ADITYA ENGINEERING COLLEGE

An Autonomous Institution

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Aditya Nagar, ADB Road, Surampalem - 533437, Near Kakinada, E.G.Dt., Ph:99498 76662

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Name of the program- **M. Tech (VLSI-Design)**

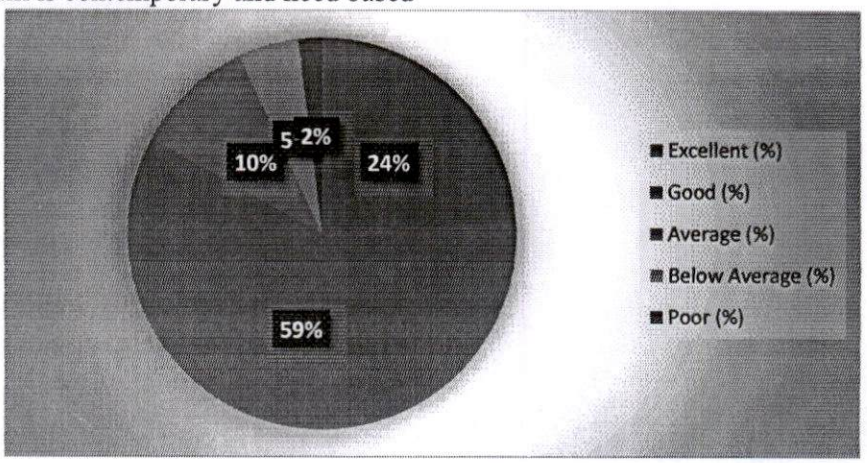
Student Feedback Analysis **(2021- 2022)**.

S. NO	Question related to Curriculum	Opinion of the Students with percentage					Majority Opinion	% of Majority Opinion
		Excellent (%)	Good (%)	Average (%)	Below Average (%)	Poor (%)		
1	Curriculum is contemporary and need based	24	59	10	5	2	Excellent & Good	83%
2	Curriculum has good balance of Theory and Practical courses	23	59	10	6	2	Excellent & Good	82%
3	The curriculum has sufficient number of electives	21	63	8	6	2	Excellent & Good	84%
4	There is adequate emphasis on employability skills / skill development/entrepreneurship in the curriculum.	23	61	9	5	2	Excellent & Good	84%
5	There is adequate emphasis on Communication Skills in the Curriculum.	22	63	8	4	3	Excellent & Good	85%
6	There is adequate emphasis on Human Values, ethics and Professionalism in the Curriculum.	20	63	11	4	2	Excellent & Good	83%
7	The electives offered in the curriculum suits the industry needs and technological advancements.	25	60	9	4	2	Excellent & Good	85%

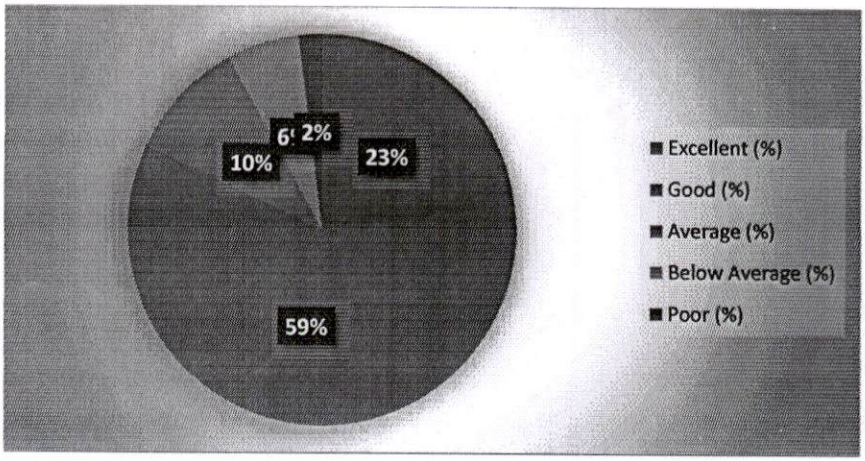
8	The books prescribed/listed as reference in curriculum are relevant, appropriate and updated.	25	59	7	7	2	Excellent & Good	84%
9	The Program Educational Objectives, Program outcomes, Program Specific Outcomes, Course Objectives and Course Outcomes are well defined and clear.	24	58	12	4	2	Excellent & Good	82%
10	The rubrics for assessment is described clearly and there is adequate weightage for Continuous Internal Evaluation and Semester End Examination.	24	59	8	6	3	Excellent & Good	83%

Graphical representation of Students feedback on curriculum

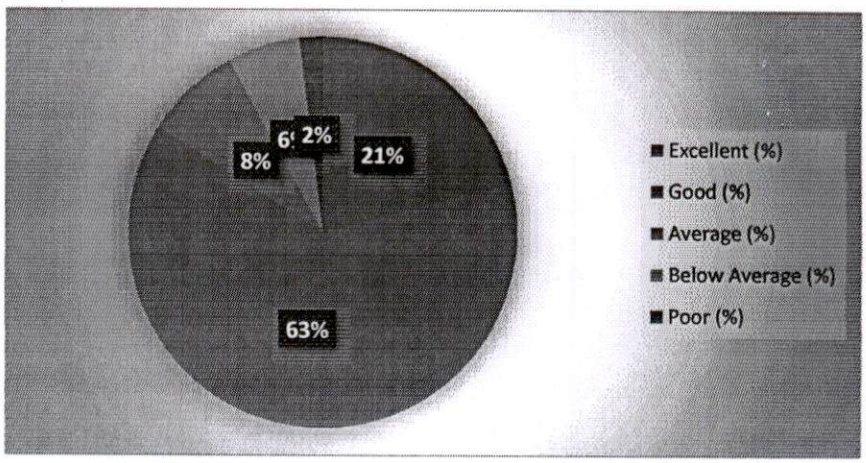
1. Curriculum is contemporary and need based



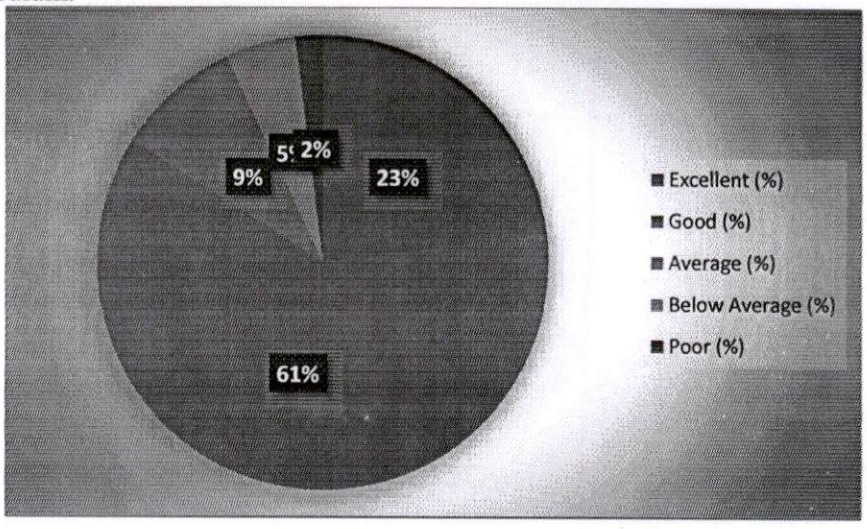
2. Curriculum has good balance of Theory and Practical courses.



