List of NEW NBA Files (As per Evaluation Guidelines)

1. Files to be maintained by the department for B.Tech Program

File No	NBA Criteria	File Name / File Description
1	1.1	**Vision, Mission, Program Educational Objectives (PEOs)**
		State the Vision and Mission of the Institute and the Department • Vision and Mission Statements of both the Department and the Institute • Correctness from definition perspective • Consistency between Institute and Department statements
		State PEOs of the Program • Availability & correctness of the PEOs statements
		Process of Defining Vision, Mission and PEOs • Description of the process involved in defining the Vision, Mission of the Department • Description of the process involved in defining the PEOs of the program • Documentary evidence demonstrating the process ensuring effective participation of internal and external stakeholders, along with effective process implementation.
		Dissemination of Vision, Mission and PEOs • Adequacy in respect of publication & dissemination • Process of dissemination among stakeholders • Documentary evidence outlining the process ensuring awareness among internal and external stakeholders, including effective implementation.
		Mapping of PEOs with Mission • Availability of a matrix containing PEOs and Mission. • Documentary evidence for justification for each statement mapped in the matrix.
2	1.2	**Curriculum Structure and Features**
		State the Process for Developing/Revising the Program Curriculum • Periodic review through search conferences/curriculum development workshops, identifying job roles etc., taking into account the POs and PSOs. Involvement of the industry in this process.
		Curriculum Structure • Courses required for the degree program and distribution of learning hours assigned in terms of attaining POs and PSOs.
		Components of Curriculum • Curricular components for the attainment of POs and PSOs
		Strategies for Education Reforms • Curriculum design in terms of various educational reforms such as multidisciplinary and interdisciplinary approaches, multi-point entry/exit options, academic bank of credits, skill-based courses, and recognition of prior learning, etc • Evidence of the action plan for NEP 2020, state education policy, etc., including their implementations. Additionally, map activities in curriculum design with multidisciplinary and interdisciplinary programs, the establishment of an academic bank of credits system, and APAAR, etc.

File No	NBA Criteria	File Name / File Description
3	1.3	**PO, PSO and their Mapping with Courses** **POs and PSOs** • Listing of the Program Specific Outcomes (up to 3) of the program under consideration and their appropriateness **Mapping between the Courses and POs/PSOs** • Justification of mapping between courses and POs and PSOs
4	1.4	**Course Outcomes and Course Articulation Matrix** **Course Outcome (Semester Wise)** • Availability of appropriate COs for every course **Course Articulation Matrix** • Availability of Course Articulation Matrix and its appropriateness in terms of level of correlation. • Documentary evidence of justification of appropriateness of mapping of COs and correlation levels with various POs and PSOs
5	1.5	**Program Articulation Matrix** • Availability of Mapping of Courses and POs/ PSOs • Documentary evidence of Articulation Matrix and relevance
6	2.1	**Quality of Teaching & Learning** • Academic Calendar and its effective implementation. • Documentary evidence of supporting the implementation of pedagogical initiatives, such as real-life examples, collaborative learning, ICT-supported learning, and interactive classrooms. • Documentary evidence of tailored resources, differentiated instruction, and individualized attention to meet their unique learning needs • Classroom ambience and efforts to keep students engaged (also to be verified during interaction with the students). • Quality of laboratory experience concerning conducting experiments, recording observations, analysis, etc. (also to be verified during interaction with the students).
7	2.2	**Quality of Student Capstone Project** • Capstone/major project identification and guide/ supervisor allocation process • Projects classification (application, product, research, review, etc.), incorporating factors such as environment, safety, ethics, cost, standards, and mapping with POs and PSOs. • Process for continuous monitoring (Meeting records with guide and its frequency etc.,) • Quality of projects, working models, or prototypes incorporating factors such as environment, safety, ethics, cost, standards, and mapping with POs and PSOs.
8	2.3	**Internship/Industrial Training** • Documentary evidence of process of internship/ industrial training for students, number of students participated, relevant training areas, documented visit report, with a duration of not less than 2 weeks for the industrial training/internship. • Documentary evidence of mapping of internship and training programs for students to POs and PSOs • Documentary evidence of student feedback on industrial training and its analysis and actions taken.

