Industry/Institution

Contact number & Emil ID

Vivida litta. A
Serior Manager [Debign]

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Com

#### Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology

Parent's Feedback Form

Admitted you: (AY 2017 - 2018) Academic your : 200009024

Name of the Parent : K. venkatechwarler

Parent of

: TARUNTEJA KUMMEZ VTU NO. : 9930

S.No.	Particular	Excellent (5)	Very Good (4)	Good (3)	Average (2)	Poor (1)	If Average or poor the changes suggested
1.	How do you rate the program that your ward undergoing in terms of the load of the courses in different semesters?			V			
2.	How do you rate the availability of the text and reference books in the market?			V			
3.	How do you rate the quality and relevance of the courses included into the curriculum?		~			1	
4.	How do you rate the treatment of the students by the faculty irrespective of the background of the student (Gender, cast, community, creed etc.) in teaching and evaluation?		L-				
5.	How do you rate the ambience of the college for effective delivery of the academic process?		V				
6.	How do rate the courses in terms of their relevance to the latest and/or future technologies?			~			
7.	How do you rate the programs based on the comfort of your ward in coping with the workload?	~					
8.	How do you rate the quality of the teaching in the Institution?		-				
9.	How do you rate the outcomes that your ward has achieved from the courses?		~				
10.	How do you rate the transparency of the evaluation system in the College?			~			
11.	How do you rate the college activities that help your ward in getting jobs and placements?	-					
12.	How do you rate the transformation of your ward after the completion of the course?		~				
13.	How do you rate the scholarship/ concessions given to your ward by the college	V					

Any other Comments/Suggestions for improvement

I am happy with the university, all faculty members are polite and triendly

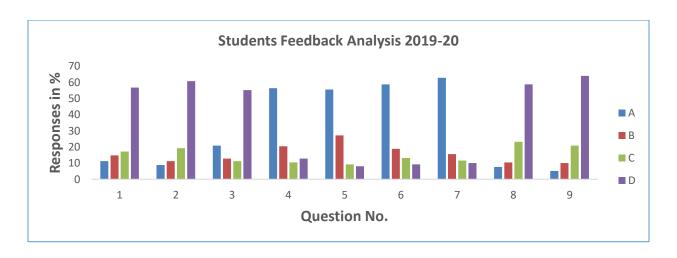
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# School of Mechanical & Construction Department of Mechanical Engineering

### **Students Feedback Analysis on Curriculum Design – 2019-20**

Sl.	Criteria	R	espons	ses in 9	%
No.	Criteria		В	С	D
1.	How do you rate the quality of the existing curriculum?	11.2	14.8	17.2	56.8
2.	Whether the curriculum focuses on program learning outcomes and technical skills required by industry?	8.8	11.2	19.2	60.8
3.	Which type of course do you prefer?	20.8	12.8	11.2	55.2
4.	Rate the curriculum in terms of extra learning or self-learning considering the design of the courses		20.4	10.4	12.8
5.	How do you rate the evaluation scheme designed for each of the course?		27.2	9.2	8
6.	How do you rate the offering of the electives in terms of their relevance to the specialization?	58.8	18.8	13.2	9.2
7.	How do you rate the relevance of the programme curriculum relevant to your placement or higher studies?	62.8	15.6	11.6	10
8.	Are you happy with the Total number of credit requirements of curriculum?		10.4	23.2	58.8
9.	Do you agree that CBCS regulation and curriculum help to learn courses of your interest at your own place?	5.2	10	20.8	64



- 1. 74% of student's either fully satisfied or satisfied with the existing curriculum offered by the Department of Mechanical Engineering.
- 2. 80% of student's perception with the depth of the syllabus of the courses in relation to the competencies expected by industry/current global scenarios is adequate.
- 3. 55.2% students given preference to study Practical dominated integrated courses, 11.2% lab courses, 12.8% theory dominated integrated courses and 20.8% theory courses.
- 4. Nearly 76% of students agreed that extra learning / self-learning courses offered by the department is sufficient.
- 5. On an average of 83% of students rated that the evaluation scheme designed for each of the course is excellent.
- 6. More than 77% students rated that the electives offered by the department is relevant to the specialization.
- 7. Nearly 82% of students rated that elective courses offered in relation to the specialization is either excellent or good.
- 8. Around 82% of students is either very happy or happy with the Total number of credits to be earned
- 9. Overall 85% of students either strongly agreed or agreed that CBCS regulation and curriculum is help to learn courses at own interest.

