**Zeroth Review Presentation 15 October**

**Slide 1: Title Slide**

**Good morning, Professor.**  
We are excited to present our mini project titled **AttentiveAI: Real-Time Student Monitor**. Our team consists of myself, Kamal Sai A, along with Anvitha S, M Shamitha, and Pavan Kumar M K.

**Slide 2: Agenda**

**Here’s what we will cover in this presentation:**

* Introduction to AttentiveAI
* Literature Survey
* Motivation
* Objective
* Methodology
* Models of the Domain
* Expected Output
* Ways to Use this Tool

**Slide 3: Introduction (Outline of the Concept)**

**AttentiveAI** is a system that monitors students' attentiveness during online classes.  
It uses **AI-based facial expression and hand gesture recognition** to assess student engagement. This tool provides insights for both educators and parents to understand students’ focus levels.

**Slide 4: Literature Survey**

We reviewed the current research on AI in education, which highlights the challenges of maintaining student engagement in virtual learning environments.  
**Most solutions focus on either emotion detection or engagement tools,** but AttentiveAI combines these into one comprehensive system that operates in real-time.

**Slide 5: Motivation**

Online learning makes it difficult to gauge how attentive students are, which negatively impacts learning outcomes.  
**AttentiveAI addresses this by providing educators with real-time data** on student engagement, helping them adapt their teaching accordingly.

**Slide 6: Objective**

The objective of **AttentiveAI** is to **monitor student engagement using facial expressions, hand gestures, and motion detection** during online classes, giving immediate feedback to teachers and parents.

**Slide 7: Methodology**

Our system is built using the following technologies:

* **Face Detection**: OpenCV for real-time face detection.
* **Emotion Recognition**: DeepFace analyzes emotions like happiness and sadness.
* **Hand Gesture Recognition**: Mediapipe tracks hand gestures for interaction.
* **Motion Detection**: Frame differencing detects physical activity

**Slide 8: Models of the Domain**

We use:

* **DeepFace** for emotion detection,
* **Mediapipe** for hand gesture recognition, and
* **OpenCV** for real-time face and motion tracking.  
  These technologies work together to provide a seamless experience for real-time monitoring.

**Slide 9: Expected Output**

The system outputs:

* **Real-time emotion detection** (displayed on screen),
* **Gesture-based volume control** using hand gestures, and
* **Alerts for disengagement**, notifying teachers when a student is not paying attention.

**Slide 10: Ways to Use This**

**AttentiveAI** can be used:

* **By Teachers** to adjust their teaching based on live feedback,
* **By Parents** to monitor their child's focus during online classes, and
* **By Schools** to enhance the learning experience in virtual environments

**Thank you for your time, Professor.** We're open to any questions you may have.