Research Inventy: International Journal of Engineering and Science Vol.3, Issue 11 (November 2013), PP 07-14

Risk Status Prediction and Modelling Of Students' Academic Achievement - A Fuzzy Logic Approach

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Abstract: Several students usually fall victims of low grade point at the end of their first year in the institution of higher learning and some were even withdrawn due to their unacceptable grade point average (GPA); this could be prevented if necessary measures were taken at the appropriate time. In this paper, a model using fuzzy logic approach to predict the risk status of students based on some predictive factors is proposed. Some basic information that has some correlations with students' academic achievement and other predictive variables were modelled, the simulated model shows some degree of risk associated with their past academic achievement. The result of this study would enable the teacher to pay more attention to student's weaknesses and could also help school management in decision making, especially for the purpose of giving scholarship to talented students whose risk of failure was found to be very low; while students identified as having high risk of failure, could be counselled and motivated with a view to improving their learning ability.

Keywords: fuzzy logic, academic achievement, prediction and risk status.