LIGHTWEIGHT DESIGN OF AN AUTOMATED ANSWER SHEET CHECKER

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ABSTRACT

The educational world is moving more rapidly and becoming more competitive, virtually every university started to use an automated answer checking system. Even though it is better to stick with the traditional way in some circumstances this is definitely not one of them. Manual processing all the exam papers every day requires lot of time and effort from examiners and administration in order to sort all of them out by subjects and papers. If we automate this manual process it will greatly benefit both students and staff. This is why the Answer Sheet Checking System project is proposed. An outdated multiple choice questions (MCQs) is one in which a student chooses one answer from a number of choices supplied (normally five choices based on A, B, C, D and E). Mostly, MCQs consists of the question (stem), the choices provided after the stem (options), the correct answer in the list of options (key) and distracters which are the incorrect answers in the list of options. Some of the main advantages and characteristics of the multiple choice questions are:

☐ Marked quickly, sometimes using automatic scanners.

☐ Marked by markers with minimal training or preparation.

☐ Used flexibly in print and electronic forms for assessment (including self- assessment) that provides students and teachers with timely, and sometimes automated, feedback on teaching and learning.

☐ Highly reliable in that results are consistent from student to student and over time.

☐ An efficient and effective way of assessing factual knowledge.

☐ Effectively used for quick perception checks during lectures and for systematic revision.

The main business goal of the automated answer sheet checking system is to automate the current manual exam paper marking process to IT system that is manage the exam papers checking that are consistent, protected and manages the large data volumes. The student has to fill the circles on the paper. The circles are maybe filled properly and maybe not. This also gives in increasing computerized checking with errors. The reasons in arrears this that machine mostly do not read the incomplete filled circles. According to this condition checking done may carries some errors due to not accurate reading of damaged area by computer. Final results don't achieve the 100% accurateness. Hence, designed an algorithm that will check the answer sheet paper with the computer. The efficient algorithm will remove the noise if exist in the answer sheet paper, and then answer sheet will be checked. The results shows consolidated output and make it more attractive for educational application.

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