NATIONAL BOARD OF ACCREDITATION

ACCREDITATION MANUAL
FOR
UG ENGINEERING PROGRAMMES
(TIER-I)

CONTENTS

1. NATIONAL BOARD OF ACCREDITATION

1.1   INTRODUCTION

i)   Education plays a vital role in the development of any nation. Therefore, there is a premium on both quantity and quality (relevance and excellence of academic programmes offered) of higher education. Like in any other domain, the method to improve quality remains the same, i.e., finding and recognising new needs and satisfying them with products and services of international standards. There are two central bodies involved in accreditation in India: the National Accreditation and Assessment Council (NAAC) and the National Board of Accreditation (NBA). The NAAC was set up in 1994 by the University Grants Commission for institutional accreditation through a combination of internal and external quality assessment.

ii)   The NBA was originally constituted in September 1994 to assess the qualitative competence of the educational institutions from diploma level to postgraduate level in engineering and technology, management, pharmacy, architecture, and related disciplines. The NBA, in its present form, has come into existence as an autonomous body with effect from 7th January 2010, with the objective of assurance of quality and relevance of the technical education through the mechanisms of accreditation of programmes offered by the technical institutions.

iii) The NBA works very closely with stakeholders (faculty, educational institutions, government, industries, regulators, management, recruiters, alumni, students and their parents) to ensure that the programmes serve to prepare their graduates with sound knowledge of fundamentals and to develop in them an adequate level of professional competence, such as would meet the needs of the engineering profession locally as well as globally. The objective of the NBA is to assess and accredit professional programmes offered at various levels by the technical institutions on the basis of norms prescribed by the NBA. In this manual, the phrase "technical institutions" means colleges/ university departments offering engineering programmes.

iv)   The vision of the NBA is *"to be an accrediting agency of international repute by ensuring the highest degree of credibility in assurance of quality and relevance of professional education and come to the expectations of its stakeholders, viz., academicians, corporate, educational institutions, government, industry, regulators, students, and their parents."*

v)   The NBA is working with the mission, *"to stimulate the quality of teaching, self–evaluation, and accountability in the higher education system, which help institutions realise their academic objectives and adopt teaching practices that enable them to produce high-quality professionals and to assess and accredit the programmes offered by the colleges or the institutions, or both, imparting technical and professional education."*

vi)   The NBA became a provisional member of the Washington Accord (WA) in 2007. The Washington Accord is an international agreement among bodies responsible for accrediting engineering degree programmes. It recognizes the substantial equivalency of the programme accredited by those bodies and recommends that graduates of the programmes accredited by any of the signatory bodies be recognized by the other bodies as having met the academic requirements for entry to the practice of engineering. To

become a signatory member of the WA, a robust accreditation system is being implemented by the NBA, New Delhi, with support from all the stakeholders.

vii) The following are the broad objectives of NBA:

- To promote quality conscious system of technical education where excellence, relevance to market needs and participation by all stake holders are prime and major determinants.
- To facilitate building a technical education system, as facilitators of human resources, that will match the national goals of growth by competence, contribution to economy through competitiveness and compatibility with societal development.
- To set the quality benchmarks targeted at global and national stockpile of human capital in all fields of technical education.
- To conduct evaluation of self-assessment of technical institutions and/or programmes offered by them on the basis of guidelines, norms and standards specified by it.
- To contribute to the domain of knowledge in quality parameters, assessment and evaluations.

1. 2. AUTHORITIES OF NBA

At present, the NBA has the following authorities.

(i)   The General Council,
(ii)   The Executive Committee, and
(iii)   Such other authorities as may be constituted and/or declared by the General Council

1.2.1 General Council

The General Council is the principal authority of the NBA, and is responsible for its overall activities and affairs. It gives policy directions/ guidelines to the Executive Committee, which takes steps for managing the activities and affairs of the NBA accordingly.

The General Council consists of the following members:

(i)   Chairperson of NBA appointed as per Rule 34 of the Rules of NBA.

(ii)   The Secretary of the Department dealing with Higher and/or Technical Education, Govt. of India or his/her nominee.
            - **ex-officio**

(iii)   Two Chairpersons of Statutory Authorities established by law for coordination, determination and regulation of standards of higher and/or technical and professional education in their respective fields or his/her nominee by rotation.
                                                                    - **ex-officio**

(iv)   The President of the Association of Indian Universities (A.I.U) or his/her nominee.   - **ex-officio**

(v)   Four members of the Executive Committee nominated by the Executive Committee.
        Resignation from the membership of General Council shall be tendered to the Chairperson and shall take effect from the date of acceptance.

(vi)   Director of an institution of national importance in the field of technical education, to be nominated by the Chairperson of NBA.

Vice-Chancellor of a Central University offering programmes in technical or professional education, to be nominated by Chairman, NBA.

Vice-Chancellors of two universities which are established and maintained by State Governments, to be nominated by Chairperson, NBA, from a panel of names recommended by a Search Committee, to be constituted by Chairperson, NBA.

(vii)   Director of an Indian Institution of Management to be nominated by Chairperson, NBA:

Director of a School of Planning and Architecture to be nominated by Chairperson, NBA.

Three Principals of affiliated/ autonomous colleges, including polytechnics, one each from discipline of Engineering or Technology, Pharmacy and Applied Arts and Crafts, to be nominated by Chairperson, NBA from a panel of names recommended by a Search Committee, to be constituted by Chairperson, NBA.

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(viii) Two representatives from industry/professionals to be nominated by the Central Government.

(ix)   Member Secretary of the NBA is the Member Secretary of the General Council.

The term of the nominated members is three years.

1.2.2 Executive Committee

The affairs of the NBA are managed, administered, directed and controlled as per Rules and Bye-laws approved by the Executive Committee (EC) and ratified by the General Council (GC). The Executive Committee of the NBA for the purpose of Societies Registration Act consists of the following members:

(i)   Chairperson - appointed as per the procedure given under Rules 34 of MoA and Rules of the NBA.

(ii)   Chairperson of the All India Council for Technical Education.   **- ex-officio**

(iii) Additional Secretary /Joint Secretary in department of higher education of Central Government dealing with technical education or his/her nominee.   **- ex-officio**

(iv) Chairperson or President of one of the statutory authorities established by Act of Parliament for coordinating, determining and regulating the standards of higher and/or technical and professional education in their respective field, to be nominated by Central Government or his/her nominee.   **- ex-officio**

(v)   Four Secretaries of Higher & Technical Education of State Governments to be nominated by the Chairperson.   **- ex-officio**

(vi) Four academicians to be nominated by the Chairperson, from a panel of names approved by the General Council.

Four experts from industry to be nominated by the Chairperson, from a panel of

names approved by the General Council.

(vii)   Two experts from professional bodies or industry to be nominated by the Central Government.

(viii) The Executive Committee may co-opt maximum two experts in the field of accreditation from India and/or abroad.

(ix)   Member Secretary of the General Council of NBA is the Member Secretary of the Executive Committee.

The term of the nominated members is three years.

1.2.3 NBA Committees for Accreditation

i) Academic Advisory Committee (AAC)

The Academic Advisory Committee of NBA monitor and promote the activities of NBA with reference to its various activities like assessment, accreditation, publications, selection and shaping of instruments for Assessment and Accreditation, modalities of operation in- charge, the Rules, Regulation and Guidelines.