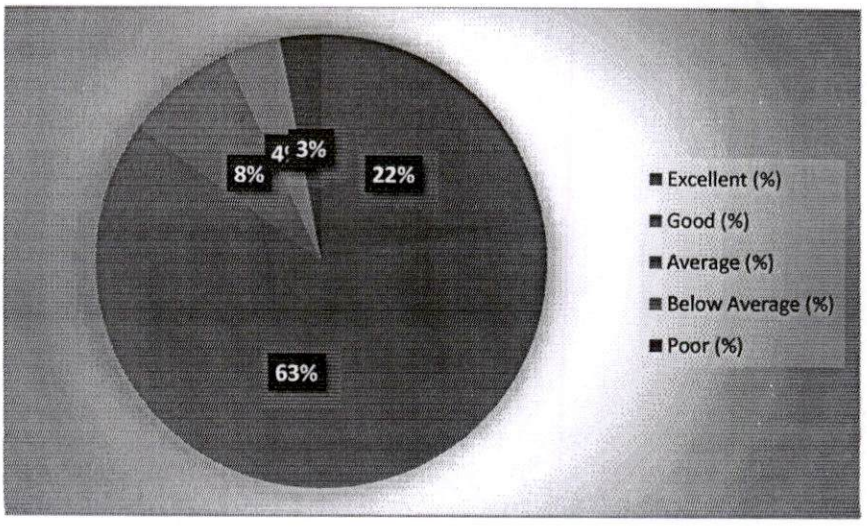
3. The curriculum has sufficient number of electives



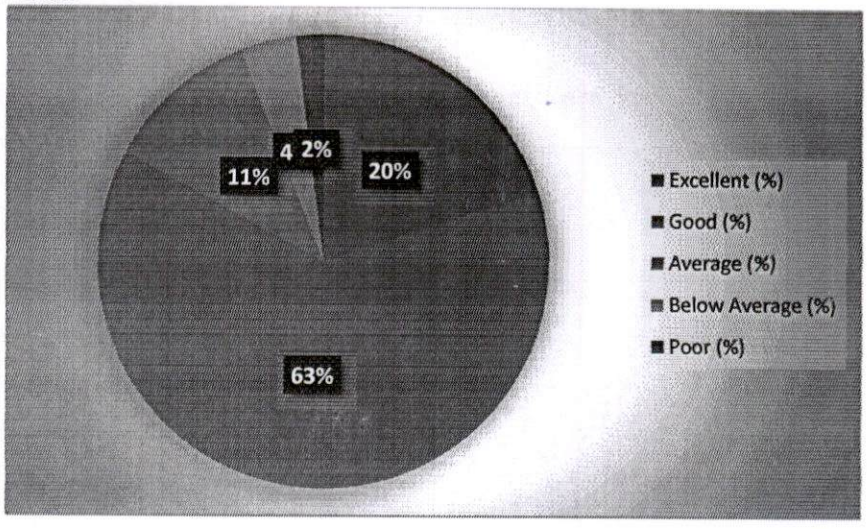
4. There is adequate emphasis on employability skills/ skill development/entrepreneurship in the curriculum.



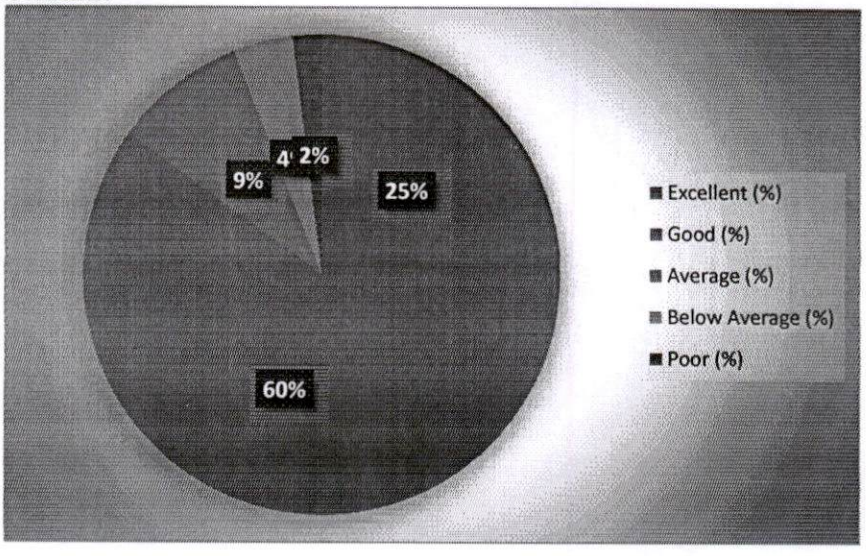
5. There is adequate emphasis on Communication Skills in the Curriculum.



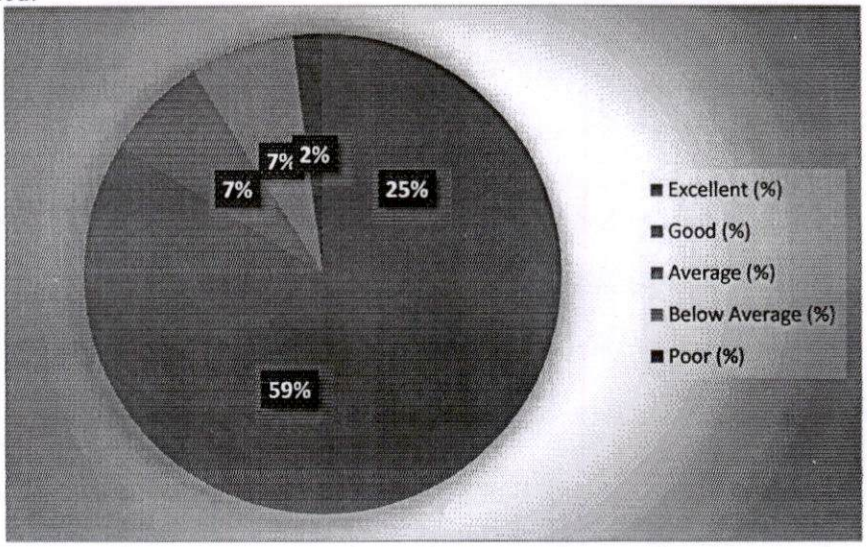
6. There is adequate emphasis on Human Values, ethics and Professionalism in the Curriculum.



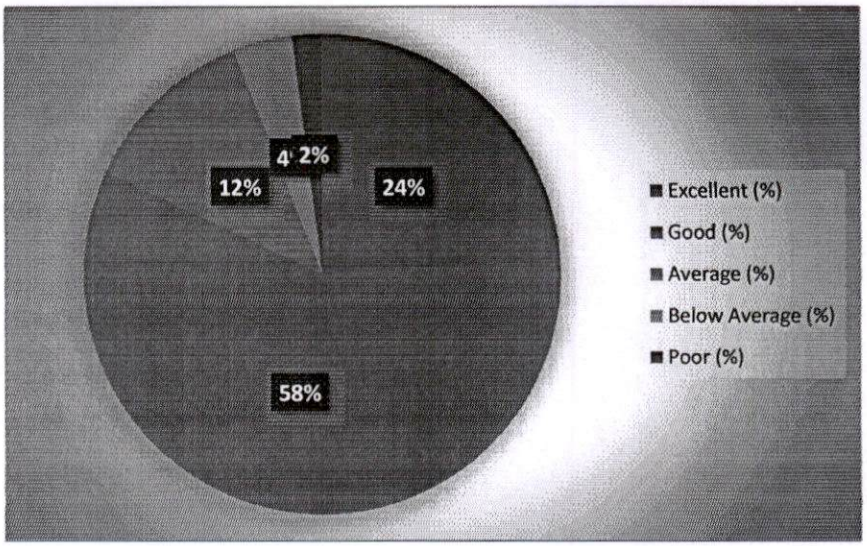
7. The electives offered in the curriculum suits the industry needs and technological advancements.



