CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

FEEDBACK ANALYSIS REPORT OF STAKEHOLDERS (2023-24)

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CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY
Chandubhai S Patel Institute of Technology
M & V Patel Department of Electrical Engineering

CURRICULUM FEEDBACK ANALYSIS (Students)

Academic Year: 2023-24

Date: 29/06/2024

Sr. No.	Aspect	Great (A)	Good (B)	Satisfactory (C)	Poor (D)	Very Poor (E)	Average	Response
1	Matching with vision-mission statement	11	9	1	0	0	4.48	89.53
2	Development of Social Understanding	14	6	1	0	0	4.62	92.38
3	Promotion of Maximum Personal Development	14	5	2	0	0	4.57	91.43
4	Promotion of Continuity of Experience	12	9	0	0	0	4.57	91.43
5	Utilization of Effective Learning Experiences and Needed Resources	12	8	1	0	0	4.52	90.48

Scale — Great: 5, Good: 4, Satisfactory: 3, Poor: 2, Very Poor: 1

Total No. of Responses: 21

Average (A*5 + B*4 + C*3 +D*2 + E*1)/Total no. of responses,

% Response = (Average*100)/5

Other Comments/Suggestions:

1. Overall positive feedback from students.
2. Enjoyed practical aspects of the curriculum.
3. Increase number of practical sessions.
4. Latest trends must be included.
5. Satisfied with department efforts.

HEAD OF DEPARTMENT
Department of Electrical Engineering
Chandubhai S. Patel Institute of Technology
At. & Po. Changa - 388421., Ta. Petlad,
Dist. : Anand. (Gujarat)

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CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY
Chandubhai S Patel Institute of Technology
M & V Patel Department of Electrical Engineering

CURRICULUM FEEDBACK ANALYSIS (Alumni)

Academic Year: 2023-24

Date: 29/06/2024

Sr. No.	Aspect	Excellent (A)	Very Good (B)	Good (C)	Satisfac-tory (D)	Need Improvement (E)	Average	Response
1	The curriculum was:	11	5	1	0	0	4.59	91.76
2	The relevance of the curriculum of your degree with respect to your current job/position is:	7	7	3	0	0	4.24	84.71
3	When you meet students, who have taken a similar Program at other universities, you feel that your Program is:	11	5	1	0	0	4.59	91.76
4	Have you participated in any of the extracurricular activities of the Department /University?	4 (Very Often)	12 (Often)	1 (Some-times)	0 (Rarely)	0 (Never)	4.18	83.53
5.1	Learning value (in terms of skills, concepts, knowledge, analytical abilities, or broadening perspectives)	10	7	0	0	0	4.59	91.76
5.2	Applicability/relevance to real life situations	2	14	1	0	0	4.06	81.18
5.3	Extent and depth of content	7	7	3	0	0	4.24	84.71

5.4	Extent of coverage	7	9	1	0	0	4.35	87.06
5.5	Relevance/learning value of project/ training	9	5	3	0	0	4.35	87.06

Scale — Excellent: 5, Very Good: 4, Good: 3, Satisfactory: 2, Need Improvement: 1

Total No. of Responses: 17

Average = (A*5 + B*4 + C*3 +D*2 + E*1)/Total no. of responses

% Response = (Average*100)/5

Other Comments/Suggestions:

1. Give more hands-on experience with industry projects and training.
2. Include basic management course
3. Strengthen summer internship.
4. PCB development.
5. Include basic programming language such as Python, Perl, and Shell scripting.

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Chandubhai S Patel Institute of Technology
M & V Patel Department of Electrical Engineering

CURRICULUM FEEDBACK ANALYSIS (Academic Peers/Teachers/Industry)

Academic Year: 2023-24

Date: 29/06/2024

Sr. No.	Aspect	Excellent (A)	Very Good (B)	Good (C)	Satisfactory (D)	Needs Improvement (E)	Average	Response
I	Content of syllabus	32	14	0	0	0	4.70	93.91
2	Relevance of syllabus to industry/research requirements	25	17	4	0	0	4.46	89.13
3	Course outcomes are well defined	31	14	1	0	0	4.65	93.04
4	Sufficient reading materials and digital resources provided	32	11	3	0	0	4.63	92.61
5	Incorporation of advanced topics	27	16	3	0	0	4.52	90.43
6	Pedagogy proposed has a desired balance between theory and practical	32	12	2	0	0	4.65	93.04
7	Assessment methods are fair, measuring the outcomes	32	14	0	0	0	4.70	93.91
8	Project component in the course, (if applicable)	32	12	2	0	0	4.65	93.04
9	Industrial training/ practical exposure in the course, (if applicable)	28	17	0	1	0	4.57	91.30

Scale — Excellent: 5, Very Good: 4, Good: 3, Satisfactory: 2, Need Improvement: 1

Total No. of Responses: 46

Average = (A*5 + B*4 + C*3 +D*2 + E*1)/Total no. of responses

% Response = (Average*100)/5

Other Comments/Suggestions:

1. Soft skills to be improved:- Presentation Skill.

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Chandubhai S Patel Institute of Technology
M & V Patel Department of Electrical Engineering

