

Team Presentation Script – Simple English Version (5 Minutes)

Member 1: Slide 1 & 2 (Title + Problem)

Dialogue: "Good [morning/afternoon], everyone. We are presenting our project: Smart IoT Tobacco Smoke Detector for Public Spaces. Our goal is to make public places healthier using smart technology. This device can detect smoking in areas where it is not allowed, like restrooms or stairwells, and notify authorities immediately."

Smoking in public places is still common, even in no-smoking zones like offices and hospitals. This causes health risks for others and is hard to monitor manually. Smoking indoors can also lead to fire hazards. So, there is a need for a smart system that can detect smoke in real-time."

Brief / Key Points: - Introduce the project clearly. - Explain the problem using examples. - Mention health risks and difficulty in manual monitoring.

Member 2: Slide 3 & 4 (Solution & How It Works)

Dialogue: "Our solution is a small IoT device that detects smoke immediately."

How it works: 1. MQ-2 Sensor – The Nose: Detects smoke, LPG, and methane. Think of it like the device's nose. 2. Clean-Air Baseline: The sensor learns what clean air is like. This helps it notice when smoke is present. 3. Reaction with Smoke: Smoke changes the sensor's resistance. More smoke causes bigger changes. 4. ESP32 Reads & Confirms: The microcontroller checks the readings. If it is above a set level, it triggers a notification to the cloud or mobile app."

Brief / Key Points: - Explain each step simply, using examples. - Focus on sensor detecting smoke and ESP32 triggering alerts. - Keep sentences short and clear.

Member 3: Slide 5 (System Architecture)

Dialogue: "Here is the system architecture: - MQ-2 sensor detects smoke. - ESP32 microcontroller processes the data and decides if smoke is present. - The device sends a notification to the cloud, which shows on a dashboard or smartphone."

Roles: - MQ-2 Sensor – The Nose: First sensor to detect smoke. - ESP32 – The Brain: Processes data and triggers alerts. - Cloud & Notification System: Sends alerts and allows remote monitoring."

Brief / Key Points: - Explain the flow clearly: detection → processing → notification. - Mention the role of each component in simple words. - No need for technical details.

Member 4: Slide 6 (Challenges & Future Scope)

Dialogue: "Challenges we faced: 1. False Alarms – Steam or dust could trigger the sensor. We fixed this by adjusting the threshold. 2. Connectivity – Wi-Fi may not always work. The device stores alerts and sends them later.

Future plans: - Detect smokeless tobacco like gutkha using AI. - Add temperature sensors to detect fire. - Make a central dashboard to manage many devices in a building."

Brief / Key Points: - Explain two main challenges and how they were solved. - Share simple future improvements, focus on public safety.

Member 5: Slide 7 (Conclusion & Q/A)

Dialogue: "To conclude, our project shows that a low-cost IoT smoke detector can: - Detect smoke in real-time, - Alert authorities remotely, and - Improve public health and safety.

The system is scalable, affordable, and practical. Thank you for your attention. We are happy to answer any questions."

Brief / Key Points: - Summarize key achievements simply. - End with a thank you and invite questions. - Speak confidently and clearly.

Tips for All Members:

- Speak slowly and clearly.
- Use short sentences; avoid long, complex words.
- Practice transitions: introduce the next section naturally.
- Use simple examples to make explanations relatable.