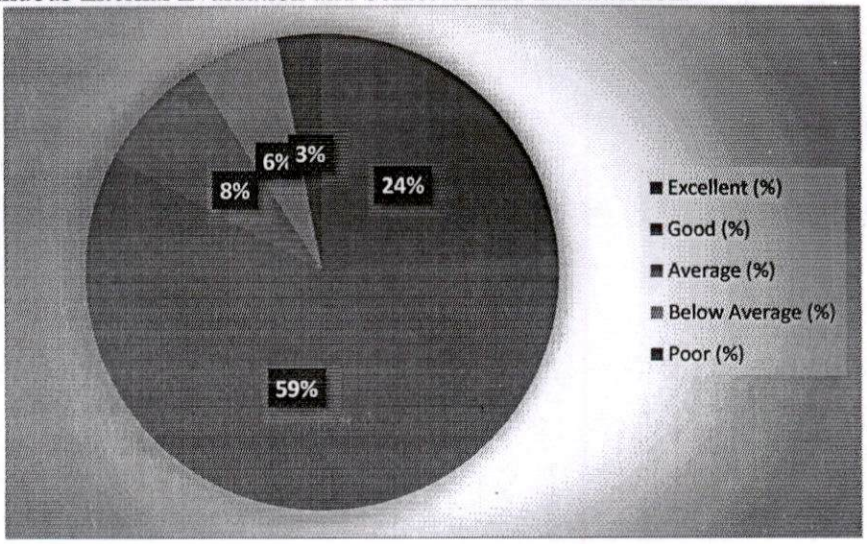
8. The books prescribed/listed as reference in curriculum are relevant, appropriate and updated.



9. The Program Educational Objectives, Program outcomes, Program Specific Outcomes, Course Objectives and Course Outcomes are well defined and clear.



10. The rubrics for assessment is described clearly and there is adequate weightage for Continuous Internal Evaluation and Semester End Examination.



Give your suggestions for improving the curriculum.

1. System Verilog and UVM based Advanced verification methodologies, ASIC and FPGA Design Methodology courses which are advanced courses in the domain should be included in the curriculum.
2. Job oriented courses such as scripting language- PERL, DFT- Design for Test should be added in the curriculum.
3. RISC-V Projects should be a part of curriculum.

The following are observations on Student feedback and action need to be initiated.

1. Job oriented and skill-oriented courses related to the domain, if included in the curriculum will help students to a great extent.
2. The dynamic curriculum of Advance VLSI Design and Verification course fits perfectly with the career aim of fresh engineering graduates and helps them to 'future-proof' themselves and remain relevant for the rapidly evolving Semiconductor technology space. Include such courses in the curriculum.

Program Coordinator

Head of the Department

Head of the Department
Department of E.C.E.
Aditya Engineering College (A9)

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

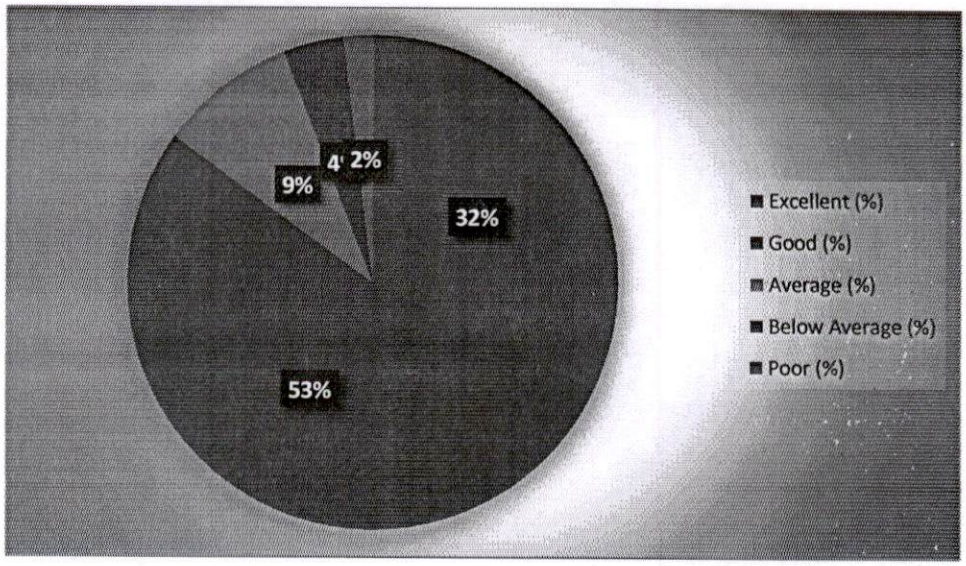
Name of the program- **M. Tech (VLSI-Design)**

Alumni Feedback Analysis **(2021-2022)**

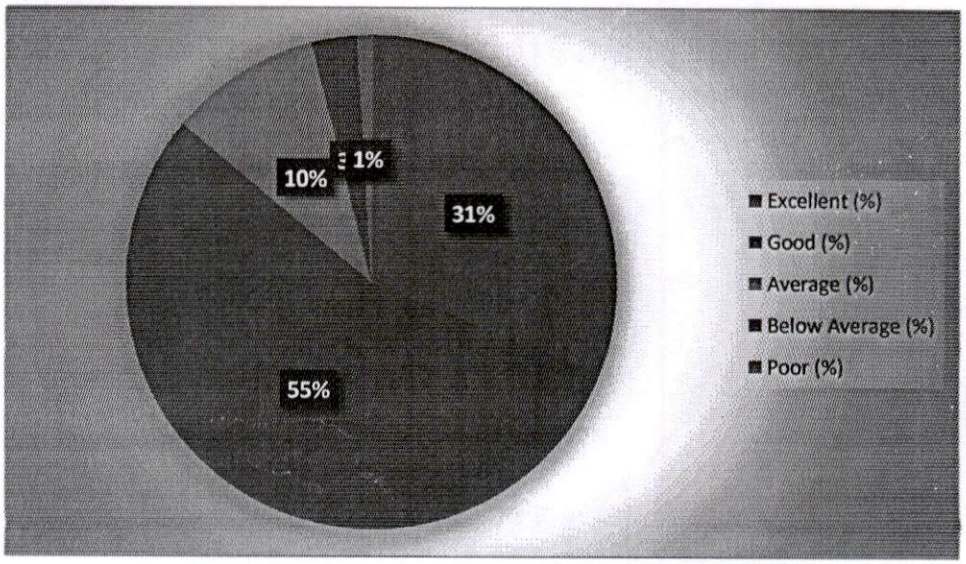
S. NO	Question related to Curriculum	Opinion of the Alumni with percentage					Majority Opinion	% of Majority Opinion
		Excellent (%)	Good (%)	Average (%)	Below Average (%)	Poor (%)		
1	Curriculum is contemporaryand need based	32	53	9	4	2	Excellent & Good	85%
2	There is adequate emphasis on employability skills/ skill development/entrepreneurship in the curriculum	31	55	10	3	1	Excellent & Good	86%
3	The electives offered in the curriculum suits the industryneeds and technological Advancements.	29	58	7	4	2	Excellent & Good	87%

