



## Customized Web Application for NBA

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**Abstract** — National Board of Accreditation is entrusted with the task of evolving a procedure for quality assessment in the engineering education sector and to assist the stakeholders in technical education to identify those institutes and their programmers which meet the quality benchmarks setup by international agencies. National Board of Accreditation is a process of quality assurance and improvement. The purpose of the accreditation by NBA is to promote and recognize excellence in technical education in colleges and universities. This process of accreditation helps in realizing a number of benefits for Department. Accreditation helps the institute to know its strengths, weaknesses and opportunities. In this project, we are going to make a web application for the NBA (National Board of Accreditation) process. The SAR (Self-Assessment Report) for the department is also created. It consist of 6 Course Outcomes (CO) and 12 Program Outcomes (PO). Attainment of Course Outcomes is done by mapping with the Program Outcomes. We are also creating Pre-Qualifier Form for Department. We will be using java, html and php. This will consist of 1 databases one for Student and another for Staff.

**Keywords:** NBA process, SAR, Pre-Qualifier Form, Course Outcomes, Program Outcomes, Database.

### I. INTRODUCTION

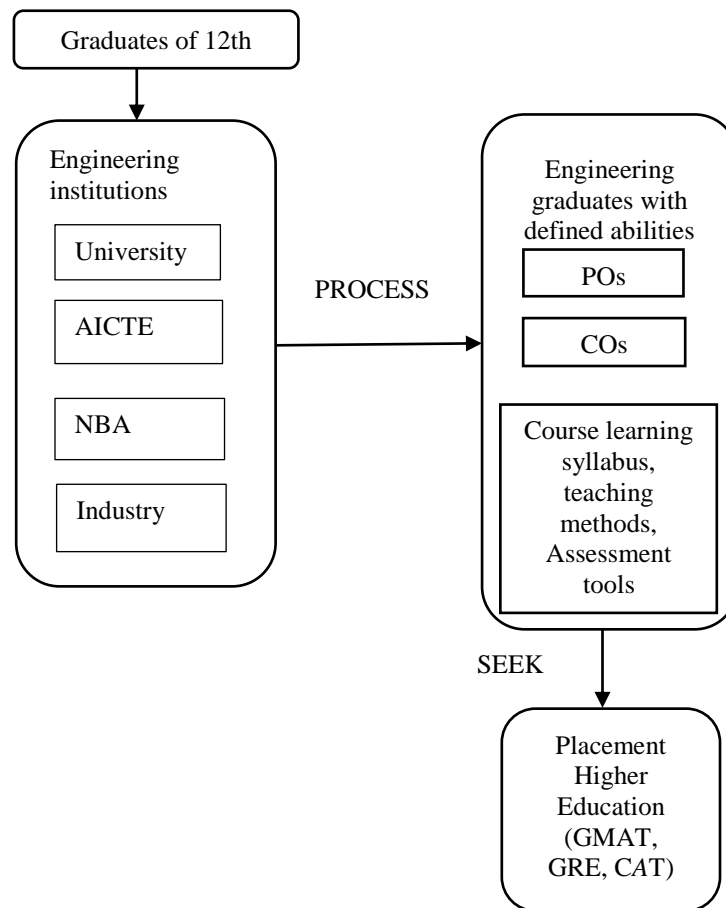
Engineering education has increased in recent years due to the rapid development in technology world over. India has been one of the pioneers of this development. The system of engineering education in India has become a formidable reservoir of technical expertise in terms of the magnitude of human resources and expertise available and of infrastructural facilities created over the last six decades. There has been a steep increase in the growth of engineering institutions in India in the last two decades. Accreditation is intended to provide degree-granting academic programs with a credential. [1] Accreditation is a process of quality assurance and improvement, whereby a program in an approved Institution is critically appraised to verify that the Institution or the program continues to meet and exceed the Norms and Standards prescribed by regulator from time to time.

#### 1.1 Outcome-based education (OBE):

Outcome-based education is an approach focuses on student performance which includes skills, knowledge and attitudes that would enable student to cope up with changing demands at workplace though input and output parameters are also important. Main goal of OBE is to produce engineers with the ability to solve challenges and problems which are not ever known today. OBE emphasizes on assessing the students whether they are able to do what they wants to do.

##### 1.1.1 Levels of Outcomes:

- Program Educational Objectives: PEOs are broad statements that describe the career and professional accomplishments in five years.
- Program Outcomes: POs are statements that describe what the students graduating from engineering programs should be able to do. PO describes what students should know and be able to do at the end of the programme. POs are to specify, measurable and achievable.
- Program Specific Outcomes: PSOs give the description about what graduate should be able to do in specific engineering programme.
- Course Outcomes: CO are the attributes that the students are expected to demonstrate after completing the course. The result of CO attainment is used to evaluate the attainment of PO. Different subject has different Cos [2].