The Chairperson of the Executive Committee is also the Chairperson of the Academic Advisory Committee. The Member Secretary of the NBA is ex-officio member of the Academic Advisory Committee.

ii) Sub-Committee

Sub-Committee on each discipline, such as Engineering, Management, Pharmacy and Architecture etc. functions separately to evolve standard for assessment and accreditation, in their respective field, to form assessors panels, to lay down guidelines for assessors, to evaluate and give recommendations on assessors report, etc. These Sub-Committees meet frequently in a month or once in two months, as required.

The Sub Committee perform such other functions, duties, as may be assigned by the General Council / Executive Committee

iii) Evaluation and Accreditation Committee (EAC)

The EAC is constituted for each discipline (Engineering & Technology /Management/ Pharmacy/ Architecture) to review the reports of the evaluation team and submit its recommendations on accreditation to the EC. If any further clarification is required, the chairperson/evaluators will be called over phone or video conference. The composition of the EAC is as follows:-

1. The Chairman of the EAC, appointed by the EC, is an eminent academician from academia or a distinguished professional from industries/R&D organizations/professional bodies.
2. Three experts from the respective discipline (with different specializations).
3. One expert from industries/R&D organizations.
4. One representative from professional bodies.

5. One representative of the NBA nominated by the Member Secretary of the NBA.

iv) Appellate Committee (AC)

The grievances and redressal of the institution, received by the NBA, on the accreditation of the programmes shall be addressed by the Appellate Committee. The composition of the AC is as follows:-

1. The Chairman of AC, appointed by the EC, shall be an eminent academician from academia or a distinguished professional from industries/R&D organisations/professional bodies.
2. One expert (preferably from engineering) from academia.
3. One representative from industries/R&D organisations.
4. One representative from professional bodies.
5. One legal representative nominated by the Member Secretary of the NBA.

2. ACCREDITATION POLICY

Accreditation is a process of quality assurance and improvement, whereby a programme in an institution is critically appraised to verify that the institution or the programme continues to meet and exceed the norms and standards prescribed by the appropriate designated independent accrediting agency. Accreditation provides quality assurance that the academic aims and objectives of the institution are honestly pursued, and effectively achieved by the resources available, and that the institution has demonstrated capabilities of ensuring effectiveness of the educational programmes over the validity period of accreditation. NBA accreditation is a quality assurance scheme for higher technical education system.

The NBA has a two-tier system of accreditation for Technical Programmes including undergraduate engineering programmes. Having discussed with stakeholders, it has been decided to prepare two separate Manuals (TIER-I and TIER-II) for Accreditation. The Tier –I document is made applicable to the engineering/technology programmes offered by academically autonomous institutions and by university departments and constituent colleges of the universities, whereas, the Tier-II documents is for the non-autonomous institutions, i.e., those colleges and technical institutions which are affiliated to a university. In both TIER-I and TIER-II documents, the same set of criteria have been prescribed for accreditation. In the TIER-I document, the criteria which are based on outcome parameters have been given more focus, whereas in the TIER-II document, the focus for outcome based criteria has been reduced, significantly, thereby enhancing the focus on the output-based criteria.

The eligibility norms for the institutions in relation to applying accreditation under Tier-I and Tier-II are provided below.

TIER-I: Technical Programmes offered by,

➢ Institutions of National importance (All Indian Institute of Technology (IIT), Indian Institute of Science (IISc), Indian Institute of Information Technology Design and Manufacturing (IIITDM), Indian Institute of Science Education and Research (IISER) and Indian Institute of Information Technology (IIIT).
➢ National Institutes of Technology (NITs)
➢ Central Universities (Universities established by or under Act enacted by Parliament of India)
➢ State Universities (Universities established by or under legislation enacted by legislature of concerned states.
➢ Private Universities (Universities established by or under legislation enacted by state legislative but promoted by private trusts, societies as companies under section 25 of Indian companies act and regulated under the UGC (Establishment and Maintenance of Standards in Private Universities) Regulations, 2003
➢ Deemed-to-be Universities (Institutions declared as deemed to be Universities by Central Government on the recommendation of UGC under section 3 of the UGC Act 1956).
➢ Institutions declared as Autonomous. UGC Act, empowers the UGC to declare, well established and performing affiliated colleges as autonomous college. Such colleges on declaration as autonomous college, enjoys academic autonomy and can develop their own programmes courses and assessment tools and methods. These could be:

   o Autonomous Government Colleges
   o Autonomous Government Aided Colleges
   o Autonomous Private/Self Financing Colleges

TIER-II: Technical Programmes offered by,

The affiliated colleges, which constitutes affiliating system do not enjoy the privileges and have to deliver the courses prescribed by universities to which they are affiliated. Affiliated colleges can only run the programmes designed by the universities. In other words, affiliated colleges offer programmes on behalf of universities, which are only empowered to examine the enrolled students for award of degree. Non-Autonomous Institutions affiliated to a University

- o Government Colleges
- o Government Aided Colleges
- o Private/Self Financing Colleges

The accreditation status granted by NBA under Tier –I or Tier – II format is distinguishable in the letters communicating status of accreditation, website as well as on Accreditation Certificates. Once NBA acquires permanence signatory status of Washington Accord, only the UG engineering programmes accredited under Tier –I (after seeking full signatory status) would come under the ambit of Washington Accord.

2.1 Objectives of Accreditation

i. To assure that graduates of NBA-accredited programmes possess sufficient academic background for pursuing their professional career in engineering, computing and IT-related disciplines or engineering technology.
ii. To assist stakeholders as well as potential students and their parents, professional societies, and potential employers in identifying specific engineering/technology programmes that meet the minimum criteria for accreditation
iii. To promote new and innovative methods in engineering education, to provide guidelines and consultation for educational programmes.
iv. To provide feedback to the educational institutions for the improvement and development of educational programmes in engineering/technology that can better meet the needs of the local industry.

2.2 Accreditation Policy

The following general policies are the guiding principles for the accreditation of engineering/technology programmes:

(i) Programmes, instead of educational institutions, are accredited. Only programmes leading to a Bachelor's Degree in Engineering/Technology would be accredited.

(ii) Programmes to be accredited should be offered by an educational institution which has been formally approved by the appropriate designated authorities.

(iii) The name of a programme to be accredited shall be the same as that shown on the student's degree certificate. All routes leading to the completion of the programmes will have to satisfy the accreditation criteria.

(iv) Programmes which have produced graduates for at least two academic years will be considered for full accreditation. However, provisional accreditation may also be granted to newer programmes.

(v) Programmes will be considered for assessment and accreditation only at the written request of the educational institution and after agreeing to abide by the NBA's accreditation manual, rules, regulations and notification issued from time to time.

(vi) Accreditation of a programme will normally be granted for a specific term of up to a maximum of five academic years. Pre accreditation may also be granted to new programmes (not matured for full accreditation)

(vii) After accreditation, the institutions are expected to submit their annual self-assessment report to eNBA online. If any aspect of the programme is found to be sufficiently unsatisfactory and/or does not comply with norms, the NBA reserves the right to revoke the accreditation. If necessary, the NBA may appoint a maximum of two members to form an Evaluation Team to act as mentors at the request of institution. The mentor(s) may visit the educational institution at its request for mentoring purposes and provide report to the NBA on their findings for each visit. The educational institution will bear the expenses of the visit and pay honorarium to the mentors as prescribed by the NBA.

(viii) Programmes will be assessed and evaluated in accordance with the accreditation criteria. Accreditation is based on satisfying the minimum standards.