Graphical representation of Alumni feedback analysis

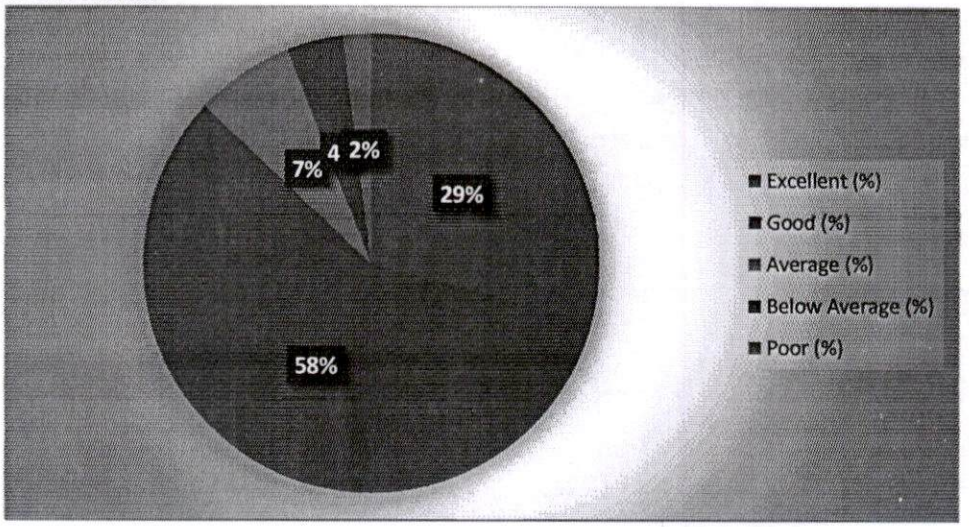
1. Curriculum is contemporary and need based.



2. There is adequate emphasis on employability skills/ skill development /Entrepreneurship in the curriculum.



3. The electives offered in the curriculum suits the industry needs and technological advancements.



Suggest any courses to be added /removed from the curriculum.

1. Courses related to physical design and back-end synthesis should be made a part of curriculum.
2. In depth Knowledge of CMOS (Complementary MOS) and a overview of BJT

Suggest any new topics/technologies/tools/modules to be learned by students to make themindustry- ready.

1. Heterogeneity in algorithms, design methods, implementation technologies may be included.
2. Machine Learning and Internet of Things, this is very important for students in terms of job opportunities and internships.
3. Students should be encouraged towards taking part in active and live projects. this should be facilitated in the curriculum itself. This may be facilitated.

Give any other suggestions for improving the Curriculum.

1. Knowledge of any scripting language like shell/TCL/Perl would be an added advantage. Such courses should be included in the curriculum.
2. As digital designs are implemented via HDLs so anyone aspiring to be a Digital Design Engineer must be efficient in either VHDL, Verilog or System Verilog. Including these courses in the curriculum would help the students to a great extent.

The following are observations on Alumni feedback and action need to be initiated:

1. Encourage students to be a part of real time and live projects.
2. Physical Design courses emphasizes on issues faced in industry level and how to resolve those issues. These courses also focus on other aspects of VLSI back-end flow including Synthesis, IR drop analysis and Physical verification. Courses also will provide students with entire back-end flow, making sure that students fit in to various job requirements. Facilitate courses related to this.

Program Coordinator

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Name of the program- **M. Tech (VLSI-Design)**

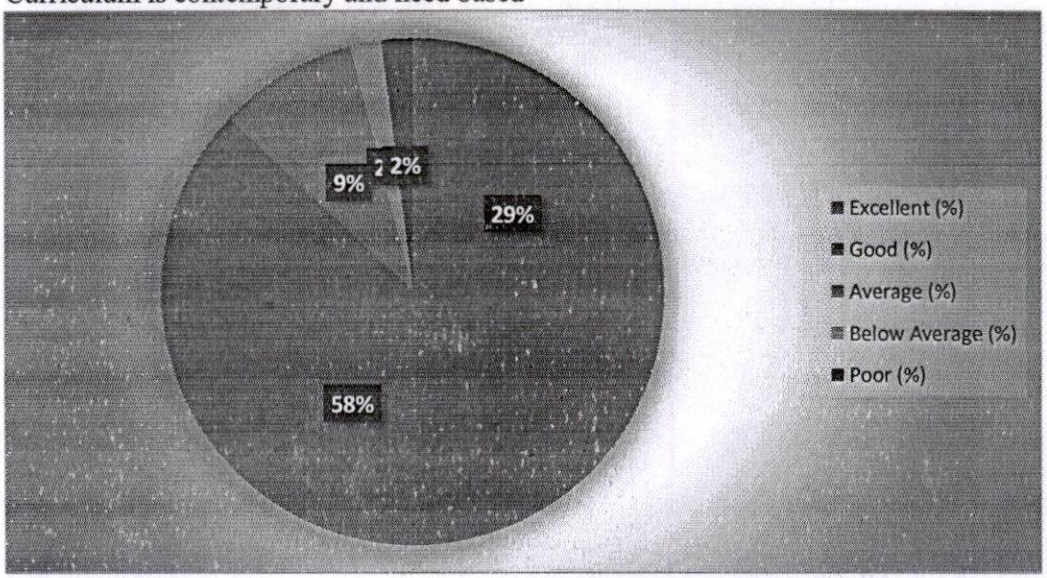
Faculty Feedback Analysis **(2021- 2022)**

S. NO	Question related to Curriculum	Opinion of the Faculty with percentage					Majority Opinion	% Of Majority Opinion
		Excellent (%)	Good (%)	Average (%)	Below Average (%)	Poor (%)		
1	Curriculum is contemporary and need based	29	58	9	2	2	Excellent & Good	87%
2	The Program Educational Objectives, Program outcomes, Program Specific Outcomes, Course Objectives and Course Outcomes are well defined and clear.	30	58	8	3	1	Excellent & Good	88%
3	Curriculum has good balance of Theory and Practical courses.	37	51	8	3	1	Excellent & Good	88%
4	Faculty have the freedom to adopt new techniques for teaching like seminars, presentations, group discussions, flip class room etc.	30	59	8	2	1	Excellent & Good	89%
5	The hands-on experience gained by the students through the laboratory courses is up to the expectations.	29	60	7	3	1	Excellent & Good	89%
6	The students attain the PEOs, POs, PSOs and COs satisfactorily.	31	56	9	2	2	Excellent & Good	87%

7	There is adequate emphasis on employability skills/ skill development/entrepreneurship in the curriculum.	28	61	9	1	1	Excellent & Good	89%
8	There is adequate emphasis on Communication Skills in the Curriculum	31	54	7	5	3	Excellent & Good	85%
9	There is adequate emphasis on Human Values, ethics and Professionalism in the Curriculum.	37	51	8	3	1	Excellent & Good	88%
10	The curriculum has sufficient number of electives.	34	53	9	2	2	Excellent & Good	87%
11	The electives offered in the curriculum suits the industry needs and technological advancements.	29	59	7	3	2	Excellent & Good	88%
12	The books prescribed/listed as reference in curriculum are relevant, appropriate and updated.	30	59	8	2	1	Excellent & Good	89%
13	The rubrics for assessment is described clearly and there is adequate weightage for Continuous Internal Evaluation and Semester End Examination	37	51	8	3	1	Excellent & Good	88%