File No	NBA Criteria	File Name / File Description
9	2.4	**Seminar and Mini/Micro Projects** • Documentary evidence of seminars presented by the students • Documentary evidence of Mini/micro projects and their mapping with POs and PSOs
10	2.5	**Case Studies and Real-Life Examples** • Use of case studies and real-life examples in teaching and their mapping with POs and PSOs. • Documentary evidences of case studies and real-life examples and its mapping with POs and PSOs.
11	2.6	**SWAYAM/NPTEL/MOOC/Self Learning** • Number of students obtained MOOCs certification through platforms like SWAYAM/NPTEL, etc and their mapping with POs and PSOs. • Scope for self-learning & facilities and its use.
12	2.7	**Solving Complex Engineering Problems Incorporating Sustainability Goals** • List of complex engineering problems from different courses/activities/mini projects, etc. along with the targeted SDGs
13	2.8	**Steps Taken for Enhancing Industry Institute Partnerships** • Documentary evidence of industry involvement in the partial delivery of any regular courses. • Documentary evidence of industry offered courses/training • Types of industries, types of labs, objectives, utilization, and effectiveness. • Analysis and actions taken as a result.
14	3.1	**Evaluation of Continuous Assessment: Assignments, Unit Tests, Mid-Term, etc** • Process for setting internal semester question papers, creating model answers, evaluating them, and ensuring compliance. • Assessment of the quality of unit tests/class tests/mid-term tests/assignments • Documentary evidence of mapping questions with COs. • Evidence of sharing of post evaluation feedback with students for performance improvement
15	3.2	**Evaluation of Semester End Exam (SEE) Question Paper** • Process for setting semester-end exam question paper evaluating and ensuring compliance. • Assessment of the quality of semester end exam question paper • Evidence of transparency of post evaluation process
16	3.3	**Evaluation of Laboratory Work and Workshop (Continuous and SEE)** • Evidence of evaluation of the laboratory experiments • Evidence of Rubrics developed and used for assessing student performance during workshops/laboratories.
17	3.4	**Evaluation of Industrial Training/ Internship (Continuous and SEE)** • Documentary evidence of internships/ industrial training and its relevance in terms of POs. • Evidence of Rubrics developed and used for assessing student performance during internships/ industrial training.
18	3.5	**Evaluation of Projects** • Rubrics used for assessing complexity, cost, relevance to the environment, and sustainability • Rubrics used for assessing team work, communication, and use of project management concepts

File No	NBA Criteria	File Name / File Description
19	3.6	**Evidence of Addressing Sustainable Development Goals (SDG)** Evidence of Addressing Sustainable Development Goals relevant to the program • Student project activities through course work, research work and projects
20	3.7	**Attainment of Course Outcomes** **Describe the Assessment Tools and Processes Used to Gather the Data for the Evaluation of Course Outcome** • List of assessment tools and processes • The quality/relevance of assessment tools/processes used • Documentary evidence for assessment tools and assessment processes used to measure COs including data collection, verification, analysis, and decision-making **Record the Attainment of Course Outcomes of all Courses with Respect to Set Attainment Levels** • Verification of the attainment levels as per the benchmark set for COs of all courses • Methodology to define set levels and its compliance; data collection, verification, analysis and decision making; details for one course per year of study to be verified
21	3.8	**Attainment of Program Outcomes and Program Specific Outcomes** **Provide Results of Evaluation of Each PO & PSO** • Verification of documents, results, and the level of attainment of each PO/PSO • Assessment of overall levels of attainment • Documentary evidence towards appropriate attainment levels for attainment of POs and PSOs from core courses to be verified. Additionally, at least two levels of POs and two levels of PSOs attainment shall be verified
22	4.1	**Enrolment Ratio in the First Year** • % students enrolled in the First Year on average over 3 academic years
23	4.2	**Success Rate of the Students in the Stipulated Period of the Program** • Success Rate (**SR**)= B/A* A= No. of students admitted in the 1st year of that batch and those actually admitted in the 2nd year via lateral entry, plus the number of students admitted through multiple entry (if any) and separate division if applicable, minus the number of students who exited through multiple entry (if any). B=No. of students who graduated from the program in the stipulated course duration) **Note *:** If the value of A is less than the sum of the sanctioned intake (N) and the lateral entry including leftover seats (N2), then the value of A should be the sum of the sanctioned intake (N) and the lateral entry including leftover seats (N2). Average SR = Mean of SR for the past three batches. **SR Points** = 1.5 * (Average SR/10).
24	4.3	**Academic Performance of the First-Year Students of the Program** **Academic Performance** = Average Academic Performance Index (API), where 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 1st year/10)) * (Number of successful students/number of students appeared in the examination). Successful students are those who have proceeded to the 2nd year.
25	4.4	**Academic Performance of the Second Year Students of the Program**

