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Abstract

In the neoteric century, education holds the key to bringing tremendous upgradation to the world. In most Asian countries, it is very challenging to apply education data mining techniques due to the variety of institutional data categories. In this research, an efficient data collection technique has been designed to gather institutional data, analyse and pre-process the data and apply specific data mining methods to estimate students' progress. A real-time dataset has been designed from student transcript data, which helps to analyse the prediction of student quality. In our research, six traditional classification algorithms and a deep neural network (DNN) model is applied to perform prediction efficiency. Different classification models perform an accuracy of 90% ~ 94%. Our research predicts student education efficiency, analyses student patterns and introduces a generalized framework for an advanced level of study.