(ix) All correspondence between the educational institution and the NBA vis-à-vis accreditation process is confidential and may not be revealed to any unauthorized persons under any circumstances, except with written permission from the concerned educational institution.

(x) A three day on-site visit shall be a part of the accreditation process. An evaluation team appointed by the NBA will carry out the evaluation of the programme. The evaluation team consists of two programme evaluators for each programme and is headed by a Chairperson. The institution shall propose such set of dates for the visit when the regular classes and all academic activities are on.

(xi) The final decision made by the NBA will be communicated to the educational institution,
together with comments which portray strengths, concerns, weaknesses, deficiencies and scope for improvement. In the event that a programme is not accredited, reasons for the decision will also be given. If accreditation is denied and if the educational institution wishes, it may appeal against the decision to the Appellate Committee (AC).

(xii) The academic programme should be a 4-year full time. The total credits to be earned for the award of the degree shall be uniformly distributed in the various academic years of the programme to the extent possible.

(xiii) The educational institution shall bear the cost of accreditation.

3. ACCREDITATION PROCEUDRE

3.1 ACCREDITATION PROCESS

The accreditation process, whether for a first accreditation or re-accreditation, broadly involves the following activities.

1. The institution submits the SAR for the programmes applied for accreditation.

2. NBA constitutes the visiting team which comprises one Chairperson and 2 evaluators for each of the programme. (Maximum 5 programmes in a single visit)

3. Based on the SAR, Chairperson and evaluators prepare the Pre-visit report and on the scheduled dates visit is being conducted as per schedule and guidelines and the visiting team submits the visit report. The Chairperson and evaluators of the visiting team may use guidelines (inform of point) for the purpose of formulation of their views about strengths, weakness, concerns, deficiency and observations etc. about the programme concerned.

4. NBA receives the Pre-visit report and Visit reports along with the comprehensive report of the Chairperson and sends it to Moderation Committee. Moderation Committee for the sake of consistency initially prepares a draft report based on Reports submitted by the Evaluation Team and sends the same to the institution and Chairperson.

5. Institution submits its response to factual errors, if any, in draft report within 14 days to NBA.

6. Moderation Committee prepares a Comprehensive Report (Moderated version) in line with the feedback from the institution, Pre-visit, Visit report and along with the report of the Chairperson of the visiting team.

7. Moderation Committee submits the comprehensive report to EEAC which in turn deliberates over the Moderation Committee's Comprehensive Report and submits its recommendation to Engineering Sub Committee of Academic Advisory Committee (AAC).

8. Engineering Sub Committee of Academic Advisory Committee takes a view on the recommendation of EEAC to ensure consistency further and submits its final recommendation to EC.

9. Based on the recommendation of Engineering Sub Committee of AAC, EC takes decision on grant of the Accreditation to a particular programme. This is conveyed to the institution.

10. If the institution is not satisfied with the EC's decision of Accreditation, then the institution can make an appeal against the decision of EC. The appeal is placed before the Appellate Committee.

11. Appellate Committee examines and evaluates the appeal and submits its evaluation report

to Academic Advisory Committee (AAC).

12. AAC considers the evaluation report of Appellate Committee and makes its final recommendation to GC.

13. GC takes the decision on appeal cases based on the recommendation of AAC.

Generally, the steps involved in the accreditation process are as follows:

3.1.1 Institution Registration

An institution may apply for registration online with the institution's basic information and receive temporary login credentials. The institution shall login with temporary login credentials to complete the institution's profile and then submit to the NBA for review. The registration details shall be reviewed by the NBA officials, and the feedback review (Approval, Refer Back or Rejection) shall be communicated to the institution. The institution shall make the online payment of the registration fee. Once the intitution has paid the registration fee, the institution will be registered with eNBA by receiving a permanent User ID and Password for further correspondence. The registered institution will be able to view its online repository.

3.1.2 Apply for Accreditation

The institution registered with the NBA can apply for accreditation by logging on to its account and filling in the online application form. The NBA official shall review (Approval, Refer Back or Reject) the eligibility of the application under Tier-1, and once the accreditation application has been approved, the institution will be asked to submit the prescribed fee.

- Upon verification of accreditation fee payment made by the institution and eligibility of the institution under Tier-I, the eSAR link will get activated to be filled by the institution.
- On submission of eSAR and five sets of dates for on-site visit by the institution, Evaluation Team will get constituted through e-NBA wherein the due consideration is given to code of conduct/conflict of interest.
- If the accreditation of a programme is about to expire, then the institution has to apply for accreditation by submitting an online application at least 5 months before the expiry of the current accreditation

3.1.3 Pre-visit Activities

- The eSAR will be made available at the respective login of the programme evaluators in the e-NBA web portal at least 15 days before the on-site visit.
- The programme evaluator shall submit the pre-visit evaluation report (Annexure -I) to the Chairperson of the Evaluation Team based on the information provided in the eSAR by the institution. This should be submitted before on-site visit.
- Member of evaluation team shall contact NBA for any institutional/programme details while preparing the pre-visit evaluation report. At any circumstance, the member of evaluation team should not contact institution directly.

3.1.4 Activities during visit

- As per the visit schedule (Annexure -VIII), given by NBA the evaluation team shall

conduct visit at the institution for three days.

- The members of evaluation team shall meet at the hotel on Day-0 and shall have a meeting which will be chaired by Chairperson of the evaluation team to review the pre-visit evaluation reports submitted by the programme evaluators for all programmes and to identify a road map for the scheduled visit.
- Each programme evaluator of respective programme shall submit the Day-wise report (Annexure -VII) to Chairperson on each day.
- On completion of the Day-0, Day-1 and Day-2 activities, mentioned in the visit schedule, by the Chairperson/programme evaluators, the exit meeting will be chaired by the Chairperson in the presence of all the members of the evaluation team at the institution on Day-3. Management representative/Head of the institution/Dean/HOD/Programme coordinator/Senior faculty members shall attend the meeting.
- The members of the evaluation team shall read the preliminary findings of programme evaluation with the key officials of the institution during the exit meeting.
- Programme evaluators shall submit Programme Evaluation Worksheet A and B (Annexure -VI) along with programme summary (Annexure -V) to the chairperson online immediately after the exit meeting. Chairperson shall submit Executive summary (Annexure -III) and programme-wise consolidated evaluation report (Annexure -IV) to NBA online within five days from the date of exit meeting.

3.1.5 Post-visit activities

- The programme-wise consolidated reports along with the Executive Summary of Chairperson and Programme Evaluators will be intimated to the moderation committee of the EAEC for the suitable editing of the document before sharing with the institution.

- The institution shall respond to NBA by submitting the information vis-à-vis factual error within 10 days from the date of intimation of the report.
- The response of the institution along with report of the evaluation team will be sent to the moderation committee at NBA to prepare the final dossier to be placed before the EAEC

3.1.6 Decision process

- The EAEC shall review the final dossier. Based on the shortcomings (concern/weakness/deficiency) prevailing in the criterion and analysing the consequences of the shortcomings if unattended, the EAEC shall make its recommendations to sub-committee of AAC.
- The sub-committee of the AAC shall also review the recommendations of the EAEC and submits its decision on accreditation to EC.
- NBA shall intimate the decision on accreditation, approved by the EC, to the institution.
- The institution shall file its appeal with NBA, within 30 days from the date of intimation of the accreditation decision if it is not satisfied with the accreditation decision.
- The Appellate Committee (AC) shall review all the report and recommendations of the evaluation team, EAEC, sub-committee of AAC and accreditation decision of the EC and shall get additional information from chairperson of the evaluation team and institution, if required. The AC shall submit its report on Accreditation decision to AAC, which will submit its decision to GC for final decision on Appeal. The decision of GC on appeal shall be intimated to the institution by NBA.