Graphical representation of Teacher feedback on curriculum

1. Curriculum is contemporary and need based



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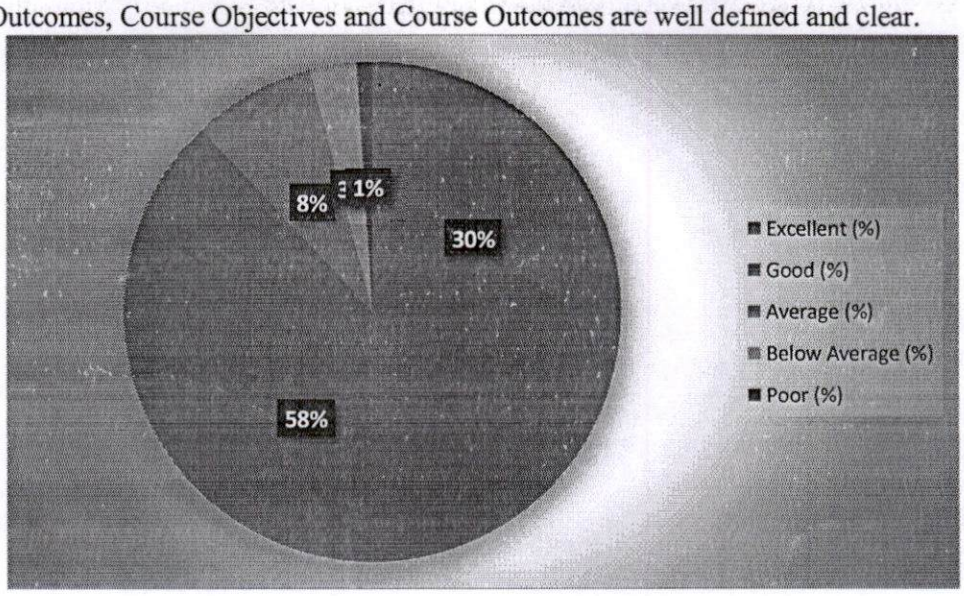
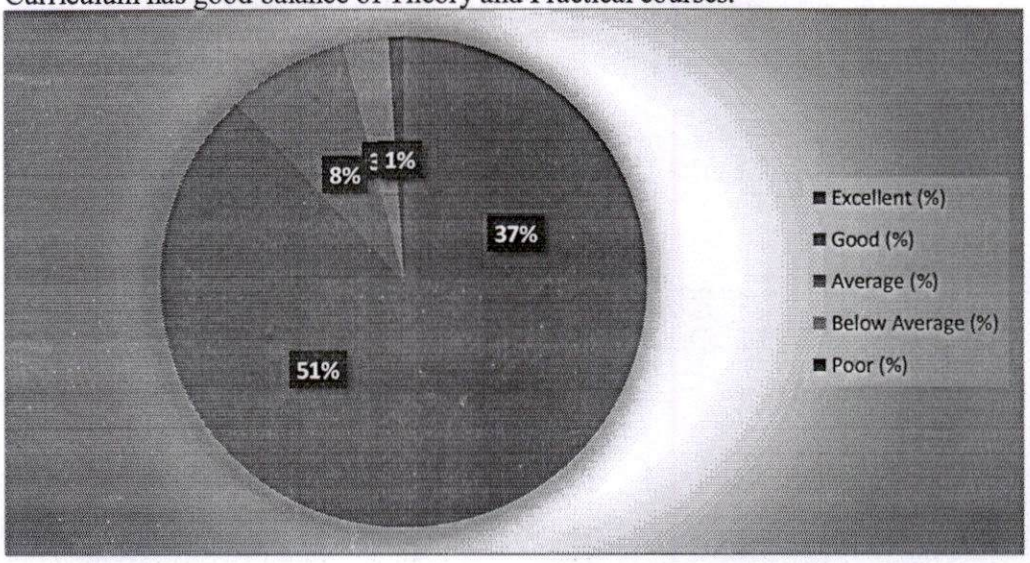
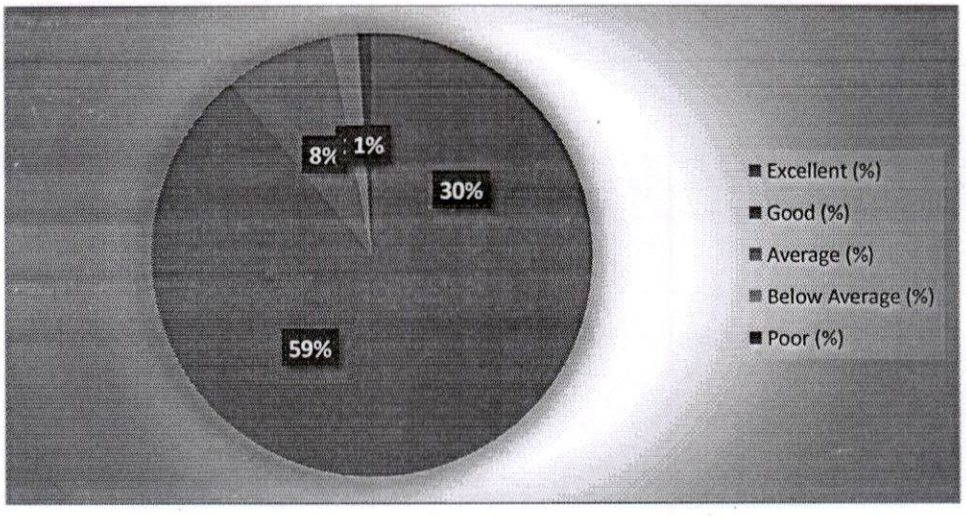


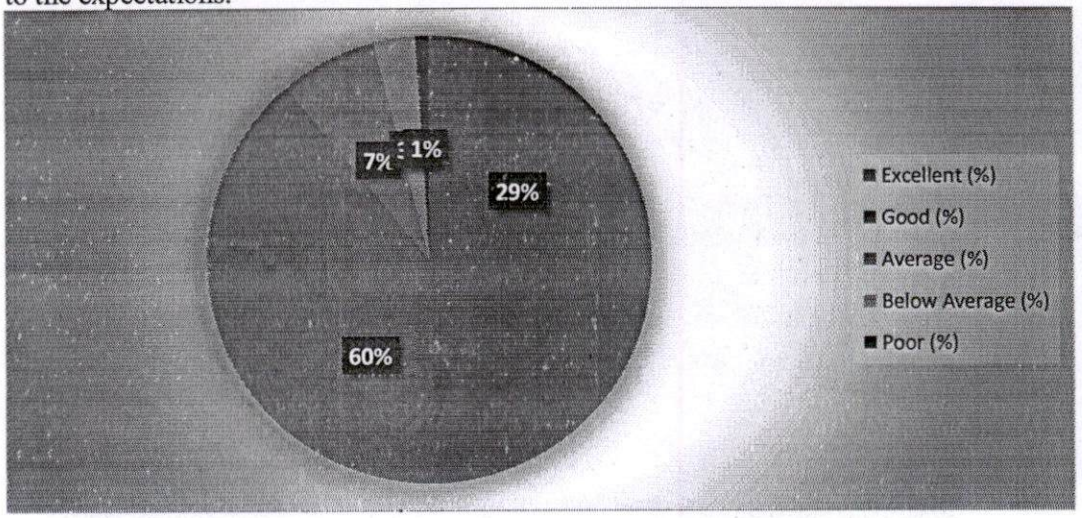
3. Curriculum has good balance of Theory and Practical courses.



