

FocusFlow

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FocusFlow is an AI-powered study companion that uses computer vision to monitor your focus levels. If the system detects you are distracted or drowsy, it triggers personalized alerts to keep you on track.

✦ Key Features

- **Real-time Face Detection:** Uses Haar Cascade Classifiers to track user presence.
- **Native Audio Nudges:** Plays `marathi_alert.mp3` when focus wavers, providing a familiar and effective reminder.
- **Emergency SMS System:** Automatically sends an alert to a designated guardian (e.g., +919420355509) if a significant distraction or emergency is detected.
- **Evidence Logging:** Saves time-stamped screenshots of distractions in the `/distractions` folder for later review.

📁 Project Structure

- `app/face_detect.py`: The main logic for monitoring focus and sending alerts.
- `app/test_camera.py`: Utility script to verify camera hardware.
- `app/marathi_alert.mp3`: Custom Marathi audio alert file.
- `app/haarcascade_frontalface_default.xml`: Pre-trained model for facial detection.
- `/distractions`: Directory where evidence images are stored.

🔧 Requirements

- Python 3.x
- OpenCV (`opencv-python`)
- A working webcam

🚀 How to Run

1. Verify Camera:

```
python app/test_camera.py
```