CURRICULUM FEEDBACK ANALYSIS (Employers)

Academic Year: 2023-24

Date: 29/06/2024

Sr. No.	Aspect	Strongly Agree (A)	Agree (B)	Neutral (C)	Disagree (D)	Strongly Disagree (E)	Average	Response
I	Technical knowledge and skills of the graduate(s) are up to date.	2	2	1	0	0	4.2	84
2	Curriculum provides adequate knowledge and training to the students.	5	0	0	0	0	5	100
3	The graduate(s) exhibits problem solving, leadership & managerial skills.	2	3	0	0	0	4.4	88
4	The graduate(s) maintain good interpersonal relations with their colleagues and seniors.	4	1	0	0	0	4.8	96
5	The graduate(s) volunteer themselves for new initiatives.	5	0	0	0	0	5	100
6	The graduate(s) mould themselves as per need of organization.	3	2	0	0	0	4.6	92
7	Curriculum facilitated the graduate(s) to attain the desired competency level.	3	2	0	0	0	4.6	92
8	Curriculum enriched the moral values among the graduate(s).	4	1	0	0	0	4.8	96

9	The Teaching-learning process prepared them for team work.	4	1	0	0	0	4.8	96
10	Communication skills of students are good.	0	5	0	0	0	4	80
11	The graduate(s) display sensitivity towards colleagues of varied background and competency levels	4	1	0	0	0	4.8	96

Scale — Excellent: 5, Very Good: 4, Good: 3, Satisfactory: 2, Need Improvement: 1

Total No. of Responses: 5

Average = (A*5 + B*4 + C*3 +D*2 + E*1)/Total no. of responses

% Response = (Average*100)/5

Other Comments/Suggestions:

1. Overall is good.

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CHARUSAT

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

FEEDBACK ACTION TAKEN REPORT OF STAKEHOLDERS (2023-24)

CHARUSAT

Date: 01st July 2024

Subject: Action Plan from various feedback received

Reference Department: EE Dept

1. **Action plan from Feedback received from employers.**

#	Suggestion	Action Plan
1	No Comments	-
2		
3		

2. **Action plan from Feedback received from Teachers (End semester course feedback)**

#	Suggestion	Action Plan
1	Soft skills to be strengthened.	Improved courses related to soft-skill will be introduced from AY 2025-26.
2		
3		
4		

3. Action plan from Feedback received from Alumni

#	Suggestion	Action Plan
1	Industrial training should be provided for at least 6 months.	Major Project had already been embedded in the curriculum, which provides 6 months of training.
2	Implement basic programming languages like Python, Perl, etc.	Python Programming is already introduced in the second-semester curriculum as the course "IT145 Introduction of Computer Programming" from AY 2023-24. (18th BoS) ANNEX_1
3	Have more visits & Seminars for industrial projects.	More industrial visits will be planned and executed.
4	Add personality development course.	Improved course related to personality development will be introduced from AY 2025-26.
5		

4. Action plan from Feedback received from final-year students

#	Suggestion	Action Plan
1	Should have more industrial visits	More industrial visits will be planned and executed.
2	More latest topics should be included.	The course on "Computer-Aided Design of Electrical Machines" and "Computer Vision and Image Processing-Fundamentals and Applications" will be introduced from AY2024-25. (21st BoS) ANEEX_2
3		
4		

5. Action plan from Feedback received from Parents.

#	Suggestion	Action Plan
1	No Suggestions.	-
2		
3		

Annexure I

MINUTES OF THE MEETING OF THE BOARD OF STUDIES IN ELECTRICAL ENGINEERING, FACULTY OF TECHNOLOGY AND ENGINEERING HELD ON 6th October 2022 (Thursday) AT online platform Google meet.

The 18th meeting of Board of Studies, M&V Patel Department of Electrical Engineering, Faculty of Technology and Engineering (FTE), Charotar University of Science and Technology (CHARUSAT) was held on 06/10/2022 at 9:30 am. On online platform. Following members were present:

Members Present

Sl. No.	Name	Designation
1.	Dr. Nilay Patel	**Chairman**
2.	Dr. Y. P. Kosta	Member
3.	Dr. Kartik Pandya	Member
4.	Dr. Mihir A. Bhatt	Member
5.	Dr. Jigar Sarda	Member
6.	Mr. Soaib Saiyad	Member
7.	Mr. Jivanadhar Joshi	Member
8.	Dr. Praghnesh Bhatt	External Member
9.	Dr. Santosh Vora	External Member
10.	Dr. Naran Pindoriya	External Member
11.	Dr. V K Shah	External Member
12.	Mr. Sanjay Mahagaokar	External Member
13.	Patel Nishita Alpesh	Student Member
14.	Patel Vidhi Rajesh	Student Member

Following Members were absent.

