Criterion 1: Vision, Mission and Program Educational Objectives (50)

Sub Criteria	Marks	Evaluation Guidelines	
1.1. State the Vision and Mission of the Department and Institution	05	 A. Availability of the Vision & Mission statements of the Department (1) B. Appropriateness/Relevance of the Statements (2) C. Consistency of the Department statements with the Institute statements (2) (Here it has been asked to write Institute Vision and Mission statements ensuring consistency with the department Vision and Mission statements; the assessment of the Institute Vision and Mission will be done in Criterion 9) 	
Exhibits/Context to be Observed/Assess	sed:		
 A. Vision & Mission Statements B. Correctness from definition perspective C. Consistency between Institute and Department statements 1.2. State the Program Educational 05 Listing of the Program Educational Objectives (3 to 5) of the program unde consideration (05) 			
Exhibits/Context to be Observed/Assessed: Availability & appropriateness of the PEOs statements			

	1 11 51	TIME ACCIEURATION
Exhibits/Context to be Observed/Assess	ed:	
A. Adequacy of Department Vision, Mission and P	EOs : Availabilit	ty on Institute website under relevant program link; Availability at department
notice boards, HoD Chamber, department website, if	Available; Avail	lability in department level documents/course of study
B. Process of dissemination		
Documentary evidence to indicate the process which	ensures awarene	ess among internal and external stakeholders with effective process implementation
C. Extent of Awareness		
Based on interaction with internal and external stake	holders	
1.4. State the process for defining		A. Description of process of defining Vision & Mission of the
the Vision and Mission of the	15	Department (07)
Department, and PEOs of the		B. Description of process involved in defining the PEOs of the
Program		program (08)
Exhibits/Context to be Observed/Assess A. Documentary evidence to indicate the		defining Vision, Mission & PEOS with effective process implementation
1.5. Establish consistency of PEOs with Mission of the Department	15	 A. Preparation of a matrix of PEOs and elements of Mission statement (5) B. Consistency/justification of co-relation parameters of the above matrix (10)
<i>Exhibits/Context to be Observed/Assess</i> A. A. Availability of a matrix correlating matrix		ssion elements B. Justification for each of the elements mapped in the
Total:	50	

Criterion 2: Program Curriculum and Teaching–Learning Processes (200)

Sub Criteria	Marks	Evaluation Guidelines
2.1. Program Curriculum	40	
2.1.1. State the process used to identify extent of compliance of the Board curriculum for attaining the Program Outcomes(POs) & Program Specific Outcomes(PSOs), mention the identified curricular gaps, if any	25	 A. Process used to identify extent of compliance of curriculum for attaining POs & PSOs (15) B. List the curricular gaps for the attainment of POs & PSOs (10) <i>Note:</i> In case all POs & PSOs are being demonstrably met through Board <i>Curriculum then 2.1.2 will not be applicable and the weightage of 2.1.1 will be 50</i>
• •	participation	ensures mapping/compliance of Board Curriculum with the POs & PSOs; of internal and external department stakeholders with effective process
2.1.2. Content beyond the Syllabus	15	 A. Steps taken to get identified gaps included in the curriculum (eg. letter to Board) (2) B. Delivery details of content beyond syllabus (10) C. Mapping of content beyond syllabus with the POs & PSOs (3)
	ce for at leas	

2.2. Teaching-Learning Processes	160	
2.2.1. Describe the Process followed to ensure/improve quality of Teaching Learning	25	 A. Adherence to Academic Calendar (3) B. Use of various instructional planning and delivery methods (3) C. Methodologies to support weak students and encourage bright students(4) D. Quality of classroom teaching (Observation in a Class) (3) E. Conduct of experiments (Observation in Lab) (3) F. Continuous Assessment in the laboratory (3) G. Student feedback of teaching learning process and action taken (6)

Exhibits/Context to be Observed/Assessed:

