

**Name of the paper:** Predicting Undergraduate Admission

**Published year:** 2020

**Journal name:** International journal of Advanced Computer  
Science and Applications

**Author:**

- Md.Protikuzzaman, Mrinal Kanti Baowaly and Maloy Kumar Devnath Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Gopalganj.
- Bikash Chandra Singh, Department of Information and Communication Technology, Islamic University, Kushtia, Bangladesh.

**Topic:** University Admit Eligibility Predictor

**Theme:**

The university admission tests find the applicant's ability to the desired university. Nowadays, there is a huge competition in the university admission tests. The failure in the admission tests makes an examinee depressed. This paper proposes a method that predicts undergraduate admission in universities. It can help students to improve their preparation to get a chance at their desired university. Many factors are responsible for the failure or success in an admission test. Educational data mining helps us to analyze and extract information from these factors.

**Inference:**

In any country, an undergraduate admission test is one of the most important tests for the students. Students remain conscious about taking admission to their desired universities. In Bangladesh, students who passed the Higher Secondary Certificate (HSC) examination contest the undergraduate admission test. According to the year 2017, 8.01 lakh examinees passed the HSC exam [1] and competed to get admission in different public universities. Universities have their admission requirements for this purpose which are generally based on the students' grade point average (GPA) of the Secondary School Certificate (SSC) and HSC examination, GPA of various courses, etc. However, the total seats in public universities are not sufficient. According to

the Ministry of Education of Bangladesh [1], the number of seats in the country's 37 public universities is around 60,000. As a result, about 7 lakhs 40 thousand students did not get the opportunity to study in public universities last year. Even those students who can apply and sit for the admission test do not have the guarantee of admission opportunities in the university because of the limited number of seats. Students have to overcome the barrier of admission test and qualify in the examination to secure their seats. Such students have to go through a long time of mental stress or illness before or after the admission test. The authors realize that this issue cannot be completely removed. But with the aid of modern technologies and strategies e.g. educational data mining, this study can reduce the problem and make students aware of it early in the admission test. If any student can know the pre-examination and post-examination status of a particular university for undergraduate admission, it will be a great benefit for him/her to take the necessary steps to improve the admission test's performance so that he/she can get a chance at the desired university. The authors want to help the students to judge and improve themselves before or after the admission test using this system.

In this study, the authors use the concepts and techniques of data mining which is discovered useful and meaningful information from large-scale data collections . Because of the growing data volume of educational knowledge, educational data mining has a rich area of application . This research is conducted to measure the admission opportunity of a student in Bangabandhu Sheikh Mujibur Rahman Science and Technology University (BSMRSTU), Bangladesh. It is more authentically based on a real dataset collected from the engineering and science faculty students of BSMRSTU. Discovering knowledge from real data gives us a solution that helps students to improve their performance to get admission to BSMRSTU. The authors apply different data mining techniques for a fruitful solution. Here, a total of 500 students' data is collected for this investigation. Though this research focuses on admission chance as the case study, the proposed approach is not restricted to it only. Moreover, this study extensively investigates all possible features or factors of an undergrad candidate and evaluates their impact for predicting admission. The main contributions of this thesis are:

- Developing an admission prediction system for the undergrad students in the engineering faculty at BSMRSTU, Bangladesh.
- Predicting the admission opportunity both before and after the admission test.
- Analyzing and evaluating the possible factors of an admission candidate that affect the admission chance.