Sl. No.	Name	Designation
1.	Mr. Darshan Shulka	External Member
2.	Dr. Satish H Chetwani,	External Member
3.	Mr. Dhaval Patel	Alumni Member

Initiation:
Dr. Nilay Patel welcomed all the members of Board of Studies.
The following resolutions were made in the BoS,

<table>
<tr><td>1.</td><td>Agenda/Item No 18.01: For Confirmation: Minutes of 17th Board of Studies meeting held on Saturday, 7th August 2021.
Proceeding & Resolution No 18.01: The 17th Meeting of Board of Study was held on 7th August, 2021. The minutes were circulated on 23rd August 2021. As there were no comments received from any member, the minutes were confirmed by the Board of Study.</td></tr>
<tr><td>2.</td><td>Agenda No.18.02: For approval: Action taken on the agenda items of the 17th Board of Study Meeting.
Proceeding No.18.02:
The Chairman acknowledged the action taken, and the Experts appreciated (i) Introduction of full final semester project, and (ii) inclusion of cutting-edge courses in the curriculum.
Resolution No.18.02: The actions taken were approved by the Board of Study.</td></tr>
<tr><td>3.</td><td>Agenda/Item No 18.03: For Information and approval: Various Teaching & Examination schemes and detailed syllabus of Choice Based Credit System (CBCS) courses of B.Tech. (Electrical Engineering).
Proceeding and resolution: 18.03
The Teaching and examination schemes with and without minor specialization were presents to BoS. The total credits are as under.
<table>
<tr><th>Admission Year</th><th>B. Tech. (EE) Credits</th></tr>
<tr><td>2019-20</td><td>176</td></tr>
<tr><td>2020-21</td><td>176</td></tr>
<tr><td>2021-22</td><td>180</td></tr>
<tr><td>2022-23</td><td>180</td></tr>
<tr><td>2023-24</td><td>180</td></tr>
</table>
With minor specialization, students have to earn 18 credits extra.
The T&E schemes are attached as Annexures 1A, 1B, 1C, 1D, 1E</td></tr>
<tr><td>4.</td><td>Agenda/Item No18.04: For Information and Approval: Revised Syllabi and Teaching and Examination scheme of courses MA143 Engineering Mathematics-I and MA144 Engineering Mathematics-II for B. Tech. Electrical Engineering Program under Choice Based Credit System. (Applicable from 2022-23 Admission Batch).</td></tr>
</table>

	Proceeding 18.04: With the reference to the mail (dated 6th May 2022) from the Head of the mathematical Sciences dept., revised courses of MA143 Engineering Mathematics-I and MA144 Engineering Mathematics-II were introduce in the curriculum of B. Tech. Electrical Engineering Program (Applicable from 2022-23 Admission Batch). Resolution No18.04: BoS members approved the syllabi and it is attached as Annexure 2A, 2B, 2C and 2D.
5.	Agenda/Item No 18.05: For Discussion and Approval: Revised Syllabi, and Teaching and Examination scheme of several second year courses for B. Tech. Electrical Engineering Program under Choice Based Credit System. (Applicable from Academic Year 2023-24). Proceeding 18.05: The teaching and examination scheme for 3rd and 4th semesters of B. Tech. (Electrical Engineering) courses under Choice Based Credit System (CBCS) are reviewed. The Revisions for following courses in 2nd Year of B. Tech. Electrical Engineering programme are proposed. EE252.01 — Circuit Theory EE255.01 — Control Systems EE243.01 — Electrical Measurement and Industrial Instrumentation Apart from the course content revision, the micro project/field work is included in the syllabus. Resolution No 18.05: The suggestions received from BoS members are incorporated and T & E Scheme for B. Tech. Electrical Engineering under CBCS scheme, and it will be effective from AY 2023-24 for Second Year B. Tech. (EE) is approved and attached in Annexure – 3A, 3B, 3C, 3D.
6.	Agenda/Item No 18.06: For information and Approval: Teaching and Examination scheme and detailed syllabus of newly added course **IT145 Introduction of Computer Programming** in First year of B. Tech. Electrical Engineering under CBCS. Proceeding 18.06: New course **IT145 Introduction of Computer Programming** is introduced across core branches in 2nd semester. This course is based on Python

	Programming and will replace the old course IT143 Fundamentals of Computer Programming. This course will be effective from Academic Year 2023-24. Resolution No 18.06: The BoS members appreciated the new course, and it will be implemented from the Academic year 2023-24 in First Year of B.Tech. Electrical Engineering under CBCS. The course and its T&E scheme is attached as Annexures 4A and 4B.
7.	Agenda/Item No 18.07:For Discussion. Introduction of MOOC course in Elective list of 7th sem. (Applicable from Academic year 2023-24) Proceeding18.07: BoS members discussed on feasibility and implementation of the MOOC course as a part of B.Tech. Electrical Engineering Curriculum. As per experts of BoS, it is good idea to offer MOOC courses as a part of curriculum. Resolution No 18.07: BoS chairman is given power to design and implement MOOC Course as per CHARUSAT policy and credit system.
8.	Agenda/Item No 18.08: For Discussion and Approval: Detailed Syllabi of courses of the newly introduced program Post graduate Diploma in Electrical Engineering (PGDEE) (Sustainable Energy, Smart Grid and Electric Vehicles). Proceeding 18.08: The courses of PGDEE program were presented to BoS members. The expert suggested to modify the syllabus according to need and capacity of various groups of learners.- The syllabus should inhale the industrial skills and should make them more industry adoptable. Resolution No 18.08: The syllabus should be revised as per discussion.
9.	Agenda/Item No 18.09:For Suggestion and Approval: Approval of Certification courses planned by the departments. Proceeding 18.09 : The department is planning to offer the certificate courses in form of several series. The details of "Embedded system programming" series and "Digital Implementation of Convertor Control" Series was discussed. The BoS experts well acknowledge the importance of such courses and approved following certification courses to start with it. • Certificate course on ARM microcontroller programming • Digital Implementation of Converter control for Grid following convertors • Cable and Wire Testing as per Indian Standards. Resolution No 18.09: BoS approved the certification courses.