- A. Availability of Academic Calendar based on Board academic calendar and its effective compliance
- *B.* Documentary evidence to support implementation of pedagogical initiatives such as real life examples, collaborative learning, ICT supported learning, interactive class rooms etc.
- C. Guidelines to identify weak and bright students; post identification actions taken; impact observed
- D. Class room ambience; efforts to keep students engaged (also to be verified during interaction with the students)
- E. Quality of laboratory experience with respect to conducting, recording observations, analysis etc.(also to be verified during interaction with the Students)
- *F.* Lab Internal Semester examination and internal marks thereof, Practical record books, each experiment assessment, final marks based on assessment of all the experiments, and other assessments, if any
- *G. Feedback format, frequency, analysis and actions taken (also to be verified during interaction with students)*

2.2.2. Initiatives to improve the quality of semester tests and assignments	15	 A. Process for internal semester question paper setting and evaluation and effective process implementation (5) B. Process to ensure questions from outcomes/learning levels perspective (5) C. Evidence of COs coverage in class test / mid-term tests and
		assignments (5)

· · · ·	sired standar	model answers, evaluation and its compliance rd from outcome attainment perspective as well as learninglevels perspective arse outcomes
2.2.3. Quality of experiments	15	 A. Experimental methodologies (05) B. Innovative experiments including industry attached practices, virtual labs (05) C. Relevance to outcomes (05)
Exhibits/Context to be Observed/Assessed: A. Batch size per experiment, quality of a B. Mapping of the experiments with outco	-	ruments, instructional lab manuals, lab file/report
2.2.4. Quality of Students Projects and Report Writing	35	 A. Identification of projects and allocation methodology (3) B. Types and relevance of the projects and their contribution towards attainment of POs and PSOs (5) C. Process for monitoring and evaluation (5) D. Process to assess individual and team performance (5) E. Quality of deliverable, working prototypes (12) F. Papers published /Awards/ Recognition received by projects at State/ National level (5)
cost, standards and mapping with prog C. Continuous monitoring mechanism and	oduct, resear ram outcome l evaluation	ch, review etc.) consideration to factors such as environment, safety, ethics,

E. Based on Projects demonstration			
F. Quality of place (host) where the paper has	s been publis	shed /quality of competition in which award has been won	
2.2.5. Industry interaction and Community Services	30	 A. Industry supported Labs (02) B. Delivery of appropriate Course work by Industry experts (05) C. Industrial visits/tours for students (03) D. Industrial training/ internship (05) (Marks to be given proportionately i.e. 100% student attended =05 Marks; 90% students attended = 04, Marks and so on) E. Post training / internship Assessment (10) F. Contribution to Community related projects/activities (05) 	
Exhibits/Context to be Observed/Assessed: (Do	cumentary of	evidence from A to F)	
 A. Involvement of industry in setting/running the labs. B. Periodic engagement with industry experts in delivery of courses C. Industry tours mandated into the student preparation D. Industrial training for minimum two weeks for all students E. Assessing the impact of training on students' learning 			
2.2.6. Information Access Facilities and Student Centric Learning Initiatives	15	 A. Availability of facilities & Effective Utilization (10) B. Student Centric Learning Initiatives & Effective Implementation (05) 	
 Exhibits/Context to be Observed/Assessed: (Documentary evidence from A to B) A. ICT enabled delivery methods, smart classrooms; specify the facilities, materials and scope for self-learning, Webinars, NPTEL Podcast, MOOCs etc. B. E – resources, digital library 			
2.2.7. New Initiatives for embedding Professional Skills	15	 A. Core employability skill enhancement Initiatives and effective implementation (08) B. Personality development related Initiatives & effective implementation (07) 	

Exhibits/Context to be Observed/Assessed: (Documentary evidence from A to B) Self- Explanatory			
2.2.8. Co-curricular & Extra Curricular Activities	10	Type of activities and relevance	
Exhibits/Context to be Observed/Assessed: (Documentary evidence) Self -Explanatory			
Total:	200		

Criterion 3: Course Outcomes and Program Outcomes (100)

Sub Criteria	Marks	Evaluation Guidelines
3.1. Establish the correlation between the courses and the POs & PSOs	20	
3.1.1. Course Outcomes	05	A. Evidence of COs being defined for every course (5)
Exhibits/Context to be Observed/Assessed: A. Appropriateness of the statements shall be seen	n for atleas	t two courses each from 1st, 2nd, 3rd year of study
3.1.2. CO-PO & CO-PSOs matrices of courses selected in 3.1.1 (six matrices)	05	A. Explanation of table to be ascertained (5)
Exhibits/Context to be Observed/Assessed:		
A. Mapping to be verified		
3.1.3. Program level Course-PO/PSOs matrix of ALL courses including first year courses	10	A. Explanation of tables to be ascertained (10)
Exhibits/Context to be Observed/Assessed:		
A. Program Outcomes and Program Specific	c Outcomes	getting mapped with the majority of the courses to be verified
3.2. Attainment of Course Outcomes	40	