File No	NBA Criteria	File Name / File Description
		Academic Performance = Average Academic Performance Index (API), where API = ((Mean of 2nd 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 2nd Year/10)) *(Number of successful students/number of students appeared in the examination. Successful students are those who have proceeded to the 3rd year.
26	4.5	Academic Performance of the Third Year Students of the Program
		Academic Performance = Average Academic Performance Index (API), where API = ((Mean of 3rd 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 3rd Year/10)) * (Number of successful students/number of students appeared in the examination). Successful students are those who have proceeded to the 4th year.
27	4.6	Placement, Higher Studies and Entrepreneurship
		Assessment Points = 0.3 * Average of placement index (P). Placement index (P) = [(X + Y + Z)/FS] *100 where, X = No. of students placed Y = No. of students admitted to higher studies Z = No. of students taking up entrepreneurship FS = Total no. of final year students. Note: If the value of FS is less than the sum of the sanctioned intake (N) and the lateral entry including leftover seats (N2), then the value of FS should be the sum of the sanctioned intake (N) and the lateral entry including leftover seats (N2).
28	4.7	Professional Activities
		Professional Societies/Bodies, Chapters, Clubs, and Professional Engineering Events Organize • Availability and number of activities organized through professional societies/chapters/clubs • Number and quality of engineering events organized at the Institute, categorized by level (National/International).
		Student's Participations in Professional Events (at other institutions) • No. of students participated in the state level events • No. of students participated in the national level/ international events • No. of students received prizes/awards in such events
		Publication of Journals, Magazines, Newsletters, etc in the Department • Quality and relevance of the contents and print material/ e-format • Student involvement in publication of journals, magazines, newsletters
		Student Publications • No. of journal papers published by students during the assessment period • No. of conference papers published by students during the assessment period • Number of student publications that received prizes/awards during the assessment period
29	5.1	Student-Faculty Ratio (SFR)
		SFR to be calculated at Department level considering all UG and PG engineering programs in the Department; include allied department programs/clusters as well. The programs, such as MCA, BCA, and other non-engineering programs running in the Department or allied Departments, need to have sufficient faculty members to support those programs. These faculty members should not be included in the Table 5A of the SAR. • For consideration of Faculty, Faculty appointment letters, time table/subject allocation file. • Calculation of students and faculty as mentioned in the SAR