10.	Agenda/Item No 18.10: For Discussion and Suggestion: Discussion on effective implementation of Outcome Based Education (OBE) and utilization of Smart Class Room (ICT) based Teaching Learning. Any suggestion in Performance indicator. Planning of Curriculum and Syllabus according to National Education Policy 2020 (NEP 2020). Proceeding 18.10: For outcome based education "Performance Indicators" are important factor. The Performance indicator were presented to BoS for discussion, suggestion and Approval. Achievement of Program Outcomes were discussed. Resolution No 18.10: The Performance indicators were approved and attached as Annexure 5A. The attainment of the Program Outcomes and its comments are attached as Annexure 5B.
11.	Agenda/Item No 18.11: For information: Result analysis of the End Semester Examination conducted during the Academic year 2021-22. Proceeding 18.11: The records of result analysis of the University exams are maintained. The results of both the exams are generally discussed and analyzed in the department meeting as soon as the exam gets over and the necessary actions are decided. The YoY comparisons of the results are also discussed and the figures are acceptable. Resolution No 18.11: The efforts should be given to improve the results at all levels. The conduction of the remedial classes for weak/slow-learner students has been appreciated by the members. Annexure 6
12.	Agenda/Item No 18.12: For Approval: Panel of examiners for winter and summer examinations (AY 2022-23). Proceeding 18.12: list of Examiner was presented to BoS Members. Resolution No 18.12: BoS Approved the examiner panel list, it is attached as Annexure 7.
13.	Agenda/Item No 18.13: For Information: Reduction in intake in B.Tech. (Electrical Engineering) and closure of the M.Tech. Program. Proceeding 18.13: BoS members were given information about the closure of M.Tech. (EE) program and reduction of seats to 30 for B.Tech. Electrical Engineering Program.
14.	Agenda/Item No 18.14: For Information: NAAC A+ Grade and introduction of Cable and Wire Testing lab.

	Proceeding 18.14: BoS members were inform that the CHARUSAT University has been accredited with NAAC A+ grade. Also, The Electrical Engineering department has started new lab "Cable and Wire Testing lab."
15.	Agenda/Item No 18.15: For Discussion: Planning of Credit transfer of online courses counter to university elective conduction and effective implementation of it. Proceeding 18.15: Discussed various quality platform, from which the credits can be transferred. Resolution No 18.15: BoS chairman given power to design the mechanism of Credit transfer of online courses to the B. Tech. Program. It should be uniform across the University.
16.	Agenda/Item No 18.16: For information and Suggestion: To discuss pedagogy of AY 2021-22 Proceeding 18.16: Different teacher adopts different pedagogy for teaching and evaluation of the course. BoS expert suggest that the teacher should use various pedagogy as per requirement of course and students. Marks for attendance can be considered as a part of internal evaluation components. Resolution No 18.16: Effective pedagogy must be used for the best outcome.
17.	Agenda/Item No 18.17: For information: Analysis of campus placement(s) Proceeding 18.17: Analysis of campus placement was presented to BoS experts. Mock tests are conducted before the placement for the students. Resolution No 18.17: BoS appreciated the efforts. The placement record is attached as Annexure 8.
18.	Agenda/Item No 18.18: For information and Discussion: Technical expert scrutiny report on question papers of odd and even semester of AY 2021-22. Proceeding 18.18: Evaluation of University exam papers as per bloom's taxonomy were done by faculty members. The question papers were balanced as per different levels of blooms taxonomy and had very good mark distribution as per syllabus. Resolution No 18.18: Experts had welcomed the approach and asked continuing this practice of drawing balanced question paper. The Analysis is listed as Annexures 9A, 9B and 9C.

19. Agenda/Item No 18.19: For Discussion and action taken: The feedback of the stakeholders including exit (last day) feedback of the students to improve the various best practices adopted by the departments.

Proceeding 18.19: Discussion done on the final year students' feedback and different stake holder feedback.

Resolution No 18.19: Some of the suggestions of different stake holder like including micro project/field work, hardware, MOOC courses etc are incorporated, and some suggestions will be incorporated in upcoming years. The students feedback analysis is attached as Annexure 10A and the feedback analysis of different stake holders are attached as Annexure 10B. The feedback quantitative feedback received for all the students are attached as Annexure 10C. Analysis and action plan for the feedback received from all EE students is attached as Annexure 10D. All scanned feedback is attached as Annexure 10E.

20. Agenda/Item No 18.20: For Discussion: enhancing research activities, project fundings, consultancy work and preparation of the action plan for the same.

Proceeding 18.20: Department has establish a Cable and Wire Testing Lab. This lab will be used for revenue generation by consultancy work and organizing certification course.