	B. The quality /relevance of assessment processes & tools used (05)
I	
cesses inc	cluding data collection, verification, analysis, decision making
0	A. Verify the attainment levels as per the benchmark set for all courses (30)
Ŭ	The verify the administrations as per the contentiatin set for all courses (50)
<i>,</i>	ta collection, verification, analysis and decision making; details for two courses
	tta collection, verification, analysis and decision making; details for two courses
<i>,</i>	
0	A. List of assessment tools & processes (02) B. The quality/relevance of assessment tools/processes used (08)
0	A. List of assessment tools & processes (02)
0	A. List of assessment tools & processes (02)
	cesses in

3.3.2. Provide results of evaluation of each PO & PSO	30	 A. Verification of documents, results and level of attainment of each PO/PSO (20) B. Overall levels of attainment (10) 		
Exhibits/Context to be Observed/Assessed: A. & B. Appropriate attainment level and documentary evidences; details for POs & PSOs attainment from core courses to be verified. Also atleast four POs & two PSOs attainment levels shall be verified				
Total:	100			
	100			

Criterion 4: Students' Performance (200)

Sub Criteria	Marks	Evaluation Guidelines
4.1. Enrolment Ratio	20	Students enrolled at the First Year Level on average basis during the previous three academic years including the current academic year A. >= 90% (20) B. >= 80% (18) C. >= 70% (16) D. >= 60% (12) E. >= 50% (08) F. Otherwise '0'.
<i>Exhibits/Context to be Observed/Assessed:</i> A. B. & C. Data to be verified for each of the assess	nent year	rs
4.2. Success Rate in the stipulated period of the program	60	
4.2.1. Success rate without backlogs in any Semester/year of studyWithout Backlog means no compartment or failure in any semester/year of study	40	SI= (Number of students who graduated from the program without backlog)/(Number of students admitted in the first year of that batch and admitted in 2nd year via lateral entry) Average SI = Mean of success index (SI) for past three batches Success rate without backlogs in any year of study = 40 × Average SI
Exhibits/Context to be Observed/Assessed:		
Data to be verified for each of the assessment years	5	

 4.2.2. Success rate with backlogs in stipulated period (actual duration of the program) <i>Exhibits/Context to be Observed/Assessed:</i> 	20	SI= (Number of students who graduated from the program with backlog in the stipulated period of course duration)/(Number of students admitted in the first year of that batch and admitted in 2nd year via lateral entry) Average SI = mean of success index (SI) for past three batches Success rate = 20 × Average SI
Data to be verified for each of the assessment years Note: if 100% students clear without any backlog th		otal marks scored will be 60 as both 4.2.1 & 4.2.2 will be applicable simultaneously.
4.3. Academic Performance in First Year	25	Academic Performance Level = 2.5 * Average API API = ((Mean of 1st Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in First Year/ 10)) x (successful students/number of students appeared in the examination). Successful students are those who are permitted to proceed to the second year.
Exhibits/Context to be Observed/Assessed:		
Data to be verified for atleast one of the assessme	nt years	
4.4. Academic Performance in Second Year	20	Academic Performance Level = 2.0 * Average API API = ((Mean of 2 nd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Second Year/ 10)) x (successful students/number of students appeared in the examination) Successful students are those who are permitted to proceed to the final year

