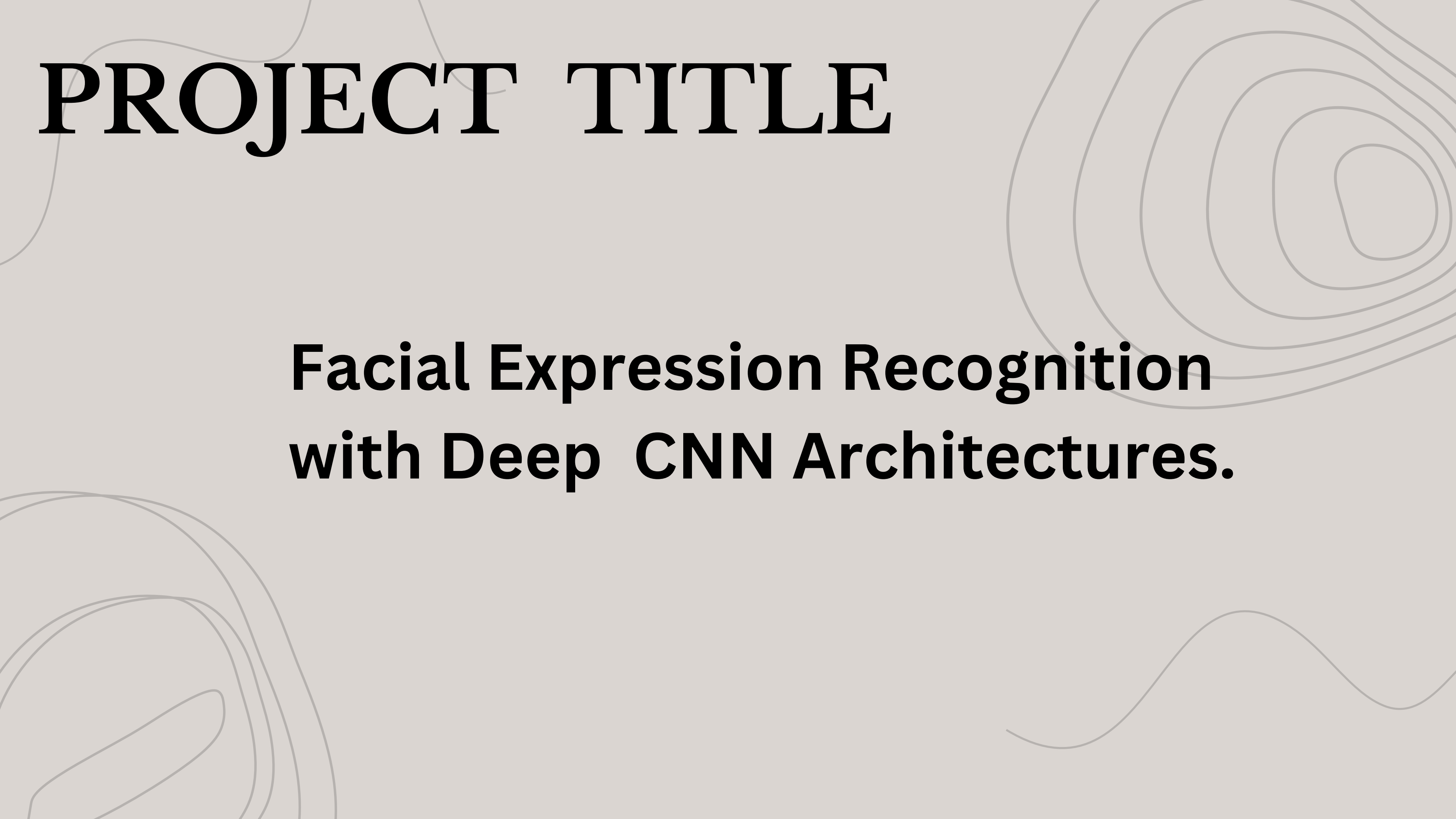




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## Final Project



# PROJECT TITLE

**Facial Expression Recognition  
with Deep CNN Architectures.**

# AGENDA

1. Problem statement
2. Project overview
3. Who are the end users
4. Solution & its value proposition
5. The vow in solution
6. Modelling
7. Results
8. Conclusion