Resolution No 18.20: The cable industries will be contacted for training and consultancy work

21. Agenda/Item No 18.21: For review: the status of candidates pursuing the Ph D

Proceeding 18.21: Department of Electrical Engineering, Faculty of Technology & Engineering has received following synopsis of research scholar during month of August 2022.

Sr. No.	Research Scholar	Research Topic
1	Maulik J Shah (16DREE003)	BINARY CONTROLLED ASYMMETRIC CASCADED MULTI-LEVEL INVERTER WITH REDUCED SWITCHING DEVICES

Synopsis was presented by research scholar; and panel of referees for reviewing the thesis to be submitted by above mentioned scholar was placed before the BoS members.

List of Candidates Pursuing the PhD is displayed to experts.

	process. The list of Candidates Pursuing the PhD is listed as Annexure 11.
22.	Agenda/Item No 18.22: For Discussion and Planning: Events to be organized and planning for further events. Proceeding 18.22: as per experts opinions, Training program should be organized with help of funding agencies Resolution No 18.22: STTP on High voltage and FDP on ANSYS software can be organized.
23.	Agenda/Item No 18.23: For Discussion and planning: the current admission trend(s) and how to sustain on uncertain demands of the engineering streams. Proceeding 18.23: As per the experts, core branches have its flavor. The current trend to take admission in circuit branches only may settle within upcoming two or three years. Expert advised to counsel the admission aspirant students, increase placement and packages. Also, advised not to compromise with quality of teaching. Resolution No 18.23: The experts were well aware about the current admission, and advised to keep continuing efforts for admission counselling.

Dr. Nilay A. Patel

Chairman (BoS) (EE)

HEAD OF DEPARTMENT
Dept. of Electrical Engg.
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Annexure II

MINUTES OF THE MEETING OF THE BOARD OF STUDIES IN ELECTRICAL ENGINEERING, FACULTY OF TECHNOLOGY AND ENGINEERING HELD ON 21st February 2024 (Wednesday) AT online platform Google Meet.

The 21st meeting of the Board of Studies, M&V Patel Department of Electrical Engineering, Faculty of Technology and Engineering (FTE), Charotar University of Science and Technology (CHARUSAT) was held on 21/02/2024 at 10.00 a.m. On an online platform. The following members were present:

Members Present

Sl. No.	Name	Designation
1.	Dr. Nilay Patel	**Chairman**
2.	Dr. Mihir A. Bhatt	Member
3.	Dr. Jigar Sarda	Member
4.	Mr. Soaib Saiyad	Member
5.	Mr. Jivanadhar Joshi	Member
6.	Dr. Santosh Vora	External Member
7.	Dr. V K Shah	External Member
8.	Dr. Praghnesh Bhatt	External Member
9.	Mr. Darshan Shulka	External Member
10.	Dr. Naran Pindoriya	External Member
11.	Mr. Sanjay Mahagaokar	External Member

The following Members were absent.

Sl. No.	Name	Designation
1.	Dr. Satish H Chetwani,	External Member
2.	Mr. Dhaval Patel	Alumni Member

Initiation:

Dr. Nilay Patel welcomed all the members of the Board of Studies.

The following resolutions were made in the BoS,

1.	Agenda/Item No 21.01: For Confirmation: Minutes of the 20th Board of Studies meeting held on Thursday, 25th August 2023. Proceeding & Resolution No 21.01: The 20th Meeting of the Board of Study was held on 25th August 2023. The minutes were circulated on 28th August 2023. As there were no comments received from any member, the Board of Study confirmed the minutes.
2.	Agenda No.21.02: For approval: Action taken on the agenda items of the 20th Board of Study Meeting. Proceeding No.21.02: The Chairman acknowledged the action taken, and the Experts appreciated (i) The Swayam/NPTEL course added in curriculum. (ii) The execution of course "FS101.01A Foundation course on Mathematics and Physics (Audit Course)" by the online platform SARAS3D. Resolution No.21.02: The Board of Study approved the actions taken.
3.	Agenda/Item No. 21.03: For information: 3. Inclusion of modified/new courses of humanities as per NEP2020 in the B.Tech. (Electrical Engineering) Choice Based Credit System (CBCS) Curriculum. Proceeding No. 21.03: The BoS chairman gave the information about newly added humanities courses, and modified courses in various semesters of the B.Tech CBCS curriculum. The courses are designed as per the requirements of the NEP 2020. ***First-Year B.Tech. Courses:*** • The following courses are revised and will be offered from the 2024 Admission batch.

Semester	Existing Courses	Revised Courses
1	HS101.02A Communicative English	HS101.04A Communicative English
2	HS201.02 A Liberal Arts-Painting	HS201.03 A Liberal Arts-Painting
2	HS202.02 A Liberal Arts-Photography	HS202.03 A Liberal Arts-Photography
2	HS205.02 A Liberal Arts-Media and Graphic Design	HS205.03 A Liberal Arts- Media and Graphic Design
2	HS209.02 A Liberal Arts-Dramatics	HS209.03 A Liberal Arts- Dramatics
2	HS210.02 A Liberal Arts-Contemporary Dance	HS210.03 A Liberal Arts- Contemporary Dance

- In addition, the following multidisciplinary and value-added courses are introduced in the second semester of B.Tech from the 2024 Admission batch.