<i>Exhibits/Context to be Observed/Assessed:</i> Data to be verified for atleast one of the assessme	ent years	
4.5. Academic Performance in Final Year	15	Academic Performance Level = 1.5 * Average API (Academic Performance Index) API = (Mean of Final Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Final Year/10) x (successful students/number of students appeared in the examination) Successful students are those who passed in all the final year courses
<i>Exhibits/Context to be Observed/Assessed:</i> Data to be verified for atleast one of the assessme	ent years	
4.6. Placement, Higher Studies and Entrepreneurship	40	Assessment Point = $40 \times (1.25X + Y)/N$ where, X = Number of students placed in companies or Government sector through on/off campus recruitment Y = Number of students admitted to higher studies N = Total number of final year students
<i>Exhibits/Context to be Observed/Assessed:</i> Documentary evidence for atleast for one year to b	e verified	
4.7. Professional Activities	20	
4.7.1.Professional Societies/Student Chapters and organizing Technical Events	10	 A. Availability of Professional Societies/Chapters & Relevant activities (05) B. Number, quality of engineering events (05) (Level – Dept./Institute/State/National/International)

Evaluation Guidelines with indicative exhibits/context to be Observed/Assessed - SAR (Diploma)

First Time Accreditation

Exhibits/Context to be Observed/Assessed:		
Self- Explanatory		
4.7.2. Publication of technical magazines, newsletters, etc.	05	A. Quality & Relevance of the contents and Print Material (3)B. Participation of Students from the program (2)
Exhibits/Context to be Observed/Assessed:A.Documentary evidenceB.Documentary evidence - Students participation	tion (also	to be confirmed during interaction with the students)
4.7.3. Participation in inter-institute / state/national events by students of the program of study	05	
<i>Exhibits/Context to be Observed/Assessed:</i> Documentary evidence indicating participation, aw	vard, and	recognition
Total:	200	

Sub Criteria	Marks	Evaluation Guidelines
5.1. Student-Faculty Ratio (SFR)	25	 Marks to be given proportionally from a maximum of 25 to a minimum of 10 for average SFR between 25:1 to 30:1, and zero for average SFR higher than 30:1. Marks distribution is given as below: < = 25 - 25 Marks < = 26 - 22 Marks < = 27 - 20 Marks < = 28 - 15 Marks < = 29 - 12 Marks < = 30 - 10 Marks > 30 - 0 Marks Consideration of Contractual Faculty: All the faculty whether regular or contractual (except Part-Time), will be considered. The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for 2 consecutive semesters in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Faculty Student Ratio. However, following will be ensured in case of contractual faculty: Shall have the AICTE prescribed qualifications and experience. Shall be appointed on full time basis and worked for consecutive two semesters during the particular academic year under consideration. Should have gone through an appropriate process of selection and the records of the same shall be made available to the visiting team during NBA visit

Evaluation Guidelines with indicative exhibits/context to be Observed/Assessed - SAR (Diploma)

First Time Accreditation

		First Time Accreditation
Exhibits/Context to be Observed/Assessed:		
Faculty & Students number calculations as pe	er SAR	
5.2. Faculty Qualification	25	
5.2.1. Faculty Qualification Index	20	FQ = 2.0* (10x +7y)/F where x is no. of faculty with M.Tech. (in case of humanities and science M.Phil./Ph.D.) and y is no. of faculty with B.Tech. (In case of humanities and science MA/M.sc), F is no. of faculty required to comply 1:25 Faculty Student Ratio
5.2.2. Availability of Faculty/principal of that discipline with PhD. Qualification	05	
<i>Exhibits/Context to be Observed/Assessed:</i> <i>Documentary evidence – Faculty Qualification</i>	on	
5.3. Faculty Retention	20	(% of faculty retained during the period of assessment keeping CAYm2 as base year) A. >= 90% (20) B. >= 75% (15) C. >= 60% (10) D. >= 50% (05) E. < 50% (00)
Exhibits/Context to be Observed/Assessed:		
Faculty date of joining; atleast three month (J	uly-April	-May) salary statement for each of the assessment years