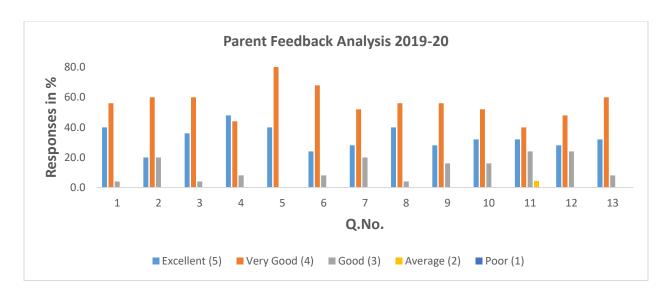
#### Faculty Feedback Analysis on course handled 2019-20

- 1. More than 92% of faculty members were satisfied with recent curriculum advancement.
- 2. Around 80% of faculty members were highly satisfied with the breadth and depth of course content of the syllabus.
- 3. Nearly 75% of faculty members agreed that the availability of Text & Reference books are adequate.
- 4. Majority of 75% of faculty members were highly satisfied with effectiveness of course with respect to students' knowledge.

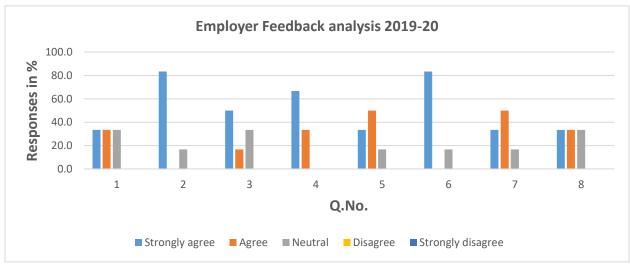
### Parents Feedback Analysis 2019-20

S.No.	Particular	Excellent (5)	Very Good (4)	Good (3)	Average (2)	Poor (1)
1.	How do you rate the program that your ward undergoing in terms of the load of the courses in different semesters?	40.0	56.0	4.0	0	0
2.	How do you rate the availability of the text and reference books in the market?	20.0	60.0	20.0	0	0
3.	How do you rate the quality and relevance of the courses included into the curriculum?	36.0	60.0	4.0	0	0
4.	How do you rate the treatment of the students by the faculty irrespective of the background of the student (Gender, cast, community, creed etc.) in teaching and evaluation?	48.0	44.0	8.0	0	0
5.	How do you rate the ambience of the college for effective delivery of the academic process?	40.0	60.0	0.0	0	0
6.	How do rate the courses in terms of their relevance to the latest and/or future technologies?	24.0	68.0	8.0	0	0
7.	How do you rate the programs based on the comfort of your ward in coping with the workload?	28.0	52.0	20.0	0	0
8.	How do you rate the quality of the teaching in the Institution?	40.0	56.0	4.0	0	0
9.	How do you rate the outcomes that your ward has achieved from the courses?	28.0	56.0	16.0	0	0
10.	How do you rate the transparency of the evaluation system in the College?	32.0	52.0	16.0	0	0
11.	How do you rate the college activities that help your ward in getting jobs and placements?	32.0	40.0	24.0	4.0	0
12.	How do you rate the transformation of your ward after the completion of the course?	28.0	48.0	24.0	0	0
13.	How do you rate the scholarship/ concessions given to your ward by the college	32.0	60.0	8.0	0	0

On an average 88% parents are strongly rated, and 12% are rated good & average with the current syllabus offered by the Department of Mechanical Engineering.



#### **Employer Feedback Analysis 2019-20**



- 1. A majority of 83% employers were either strongly agreed or agreed with the ability of our students to find solutions of the real life problems and 13% commented neutral with the above mentioned statement.
- 2. Curriculum is designed to have theoretical and practical amalgamation of the courses.

  100% of our employers are highly satisfied with the Practical and theoretical knowledge of our students.
- 3. Various skills like analytical, technical and communication skills were imported to students through courses. Majority of the employers 67% are strongly agreed that Professional enhancement/Communication skills capabilities of our students is adequate. However 33% of them are neutral with the above statement.

		Responses in percentage					
Sl.No.	Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
1	The curriculum has been designed to make you industry ready by imparting analytical and reasoning, language and soft skills in addition to technical competencies, as desired by the industry.	33.3	33.3	33.3	0	0	
2	The curriculum is outcome based and through various courses, the expected outcomes were attained.	83.3	0.0	16.7	0	0	
3	The electives offered were relevant to the programme and in relation to the technological advancements.	50.0	16.7	33.3	0	0	
4	Please comment on the adequacy of balance between theory and practice within the program.	66.7	33.3	0.0	0	0	
5	Curriculum has application- based courses which caters the needs of industry in terms of knowledge, skills, attitude and innovation.	33.3	50.0	16.7	0	0	
6	The curriculum was effective in enhancing teamworking abilities.	83.3	0.0	16.7	0	0	
7	Current syllabus offers based on needs and meets to the expectations of industry.	33.3	50.0	16.7	0	0	
8	Curriculum bridges the gap between Industry & Academic.	33.3	33.3	33.3	0	0	

#### Summary of Students feedback on CBCS curriculum

- Design competition / Projects competition possibly be conducted
- Specialized credit courses could be introduced
- Introduce elective courses according to industrial requirements
- Include newer courses which have more relevance to the industry and current technology