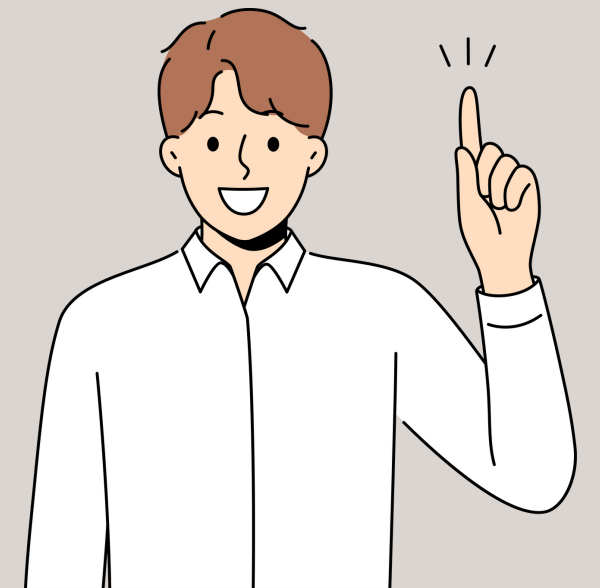
# PROBLEM STATEMENT

**FER is crucial in computer vision for applications like human-computer interaction, security, and healthcare. Traditional methods lack accuracy in capturing facial expression complexity. Deep CNNs automatically learn intricate features from raw data, offering a solution.**



# PROJECT OVERVIEW

This project enhances Facial Expression Recognition (FER) using Deep CNNs through data preprocessing, architecture design, and real-time deployment, aiming for improved accuracy across applications while considering ethics.



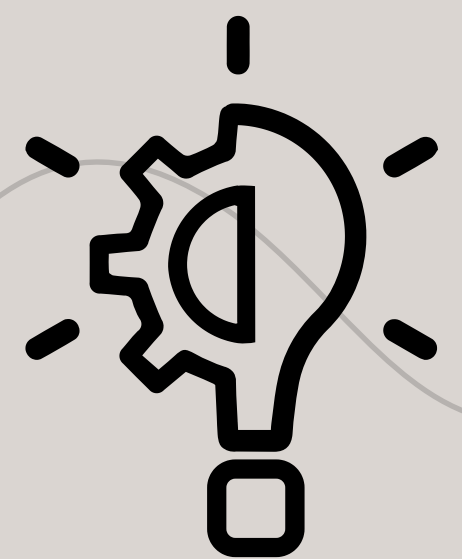
# WHO ARE THE END USERS?

1. Human-Computer Interaction (HCI) Systems
2. Security and Surveillance Systems
3. Healthcare Professionals
4. Market Researchers and Advertisers
5. Educators and Researchers
6. Law Enforcement and Forensic Investigators
7. Entertainment and Media Industry Professionals



# YOUR SOLUTION AND ITS VALUE PROPOSITION

**FER with Deep CNN Architectures delivers accurate emotion detection, real-time analysis, and enhanced user experience, security, and healthcare outcomes. It also supports market research, research endeavors, law enforcement, and entertainment experiences.**





# THE WOW IN YOUR SOLUTION

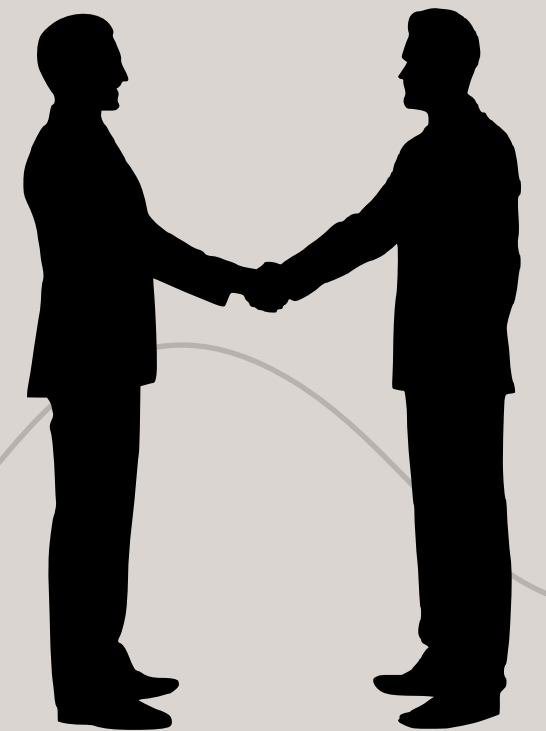
**From the solution, the vow is implicit in the promise of accurate emotion detection, real-time analysis, enhanced user experience, security, healthcare outcomes, market research support, research facilitation, law enforcement assistance, and entertainment enhancement.**