5.4. Faculty as participants in Faculty development/training activities	42	
5.4.1 Faculty as participants in Faculty development/training activities conducted by other organizations	30	 A. Faculty scores maximum five points for participation B. Three points - Participant in 2 to 5 days Faculty development program (05) C. Five points - Participant >5 days Faculty development program (05) Assessment = 6 × Sum/0.5 Required Faculty (Marks limited to 30)
5.4.2. Organized/ Conducted FDPs and STTP by this department at State / National Level	12	A. Minimum 2 days programB. 2 points per program (max. upto 12 marks)
<i>Exhibits/Context to be Observed/Assessed:</i> <i>Documentary Evidences</i>		
5.5. Product development, Consultancy, Manufacturing Contracts, Testing Contracts	08	Product development (2) Consultancy (2) Manufacturing Contracts (2) Testing Contracts (2) <i>Marks to be given based on Documentary Evidence</i>
Exhibits/Context to be Observed/Assessed:		
Product development, Consultancy, Manufa	cturing cont	racts, Testing Contracts resulting into revenue generation.
5.6. Faculty Performance Appraisal and Development System (FPADS)	30	 The assessment is based on - A. A well-defined system instituted for all the assessment years (05) B. Its implementation and effectiveness (15) C. Qualification up-gradation of faculty (10)
Total:	150	

Criterion 6: Facilities and Technical Support (100)

Sub Criteria	Marks	Evaluation Guidelines
6.1. Availability of adequate, well- equipped classrooms to meet the curriculum requirements	10	
Exhibits/Context to be Observed/Assessed: Self -explanatory		
6.2. Availability of adequate and well- equipped workshops, Laboratories and Technical manpower to meet the curriculum requirements	40	 A. Adequacy (10) B. Quality of Labs/workshop (20) C. Technical Manpower support –Eligible and Adequate (10)
Exhibits/Context to be Observed/Assessed: Self-explanatory		
6.3. Additional facilities created for improving the quality of learning experience in laboratories	20	A. Facilities (10)B. Effective Utilization (05)C. Relevance to POs/PSOs (05)
Exhibits/Context to be Observed/Assessed:		
Self-explanatory		

6.4. Laboratories: Maintenance and overall ambiance	10	Self -Explanatory
6.5. Availability of computing facility in the department	10	Availability and Adequacy
6.6. Language lab	10	Availability and Effective Utilization (no. of students enrolled for language classes)
Total:	100	

Criterion 7: Continuous Improvement (75)

Sub Criteria	Marks	Evaluation Guidelines
7.1. Actions taken based on the results of evaluation of each of the POs and PSOs	25	 A. Documentary evidence of POs and PSOs attainment levels (10) B. Identification of gaps/shortfalls/improvement from continuous improvement perspective (5) C. Plan of action to bridge the gap and its Implementation (10)
Exhibits/Context to be Observed/Assessed: Documentary evidence in respect of attainment	ent of each of t	the POs and PSOs
7.2. Improvement in Success Index of Students without the backlog	10	A. Assessment proportional to the improvement
Exhibits/Context to be Observed/Assessed:		
Self- Explanatory		
7.3. Improvement in Placement and Higher Studies	10	Assessment is based on Nos., Quality placements, Core Companies, Pay package
Exhibits/Context to be Observed/Assessed:		
Self Explanatory		
7.4 Improvement in Academic Performance in Final Year	10	Assessment proportional to the improvement
Exhibits/Context to be Observed/Assessed:		

Documentary evidence – list of students admitted; admission authority guidelines; ranks/scores; comparative status considering CAYm2 as a base year

7.5 Internal Academic Audits to Review	10	A. Audit Criteria
Complete Academics & to Implement		B. Frequency
Corrective Actions on Continuous		C. Methodology
Basis		D. Effectiveness
		E. Action Plan
7.6. New Facility created in the program	10	Relevance
Total:	75	

Criterion 8: Student Support Systems (50)

Sub Criteria	Marks	Evaluation Guidelines
8.1. Mentoring system to help at individual level	10	A. Details of the mentoring system that has been developed for the students for various purposes and also state the efficacy of such system (10)
Exhibits/Context to be Observed/Assessed: A. Mentoring system terms of reference; imple faculties involved	mentation;	effectiveness (also to be verified during interaction with the students), no. of
8.2. Feedback analysis and reward/corrective measures taken, if any	10	 A. Methodology being followed for feedback collection, analysis and its effectiveness (05) B. Record of corrective measures taken (05)
<i>Exhibits/Context to be Observed/Assessed:</i> A. Feedback questions, collection process, and	alysis, action	
8.3. Feedback on facilities	05	A. Student feedback on facilities, analysis and corrective action taken (05)
Exhibits/Context to be Observed/Assessed:		
Self Explanatory		
8.4. Carrier Guidance, Training, Placement	20	 A. Availability (05) B. Management (10) C. Effectiveness (05)

