

S.No	Problem Statement ID	Problem Statement Name	Domain
13	CT-AICS - 09	Deep Fake Detection	AI Cyber Sec

Description :

The **Deep Fake Detection System** is a tool designed to identify manipulated media content, such as altered videos, images, or audio created using AI techniques. Deep fakes are often used to spread misinformation, commit fraud, or defame individuals. This tool uses AI algorithms to analyze media and determine whether it has been tampered with.

The system is particularly useful for law enforcement, journalists, and individuals to verify the authenticity of digital content and prevent the spread of malicious or misleading media.

Objectives :

1. Detect Deepfakes:

- Identify manipulated videos, images, or audio files and flag them as fake or suspicious.

2. Verify Authenticity:

- Provide users with insights into whether the media content is genuine or altered.

3. Prevent Misinformation:

- Help stop the spread of false narratives created using deepfake technology.

4. Support Law Enforcement:

- Assist in investigations by validating digital evidence and exposing fraudulent content.

Expectations:

1. For Individuals:

- A user-friendly interface where users can upload videos, images, or audio files for verification.
- Clear results indicating whether it is real or fake.

2. For Authorities:

- Advanced analysis tools to monitor and track the use of deep fakes in criminal activities.
- Alerts for malicious content targeting public safety or defaming individuals.

3. Technical Features:

- Detection of subtle inconsistencies in media, such as unnatural blinking, mismatched shadows, or audio mismatches.
- Continuous updates to detect the latest deepfake techniques.

Expected Results :

1. Combat Misinformation:

- Identify and flag deepfakes before they can mislead people or cause harm.

2. Enhanced Digital Trust:

- Help people trust the authenticity of media content they consume.

3. Support Investigations:

- Provide law enforcement with tools to detect and remove fake content used in crimes.

4. Educate Users:

- Increase public awareness about deep fakes and how to recognize them.