#### Summary of Alumni suggestions as follows

- More focus should be given on Mechanical CAD/CAM software training
- More no. of Self-learning courses may be offered
- No. of integrated courses should be increased
- Strengthen Lab courses syllabus to suit industrial standards
- Needs improvement in contents related to real life problem solving

#### Summary of Faculty feedback on course handled

- Text / Reference books related to Laboratory courses is inadequate.
- Experiments are to be revised for DOM and CAD/CAM/CAE labs

#### **Action taken**

- ✓ 10 new courses under program elective were introduced. The details of the courses are as follows
  - Process Planning and Cost Estimation
  - Design of Rotodynamic Pumps
  - Welding Metallurgy and Weldability of Stainless Steels
  - Finite Element Analysis of Composite Structures
  - Integrated Product Design and Process Development
  - System modelling and control engineering
  - Advanced Metal Forming Processes
  - Material Characterization & Testing Methods
  - Artificial Intelligence System in Manufacturing
  - Laser Processing of Materials
- ✓ Knowledge level with respect to course outcomes for Finite Element course was modified and incorporated in the syllabus.

- ✓ Project competition was conducted to improve Design and Testing knowledge
- ✓ Placement enhancement skills were imported through Soft skills and Aptitude skills training.
- ✓ Practical approach of teaching was practiced through available lab equipment.
- ✓ New experiments were designed and incorporated in DOM LAB.

Prof. Dr. N. Lenin
Head of the Department
Mechanical Engineering

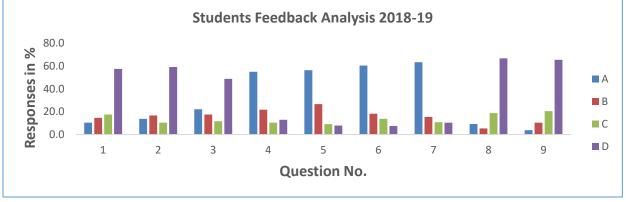
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Rangarajan Dr. Sagunthala
RSD Institute of Statuse and Technology
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# School of Mechanical & Construction Department of Mechanical Engineering

#### Students Feedback Analysis on Curriculum Design – 2018 - 19

Sl.	Cuitouio	Responses in %				
No.	Criteria		В	C	D	
1.	How do you rate the quality of the existing curriculum?	10.4	14.6	17.5	57.5	
2.	Whether the curriculum focuses on program learning outcomes and technical skills required by industry?	13.8	16.7	10.4	59.2	
3.	Which type of course do you prefer?	22.1	17.5	11.7	48.8	
4.	Rate the curriculum in terms of extra learning or self-learning considering the design of the courses	55.0	21.7	10.4	12.9	
5.	How do you rate the evaluation scheme designed for each of the course?	56.3	26.7	9.2	7.9	
6.	How do you rate the offering of the electives in terms of their relevance to the specialization?	60.4	18.3	13.8	7.5	
7.	How do you rate the relevance of the programme curriculum relevant to your placement or higher studies?	63.3	15.4	10.8	10.4	
8.	Are you happy with the Total number of credit requirements of curriculum?	9.2	5.4	18.8	66.7	
9.	Do you agree that CBCS regulation and curriculum help to learn courses of your interest at your own place?	3.8	10.4	20.4	65.4	



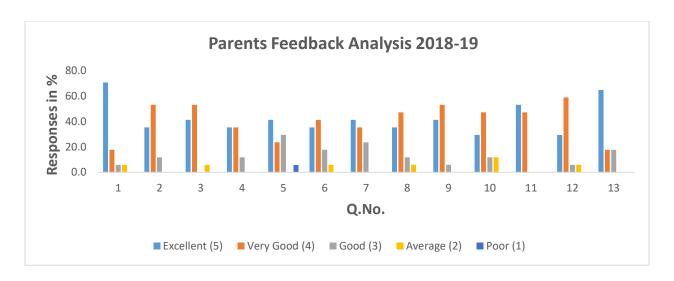
- 1. 75% of student's either fully satisfied or satisfied with the existing curriculum offered by the Department of Mechanical Engineering.
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- 3. 48% students given preference to study Practical dominated integrated courses, 11.7 % lab courses, 17.5% theory dominated integrated courses and 22.1% theory courses.
- 4. Nearly 77% of students agreed that extra learning / self-learning courses offered by the department is sufficient.
- 5. On an average of 83% of students rated that the evaluation scheme designed for each of the course is excellent.
- 6. More than 78% students rated that the electives offered by the department is relevant to the specialization.
- 7. Nearly 85% of students rated that elective courses offered in relation to the specialization is either excellent or good.
- 8. Around 85 % of students is either very happy or happy with the Total number of credits to be earned
- 9. Overall 86% of students either strongly agreed or agreed that CBCS regulation and curriculum is help to learn courses at own interest.