3.2   PRE ACCREDITATION OF NEW PROGRAMMES

Pre accreditation may be considered for new programmes offered by a new/existing educational institution.

It is mandatory that an on-site evaluation visit be carried out only after completion of the first two years of delivery of the programme. The programme curriculum of the full programme, quality of the academic staff and other resources such as library, laboratories, etc., should be made available during the visit of the evaluation team.

After pre accreditation, the institutions are expected to submit their annual self assessment report to eNBA online. If any aspect of the programme is found to be sufficiently unsatisfactory and/or does not comply with norms, the NBA reserves the right to revoke the pre accreditation. If necessary, the NBA, at the request of the institution, may appoint a mentor to the institution. The mentor may visit the educational institution at the request of the institution. The mentor shall provide a report for each visit to the NBA on his/her findings. The educational institution shall bear the expenses of the visit and honorarium to the mentors as prescribed by the NBA.

3.3   ACCREDITATION VISIT

The Evaluation Team will visit the institution seeking accreditation of its programme(s) to evaluate and validate the assessment of the institution / department through the SAR of the programme concerned as per specified accreditation criteria. The programme evaluators may obtain such further clarifications from the institution as they may deem necessary. Although it may not be possible to describe adequately all the factors to be assessed during the on-site visit, some of the common ones are the following:

(i)   Outcome of the education provided;
(ii)   Quality assurance processes, including internal reviews;
(iii)   Assessment;
(iv)   Activities and work of the students;
(v)   Entry standards and selection for admission of students;
(vi)   Motivation and enthusiasm of faculty;
(vii)   Qualifications and activities of faculty members;
(viii)   Infrastructure facilities;
(ix)   Laboratory facilities;
(x)   Library facilities;
(xi)   Industry participation;
(xii)   Organization.

In order to assist the Evaluation Team in its assessment, the educational institution should arrange for the following:

(i) Meeting with

a)   the Head of the institution/Dean/Heads of Department (HoD)/Programme and course coordinators
b)   a member of the management (to discuss how the programme fits into the overall

strategic direction and focus of the institution, and management support for continued funding and development of the programme)

c) faculty members
d) alumni (sans Alma Matters)
e) students
f) parents

(ii) availability of the following exhibits

a) profile of faculty involved in the programme
b) evidence that the results of assessment of course outcomes and programme outcomes are being applied to the review and ongoing improvement of programme effectiveness
c) list of publications, consultancy and sponsored/funded research projects by programme
faculty
d) sample materials for theory and laboratory courses
e) sample test /semester examination question papers for all courses
f) sample of test/semester examination answer scripts projects, assignments, (including at least one excellent, one good and one marginal pass for each examination) question papers and evidences related to assessment tools for COs and POs
g) student records of three immediate batches of graduates
h) sample project and design reports (excellent, good and marginal pass) by students
i) sample student feedback form
j) sample for industry- institution interaction
k) results of quality assurance reviews
l) records of employment/higher studies of graduates
m) records of academic support and other learning activities
n) any other documents that the Evaluation Team/NBA may request

(iii) visits to

a) classrooms
b) laboratories pertaining to the programme
c) central and department library
d) computer centre
e) hostel and dispensary

The Evaluation Team should conduct an exit meeting with the Management Representative, the Head of the institution, the Head of Department and other key officials at the end of the on-site visit to present its findings (strengths, concerns, weaknesses, deficiencies and scope for the improvement). The institution will be given a chance to withdraw one or more programmes from the process of accreditation. In this case, the Head of the institution will have to submit the withdrawal in writing to the Chairperson of the Evaluation Team during the exit meeting.

3.3.1 360 Degree Feedback:

360° feedback has been used by learning and development professionals for many years to help individuals and organizations improve their performance and effectiveness. It is

a powerful tool that helps in becoming more effective by understanding how everyone else sees others, their performance, behavior and attitudes.

Appraisal 360° works by gathering the opinions of a number of people. A series of carefully structured questions prompt one to assess skills in a number of key areas. A number of other people are then asked to give their perception by answering a set of questions, which are then compiled into a feedback report. It is envisaged that such feedback will help in bringing transparency and objectivity in the evaluation process which will help in improving quality of the accreditation process, the cherished goal of all the stakeholders.

This 360° feedback will enable the NBA to improve its accreditation system and enhance its effectiveness. It will helps in bringing transparency and objectivity in the evaluation process which in turn improves the quality of the accreditation process. The 360° feedback shall be available online to the institution, and to the chairperson and the evaluators on the website of the NBA. They can have the flexibility to either fill the form online or download the form and submit the same by mail within 3 days.

Form A (Annexure-X) is to be filled by the Head of the institution. This format mainly focuses on the feedback on the evaluation team comprising both chairperson and evaluators regarding the accreditation and evaluation process seeking comments about the general behavior of the evaluation team.

Form B (Annexure -X) is to be filled by the chairperson. This format mainly focuses on the feedback on the performance of the evaluators and also about the cooperation and coordination rendered by the institution at the time of accreditation visit.

Form C (Annexure -X) is to be filled by the evaluators. This format mainly focuses on the feedback on the chairperson, co-evaluators and also about the cooperation and coordination rendered by the institution at the time of accreditation visit.

Form D (Annexure -X) is to be filled by the chairperson / evaluators. This format mainly focuses on the feedback on the performance of the service providers during the visit of accreditation.

3.4 Award of Accreditation

The Executive Committee (EC) of the NBA will decides on the accreditation decision of a programme on the basis of the recommendations of the EEAC and sub-committee of AAC.

There are four possible decisions to be taken:

1. **Full Accreditation of the program for five years**

   If there is no deficiency or weakness in any of the criteria laid down by NBA and concerns in not more than two criteria, then EC on the recommendations of EEAC and Engineering Sub Committee of AAC may accord Full Accreditation for five years to the programme concern.

2. **Accreditation of the program may be considered after three months**

In case, there is no deficiencies and weaknesses in not more than two criteria in a programme that may be overcome within a short period of three months, the institution may be given three months time to rectify the same. The institution is required to submit a compliance report to NBA describing action taken in response to the weakness (es) and concerns identified. The institution compliance report will be placed before EEAC to take a view. If EEAC is satisfied, it can make its recommendation to the Sub Committee of AAC for final recommendation regarding accreditation of the programme concerned to the Executive Committee.

3. **Provisional Accreditation of the program for two years**

In case the programme under consideration has deficiencies in no more than two criteria, and has full compliance in not less than three criteria laid down by NBA, EEAC may recommend to the Engineering Sub Committee of AAC to consider the programme for Provisional Accreditation for two years. However, a deficiency in Criterion - V (Faculty Contributions) may not be recommended for accreditation.

In all such cases, the institute may submit a compliance report after one year and request for a re-visit to assess compliance.

4. **No Accreditation of the program**

If the program has deficiencies in more than two criteria laid down by NBA, it may not be recommended by EEAC for Accreditation.

