

Using Classifiers to Predict Student Outcome at Higher Institute of Telecommunication

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Abstract : We aim at highlighting the benefits of classifier systems especially in supporting educational management decisions. The paper aims at using classifiers in an educational application where an outcome is predicted based on given input parameters that represent various conditions at the institute. We present a classifier system that is designed using a limited training set with data for only one semester. The achieved system is able to reach at previously known outcomes accurately. It is also tested on new input parameters representing variations of input conditions to see its prediction on the possible outcome value. Given the supervised expectation of the outcome for the new input we find the system is able to predict the correct outcome. Experiments were conducted on one semester data from two departments only, Switching and Mathematics. Future work on other departments with larger training sets and wider input variations will show additional benefits of classifier systems in supporting the management decisions at an educational institute.

Keywords : machine learning, pattern recognition, classifier design, educational management, outcome estimation

Conference Title : ICMLDA 2016 : International Conference on Machine Learning and Data Analysis

Conference Location : Tokyo, Japan

Conference Dates : May 26-27, 2016