#### Faculty Feedback Analysis on course handled 2018-19

- 1. More than 92% of faculty members were satisfied with recent curriculum advancement.
- 2. Around 80% of faculty members were highly satisfied with the breadth and depth of course content of the syllabus.
- 3. Nearly 75% of faculty members agreed that the availability of Text & Reference books are adequate.
- 4. Majority of 75% of faculty members were highly satisfied with effectiveness of course with respect to students' knowledge.

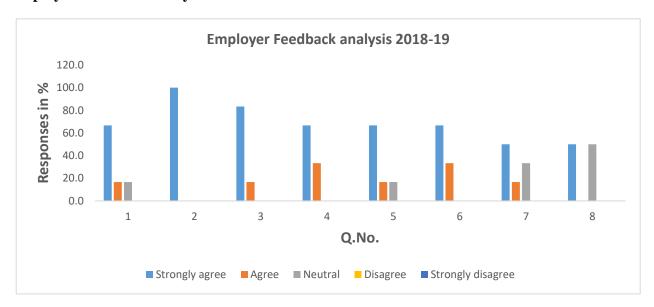
### Parents Feedback Analysis 2018-19

Sl.No.	Particular	Excellent (5)	Very Good (4)	Good (3)	Average (2)	Poor (1)
1.	How do you rate the program that your ward undergoing in terms of the load of the courses in different semesters?	70.6	17.6	5.9	5.9	0
2.	How do you rate the availability of the text and reference books in the market?	35.3	52.9	11.8	0	0
3.	How do you rate the quality and relevance of the courses included into the curriculum?	41.2	52.9	0.0	5.9	0
4.	How do you rate the treatment of the students by the faculty irrespective of the background of the student (Gender, cast, community, creed etc.) in teaching and evaluation?	35.3	35.3	11.8	0	0
5.	How do you rate the ambience of the college for effective delivery of the academic process?	41.2	23.5	29.4	0	5.9
6.	How do rate the courses in terms of their relevance to the latest and/or future technologies?	35.3	41.2	17.6	5.9	0
7.	How do you rate the programs based on the comfort of your ward in coping with the workload?	41.2	35.3	23.5	0	0
8.	How do you rate the quality of the teaching in the Institution?	35.3	47.1	11.8	5.9	0
9.	How do you rate the outcomes that your ward has achieved from the courses?	41.2	52.9	5.9	0	0
10.	How do you rate the transparency of the evaluation system in the College?	29.4	47.1	11.8	11.8	0
11.	How do you rate the college activities that help your ward in getting jobs and placements?	52.9	47.1	0	0	0
12.	How do you rate the transformation of your ward after the completion of the course?	29.4	58.8	5.9	5.9	0
13.	How do you rate the scholarship/ concessions given to your ward by the college	64.7	17.6	17.6	0	0



On an average 60% parents are strongly rated, 20% are rated good, 18% are neutral and 2% rated poor with the current syllabus offered the Department of Mechanical Engineering.

#### **Employer Feedback Analysis 2018-19**



- 1. A majority of 85% employers were either strongly agreed or agreed with the ability of our students to find solutions of the real life problems and 15% commented neutral with the above mentioned statement.
- 2. Curriculum is designed to have theoretical and practical amalgamation of the courses.

  100% our employers are satisfied with the Practical and theoretical knowledge of our students.

3. Various skills like analytical, technical and communication skills were imported to students through courses. Majority of the employers 87% are strongly agreed that Professional enhancement/Communication skills capabilities of our students is adequate. However 17% of them are neutral with the above statement.

			Respo	onses in per	centage	
Sl.No.	Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	The curriculum has been designed to make you industry ready by imparting analytical and reasoning, language and soft skills in addition to technical competencies, as desired by the industry.	66.7	16.7	16.7	0	0
2	The curriculum is outcome based and through various courses, the expected outcomes were attained.	100.0	0	0	0	0
3	The electives offered were relevant to the programme and in relation to the technological advancements.	83.3	16.7	0	0	0
4	Please comment on the adequacy of balance between theory and practice within the program.	66.7	33.3	0	0	0
5	Curriculum has application- based courses which caters the needs of industry in terms of knowledge, skills, attitude and innovation.	66.7	16.7	16.7	0	0
6	The curriculum was effective in enhancing teamworking abilities.	66.7	33.3	0.0	0	0
7	Current syllabus offers based on needs and meets to the expectations of industry.	50.0	16.7	33.3	0	0
8	Curriculum bridges the gap between Industry & Academic.	50.0	0.0	50.0	0	0

#### Summary of Students feedback on CBCS curriculum

- Expert lectures from industry/institute may be arranged
- Industrial visits relevant to core companies can be arranged
- Case-studies could be included in the syllabus wherever possible
- Lab facilities might be upgraded to suit industrial needs

#### Summary of Alumni suggestions as follows

- Manufacturing courses syllabus may be upgraded on par with industrial requirements
- Advanced elective courses can be implemented
- Modern / Cutting-edge technologies contents might be included in the existing manufacturing and design courses.
- Professional enhancement courses need to be implemented
- More no. of Active learning methods are to be practiced in the class

#### Summary of Faculty feedback on course handled

- Syllabus contents for Applied Hydraulic and pneumatic course may be reduced
- Design of Machine Elements course contents is vast. Few topic in Unit 4 & 5 can be reduced.