Exhibits/Context to be Observed/Assessed: Self Explanatory		
8.5. Entrepreneurship Cell/Technology Business Incubator/ Skill Development Centre	05	 A. Availability (01) B. Management (02) C. Effectiveness (02)
Total:	50	

Criterion 9: Governance, Institutional Support and Financial Resources (75)

Sub Criteria	Marks	Evaluation Guidelines
9.1. Organization, Governance and Transparency	25	
9.1.1. State the Vision and Mission of the Institute	05	A. Availability of the Vision & Mission statements of the Institute (02)B. Appropriateness/Relevance of the Statements (03)
Exhibits/Context to be Observed/Assessed:	A	
	* 0	f statements on Institute website; Availability at Central facilities such as ilability of one set of statements in Documents
9.1.2.Governing body, administrative setup, functions of various bodies, service rules procedures, recruitment and promotional policies.	05	 A. List the Governing Body Composition; their memberships, functions, and responsibilities (02) B. Minutes of the meetings and action-taken reports (01) C. The published service rules, policies and procedures with year of publication (01) D. Extent of awareness among the employees/students (01)
Exhibits/Context to be Observed/Assessed: Self- explanatory	11	
9.1.3. Decentralization in working and grievance redressal mechanism	05	 A. List the names of the faculty members who have been delegated powers for taking administrative decisions (02) B. Specify the mechanism and composition of grievance redressal cell including Anti Ragging Committee & Sexual Harassment Committee (03)

Exhibits/Context to be Observed/Assessed:		
A. & B. Documentary evidence		
9.1.4. Delegation of financial powers	05	A. Demonstrate the utilization of financial powers for each of the assessment years (05)
Exhibits/Context to be Observed/Assessed:		
A. Circulars notifying financial powers and	Documentary	v evidence to exhibit utilization at each levels during assessment years
9.1.5. Transparency and availability of correct/unambiguous information in public domain	05	A. Information on the policies, rules, processes is to be made available on web site (2)B. Dissemination of the information about student, faculty and staff (3)
Exhibits/Context to be Observed/Assessed:		
A. & B. Website and Documentary evidence		
9.2. Budget Allocation, Utilization, and Public Accounting at Institute level	10	
9.2.1. Adequacy of Budget allocation	04	Process and Adequacy (04)
Exhibits/Context to be Observed/Assessed:		
 A. Budget formulation, finalization and approve B. Requirement – allocation –adequacy – justified 		of

9.2.2. Utilization of allocated funds	04	A. Budget utilization for three years (04)
Exhibits/Context to be Observed/Assessed:		
. Balance sheet; effective utilization; random	verification for	atleast two of the three assessment years
. Duance sneet, effective unitzation, random	verification jor	uneusi iwo of the three assessment years
9.2.3. Availability of the audited statements on the institute's website	02	A. Availability of Audited statements on website (02)
Exhibits/Context to be Observed/Assessed: Website		
9.3. Department Specific Budget Allocation, Utilization	05	To be evaluated in consultation with the Program Experts
9.3.1. Adequacy of budget allocation	02	A. Adequacy
Exhibits/Context to be Observed/Assessed:		
A. Budget formulation, finalization, appro	oval process and	Requirement – allocation –adequacy – justification thereof
9.3.2. Utilization of allocated funds	03	A. Budget utilization for three years

9.4. Library and Internet	20	
9.4.1. Quality of learning resources (hard/soft)	10	 A. Availability of relevant learning resources including e-resources and Digital Library (7) B. Accessibility to students (3)
Exhibits/Context to be Observed/Assessed: Availability; Adequacy; Effectiveness (Also to be verified during interactions with the f	aculty and stud	lents)
9.4.2. Internet	10	 A. Available bandwidth (4) B. Wi Fi availability (2) C. Internet access in labs, classrooms, library and offices of all Departments (2) D. Security Arrangements (2)
Exhibits/Context to be Observed/Assessed: Availability as per AICTE norms; Adequacy; Ef (Also to be verified during interactions with the		udents)
9.5. Institutional Contribution to the Community Development/ Go- green	05	
9.6 Alumni Performance and Connect	10	
Total:	75	