File No	NBA Criteria	File Name / File Description
30	5.2	**Faculty Qualification** Faculty qualification index (FQI) = 2.5 * [(10X +4Y)/RF)], where X=No. of faculty members with Ph.D. degree or equivalent as per AICTE/UGC norms. Y=No. of faculty members with M. Tech. or ME degree or equivalent as per AICTE/UGC norms. RF=No. of required faculty to adhere to the 20:1 Student-Faculty ratio, with calculations based on both student numbers and faculty requirements as per section 5.1 of SAR (RF=S/20). To determine the RF value (No. of required faculty in the Department, including allied Departments to adhere to the 20:1 Student-Faculty ratio), all students (S as defined in section 5.1 of SAR) in the department, as well as those in allied departments, need to be considered. (RF=S/20) The programs, such as MCA, BCA, and other non-engineering programs running in the Department or allied Departments, need to have sufficient faculty members to support those programs and exclude the faculty members and students listed in Table 5.2.1 (X, Y, and RF) of SAR
31	5.3	**Faculty Cadre Proportion** Faculty qualification and experience required for cadre posts shall only be considered in accordance with AICTE norms/guidelines. • Cadre-wise number of available faculty; Faculty qualifications, experience, and eligibility; Appointment/Promotion orders. • Cadre-wise number of faculty required as per AICTE guidelines
32	5.4	**Visiting/Adjunct Faculty/ Professor of Practice** • Provision of visiting or adjunct faculty/emeritus professor/ professor of practice, etc • Minimum 50 hours per year interaction
33	5.5	**Faculty Retention**
34	6.1	**Professional Development Activities** **Memberships in Professional Societies at National/ International Levels** Memberships in Professional Societies at National/International Levels. • Faculty members who have active recognized professional memberships and their positions and contributions to professional societies during the assessment period **Faculty as Resource Persons or Participants in STTPs/FDPs** **Faculty as Resource Persons in STTPs/FDPs** • An average of more than 3 faculty members from the Department served as resource persons in STTPs/FDPs during the assessment period • An average of more than 2 and less than 3 faculty members from the Department served as resource persons in STTPs/FDPs during the assessment period **Faculty Members' Participation in STTPs/ FDPs** faculty scores maximum five points for participation • Participation in 2 to 5 days Faculty/ Faculty development program: 3 Points • Participation in >5 days Faculty/ Faculty development program: 5 points • RDF= Number of faculty required to comply with the 20:1 student-faculty ratio in the Department alone, as per section 5.1 (RDF= DS/20). • For each year, Assessment Points (AP) = Sum of faculty participation score / 0.5 * RDF • Average assessment over last three years starting from CAYm1 (Marks limited to 05)

File No	NBA Criteria	File Name / File Description
		Faculty Contribution in Development of SWAYAM MOOCs and other E-Content • Faculty member (s) involvement in developing SWAYAM MOOCs • Involvement of faculty members in developing E-Content
		Faculty Certification of MOOCs through SWAYAM, etc Percentage of faculty members in the Department obtained MOOCs certification through platforms like SWAYAM/NPTEL and marks distribution as follows: • > 30% of available faculty members in the Department obtained MOOCs certification through platforms like SWAYAM/NPTEL averaged during the assessment period (07-10) • > 20% and <30% of available faculty members in the Department obtained MOOCs certification through platforms like SWAYAM/NPTEL averaged during the assessment period (04-06) • < 20% of available faculty members in the Department obtained MOOCs certification through platforms like SWAYAM/NPTEL averaged during the assessment period (00-03)
		FDP/ STTP Organized by Department • The minimum duration of FDP/STTP is 5 days. • 2 points per FDP/STTP, with a maximum of 4 marks per assessment year and a total maximum of 10 mark
		Faculty Support in Student Innovative Projects Percentage of faculty members in the Department supporting as a mentor, facilitator, etc. in student innovation projects in various events like hackathons, codeathons, ideathons, open research, etc. & marks distribution as follows: • 30% of available faculty members in the Department support as a mentor, facilitator, etc. in student innovation projects in various events during the assessment period (07-10) • 20% and <30% of available faculty members in the Department support as a mentor, facilitator, etc. in student innovation projects in various events in the past 3 years (04-06) • <20% of available faculty members in the Department support as a mentor, facilitator, etc. in student innovation projects in various events in the past 3 years (00-03)
		Faculty Internship/ Training/ Collaboration with Industry Percentage of faculty members in the Department, who have undergone faculty internships/trainings/ collaboration with industry & marks distribution as follows: • > 30% of available faculty members in the Department have undergone faculty internships/ trainings/ collaboration with industry averaged during the assessment period (07-10) • > 20% of and <30% available faculty members in the Department have undergone faculty internships/ trainings/ collaboration with industry averaged during the assessment period (04-06) • <20% of available faculty members in the Department have undergone faculty internships/ trainings/collaboration with industry averaged during the assessment period (00-03)
35	6.2	**Research and Development Activities**
		Academic Research Publications in Journals, conference papers, books, and book Chapters and marks distribution as follow: • No. of Publications • Quality of publications