#### **Action taken**

- ✓ Two experiments were included in Cam laboratory for M.Tech Design program
- ✓ Minor changes were made on syllabus content of Applied Materials Engineering course
- ✓ Tutorial classes were allocated to Finite Element methods' and 'Design of Experiments & Taguchi Methods' course syllabus.
- ✓ Application of BioMechanics in Production' topic was included in the Bio-Mechanics course.
- ✓ Recent manufacturing techniques topics were included in Manufacturing courses
- ✓ ALM is practiced for Design and Thermal courses
- ✓ Project competition was conducted to improve Design and Testing knowledge
- ✓ Placement enhancement skills were imparted through Soft skills and Aptitude skills training.

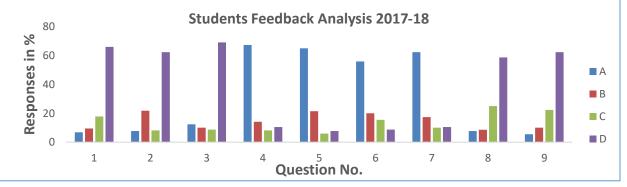




# School of Mechanical & Construction Department of Mechanical Engineering

### **Students Feedback Analysis on Curriculum Design – 2017-18**

Sl.	Cuitonio		Responses in %					
No.	Criteria	A	В	С	D			
1.	How do you rate the quality of the existing curriculum?	6.8	9.5	17.7	65.9			
2.	Whether the curriculum focuses on program learning outcomes and technical skills required by industry?	7.7	21.8	8.2	62.3			
3.	Which type of course do you prefer?	12.3	10	8.6	69.1			
4.	Rate the curriculum in terms of extra learning or self-learning considering the design of the courses	67.3	14.1	8.2	10.5			
5.	How do you rate the evaluation scheme designed for each of the course?	65	21.4	5.9	7.7			
6.	How do you rate the offering of the electives in terms of their relevance to the specialization?	55.9	20	15.5	8.6			
7.	How do you rate the relevance of the programme curriculum relevant to your placement or higher studies?	62.3	17.3	10.0	10.5			
8.	Are you happy with the Total number of credit requirements of curriculum?	7.7	8.6	25.0	58.6			
9.	Do you agree that CBCS regulation and curriculum help to learn courses of your interest at your own place?	5.5	10	22.3	62.3			



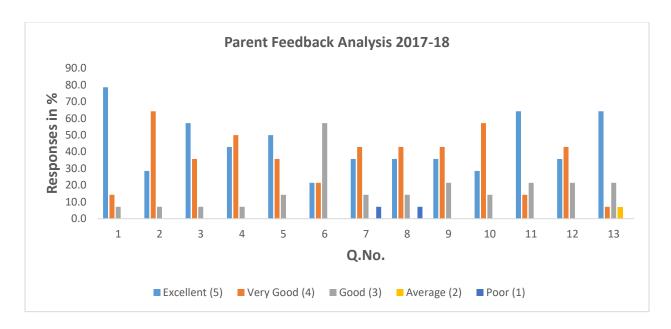
- 1. 83.6% of student's either fully satisfied or satisfied with the existing curriculum offered by the Department of Mechanical Engineering.
- 2. 70.5% of student's perception with the depth of the syllabus of the courses in relation to the competencies expected by industry/current global scenarios is adequate.
- 3. 69% students given preference to study Practical dominated integrated courses, 8.6.% students willing to study lab courses.
- 4. Nearly 82% of students agreed that extra learning / self-learning courses offered by the department is sufficient.
- 5. On an average of 87% of students rated that the evaluation scheme designed for each of the course is excellent.
- 6. More than 86% students rated that the electives offered by the department is relevant to the specialization.
- 7. Nearly 83% of students rated that elective courses offered in relation to the specialization is either excellent or good.
- 8. Around 83% of students is either very happy or happy with the Total number of credits to be earned
- 9. Overall 84.5% of students either strongly agreed or agreed that CBCS regulation and curriculum is help to learn courses at own interest.

#### Faculty Feedback Analysis on course handled 2017-18

- 1. More than 90% of faculty members were satisfied with recent curriculum advancement.
- 2. Around 90% of faculty members were highly satisfied with the breadth and depth of course content of the syllabus.
- 3. Nearly 80% of faculty members agreed that the availability of Text & Reference books are adequate.
- 4. Majority of 75% of faculty members were highly satisfied with effectiveness of course with respect to students' knowledge.