HS203.03 A Liberal Arts-Sculpting
HS204.03 A Liberal Arts-Pottery and Ceramic Art
HS206.03 A Liberal Arts-Art and Craft
HS207.03 A Liberal Arts-Fashion Designing
HS208.03 A Liberal Arts-Interior Designing
HS211.01 A Music (Vocal)
HS212.01 A Music (Tabla)
HS213.01 A Guitar (Instrumental)
HS214.01 A Harmonium
HS215.01 A Flute (Instrumental)
HS216.01 A Dance-Kathak
HS217.01 A Dance-Bharatnatyam

Second-Year B.Tech Courses:

- The following courses are revised and will be offered from the 2023 Admission batch (From AY 2024-25).

Semester	Existing Courses	Revised Courses
3	HS121.02A Creativity, Problem Solving and Innovation	HS121.03A Creativity, Problem Solving and Innovation
4	HS111.02 A Human Values and Professional Ethics	HS111.04 A Human Values and Ethics

- In addition, the following multidisciplinary and value-added courses are introduced in the fourth semester from the 2023 Admission batch (From AY 2024-25).

HS112.01 A Constitutional Values and Fundamental Duties
HS113.01 A Indian Knowledge System

Third-Year B.Tech Courses:

- The following courses are revised and will be offered from the 2022 Admission batch (From AY 2024-25).

Semester	Existing Courses	Revised Courses
5	HS131.02A Communication and Soft Skills	HS131.03A Communication and Soft Skills
6	HS132.02 A Contributory Personality Development	HS132.03 A Contributory Personality Development

- In addition, the following multidisciplinary and value-added courses are introduced in the fifth semester from the 2022 Admission batch (From AY 2024-25).

  HS142.01 A French
  HS143.01 A German
  HS144.01 A Spanish

- In addition, the following multidisciplinary and value-added course is introduced in the sixth semester from the 2022 Admission batch (From AY 2024-25).

  HS133.01A Professional Communication, Soft Skills and Personality Development

Resolution No. 21.03: All the courses listed above will be offered as humanities courses from AY 2024-25 in the B. Tech. curriculum in respective semesters.

The comprehensive details are attached as Annexure 1.

4. Agenda/Item No 21.04: For Information and approval: To review and approve the Teaching & Examination schemes and detailed syllabus for the First Year of Choice Based Credit System (CBCS) courses of B.Tech. (Electrical Engineering) for Electrical Engineering for July 2024 admission batch.

Proceeding No.21.04:
To make the credits per semester in line with the NEP2020, the following courses are revised appropriately.

- The course ME146 Engineering Graphics is revised and introduced as ME1001 Engineering Graphics in the first semester from the July 2024 Admission batch.
- The course CL143 Engineering Mechanics is revised and introduced as CL1001 Engineering Mechanics in the first semester from the July 2024 Admission batch.
- The course EE145 Basics of Electronics & Electrical Engineering is revised and introduce as EE1001 Basics of Electronics & Electrical Engineering in the second semester from July 2024 Admission batch.

The following courses T&E scheme is revised. Earlier, in theory part, Internal and External evaluation was 30 and 70 marks respectively. Now in the theory part, internal and external evaluation is 50 and 50 marks respectively.

Old Course code and Name with internal (Theory) marks =30; and external (Theory) marks=70	**New** Course code and Name with internal (Theory) marks =50; and external (Theory) marks =50 Applicable from 2024 Admission Batch
MA143 Engineering Mathematics-I	MA145 Engineering Mathematics-I
MA144 Engineering Mathematics-II	MA146 Engineering Mathematics-II

	ME147 Basics of Civil and Mechanical Engineering IT145 Introduction of Computer Programming	ME1002 Basics of Civil and Mechanical Engineering IT1001 Introduction of Computer Programming

Old Course code and Name with internal (Practical) marks =30; and external (Practical) marks =70	**New** Course code and Name with internal (Practical) marks =50; and external (Practical) marks =50 Applicable from 2024 Admission Batch
CL144.01A Environmental Sciences	CL145.01A Environmental Sciences

Resolution No 21.04: The revised course will be offered from AY 2024-25. The T& E Scheme form AY 2024-25 for First Year is attached as Annexure 2A, and the syllabus of courses ME1001, CL1001 and EE1001 courses are attached as Annexure 2B, 2C and 2D. Notional Hours of the First year courses are attached as Annexure 2E.