3.5 FOLLOW UP ACTION

After award of accreditation, the institutions are expected to submit their annual self-assessment report to eNBA online. If any aspect of the programme is found to be sufficiently unsatisfactory and/or does not comply with norms, the NBA reserves the right to revoke the accreditation. If necessary, the NBA may appoint a maximum of two members to form an Evaluation Team to act as mentors at the request of institution. The mentor(s) may visit the educational institution at its request for mentoring purposes and provide report to the NBA on their findings for each visit. The educational institution will bear the expenses of the visit and pay honorarium to the mentors as prescribed by the NBA.

If there are requirements which need follow up action as a condition for accreditation, NBA will require the institution to submit a report after a specified period which could be any duration up to the next accreditation period. The specified period will vary depending on the nature of the requirement. NBA may also require follow-up visit to review the actions taken by the institution.

3.6 APPEAL PROCESS

An educational institution may appeal against refusal to accredit along with appeal fee prescribed. An appeal may include a request for re-consideration of Evaluation Team report.

An appeal involving requests for re-consideration must be made in writing to the NBA

within 30 days after receiving notification of refusal to accredit. The appeal should be accompanied by relevant supporting evidence to contradict the findings of the accreditation team and recommendations of the EAEC/AAC to substantiate the claim.

The GC/ will consider the recommendations of AAC based on the findings of the Appellate Committee and arrive at a final decision within 60 days after receipt of the appeal. If the request is denied, the NBA will provide the educational institution with reasons for the decision.

If Appellate Committee directs for a revisit, the NBA will appoint a Re-evaluation Team, if institution agrees for revisit, to carry out the on-site visit after receipt of requisite payment from the institution. In case, the institution does not agree for a revisit, the appeal shall be considered as deemed to be dismissed.

4. ACCREDITATION CRITERIA

4.1 General Information

The assessment and evaluation process of accreditation of an engineering programme is based on 9 broad criteria developed through a participatory process involving experts from reputed national-level technical institutions, industries, R&D organisations and professional bodies. Reference is also made to accreditation criteria adopted by the Washington Accord signatories. Each criterion relates to a major feature of institutional activity and its effectiveness. The criteria have been formulated in terms of parameters, including quantitative measurements that have been designed for maximally objective assessment of each feature.

An engineering programme to be accredited or re-accredited will have to satisfy all the criteria during the full term of accreditation. The educational institution should periodically review the strengths and weaknesses of the programme and seek to improve standards and quality continually, and to address deficiencies if any aspect falls short of the standards set by the accreditation criteria. During the full term of accreditation, the institutions are required to submit their annual self-assessment report to eNBA online.

The definitions of the terms used in this manual are as follows:

(a) **Mission and Vision statement** -- Mission statements are essentially the means to achieve the vision of the institution. For example, if the vision is to create high-quality engineering professionals, then the mission could be to offer a well-balanced programme of instruction, practical experience, and opportunities for overall personality development. Vision is a futuristic statement that the institution would like to achieve over a long period of time, and Mission is the means by which it proposes to move toward the stated Vision.

(b) **Programme Educational Objectives (PEOs)** – Programme educational objectives are broad statements that describe the career and professional accomplishments that the programme is preparing graduates to achieve.

(c) **Programme Outcomes (POs)** –   Programme Outcomes are narrower statements that describe what students are expected to know and be able to do upon the graduation. These relate to the skills, knowledge, and behavior that students acquire in their matriculation through the programme.

(d) **Course Outcomes (COs)** -- Course Outcomes are narrower statements that describe what students are expected to know, and be able to do at the end of each course. These relate to the skills, knowledge, and behavior that students acquire in their matriculation through the course.

(e) **Assessment** – Assessment is one or more processes, carried out by the institution, that identify, collect, and prepare data to evaluate the achievement of programme educational objectives and programme outcomes.

(f) **Evaluation** – Evaluation is one or more processes, done by the evaluation team, for interpreting the data and evidence accumulated through assessment practices. Evaluation determines the extent to which programme educational objectives or programme outcomes are being achieved, and results in decisions and actions to improve the programme.

(g) **Mapping** – Mapping is the process of representing, preferably in matrix form, the correlation among the parameters. It may be done for one to many, many to one, and many to many parameters.

4.2 Accreditation Criteria

Criterion 1- Vision, Mission and Programme Educational Objectives (PEOs)

Each engineering programme to be accredited or re-accredited should have:

i) published department vision and mission, and programme educational objectives that are consistent with the mission of the educational institution as well as criteria 2 to 9 listed below, and

ii) the PEOs should be assessable and realistic within the context of the committed resources. The comprehensive list of various stakeholders of the programme, who have been involved in the process of defining and redefining the PEOs, are to be provided.While framing the PEOs, the following factors are to be considered:

• The PEOs should be consistent with the mission of the institution.
• All the stakeholders should participate in the process of framing PEOs.
• The number of PEOs should be manageable.
• It should be based on the needs of the stakeholders.
• It should be achievable by the programme.
• It should be specific to the programme and not too broad.
• It should not be too narrow and similar to the POs.

For example, the PEOs of an academic programme might read like this:
Statement of areas or fields in which the graduates find employment
Preparedness of graduates to take up higher studies

The programme shall provide how and where the department vision and mission and the PEOs have been published and disseminated. It should also describe the process that periodically documents and demonstrates that the PEOs are based on the needs of the stakeholders of the programme. The programme shall demonstrate how the PEOs are aligned with the mission of the department /institution.

The PEOs are reviewed periodically based on feedback of the programme's various stakeholders. For this purpose, there should be in place a process to identify and document relationships with stakeholders (including students) and their needs, which have to be adequately addressed when reviewing the programme curriculum and processes. Justifications shall be provided as to how the composition of programme curriculum contributes towards attainment of the PEOs defined for the programme. Also, it is expected to expound how the administrative system helps the programme in ensuring the attainment of PEOs. There should be enough evidence and documentation to show the achievement of the PEOs set by the institution with the help of the assessment (indicate tools and how they are used) and evaluation process that have been developed. Also, show that this continuous process leads to the revision or refinement of the PEOs. The institution shall provide the required information for assessment, evaluation and review methods to evaluate the attainment of the PEOs as per the format given in the SAR. If the institution wishes to provide additional information, it will include that information in a suitable format wherever necessary.

Criterion 2- Programme Outcomes

Graduates Attributes (GAs) form a set of individually assessable outcomes that are the components indicative of the graduate's potential to acquire competence to practice at the appropriate level. The GAs are exemplars of the attributes expected of a graduate from an accredited programme. The Graduate Attributes of the NBA are as follows:

Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialisation to the solution of complex engineering problems.

Problem analysis: Identify, formulate, research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

Conduct investigations of complex problems: The problems
- that cannot be solved by straightforward application of knowledge, theories and techniques applicable to the engineering discipline. *
- that may not have a unique solution. For example, a design problem can be solved in many ways and lead to multiple possible solutions.
- that require consideration of appropriate constraints/requirements not explicitly given in the problem statement. (like: cost, power requirement, durability, product life, etc.).
- which need to be defined (modeled) within appropriate mathematical framework.
- that often require use of modern computational concepts and tools.#

*(*Different from most problems at the end of chapters in a typical text book that allow more or less simple and direct approach àSince this explains what is meant in more detail, could be put into training or supplementary material*).*

 # (For example, in the design of an antenna or a DSP filter àExamples could be put into supplementary notes.)

Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering

activities with an understanding of the limitations.

The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

Life-long learning: Recognise the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

The POs formulated for each programme by the institution must be consistent with the NBA's Graduate Attributes. The POs must foster the attainment of the PEOs.