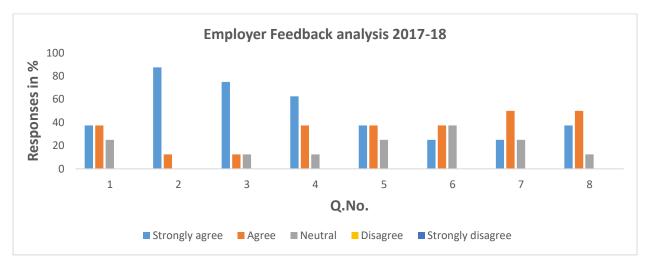
## Parents Feedback analysis 2017-18

Sl.No.	Particular	Excellent (5)	Very Good (4)	Good (3)	Average (2)	Poor (1)
1.	How do you rate the program that your ward undergoing in terms of the load of the courses in different semesters?	78.6	14.3	7.1	0	0
2.	How do you rate the availability of the text and reference books in the market?	28.6	64.3	7.1	0	0
3.	How do you rate the quality and relevance of the courses included into the curriculum?	57.1	35.7	7.1	0	0
4.	How do you rate the treatment of the students by the faculty irrespective of the background of the student (Gender, cast, community, creed etc.) in teaching and evaluation?	42.9	50.0	7.1	0	0
5.	How do you rate the ambience of the college for effective delivery of the academic process?	50.0	35.7	14.3	0	0
6.	How do rate the courses in terms of their relevance to the latest and/or future technologies?	21.4	21.4	57.1	0	0
7.	How do you rate the programs based on the comfort of your ward in coping with the workload?	35.7	42.9	14.3	0	7.1
8.	How do you rate the quality of the teaching in the Institution?	35.7	42.9	14.3	0	7.1
9.	How do you rate the outcomes that your ward has achieved from the courses?	35.7	42.9	21.4	0	0
10.	How do you rate the transparency of the evaluation system in the College?	28.6	57.1	14.3	0	0
11.	How do you rate the college activities that help your ward in getting jobs and placements?	64.3	14.3	21.4	0	0
12.	How do you rate the transformation of your ward after the completion of the course?	35.7	42.9	21.4	0	0
13.	How do you rate the scholarship/ concessions given to your ward by the college	64.3	7.1	21.4	7.1	0



On an average 80% parents are strongly rated, 29% are rated good and 1% rated poor with the current syllabus offered the Department of Mechanical Engineering.

#### **Employer Feedback Analysis 2017-18**



- 1. A majority of 75% employers were either strongly agreed or agreed with the ability of our students to find solutions of the real life problems and 25% commented neutral with the above mentioned statement.
- 2. Curriculum is designed to have theoretical and practical amalgamation of the courses. More than 88% of our employers are highly satisfied with the Practical and theoretical knowledge of our students whereas nearly 12% of them feel neutral with the same.

**3.** Various skills like analytical, technical and communication skills were imported to students through courses. Majority of the employers 75% are strongly agreed that Professional enhancement/Communication skills capabilities of our students is adequate. However 25% of them are neutral with the above statement.

		Responses in percentage					
Sl.No.	Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
1	The curriculum has been designed to make you industry ready by imparting analytical and reasoning, language and soft skills in addition to technical competencies, as desired by the industry.	30	40	30	0	0	
2	The curriculum is outcome based and through various courses, the expected outcomes were attained.	80	20	0	0	0	
3	The electives offered were relevant to the programme and in relation to the technological advancements.	50	30	20	0	0	
4	Please comment on the adequacy of balance between theory and practice within the program.	30	60	10	0	0	
5	Curriculum has application- based courses which caters the needs of industry in terms of knowledge, skills, attitude and innovation.	20	30	20	20	10	
6	The curriculum was effective in enhancing teamworking abilities.	30	40	20	10	0	
7	Current syllabus offers based on needs and meets to the expectations of industry.	10	50	40	0	0	
8	Curriculum bridges the gap between Industry & Academic.	10	40	40	10	0	

#### Summary of Students feedback on CBCS curriculum

- More emphasis should be given to practical classes and emerging trends
- Introduce new technology based courses that are required by the industries
- Practical blended teaching-learning could be implemented
- Specialized credit courses could be introduced

#### Summary of Alumni suggestions as follows

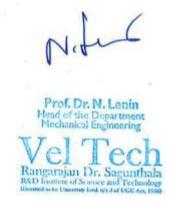
- Mechanical components / system design knowledge are need to be imbibed among students
- Individual and team work skills should be imported to students
- Seminar courses may be introduced in the curriculum for improving the students' communication skills.
- Problem solving and critical thinking knowledge should be focused more.
- Participative approach should be implemented in Teaching learning process

#### Summary of Faculty feedback on course handled

- Governor topic in dynamics of Machinery course is vast. Only spring loaded governor can be considered.
- Few more recent topics in Mechatronics courses can be included.
- Suitable case studies possibly be incorporated in Non-Destructive course
- Calculation of Volumetric efficiency and Air blower efficiency experiments might be inducted in HMT lab.

