

# SURVEY ON ONLINE EXAMINATION SYSTEM USING ARTIFICIAL INTELLIGENCE

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**Abstract** - Online Examination System, is an application built to modernize the examination process that has been a major challenge, especially during the covid pandemic. Remote proctoring is the trending technology in the era of social distancing. For a couple of years, e-learning has become famous as a result of its adaptability and simple client intelligence. All things considered, the significant danger looked at by the examination local area is the delegating procedures utilized. We have utilized equipment, for example, a web camera to catch sound and video alongside dynamic window catch. This blend shapes the contributions to a clever decide-based surmising framework that can conclude whether any misbehaviors have occurred. The software will be able to successfully conduct the exam virtually without the physical presence of an instructor. The exams with time-based and secure so that a fair examination is provided to all the candidates. In this application, we present a strategy to stay away from the actual presence of a delegate all through the test by making an exhaustive performance of multiple tasks frameworks.

## 1. INTRODUCTION

Artificial Intelligence also known as machine intelligence, is a branch of computer science that focuses on managing and building technology that can learn to instantly make decisions and carry out actions instead of a human being. AI-based Online Examination Proctoring uses AI-driven algorithms for user identification and cheating identification. It will create a comprehensive report to help you to confirm if an online exam has been completed with machine-driven invigilation proctoring. AI-powered remote proctoring can ensure the end to end security for Online Exams and prevents the process from malpractices and cheating. Because of the COVID-19 pandemic, the whole world is following a major downfall in terms of economy, day-to-day activities are being restricted due to lockdown! Remote proctoring is the technology that allows us to monitor online exams for candidates scattered over a bunch of locations, anywhere on the back of the earth. There are different factors of remote proctoring such as video proctoring, image proctoring, audio proctoring, monitoring the screen of the user taking the online exam. With the help of all these functionalities, we can securely conduct Online Exam, that too under a secure, monitored, and cheat-free environment. Face recognition is the key component of the verification process for remote users during the online exam process. The system takes pictures of the user taking the exam and it is compared with a

photo stored in the system at the start of the online exam. At any point of time during the exam, if there is a mismatch or deviation in the face or more than one face detected in front of the display or no other person's faces detected in front of the camera during the online exam then the system records in the form of an alert. AI-based remote proctoring also prohibits the user from switching the windows while appearing for the scheduled Online Examination System Using AI has covered with its extra lite proctoring mechanism in the name of Image-based proctoring. The mechanism imposed by the proctored examination process enforces this restriction to keep the Online Exam environment under control. Image Proctoring has made it possible to secure the online exam environments prominently and the demand in the technology is rapidly increasing due to several factors.

## 2. LITERATURE SURVEY

- [1] Remote examination and proctoring are significantly gaining importance in the wake of the accommodation of comfort, security, and accessibility. This will not just increase the importance of course or remote-based examinations but it also helps in MOOCs (mass open online courses) and other credit-based certifications for the concern of establishing credibility. The proposed online examination software the monitoring system uses advanced, secure, and reliable Artificial Intelligence to monitor the students and review the examination. Web-based automated examination system which detects all unusual activities and flags them, to ensure fair proposition of exams. Invigilation of the exam is not restricted to a fixed time and actual test grounds any longer. This has revoked an interest in the assortment of online remote examination arrangements and supporting technological advancements.
- [2] In this application, we present a strategy to stay away from the actual presence of a delegate all through the test by making an exhaustive performance of multiple tasks frameworks. This assessment framework utilizes fewer assets and lessens the requirement for Q & A contents, test room booking, organizing invigilators to test corridor, planning with inspectors, and that's just the beginning. The online examination system uses client/server architecture methodology. The

proposed framework is simple and adaptable on account of future upkeep and improvement because every subsystem can be taken care of independently without effect on another framework. The customer by utilizing an internet browser can associate through web or neighborhood have with the server where PHP and MySQL in the server-side are liable for the getting ready tests cycles and save and return information from data set. It is essential to make sure that the data set is very much planned. The documents names picked to mark the tables made inside the information base endeavor to mirror the table's motivation and, thusly, add to a well-plan framework. Utilizing an open-source language gives us greater adaptability, and yet it required more opportunity to be modified.