File No	NBA Criteria	File Name / File Description
		Ph.D. Student Details • No. of students enrolled for Ph.D. degree in the Department during the assessment period • No. of Ph.D. graduated in the Department during the assessment period
		Development Activities • Patents granted during the assessment period • Patents published during the assessment period • Working models and prototypes developed during the assessment period
		Sponsored Research Project Funded research projects from external sources; Cumulative during CAYm1, CAYm2 and CAYm3 • Amount >20 Lacs – 15 Marks • Amount >16 Lacs and < 20 lacs– 12 Marks • Amount >12 Lacs and < 16 lacs –9 Marks • Amount > 8 Lacs and < 12 lacs –6 Marks • Amount > 4 Lacs and < 8 lacs –3 Marks • Amount > 1 Lacs and < 4 lacs –1 Mark • Amount < 1 Lac – 0 Mark.
		Consultancy Work Consultancy work from external sources; Cumulative during CAYm1, CAYm2 and CAYm3 • Amount >20 Lacs – 15 Marks • Amount >16 Lacs and < 20 lacs–12 Marks • Amount >12 Lacs and < 16 lacs –9 Marks • Amount > 8 Lacs and < 12 lacs –6 Marks • Amount > 4 Lacs and <8 lacs –3 Marks • Amount > 1 Lacs and <4 lacs –1 Mark • Amount <1 Lac – 0 Mark.
		Institution Seed Money or Internal Research Grant to its Faculty for Research Work • **Amount received** Institution Seed Money or Internal Research Grants received by faculty members; cumulatively during CAYm1, CAYm2, and CAYm3 Amount > 6 Lacs – 3 Marks Amount > 4 Lacs and < 6 lacs– 2 Marks Amount > 2 Lacs and < 4 lacs – 1 Mark Amount < 1 Lac – 0 Mark • **Amount utilized**
36	7.1	**Adequate and Well-Equipped Laboratories, and Technical Manpower** • Adequacy and well-equipped laboratories running the program. • Quality of instruments • Utilization of laboratories/workshops • Adequate and qualified technical supporting staff in the Department
37	7.2	**Additional Facilities Created for Improving the Quality of Learning Experience in Laboratories** • Availability and relevance of additional facilities • B. Utilization and effectiveness of facilities • C. Relevance to POs/PSOs
38	7.3	**Maintenance of Laboratories and Overall Ambiance**

File No	NBA Criteria	File Name / File Description
		• Maintenance policy • Corrective & preventive maintenance • Overall ambience
39	7.4	**Safety Measures in Laboratories**
		• Basic safety measures: Dos and don'ts, follow the dress code, maintain hygiene, learn emergency protocols, wear appropriate shoes, etc. • Lab-specific safety measures: gloves, safety mats, Miniature Circuit Breaker (MCB), etc..
40	7.5	**Project Laboratory/Research Laboratory /Centre of Excellence**
		• Availability of project laboratories/research laboratories • Availability of centre of excellence • Utilization of project laboratories/research laboratory /Centre of excellence • Relevance to POs/PSOs
41	8.1	**Actions Taken Based on the Results of Evaluation of the COs, POs, and PSOs**
		Actions Taken Based on the Results of Evaluation of the COs Attainment • Documentary evidences of identification of gaps in COs attainment • Plan of action to bridge the gaps/ improvement • Implementation
		Actions Taken Based on the Results of Evaluation of the POs/PSOs Attainment • Documentary evidences of identification of gaps in POs/PSOs attainment • Plan of action to bridge the gaps/ improvement • Implementation
42	8.2	**Academic Audit and Actions Taken thereof during the Period of Assessment**
		• Availability of external academic audit process • Plan of action to address the recommendations • Record of actions/corrective measures taken during the assessment period • Documentary evidence of academic audit: Assessment criteria, frequency, conduct mechanism, action plan based on audit, implementation, and effectiveness.
43	8.3	**Improvement in Faculty Qualification/ Contribution**
		• **Improvement in the no. faculty with Ph.D.** ○ The average no. of faculty members with Ph.D. degree over the past 3 years is more than 60% compared to the required no. of faculty members with Ph.D. ○ The average no. of faculty members with Ph.D. degree over the past 3 years is more than 40% compared to the required no. of faculty members with Ph.D. ○ The average no. of faculty members with Ph.D. degree over the past 3 years is more than 20% compared to the required no. of faculty members with Ph.D. • **Improvement in the no. of publications in peer reviewed journals** • **Improvement in the no. of publications in conferences**
44	8.4	**Improvement in Academic Performance**
		• Academic Performance Index (API) of the First-Year Students in the Program • Academic Performance Index (API) of the Second-Year Students in the Program • Academic Performance Index (API) of the Third Year Students in the Program