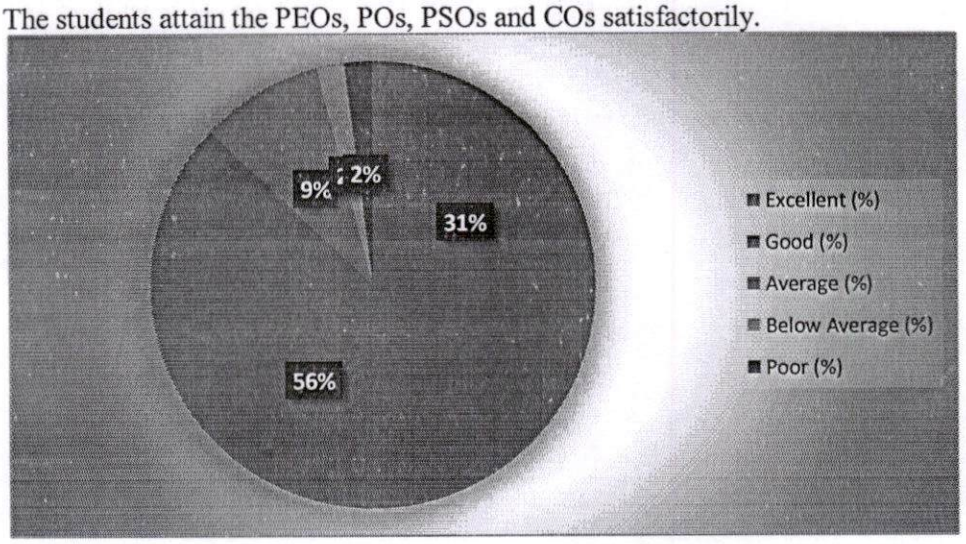
4. Faculty have the freedom to adopt new techniques for teaching like seminars, presentations, group discussions, flip class room etc.



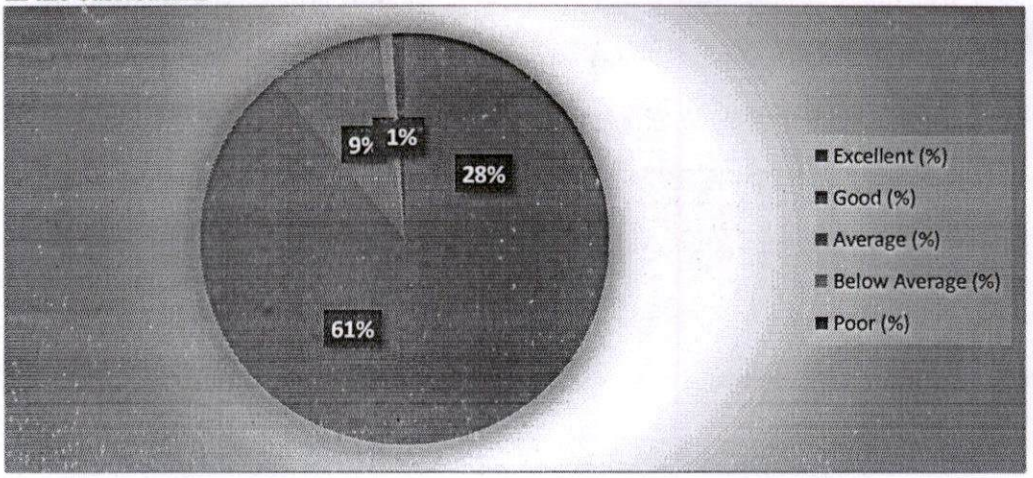
5. The hands-on experience gained by the students through the laboratory courses is up to the expectations.



6. The students attain the PEOs, POs, PSOs and COs satisfactorily.



7. There is adequate emphasis on employability skills/ skill development/entrepreneurship in the curriculum



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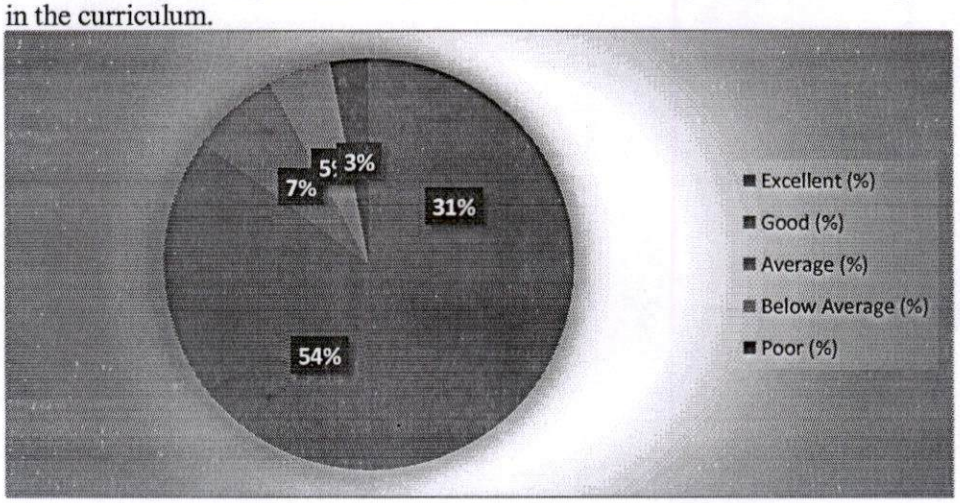
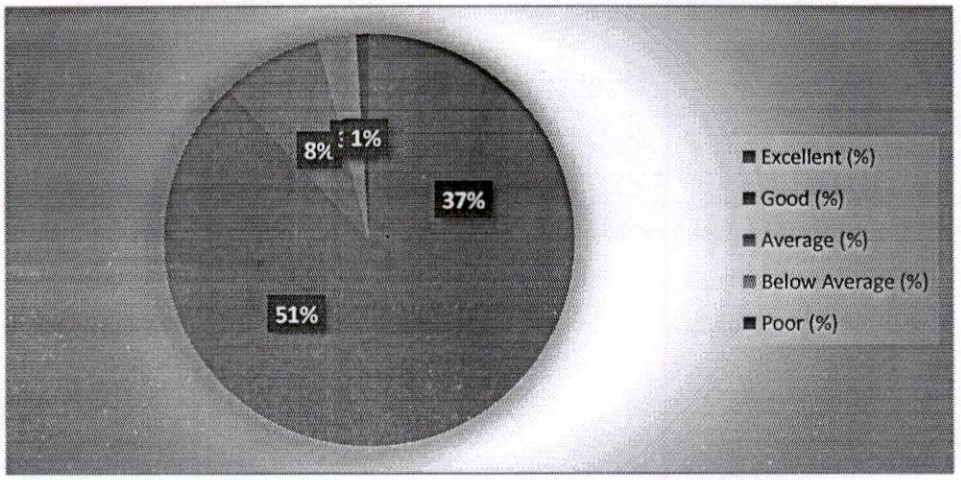
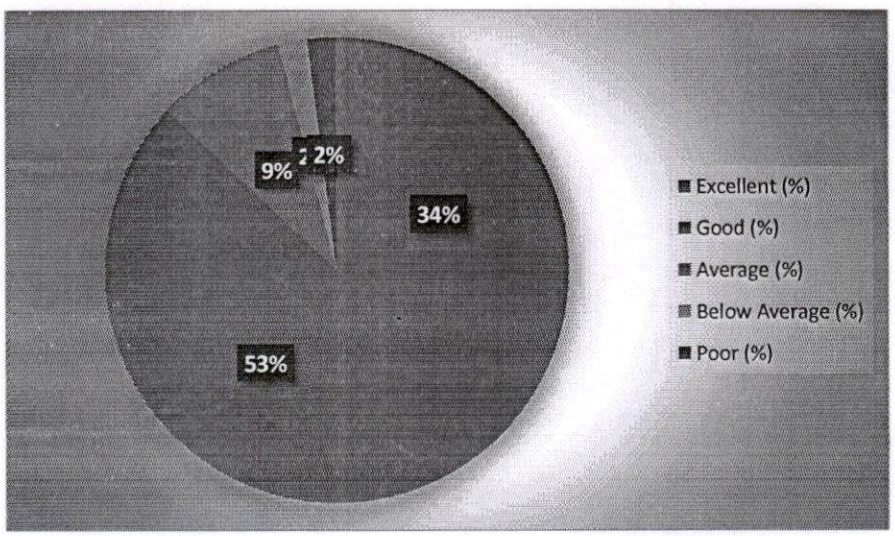