The programme shall indicate the process involved in defining and redefining the POs. It shall also provide how and where the POs are published and disseminated. It should also describe the process that periodically documents and demonstrates that the POs are based on the needs of the stakeholders of the programme. The extent to which and how the POs are aligned with the Graduate Attributes prescribed by the NBA shall be provided. The correlation between the POs and the PEOs is to be provided as per the format given in the SAR in order to establish the contribution of the POs towards the attainment of the PEOs.

Precise illustrations of how course outcomes, modes of delivery of the courses, assessment tools are used to assess the impact of course delivery/course content, and laboratory and project course work are contributing towards the attainment of the POs shall be given by the programme.

The attainment of POs may be assessed by direct and indirect methods. Direct methods of assessment are essentially accomplished by the direct examination or observation of students' knowledge or skills against measurable performance indicators. On the other hand, indirect methods of assessment are based on ascertaining opinion or self-report. Rubric is a useful tool for indirect assessment. A rubric basically articulates the expectations for students' performance. It is a set of criteria for assessing students' work or performance. Rubric is particularly suited to programme outcomes that are complex or not easily quantifiable for which there are no clear "right" or "wrong" answers or which are not evaluated with the standardised tests or surveys. For example, assessment of writing, oral communication, or critical thinking often require rubrics. The development of different rubrics and the achievement of the outcomes need to be clearly stated in the SAR.

The results of assessment of each PO shall be indicated as they play a vital role in implementing the Continuous Improvement process of the programme. The institution shall

provide the ways and means of how the results of assessment of the POs improve the programme in terms of curriculum, course delivery and assessment methods and processes of revising/redefining the POs.

Criterion 3- Programme Curriculum

Programme curriculum that leads to the attainment of the PEOs and the POs must be designed. The programme shall provide how its curriculum is designed, published, and disseminated. The structure of the curriculum, which comprises course code, course title, total number of contact hours (lecture, tutorial and practical) and credits is to be provided. Flow diagram that shows the prerequisites for the courses shall also be provided. Each programme should cover general and specialized professional content of adequate breadth and depth, and should include appropriate components in the Sciences and Humanities. The relevance of curriculum components including core engineering courses to the POs shall be given. The institution shall describe how the core engineering subjects in the curriculum lend the learning experience with the complex engineering problems. In addition to the General Criteria, each programme must satisfy a set of criteria specific to it, known as Programme Specific Criteria which deal with the requirements for engineering practice particular to the related sub-discipline. The stipulations in the Programme Specific Criteria chiefly concern curricular issues and qualifications of faculty. The programme curriculum in correlation with programme specific criteria is to be provided. The NBA is intended to adopt the programme specific criteria specified by appropriate American professional associations such as ASME, ASCE, IEEE etc,. The institution shall provide evidence that the programme curriculum satisfies the programme specific criteria, and industry interactions/internship.

The institution must ensure that the programme curriculum that was developed at the time of inception of the programme has been refined in the subsequent years to make it consistent with the PEOs and the POs. The institution shall provide the required information for assessment, evaluation and review methods to evaluate the attainment of COs.

Criterion 4 - Students' Performance

Students admitted to the programme must be of a quality that will enable them to achieve the programme outcomes. The policies and procedures for student admission and transfer should be transparent and spelt out clearly.

The educational institution should monitor the academic performance of its students carefully. The requirements of the programme should be made known to every student.

The educational institution must provide student support services including counselling /tutoring/mentoring.

The institution shall provide the required information for three complete academic years for admission intake in the programme, success rate, academic performance, placement and higher studies and professional activities as per the format given in the SAR. However, it shall provide the information in a suitable format, wherever necessary, in case the format is not provided in the SAR.

Criterion 5 - Faculty Contributions

The faculty members should possess adequate knowledge / expertise to deliver all the curricular contents of the programme.

The number of faculty members must be adequate so as to enable them to engage in activities outside their teaching duties, especially for the purposes of professional development, curriculum development, student mentoring/counselling, administrative work, training, and placement of students, interaction with industrial and professional practitioners.

The number of faculty members must be sufficiently large in proportion to the number of students, so as to provide adequate levels of faculty-student interaction. In any educational programme, it is essential to have adequate levels of teacher-student interaction, which is possible only if there are enough teachers, or in this case, faculty members.

The faculty must be actively involved in research and development. The programme must support, encourage and maintain such R&D activities. A vibrant research and development culture is important to any academic programme. It provides new knowledge to the curriculum. The student's education is enriched by being part of such a culture, for it cultivates skills and habits for lifelong learning and knowledge on contemporary issues.

The academic freedom to steer and run the programme will be in the hands of members of the faculty. This includes the rights over evaluation and assessment processes and decisions on programme involvement. They should also engage themselves in the process of accreditation for the continuous improvement of the PEOs and the POs.

The faculty must have sound educational qualifications, and must be actively updating knowledge in their respective areas of interest. It is desirable that the members of the faculty possess adequate industrial experience and be from diverse backgrounds. In terms of teaching, the faculty must possess experience, be able to communicate effectively, and be enthusiastic about programme improvement. For courses relating to design, the faculty members in charge of the course must have good design experience and participate in professional societies.

The institution shall provide the required information for three complete academic years for Student-Teacher Ratio (STR), Faculty Cadre Ratio, faculty qualifications, faculty retention, Faculty Research Publications (FRP), Faculty Intellectual Property Rights (FIPR), Funded R&D Projects and Consultancy (FRDC), faculty interaction with outside world, faculty competence correlation with programme specific criteria and faculty as participants/resource persons in training and development activities as per the format given in the SAR. However, it shall provide the information in a suitable format, wherever necessary, in case the format is not provided in the SAR.

Criterion 6 - Facilities and Technical Support

The institution must provide adequate infrastructural facilities to support the achievement of the programme outcomes. Classrooms, tutorial rooms, meeting rooms, seminar halls, conference hall, faculty rooms, and laboratories must be adequately furnished to provide an environment conducive to learning. Modern teaching aids such as digital interactive boards, multimedia projectors etc., should be in place to facilitate the teaching-learning process so that programme outcomes of the programme can be achieved.

The laboratories must be equipped with computing resources, equipments, and tools relevant to the programme. The equipments of the laboratories should be properly maintained, upgraded and utilised so that the students can attain the programme outcomes. There should be an adequate number of qualified technical supporting staff to provide appropriate guidance for

the students for using the equipment, tools, computers, and laboratories. The institution must provide scope for the technical staff for upgrading their skills and professional advancement.

The institution shall provide the required information for class rooms in the department, faculty rooms in the department, laboratories in the department to meet the curriculum requirements as well as the POs, and technical manpower in the department as per the format given in the SAR. However, it shall provide the information in a suitable format wherever necessary in case the format is not provided in the SAR.

Criterion 7- Academic Support Units and Teaching - Learning Process

The programme must employ effective teaching-learning processes. The modes of teaching used, such as lecture, tutorial, seminar, teacher-student interaction outside class, peer-group discussion, or a combination of two or more of these, must be designed and implemented so as to facilitate and encourage learning. Practical skills, such as the ability to operate computers and other technologically advanced machinery, must be developed through hands-on laboratory work.

The effectiveness of the teaching-learning processes must be evaluated on a regular basis. The evaluation, besides reviewing the abovementioned factors, must also look at whether the academic calendar, the number of instructional days and contact hours per week, are maximally conducive to teaching and learning. Student feedback on various aspects of the process must be carefully considered as well. Internal reviews of quality assurance procedures should be carried out periodically.