5.	Agenda/Item No 21.05: For Information and approval: To review and approve the Teaching & Examination schemes and detailed syllabus for the Second year of Choice Based Credit System (CBCS) courses of B.Tech. (Electrical Engineering) for Electrical Engineering from July 2023 admission batch. Proceeding No.21.05: The courses of the Second year are discussed In the second year, there is only modification in HSS courses as per agenda/ item No. 21.03 Resolution No.21.05: There is no change in core courses, but only HSS courses modified in the second year. The T&E schemes along with a list of University electives are attached as Annexure 3A Notional Hours of the Second year courses are attached as Annexure 3B
6.	Agenda/Item No 21.06: For Information and approval: To review and approve the Teaching & Examination schemes and detailed syllabus for the Third year of Choice Based Credit System (CBCS) courses of B.Tech. (Electrical Engineering) for Electrical Engineering from July 2022 admission batch. Proceeding No.21.06: The courses of the Third year are discussed In the third year, there is a modification in HSS courses as per agenda/ item No. 21.03 Also, some Swayam/NPTEL courses were reviewed and introduced in the Fifth and Sixth Semesters of B.Tech. (EE) Choice Based Credit System (CBCS) Curriculum that aligns most closely with our requirements and goals and that abides with the CHARUSAT credit transfer policy and NEP2020.

Resolution No.21.06:
The following NPTEL courses are identified to add to B. Tech. (EE) curriculum for credit transfer policy.

"Computer Vision and Image Processing - Fundamentals and Applications" 12 Week Course offered by Prof. M. K. Bhuyan, IIT Guwahati (PRE-REQUISITES: Basic co-ordinate geometry, matrix algebra, linear algebra and random process)

"State space Approach to Control System Analysis and Design" 12 Week Course offered by Prof. A P Tiwari, IIT Mandi (PRE-REQUISITES: Basic course in Control Systems theory)

Sr. No	Course Code & Course Title Course Link & Duration	Semester	Examination Scheme				Credit
			Theory (SWAYAM)		Practical (CHARUSAT)		
			Internal	External	Internal	External	
1	OCEE3002 Computer Vision and Image Processing - Fundamentals and Applications https://onlinecourses.nptel.ac.in/noc23_ee39/preview 12 weeks	V	25	75	25	25	5
2	OCEE30003 State Space Approach to Control System Analysis and Design https://onlinecourses.nptel.ac.in/noc24_ee62/preview 12 weeks	VI	25	75	25	25	4

The T&E schemes along with a list of University electives are attached as Annexure 4A
Notional Hours of the Third year courses are attached as Annexure 4B
Syllabus of OCEE3002 is attached as Annexure 4C and Syllabus of OCEE3003 is attached as Annexure 4D

7.	Agenda/Item No 21.07: For Information and approval: To review and approve the Teaching & Examination schemes and detailed syllabus for the Final year of Choice Based Credit System (CBCS) courses of B.Tech. (Electrical Engineering) for Electrical Engineering from the July 2021 admission batch.

Proceeding No.21.07:
The courses of the Final year are discussed
Some Swayam/NPTEL courses were reviewed and introduced in the Seventh Semester of B.Tech. (EE) Choice Based Credit System (CBCS) Curriculum that aligns most closely with our requirements and goals and that abides with the CHARUSAT credit transfer policy and NEP2020.

Resolution No.21.07:
The following NPTEL course is identified to add to B. Tech. (EE) curriculum for credit transfer policy.

"Computer-Aided Design of Electrical Machines" 12 Week Course offered by Prof. Bhim Singh, IIT Delhi (PRE-REQUISITES: Fundamentals of Electric Machines, Modeling of Electrical Machines.)

Sr. No	Course Code & Course Title Course Link & Duration	Semester	Examination Scheme				Credit
			Theory (SWAYAM)		Practical (CHARUSAT)		
			Internal	External	Internal	External	
1	OCEE4001 Computer-Aided Design of Electrical Machines https://onlinecourses.nptel.ac.in/noc24_ee50/preview 12 weeks	VII	25	75	25	25	4

The T&E schemes along with a list of University electives are attached as Annexure 5A
Notional Hours of the Final year courses are attached as Annexure 5B
Syllabus of OCEE4001 is attached as Annexure 5C

8. Agenda/Item No 21.08: For discussion and approval: Multiple Entry and Multiple Exit for B.Tech. (Electrical Engineering) and the 4 credit course to be offered to students for eligibility of certificate/UG Diploma/B. Voc. In Electrical Engineering

Proceeding No.21.08:

As per the NEP2020, the multiple entry and exit options made available to the B. Tech. (Electrical Engineering) students. The terminology used in the exit options is in line with the NEP2020 Guidelines.

Resolution No.21.08:

The following resolution was made about the exit option.

- If the student wants to exit after completion of the first year (completion of a minimum 40 credits), he/she has to clear an additional 4-credit course as mentioned below.
  The eligible student shall be given a "UG Certificate in Electrical Engineering"

Sr. No	Course Code & Course Title	Semester	Examination Scheme				Credit
			Theory		Practical		
			Internal	External	Internal	External	
1	EE1011 Electrical Drawing	II	0	0	100	100	4

- If the student wants to exit after completion of the second year (completion of a minimum 80 credits), he/she has to clear an additional 4-credit Summer Internship course as mentioned below.
  The eligible student shall be given a "UG Diploma in Electrical Engineering"

Sr. No	Course Code & Course Title	Semester	Examination Scheme				Credit
			Theory		Practical		
			Internal	External	Internal	External	
1	EE2021 Summer Internship	IV	0	0	100	100	4

- If the student wants to exit after completion of the third year (completion of minimum 120 credits), he/she shall be given a "B.Sc. in Electrical Engineering" degree.