#### Action taken

- ✓ Engineering Metrology and Measurements theory dominated integrated course was introduced
- ✓ Few changes were made on the syllabus content of Solar Thermal Technology
- ✓ CAD lab design software AutoCAD was upgraded to Fusion 360
- ✓ Critical thinking and problem solving ability of students were imbibed through collaborative learning.



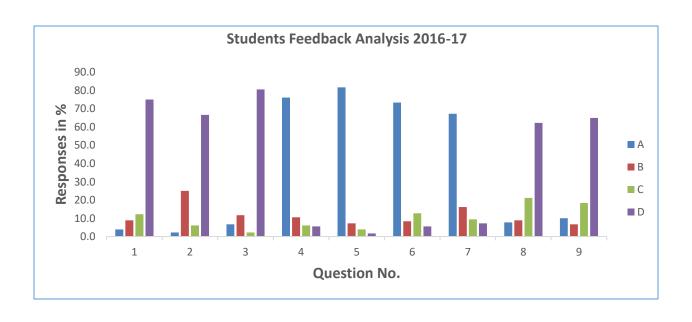


# School of Mechanical & Construction Department of Mechanical Engineering

#### **Students Feedback Analysis on Curriculum Design – 2016-17**

Sl.N	Criteria		Responses in %				
0.	Cincina	A	В	С	D		
1.	How do you rate the quality of the existing curriculum?	3.9	8.9	12.2	75.0		
2.	Whether the curriculum focuses on program learning outcomes and technical skills required by industry?	2.2	25.0	6.1	66.7		
3.	Which type of course do you prefer?	6.7	11.7	2.2	80.6		
4.	Rate the curriculum in terms of extra learning or self- learning considering the design of the courses	76.1	10.6	6.1	5.6		
5.	How do you rate the evaluation scheme designed for each of the course?	81.7	7.2	3.9	1.7		
6.	How do you rate the offering of the electives in terms of their relevance to the specialization?	73.3	8.3	12.8	5.6		
7.	How do you rate the relevance of the programme curriculum relevant to your placement or higher studies?	67.2	16.1	9.4	7.2		
8.	Are you happy with the Total number of credit requirements of curriculum?	7.8	8.9	21.1	62.2		
9.	Do you agree that CBCS regulation and curriculum help to learn courses of your interest at your own place?	10.0	6.7	18.3	65.0		

#### Based on the Students feedback on curriculum design, the following are the observations:



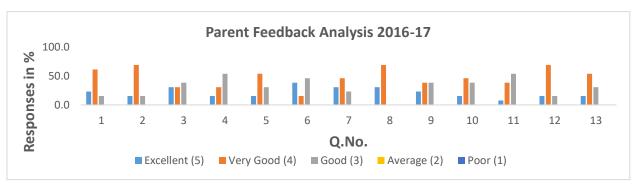
- 1. 87.2% of student's either fully satisfied or satisfied with the existing curriculum offered by the Department of Mechanical Engineering.72.8% of student's perception with the depth of the syllabus of the courses in relation to the competencies expected by industry/current global scenarios is adequate.
- 2. 80.6 % students given preference to study Practical dominated integrated courses, 11.7 % students willing to study lab courses.
- 3. Nearly 87% of students agreed that extra learning / self-learning courses offered by the department is sufficient.
- 4. On an average of 89% of students rated that the evaluation scheme designed for each of the course is excellent.
- 5. More than 80% students rated that the electives offered by the department is relevant to the specialization.
- 6. Nearly 83% of students rated that elective courses offered in relation to the specialization is either excellent or good.
- 7. Around 83% of students is either very happy or happy with the Total number of credits to be earned
- 8. Overall 83% of students either strongly agreed or agreed that CBCS regulation and curriculum is help to learn courses at own interest.

#### Faculty Feedback Analysis on course handled 16-17

- 1. More than 95% of faculty members were satisfied with recent curriculum advancement.
- 2. Around 90% of faculty members were highly satisfied with the breadth and depth of course content of the syllabus.
- 3. Nearly 85% of faculty members agreed that the availability of Text & Reference books are adequate.
- 4. Majority of 80% of faculty members were highly satisfied with effectiveness of course with respect to students' knowledge.

#### Parents Feedback analysis 16-17

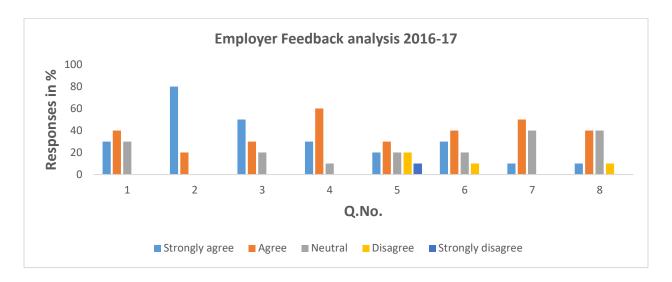
On an average 70% parents are strongly rated, and 30% are rated good & average with the current syllabus offered the Department of Mechanical Engineering.