The institution shall provide the required information for students' admission, Assessment of First Year Student –Teachers Ratio (FYSTR), assessment of faculty qualification, teaching first year common courses, academic support units and common facilities for the first year courses, tutorial/remedial classes/mentoring, teaching and evaluation process, feedback system, self-learning, career guidance, training, placement and entrepreneurship cell and CO curricular and extra-curricular activities as per the format given in the SAR. However, it shall provide the information in a suitable format, wherever necessary, in case the format is not provided in the SAR.

Criterion 8 - Governance, Institutional Support and Financial Resources

The governance structure of the programme must clearly assign authority and responsibility for the formulation and implementation of policies that enable the programme to fulfill its mission. The programme must possess the financial resources necessary to fulfill its mission and PEOs. In particular, there must be sufficient resources to attract and retain well-qualified staff, and to provide them with opportunities for continuous development and career growth. The programme's budgetary planning process must also provide for the acquisition, repair, maintenance and replacement of physical facilities and equipment.

The educational institution must have a comprehensive and up-to-date library and extensive educational, technological facilities.

The institution shall provide the required information for campus infrastructure and facility, organization, governance and transparency, budget allocation and public accounting (for both institutions and programme), library, internet, safety norms and checks, and counseling and emergency medical care and first-aid as per the format given in the SAR. However, it shall

provide the information in a suitable format, wherever necessary, in case the format is not provided in the SAR.

Criterion 9 - Continuous Improvement

Modifications in the programme curriculum, course delivery and assessment brought in from the review of the attainment of the PEOs and the POs, will be helpful to the institutions for continuous improvement. The programme must develop a documented process for the periodic review of the PEOs, the POs and the COs. The continuous improvement in the PEOs and the POs need to be validated with proper documentation.

The institution shall provide the required information for improvement in success index of students, improvement in academic performance index of students, improvement in student-teacher ratio, enhancement of faculty qualifications index, improvement in faculty research publications, R&D and consultancy work, continuing education, curricular improvement based on the review of attainment of the PEOs, and the POs, course delivery and assessment improvement based on the review of the attainment of the PEOs, and the POs, new facility created, and overall improvement since last accreditation, if any, otherwise, since the commencement of the programme as per the format given in the SAR. However, it shall provide the information in a suitable format, wherever necessary, in case the format is not provided in the SAR.

4.3   Programme Specific Criteria

Each programme must satisfy applicable Programme Specific Criteria (if any). The Programme Specific Criteria deal with the requirements for engineering practice particular to the related sub discipline. The stipulations in the programme specific criteria chiefly concern curricular issues and qualifications of faculty. For UG engineering programme, the NBA intends to adopt the programme specific criteria specified by appropriate International Professional Associations such as ASME, ASCE, ACM, IEEE etc,.

5. ACCREDITATION INFORMATION

The information for accreditation of the programmes should be completed and submitted in the format prescribed in the Self Assessment Report (SAR) (Annexure-I). The SAR consists generally two parts namely Part-A and Part-B. Part-A mainly seeks general information about the institution and department / programme. Part-B seeks information   based on 9 broad criteria developed through a participatory process involving experts from reputed national-level technical institutions, industries, R&D organisations and professional bodies. Each criterion relates to a major feature of institutional/programme activity and its effectiveness. The criteria have been formulated in terms of parameters, including quantitative measurements that have been designed for maximally objective assessment of each feature.

The UG engineering/technology programme to be accredited or re-accredited will have to satisfy all the criteria during the full term of accreditation. The educational institution should periodically review the shortcomings of the programme and seek to improve standards and quality continually, and to address deficiencies if any aspect falls short of the standards set by the accreditation criteria. During the full term of accreditation, the institutions are required to

submit their annual self-assessment report to eNBA online.

6. SELECTION AND TRAINING OF EVALUATORS

6.1 Composition of Evaluation Team

The Evaluation Team will consist of at least 3 members.
   a) Chairperson
   b) Programme Evaluators (one or two)

The members of the Evaluation Team will be drawn from the following:
   a) Academic institutions of repute
   b) R&D laboratories and establishments
   c) Government , and
   d) Corporation/Industry

The programme evaluators may be from amongst the serving as well as retired professionals. To facilitate and standardize the evaluation process, NBA will provide training/orientation to evaluator members and mentors regularly, by way of workshops and seminars. This will also help in updating the programme evaluators about the current policies of NBA.

NBA, by way of advertisement in reputed newspapers, has invited programme evaluators for empanelment. The applications so received are processed to generate a data bank, which is used to draw the programme evaluators for the formation of Evaluation Team. This data bank will be updated from time to time.

Industry Programme evaluators will be drawn from the domain areas relevant to the programme. There shall be a consortium of reputed industries from where the Programme evaluators will be drawn. The Programme evaluators will be drawn from the list of Programme evaluators available with NBA.

6.2 Criteria for nomination/selection of Chairperson /Programme evaluators

The Chairperson must not be below the rank of a Professor. Normally, the Programme evaluators from academia will be required to possess/ be:

a) Significant experience and be working generally as professors/Associate Professor in their respective disciplines

b) Demonstrable evaluation expertise through publication and/or technology development

c) Not below the rank of Associate Professor with Ph.D. and not be below the rank of Scientist D.

Normally, the Programme Evaluators from industry will be required to possess:

a) Significant experience with post graduate qualifications (not less than 15 years of experience in considerable engineering/managerial capacity with some research exposure)

b) Demonstrable evaluation expertise through technology development/technology transfer/intellectual property

6.3 Selection Process of ET Members

The process of selection of ET will be facilitated by state-of-the art software by NBA. There will be a set of filters used by such software.

These may include:

a) The Chairperson and Programme Evaluators are to be selected from a state which is different from the state in which the institution is located.

b) There should be no adverse points pending against the Evaluator.

Adverse points shall be accumulated automatically in the databank of the Evaluator based on the following deviations:

a) The Evaluator has not given a report on time

b) The Evaluator has misrepresented certain information.

c) The Evaluator has violated the code of conduct.

d) Input from vigilances or investigating agencies

The ET will always have at least one senior (experienced) member and a junior member .All the empanelled members will have to undergo periodic training /orientation for accreditation visits. Such "Train the trainer" orientation programmes will be conducted by NBA across the country. The Programme Evaluator will have to fill in a self-declaration format (Annexure-XI).

7. CONFLICT OF INTEREST POLICY AND CODE OF CONDUCT

NBA holds its staff and volunteers to the highest standards of conduct. The following conflict of interest policy and code of conduct are signed in writing by all participants in the NBA accreditation process.

7.1 Conflict of Interest Policy

Service as an NBA board member or alternate, committee member, evaluator member or alternate, programme evaluator, accreditation consultant, or staff member creates situations that may result in conflicts of interest or questions regarding the objectivity and credibility of the accreditation process. NBA expects these individuals to behave in a professional and ethical manner, to disclose real or perceived conflicts of interest, and to recuse themselves from discussions or decisions related to real or perceived conflicts of interest. The intent of this policy is to: maintain credibility in the accreditation process and confidence in the decisions of NBA; assure fairness and impartiality in decision-making; disclose real or perceived conflicts of interest; act impartially and avoid the appearance of impropriety.

