User Guide - Online Test Monitoring System

Contents

1 Introduction

The **Online Test Monitoring System** is an AI-powered solution designed to monitor online exams by detecting fraud attempts using the YOLOv11 detection model. The application analyzes faces captured by the webcam in real time and identifies spoofing attempts using the **CelebA_Spoof** dataset.
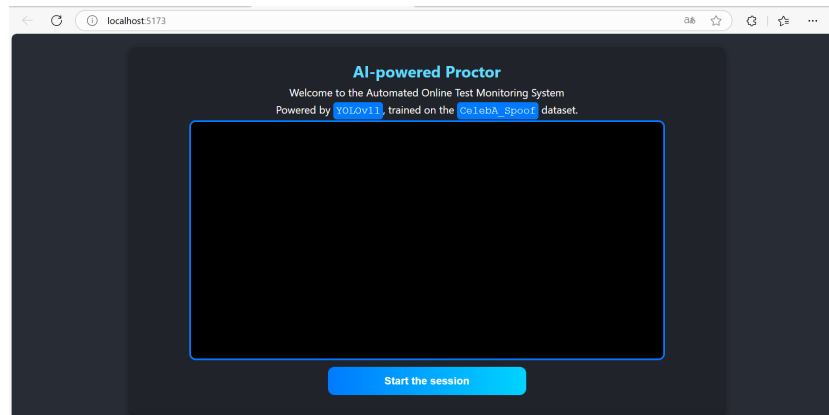

Figure 1: Welcome screen of the Online Test Monitoring System

2 System Requirements

2.1 Hardware

- Computer with a functional webcam.

- Stable Internet connection.

- Compatible browsers: Google Chrome, Mozilla Firefox, Microsoft Edge (latest versions).

2.2 Software

- Web-based application accessible via browser.

- No installation or backend required.

3 Launching the Application

1. Open a compatible browser.

2. Navigate to the application URL

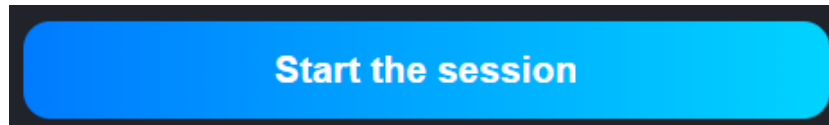3. The main screen displays the **"Start the session"** button.

Figure 2: Starting button

4 Starting a Monitoring Session

1. Click on **"Start the session"**.

2. A form appears requesting the candidate's and sponsor's email addresses.

3. Enter the required information and click **"Start the session"** again.
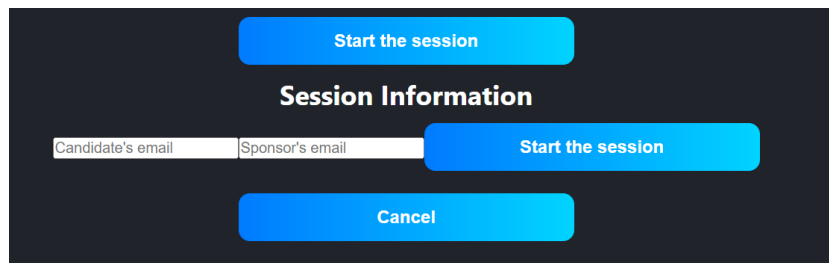

Figure 3: Welcome screen of the Online Test Monitoring System

4. The application starts and activates the webcam for real-time monitoring.

5. Face detection appears on the screen, indicating whether the user is real or suspicious.
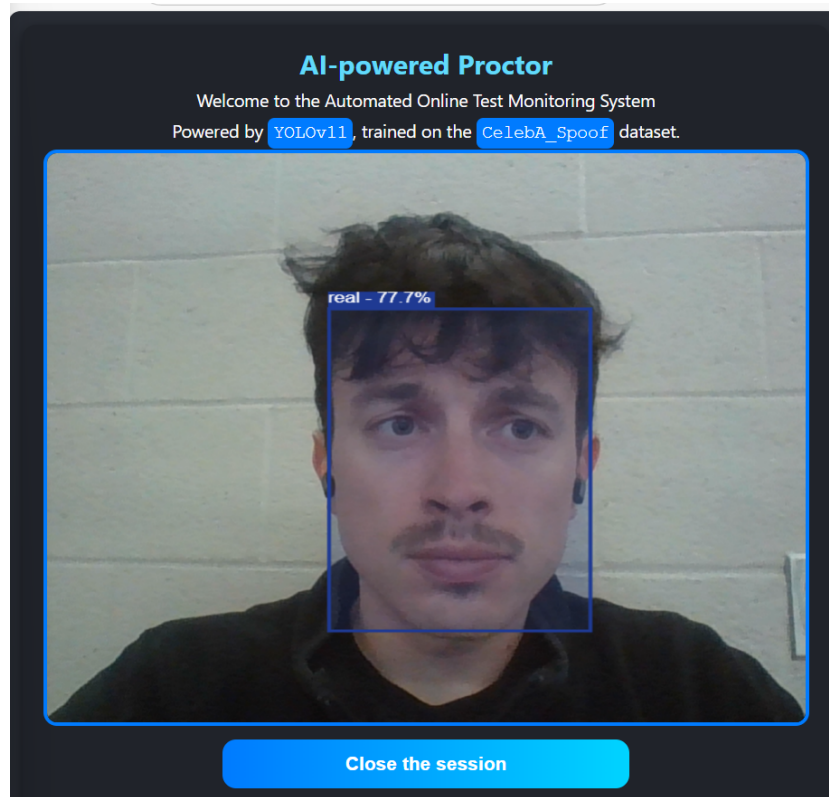
Figure 4: Session running