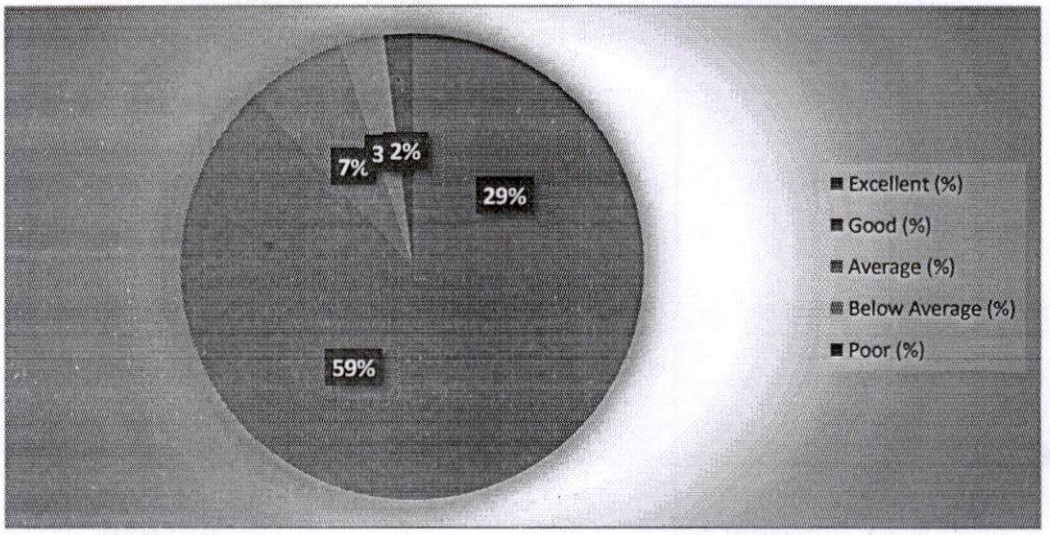
9. There is adequate emphasis on Communication Skills in the Curriculum.



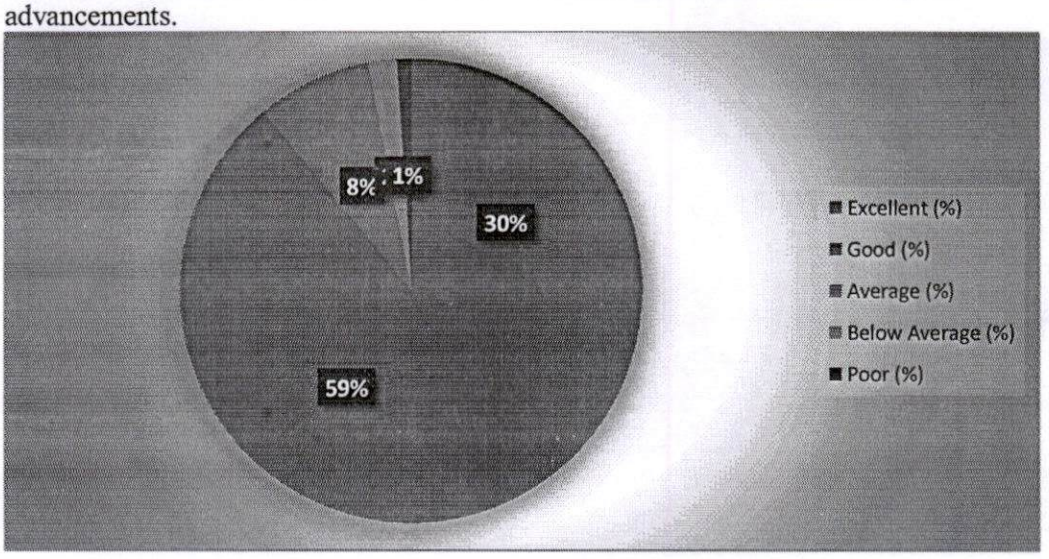
10. There is adequate emphasis on Human Values, ethics and Professionalism in the Curriculum.



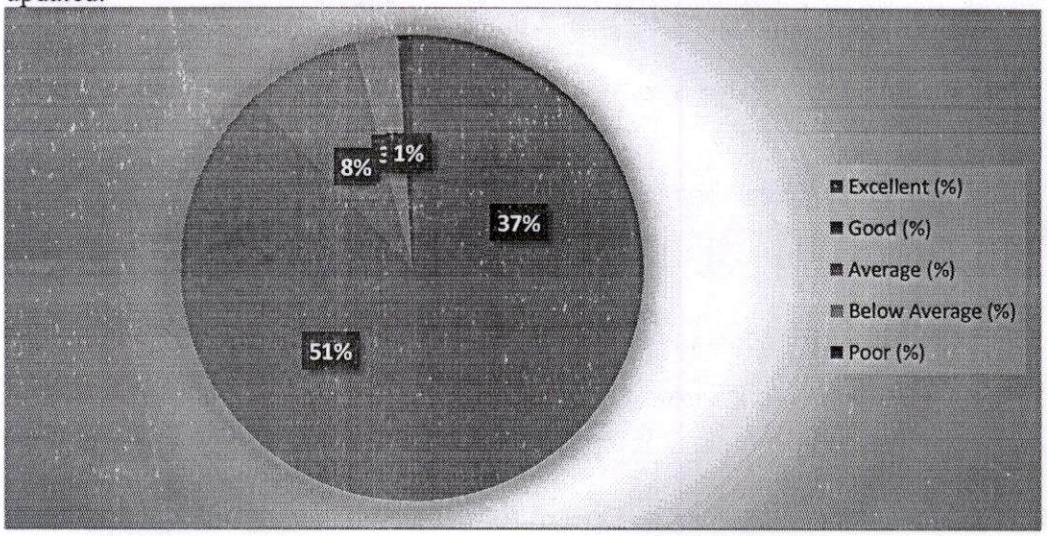
11. The curriculum has sufficient number of electives.