*“Figure 1. OBE Scenario”*

## II. LITERATURE SURVEY

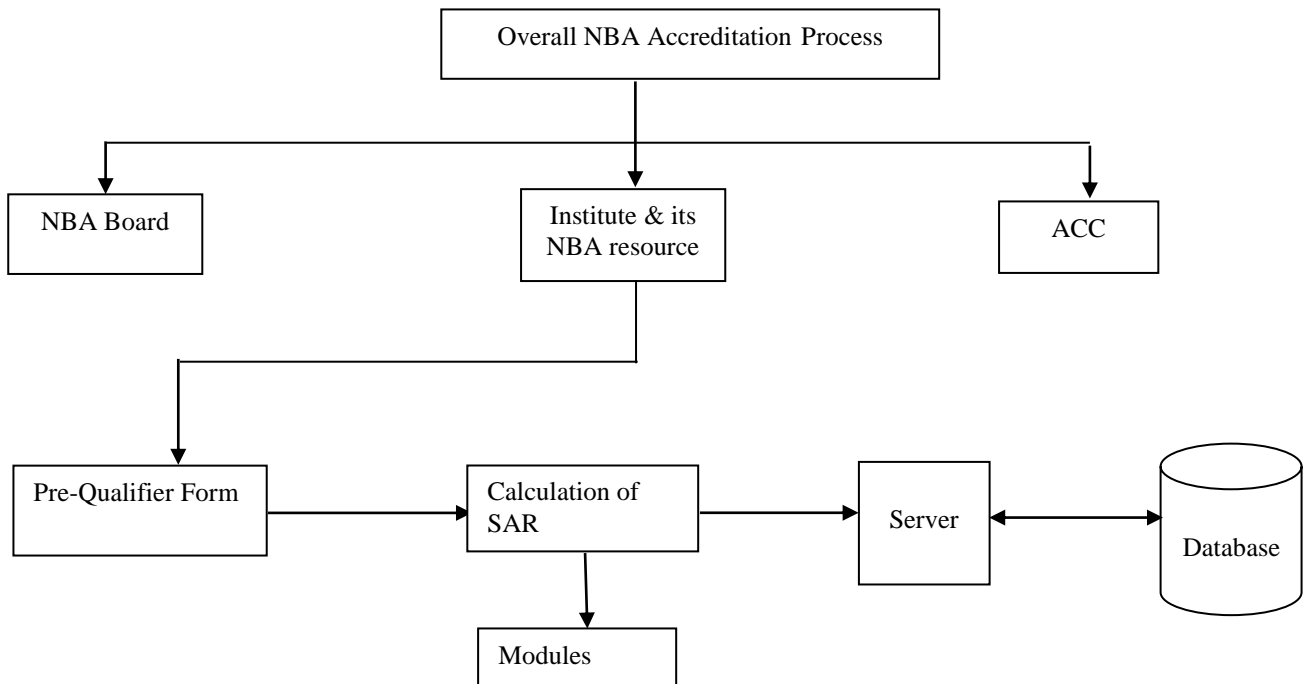
As there is a rapid growth in technical education, the number of engineering colleges is increasing day by day and the quality of education is going down, so there is a need for quality education with well-structured accreditation model in order to survive in the competitive world. Presently there are 1265 approved engineering colleges with a total intake of about 381,000 students in India ([www.aicte.ernet.in](http://www.aicte.ernet.in)). From survey we understood that, in the traditional accreditation process all the documentations and calculation work was done manually which is a tedious work. Before 2003, there was grading system for accreditation which consisted of grades A, B and C also the total grading point for getting accredited was 550. The new scheme, from 1 January 2003 consist of two criterias which are ‘Accredited for 5 years and 3 years’. The total points for 5 years accreditation is greater than 750, for 3 years it is 650-750 otherwise ‘Not Accredited’.

## III. SYSTEM ARCHITECTURE

### 3.1 Module 1:

In the overall process of accreditation as shown in fig 3.3, firstly institution obtains publications and forms then institution conducts a self-study about NBA process and prepare pre-qualifier form which consist of calculations of Self-Assessment Report (SAR). Institution submits this form to NBA committee with 10% of fee. If

institution is eligible then they have to submit rest 90% fee and fill SAR. After that accreditation team visits the institution and make recommendation and results are submitted to the Executive council of NBA.



*“Figure 2. System Architecture”*

#### IV. WORKING

We are making a web application in which first, the user will register on the webpage by unique username and password. If the user is authenticated then the user can directly login to the system. If the user forgets the password then change password option is also available. After successful login the user will be displayed a Pre-Qualifier form (Part A) in which all the institution details are to be filled by the user. After validating all the details it will direct the user to the next part i.e. Pre-Qualifier (Part B). In Part B, there are various calculations such as Student Faculty Ratio, Average intake of students, etc.

#### V. CONCLUSION

This paper proposes web application for NBA. As NBA information is unique for all institute so we are preparing for our college. Maintaining paper documents for NBA is very difficult as we have to maintain record of 3 years so there is a chance of misplacing the documents. So this paper is proposed for collecting the NBA information and keeping it in database.

#### VI. REFERENCE

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