Students may be permitted to take a break from the study during the period of study but the total duration for completing the B.Tech. (Electrical Engineering) shall not exceed 7 years.

The Syllabus of EE1011 Electrical Drawing is attached as Annexure 6A. The Syllabus of the EE2021 Summer Internship is attached as Annexure 6B.

9. Agenda/Item No 21.09: For information: Inclusion of 2 credit course on community Service/NSS/NCC/Sports; and provision to earn extra credits based on undertaking Research/Academic/Cultural/ and other development activities from 2024-25 admission batch.

Proceeding 21.09: The University is making a policy for the Inclusion of 2 credit course on community Service/NSS/NCC/Sports. This course will be added to the second-year curriculum.

Also University making provision for extra credit based on undertaking

	Research/Academic/Cultural/ and other development activities from the 2024-25 admission batch. This course will be added to the final year curriculum.- The course name is proposed as "Skill Augmentation" For B.Tech. program, the final semester project credit should be kept the same across all the programs (Branches) of Engineering. The final semester credit decided to kept 16. Resolution No 21.09: The courses guiding policy will be prepared 2 months before the commencement of the AY 2024-25. The community service-related course will be added in the second-year curriculum and the extra credit-based course will be added to the final-year curriculum. The proposed Four-year T&E scheme for the 2024 admission batch is attached as Annexure 7A. The Credit Framework for the B.Tech. (Electrical Engineering) for the 2024 admission batch is attached as Annexure 7B. The proposed points for the point-based extra credit course "Skill Augmentation"- is attached as Annexure 7C and the draft report is attached as Annexure 7D.
10.	Agenda/Item No 21.10: For information: Result analysis of the End Semester Examination conducted during the odd semester of the Academic year 2023-24. Proceeding 21.10: The records of result analysis of the University exams are maintained. The results of both the exams are generally discussed and analyzed in the department meeting as soon as the exam is over and the necessary actions are decided such as focusing on slow learners, immediately after the first internal exam result. Resolution No 21.10: The efforts should be made to improve the results at all levels. The conduction of the remedial classes for weak/slow-learner students has been appreciated by the members. The result analysis of the main exam is attached as Annexure 8.
11.	Agenda/Item No 21.11: For information: Analysis of campus placement(s) Proceeding 21.11: Analysis of campus placement was presented to BoS experts. Mock tests are conducted before the placement for the students. Resolution No 21.11: BoS appreciated the efforts. The placement record is attached as Annexure 9.
12.	Agenda/Item No 21.12: For Discussion and Suggestion: Discussion on effective implementation of Outcome Based Education (OBE). Proceeding 21.12: Achievement of Program Outcomes were discussed. Resolution No 21.12: The attainment of the Program Outcomes and its comments are attached as Annexure 10.
13.	Agenda/Item No 21.13: For information and Discussion: Technical expert scrutiny

	report on question papers of the odd semester of AY 2023-24. Proceeding 21.13: Evaluation of University exam papers as per Bloom's taxonomy was done by faculty members. The question papers were balanced as per different levels of Bloom's taxonomy and had very good mark distribution as per the syllabus. Resolution No 21.13: Experts had welcomed the approach and asked to continue this practice of drawing balanced question papers. The Analysis is listed as Annexures 11A, 11B, and 11C.
14.	Agenda/Item No 21.14: For Discussion and action taken: The feedback of the stakeholders including exit (last day) feedback of the students to improve the various best practices adopted by the departments. Proceeding 21.14: Discussion was done on the feedback received. Resolution No 21.14: Some of the suggestions of different stakeholders, like including personality development course, project/field work courses, etc. are incorporated, and some suggestions will be incorporated in upcoming years. The students' feedback analysis is attached as Annexure 12A and the feedback analysis and action taken/plan of different stakeholders is attached as Annexure 12B.
15.	Agenda/Item No 21.15: For Approval: Panel of examiners for summer examinations (AY 2023-24). Proceeding 21.15: The list of Examiners was presented to BoS Members. Resolution No 21.15: BoS Approved the examiner panel list, it is attached as Annexure 13.
16.	Agenda/Item No 21.16: For Discussion: Enhancing research activities, project funding, consultancy work, certificate course and preparation of the action plan for the same. Proceeding 21.16: The Department has established a Cable and Wire Testing Lab. This lab will be used for organizing certification course. Also, obtaining a license for an Energy Auditor is under process. The certificate course on Digital Implementation of Converter Control was discussed. Resolution No 21.16: The industries will be contacted for Energy Audit consultancy work. The certificate course on Digital Implementation of Converter Control will be offered as tailor made course to the interested attendee because different type of converter design company demands for different control strategy. The course information is attached as Annexure 14.
17.	Additional Agenda 21.17: For Information: Innovation in pedagogy Proceeding 21.17: The BoS Chairman Gave information about the design Thinking

	Workshop arranged for the faculty members. All the faculty members were trained to implement the design thinking concept in their respective courses. Resolution No 21.17: The faculty members have identified the design thinking areas to be implemented in their respective courses. This is listed as Annexure 15. BoS members appreciated the concept.

Dr. Nilay A. Patel

Chairman (BoS) (EE)

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