Improving University Operations with Data Mining: Predicting Student Performance

Authors : Mladen Dragičević, Mirjana Pejić Bach, Vanja Šimičević

Abstract : The purpose of this paper is to develop models that would enable predicting student success. These models could improve allocation of students among colleges and optimize the newly introduced model of government subsidies for higher education. For the purpose of collecting data, an anonymous survey was carried out in the last year of undergraduate degree student population using random sampling method. Decision trees were created of which two have been chosen that were most successful in predicting student success based on two criteria: Grade Point Average (GPA) and time that a student needs to finish the undergraduate program (time-to-degree). Decision trees have been shown as a good method of classification student success and they could be even more improved by increasing survey sample and developing specialized decision trees for each type of college. These types of methods have a big potential for use in decision support systems.