[3] Instructing and mentoring, exhorting and advising and data and organization are the institutional frameworks associated with student support. Student support is characterized as "every one of the exercises and components in schooling that reacts to a known student or a gathering of students, which are intended to aid emotional and precise domains of the learning process. Students get themselves registered for several online programs and it's increasing exponentially. But students dropping out of these courses is also more due to improper support services. As ODeL establishments grow their scholarly projects, their understudy populace becomes more assorted. The expanding variety of understudies features the need to create and carry out help benefits that ensure the understudies' achievement. OSP is an online application that offers a combination of organizations. It gives students reliable permission to information and organizations.

[4] In Online Examination System, researchers are attempting to change the traditional manual examination in the educational institution. The online examination system is effective in time management. In this paper, we proposed a system with an automatic assessment technique. This algorithm is to determine the frequency of words, Keyword match, linguistic analysis, and grade generation. The system is implemented with the help of MySQL and PhpStrom. Our advanced system is able to evaluate the response of descriptive question. Mark allocation depends on this percentage accuracy of the answer. The whole process consists of four steps. They are Extraction of keywords, weightage of keywords, Feature matching, Score generation. Most of the competitive exams are conducted online. Because they are time-efficient, cost-efficient, and secure. In the rural area, students have to travel from far along to give examinations in their allocated center. To conclude, learners are an

important aspect of the ODeL environment. Hence their welfare needs to be the main goal of the system.

## 2. PROPOSED SYSTEM

Our Proposed system, consists of the Administrator Module and the Student Module. The Admin Module consists of further two sub-modules Admin and Instructor and the student module consists of Student and Online Proctoring.

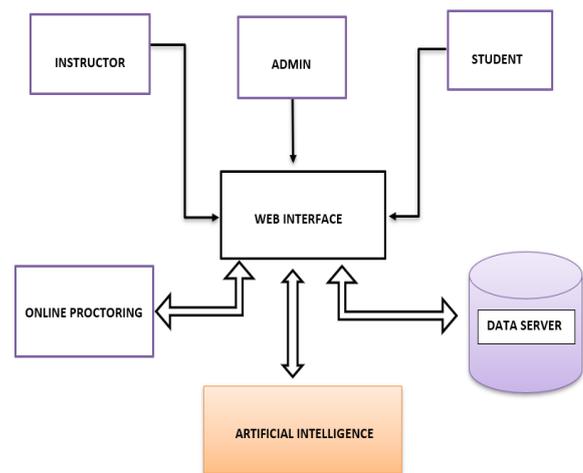


Figure 1: Block diagram of online examination system using AI

### Algorithm:

**Step 1:** Admin can register an Instructor in the software with all necessary information.

**Step 2:** Once the admin has created an instructor, the instructor can log in to the instructor module using the username and password.

**Step 3:** The Instructor can register the students in the instructor module of the software.

**Step 4:** The Instructor can set the questions and provide random questions to each candidate.

**Step 5:** The Instructor can trigger time-based proctored exams for the candidates

**Step 6:** The instructor can send notifications to the student using the software.

**Step 7:** Once the exam is triggered for the candidates the candidate will be able to take an exam by logging in to the student module using username and password.

**Step 8:** The student can give real-time exams without having to be present physically in the examination centers.

**Step 9:** The student will be monitored continuously using various Artificial Intelligence functionalities and hence any misbehavior will be considered as an act of malpractice.

**Step 10:** The student will receive time to time notifications and exam results will be published in the student module in less time.

#### User Interface:

- Admin Module
- Instructor Module
- Student Module

#### Functional Requirement:

- Students can take the exam remotely without being present in the exam hall.
- The instructor will be able to monitor without having a physical presence.
- Any malpractice done by a candidate can be easily identified.
- Questions to the student can be provided randomly to avoid cheating.
- Real-time Proctoring can be achieved to have a fair examination.
- Results and notifications to students can be provided in less time

### 3. CONCLUSION

The online assessment framework is an easy-to-use framework, which is extremely simple and helpful to utilize. Online assessment has seen a critical ascent sought after because of the issues looked at by the continuous COVID-19 Pandemic. Online Examination System is fundamentally prevalent among different tests. During this advancement, coding norms are followed for simple practicality and extensibility. With the appearance of Online Proctoring Software, security issues related to it are increasing and are a reason for concern. However, there is consistently an extension for development and improvement. Enormous individual information is gathered during the cycle henceforth activities should be painstakingly distinguished, grouped, and marked to its awareness level for capacity to keep up with its classification and uprightness.

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