5 Session Results Analysis

- The application displays a **fraud detection probability** as a percentage.

- Example:

  - **Real - 54.3%**: The user appears to be real with 54.3% confidence (Displayed with a blue square around the face).
  - **Spoof - 95.45%**: High suspicion of fraud (Displayed with a red square around the face).

- After the exam, a **session summary** is displayed.

6 Sending the Session Report
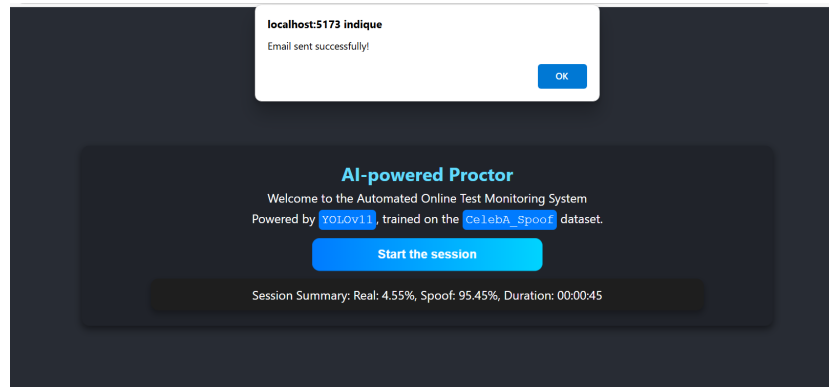
1. After the exam ends, a summary email is sent.

Figure 5: Session summary

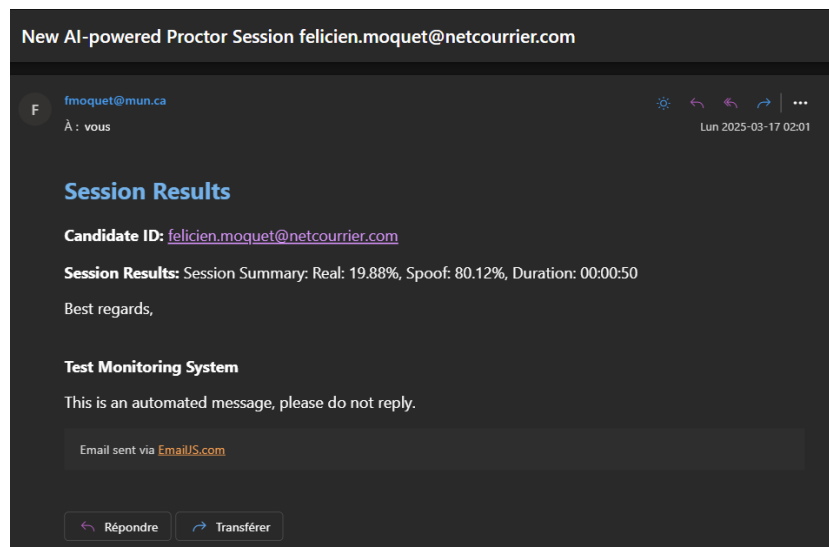2. The user receives a confirmation message: **"Email sent successfully!"**.

Figure 6: email received

7 Important Notice

The **Online Test Monitoring System** is based on artificial intelligence, which functions as a probabilistic tool. This means that while the system aims to detect fraudulent activities as accurately as possible, it does not

guarantee 100% accuracy. The results should not be used to take definitive actions against any individual without further human verification. The developers cannot ensure complete reliability of the detection process and are not responsible for any misclassification or potential errors produced by the system.

8   Troubleshooting Common Issues

Issue	Solution
Webcam not working	Check browser permissions.
The model does not detect the face properly	Ensure you are well-lit and facing the camera.
Application not responding	Refresh the page and restart the session.

9   Contact and Support

For any questions or technical issues, please contact our support team via email: **support@proctoring-ai.com**.