7.1.1   Purpose

Purpose of conflict of interest policy is

- To maintain credibility and transparency in accreditation process
- To have confidence and assurance of fairness and impartiality in the decision making vis-à-vis the accreditation processes

7.1.2 Persons of Interest who must declare any conflict of interests
Members of Governing Council, Executive Committee, Academic Advisory Committee, Evaluation and Accreditation Committee, Chairpersons/ Members of Evaluation Team, Resource persons, Master trainers, and Consultant and Staff of NBA.

7.1.3 Procedure
In order to avoid potential or perceived conflict of interest, the persons of interest are not expected to:

- have personal or financial interests of any kind in the university/institution; or
- have or had a close, active association with the programme or faculty/school/department in the university/institution that is being considered for accreditation. Some of the close/active associations are:

    a. serving as faculty or consultant, either currently or in the past, for the university/institution whose programme is being considered for accreditation;
    b. being an alumnus or a recipient of honorary degree from the university/institution whose programme is being considered for accreditation;
    c. hold current or past membership of a board of the university/institution or

any advisory committee in the university/institution whose programme is being considered for accreditation

    d. Having current or past discussions or negotiations of employment with the institutions. The list above is just illustrative, and not exhaustive.

- The persons of interest must absent themselves from any NBA meeting in which discussions or decisions occur for which they have any actual or possible conflict of interest.
- Governing Council, Executive Committee, Evaluation and Accreditation committee and Staff members of NBA may observe an accreditation visit, but they are not eligible to serve as members or Chairpersons of Evaluative team.
- All representatives of NBA must sign a conflict of interest indicating that they have understood policies.

7.1.4 Duty to Disclose

The responsibility of disclosing any conflict of interest lies with the individuals identified as persons of interest. They must come forward voluntarily and disclose the nature of their conflict and recuse themselves from discussions about the institution with which they have the said conflict.

7.2 Code of Conduct

NBA requires ethical conduct by each volunteer and staff member engaged in fulfilling the mission of NBA. The organization requires that every volunteer and staff member exhibit the highest standards of professionalism, honesty, and integrity. The services provided by NBA require impartiality, fairness, and equity. All persons involved with NBA activities must perform their duties under the highest standards of ethical behavior. It is the purpose of this code to detail the ethical standards under which we agree to operate.

NBA guidelines for interpretation of the Code of Conduct represent the objectives toward which its volunteers and staff members should strive. They are principles that those involved in accreditation activities can reference in specific situations.

7.2.1. NBA volunteers and staff members agree to accept responsibility in making accreditation decisions and credential evaluations consistent with approved criteria and the safety, health, and welfare of the public and to disclose promptly factors that might endanger the public.

    a. All those involved in NBA activities shall recognize that the lives, safety, health, and welfare of the general public are dependent upon a pool of qualified graduate professionals to continue the work of their profession.

    b. **Programmes** shall not receive accreditation that does not meet the Criteria as set forth by the profession through NBA in the areas of engineering, and technology, management, pharmacy and architecture.

    c. If NBA volunteers or staff members have knowledge of or reason to believe that an accredited programme may be non-compliant with the appropriate criteria, they shall present such information to NBA in writing and shall cooperate with NBA in

furnishing such further information or assistance as may be required.

d. If evaluation staff members have reason to believe that the credentials submitted for evaluation are not authentic or information submitted in support of an evaluation is misleading, they shall cooperate with NBA or any other entities affected by this process to verify the validity of facts and to provide proof of the authenticity of the academic documents in question.

7.2.2. NBA volunteers and staff members agree to perform services only in areas of their competence. All those involved in NBA activities shall undertake accreditation assignments only when qualified by education and/or experience in the specific technical field involved.

7.2.3. NBA volunteers and staff members agree to act as faithful agents or trustees of NBA, avoiding real or perceived conflicts of interest whenever possible, disclosing them to affected parties when they do exist.

a. All those involved in NBA activities shall avoid all known or perceived conflicts of interest when representing NBA in any situation.

b. They shall disclose all known or potential conflicts of interest that could influence or appear to influence their judgment or the quality of their services.

c. They shall not serve as a consultant in accreditation matters to a programme or Institution while serving as a Commissioner, Alternate Commissioner, or Director. Programme evaluators who have or will serve as consultants must disclose this to NBA per the NBA Conflict of Interest Policy and may not participate in any deliberations regarding NBA matters for that Institution.

d. They shall not undertake any assignments or take part in any discussions that would knowingly create a potential conflict of interest between them and NBA or between them and the institutions seeking programmatic accreditation.

e. They shall not solicit or accept gratuities, directly or indirectly, from programmes under review for accreditation or from individuals/entities when credentials are under evaluation.

f. They shall not solicit or accept any contribution, directly or indirectly, to influence the accreditation decision of programmes or the outcome of credential evaluations.

7.2.4. NBA volunteers and staff members agree to keep confidential all matters relating to accreditation decisions and credential evaluations unless by doing so they endanger the public or are required by law to disclose information.

a. All those involved in NBA activities shall treat information coming to them in the course of their assignments as confidential, and shall not use such information as a means of making personal profit under any circumstances.

b. They shall not reveal confidential information or findings except as authorized or required by law or court order.

c. They shall only reveal confidential information or findings in their entirety where required to do so and then only with the prior consent of NBA and the Institution/programmes involved.

7.2.5. NBA volunteers and staff members agree to issue either public or internal statements only in an objective and truthful manner.

a. All those involved in NBA activities shall be objective and truthful in reports, statements, or testimony. They shall include all relevant and pertinent information in such reports, statements, or testimony and shall avoid any act tending to promote their own interest at the expense of the integrity of the process.

b. They shall issue no statements, criticisms, or arguments on accreditation matters which are inspired or paid for by an interested party, or parties, unless they preface their comments by identifying themselves, by disclosing the identities of the party or parties on whose behalf they are speaking, and by revealing the existence of any financial interest they may have in matters under discussion.

c. They shall not use statements containing a material misrepresentation of fact or omitting a material fact.

d. They shall admit their own errors when proven wrong and refrain from distorting or altering the facts to justify their mistakes or decisions.

7.2.6. NBA volunteers and staff members agree to conduct themselves honorably, responsibly, ethically, and lawfully so as to enhance the reputation and usefulness of NBA.

a. All those involved in accreditation activities and credentials evaluations shall refrain from any conduct that deceives the public.

b. They shall not falsify or permit misrepresentation of their or their associates' academic or professional qualifications.

c. They shall not maliciously or falsely, directly or indirectly, injure the professional reputation, prospects, practice or employment of another. If they believe others are guilty of unethical or illegal behavior, they shall present such information to the proper authority for action.

7.2.7. NBA volunteers and staff members agree to treat fairly all persons regardless of such factors as race, religion, gender, disability, age, national origin, marital status, or political affiliation. All those involved in accreditation activities and credentials evaluations shall act with fairness and justice to all parties.

7.2.8. NBA volunteers and staff members agree to assist colleagues and co-workers in their professional development and to support them in following this code of conduct.

a. NBA will provide broad dissemination of this Code of Conduct to its volunteers, staff, representative organizations, and other stakeholders impacted by accreditation and credential evaluations.

b. NBA will provide training in the use and understanding of the Code of Conduct for all

new volunteers and staff members.

c. All those involved in accreditation matters and credential evaluations shall continue their professional development throughout their service with NBA and shall provide/participate in opportunities for the professional and ethical development of all stakeholders.

7.2.9. NBA will provide a mechanism for the prompt and fair adjudication of alleged violations of the Code of Conduct. Persons found to be in violation of the Code may be subject to any of a number of sanctions including ineligibility for service in further activities on behalf of NBA.