VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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A PROJECT REPORT ON

"Intelligent Curriculum for Learning Analytics"

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ABSTRACT

Intelligent curriculum is a package of resources for a learner developed using different learning models, assessment techniques and Learning Management System (LMS). Intelligent curriculum is a part of learning analytics where learning analytics defines the way in which a learner's data is best utilized and used to predict the outcome of learning.

The present education scenario in higher education emphasizes on groups of individuals, traditional assessment technique and an inefficient learning approach. The assessment is carried out through student's performances in tests or quizzes, assignments submission and a final examination. However, these methods demand better accuracy, reliability and linearity since they employ classical approach of learning which do not provide learner specific content and analyses the learner at the end of his course. The contents are standardized and not specific to the learner. Also there is a significant delay between the learners attempt to final exam and reporting of the results of the exam. The validity of such approaches summonses a review.

Thus the current project undertaken provides an alternative solution to the drawbacks of the classical approach in higher education by developing intelligent curriculum as a customized package specific to the learner. Intelligent curriculum is developed using educational technological tools like bloom's taxonomy, rasch analysis, SCORM (Sharable Content Object Reference Model) and MOODLE (Modular Object-Oriented Dynamic Learning Environment). Bloom's taxonomy provides a way to organize thinking skills into six levels, from the most basic to the higher order levels of thinking. The Rasch model is used to assess the performances of students from the tests. The developed curriculum containing resources for a student is based on the responses obtained from rasch analysis and focuses on betterment of individual performance from previous levels of bloom's taxonomy.

The overall objective of the project is to develop an action plan containing a curriculum package to benefit and improve the quality and value of the learner. The aim of the project is to use learning analytics technique to make the best utilization of learner data and predict the outcome through series of diagnostic tests, analysis and content development.