Sl.No.	Particular	Excellent (5)	Very Good (4)	Good (3)	Average (2)	Poor (1)
1.	How do you rate the program that your ward undergoing in terms of the load of the courses in different semesters?	23.1	61.5	15.4	0	0
2.	How do you rate the availability of the text and reference books in the market?	15.4	69.2	15.4	0	0
3.	How do you rate the quality and relevance of the courses included into the curriculum?	30.8	30.8	38.5	0	0
4.	How do you rate the treatment of the students by the faculty irrespective of the background of the student (Gender, cast, community, creed etc.) in teaching and evaluation?	15.4	30.8	53.8	0	0
5.	How do you rate the ambience of the college for effective delivery of the academic process?	15.4	53.8	30.8	0	0
6.	How do rate the courses in terms of their relevance to the latest and/or future technologies?	38.5	15.4	46.2	0	0
7.	How do you rate the programs based on the comfort of your ward in coping with the workload?	30.8	46.2	23.1	0	0
8.	How do you rate the quality of the teaching in the Institution?	30.8	69.2	0.0	0	0
9.	How do you rate the outcomes that your ward has achieved from the courses?	23.1	38.5	38.5	0	0
10.	How do you rate the transparency of the evaluation system in the College?	15.4	46.2	38.5	0	0
11.	How do you rate the college activities that help your ward in getting jobs and placements?	7.7	38.5	53.8	0	0
12.	How do you rate the transformation of your ward after the completion of the course?	15.4	69.2	15.4	0	0
13.	How do you rate the scholarship/ concessions given to your ward by the college	15.4	53.8	30.8	0	0

## **Employer Feedback Analysis 2016-17**

		Responses in percentage					
Sl.No.	Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
1	The curriculum has been designed to make you industry ready by imparting analytical and reasoning, language and soft skills in addition to technical competencies, as desired by the industry.	30	40	30	0	0	
2	The curriculum is outcome based and through various courses, the expected outcomes were attained.	80	20	0	0	0	
3	The electives offered were relevant to the programme and in relation to the technological advancements.	50	30	20	0	0	
4	Please comment on the adequacy of balance between theory and practice within the program.	30	60	10	0	0	
5	Curriculum has application- based courses which caters the needs of industry in terms of knowledge, skills, attitude and innovation.	20	30	20	20	10	
6	The curriculum was effective in enhancing teamworking abilities.	30	40	20	10	0	
7	Current syllabus offers based on needs and meets to the expectations of industry.	10	50	40	0	0	
8	Curriculum bridges the gap between Industry & Academic.	10	40	40	10	0	



As per the feedback analysis, a large number of employers are contended with the Courses being taught as the syllabus is regularly updated to meet existing technological trends.

- 1. A majority of 70% employers were either strongly agreed or agreed with the ability of our students to find solutions of the real life problems and 5.71% commented neutral with the above mentioned statement.
- 2. Curriculum is designed to have theoretical and practical amalgamation of the courses. More than 90% of our employers are highly satisfied with the Practical and theoretical knowledge of our students whereas nearly 10% of them feel neutral with the same.
- 3. Various skills like analytical, technical and communication skills were imported to students through courses. Majority of the employers are strongly / strongly agreed that Professional enhancement/Communication skills capabilities of our students is adequate. However 30% of them are neutral with the above statement.

#### Summary of Students feedback on CBCS curriculum

- More emphasis should be given to practical classes and emerging trends
- The quality of books in library that matches with latest curriculum shall be made available
- More Industrial visits may be arranged for practical exposure
- Value added courses could be included
- Seminar type of courses possibly be introduced

#### Summary of Alumni suggestions as follows

- Soft skill / Aptitude skill courses may be included in the curriculum
- Value added courses like advanced mechanical CAD/CAM/CAE packages could be arranged.
- Advanced machining processes, Welding Technology and Industry relevant courses can be considered.
- Modern pedagogical methods may be practiced to enhance Teaching Learning Process
- Advanced Elective courses can be introduced
- Recent / cutting edge technologies could be updated in the existing courses

#### Summary of Faculty feedback on course handled

- Credits for some courses may be increased
- Contact hrs. for Design courses should be increased
- Design of Machine elements unit 5 is vast.

#### **Action taken**

- ✓ Few experiments has been included in Mechatronics Laboratory and Robotics laboratory
- ✓ Faculty members are advised to practice ALM for suitable concepts
- ✓ Tutorial classes were conducted for Problematic and design courses
- ✓ Soft skills enhancement classes have been scheduled and conducted