2. Files to be maintained by the Institute

File No	NBA Criteria	File Name / File Description
1	9.1	**First Year Student-Faculty Ratio (FYSFR)**
2	9.2	**Mentoring System** • Mentoring system-implementation • Effectiveness • Documentary evidence by considering a few relevant activities
3	9.3	**Feedback Analysis** **Feedback on Teaching and Learning Process and Corrective Measures Taken, if any** • Feedback questionnaire used • Methodology being followed for analysis of feedback and its effectiveness • Record of corrective measures taken and impact • Feedback questionnaire, collection process, analysis, actions taken, effectiveness **Feedback on Academic Facilities** • Feedback questionnaire used • Frequency of feedback collection and analysis • Record of corrective measures taken • Academic facilities questionnaire, collection process, analysis, actions taken, effectiveness
4	9.4	**Training and Placement Support** • Facilities of training and placement cell • Adequate staff • Pre-placement training activities • Support for higher studies
5	9.5	**Start-up and Entrepreneurship Activities** • Availability of entrepreneurship cell/ Incubation cell • No. of awareness programs/incubation activities conducted during the assessment period • No. of students taken up entrepreneurship
6	9.6	**Governance and Transparency** **Availability of the Institutional Strategic Plan and its Effective Implementation and Monitoring** • Availability of strategic plan/ Institutional development plan (IDP) • Approval of strategic plan/ IDP by competent authority • Implementation, monitoring and reporting **Governing Body, Administrative Setup, Functions of Various Bodies, Service Rules, Recruitment Procedures and Promotion Policies** • Composition of BoG/GB/Senate, other administrative and academic bodies functions, and responsibilities; frequency of the meetings; participation details of external members and attendance • Agenda, minutes of the meetings and action-taken report (ATR) • The published service rules, policies, and procedures with year of approval by competent authority/Board and publication **Transparency** • Mandatory disclosure as per AICTE/AISHE/ONOD on the Institute website

File No	NBA Criteria	File Name / File Description
		• Availability of policies, rules, and processes on the Institute website
7	9.7	**Budget Allocation, Utilization, and Public Accounting at Institute Level**
		• Budget formulation, finalization and approval process and utilization • Audited statements by CA on Institute website
8	9.8	**Program Specific Budget Allocation, Utilization**
		• Budget formulation, finalization, approval process and utilization
9	9.9	**Quality of Learning Resources (Hard/Soft)**
		• Availability of relevant e-learning resources of the program under consideration • Accessibility of learning resources to students
10	9.10	**E-Governance**
		• E-governance initiatives i.e., extent of office automation
11	9.11	**Initiatives and Implementation of Sustainable Development Goals (SDGs)**
		• Policy and implementation of SDGs-specific activities conducted during the assessment period • Evidence on green energy, waste management, preserving water, net zero, quality education, reuse, recycle, less use to renewables, etc.
12	9.12	**Innovative Educational Initiatives and Implementation**
		• Initiatives taken towards Universal human values, Indian knowledge system, multidisciplinary programs, flexible curriculum, mobility of students, academic bank of credits, and support facilities for holistic education, etc.
13	9.13	**Faculty Performance Appraisal and Development System (FPADS)**
		• A well-defined performance appraisal and development system, Appraisal Parameters; Awareness • Implementation, Transparency and Effectiveness
14	9.14	**Outreach Activities**
		• Initiatives taken towards outreach activities, social internships • Society connect activities undertaken by the students with achievements