12. The electives offered in the curriculum suits the industry needs and technological advancements.



13. The books prescribed/listed as reference in curriculum are relevant, appropriate and updated.



Give suggestions for improving the Curriculum

1. Advanced concepts such as CMOS-based digital system design should be included in the curriculum.
2. Students need proper guidance regarding quality project work execution and research and development. These may be facilitated.

The following are observations on Faculty feedback and action need to be initiated:

1. Students should be encouraged in taking active part in research and development.

Program Coordinator

Head of the Department

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Name of the program- **M. Tech (VLSI-Design)**

Employer Feedback Analysis **(2021- 2022)**

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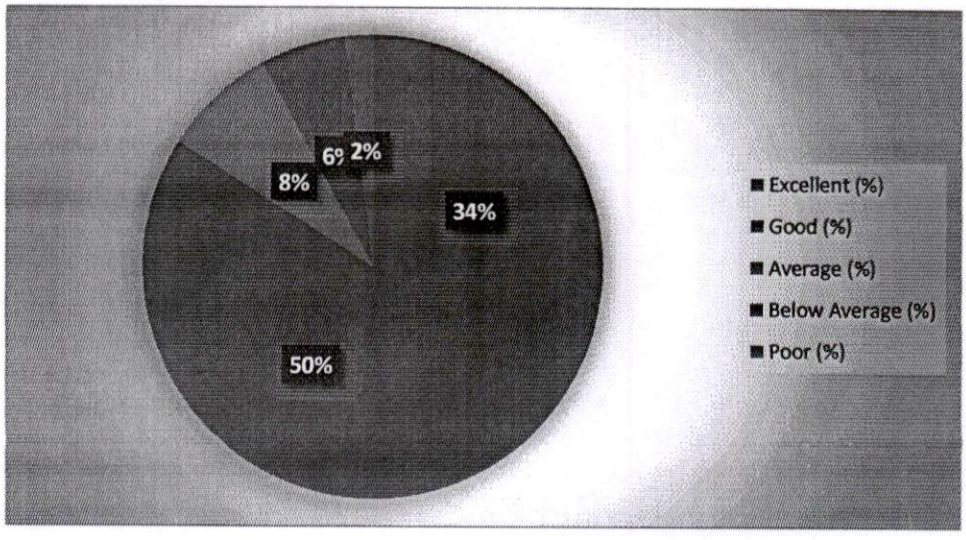
Graphical representation of Employer feedback analysis

1. Curriculum is contemporary and need based.



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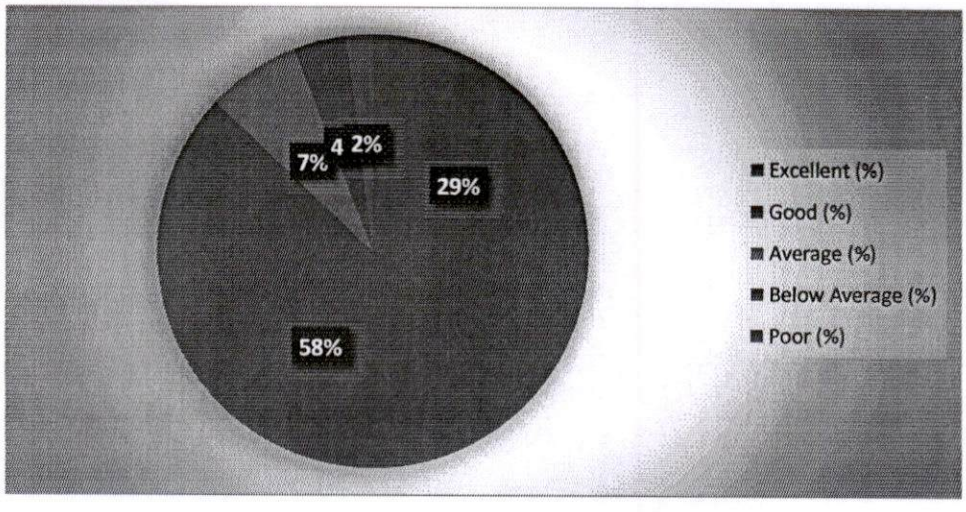

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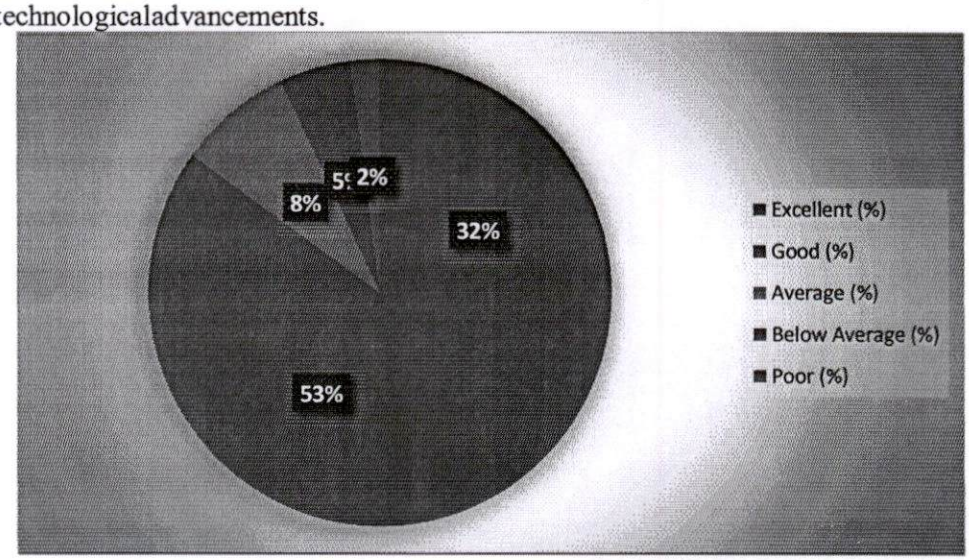

Suggest any courses to be added to /removed from the curriculum.

1. Design courses such as ASIC Design and FPGA Design methodologies courses should be included.
2. Courses which are related to VLSI Languages should be added.

Suggest the skills to be acquired by our students to meet the industry requirements.

1. VLSI design involves using special hardware description languages (HDLs) such as VHDL and Verilog. These skills are needed.
2. For jobs in the industry, one should be good with Verilog, System Verilog, VIP coding styles and UVM. Knowledge about this is to be possessed by the student.

Any other suggestions on Curriculum.

1. The first and the foremost is Digital Electronics (DE). As the profile name suggests so a Digital VLSI engineer should have excellent grasp on DE. He/She should be well versed with DE concepts and most important problem solving. This may be facilitated.
2. A VLSI Design engineer has to know the concepts of Static Timing Analysis (STA), at least the basic concept of setup time, hold time, maximum frequency etc. This may be facilitated.

The following are observations on Employer feedback and action need to be initiated:

1. Students will benefit from Industry institute interaction if facilitated.
2. ASIC & FPGA design methodologies, HVL: System Verilog, SVA, Verification Planning and Management, Code and Functional Coverage, Perl scripting language and VIP coding style are advanced courses. One can easily enter into the VLSI industry with the skill sets that are gained through these courses.

Program Coordinator

Head of the Department

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