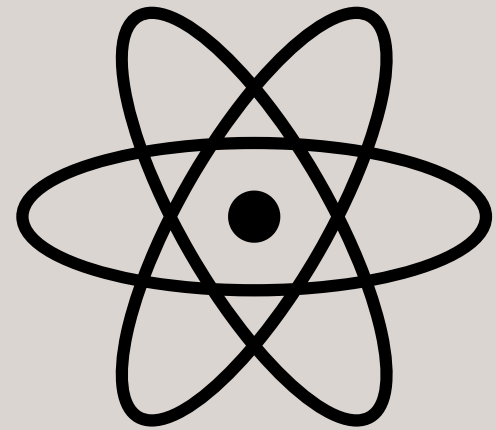


# Applications of FER

1. Emotion Analysis
2. User Experience Improvement
3. Health Diagnosis
4. Consumer Research
5. Security
6. Candidate Evaluation
7. Personalized Learning
8. Immersive Technology Enhancement
9. Driver Safety
10. Customer Interaction Improvement

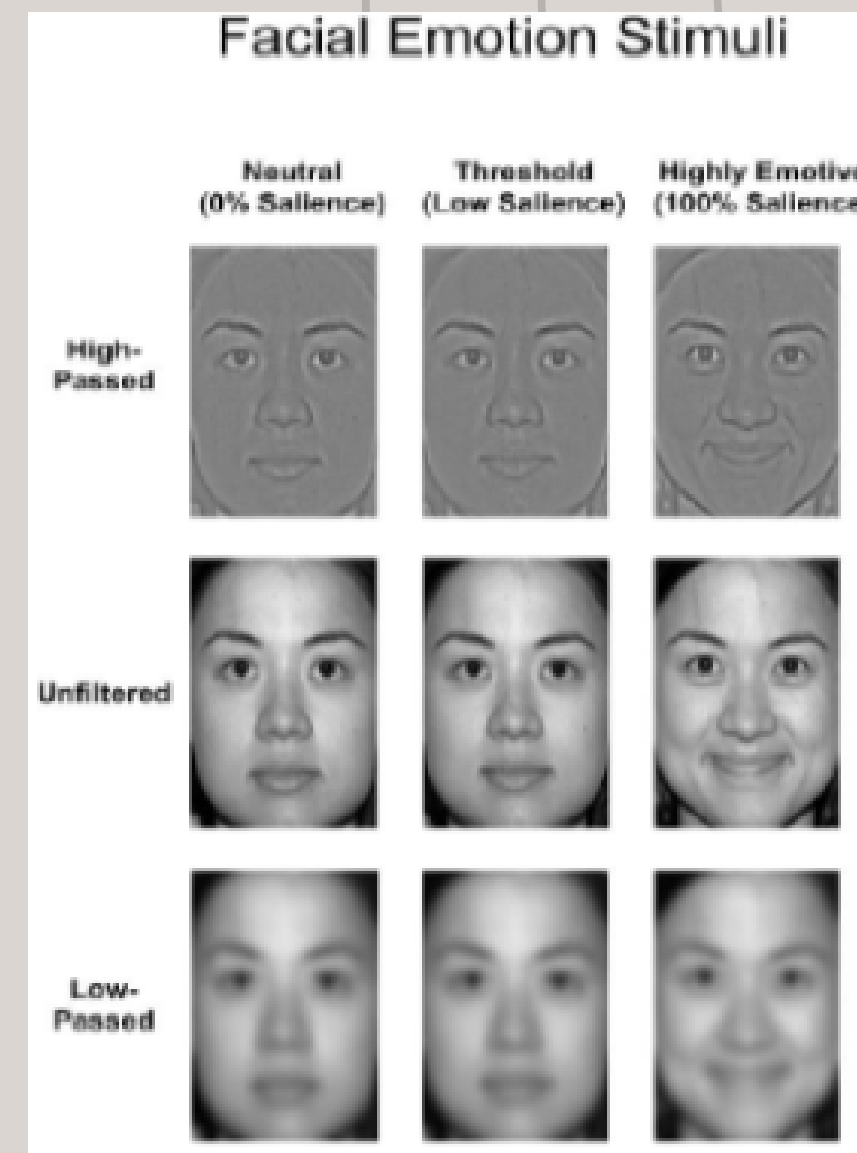
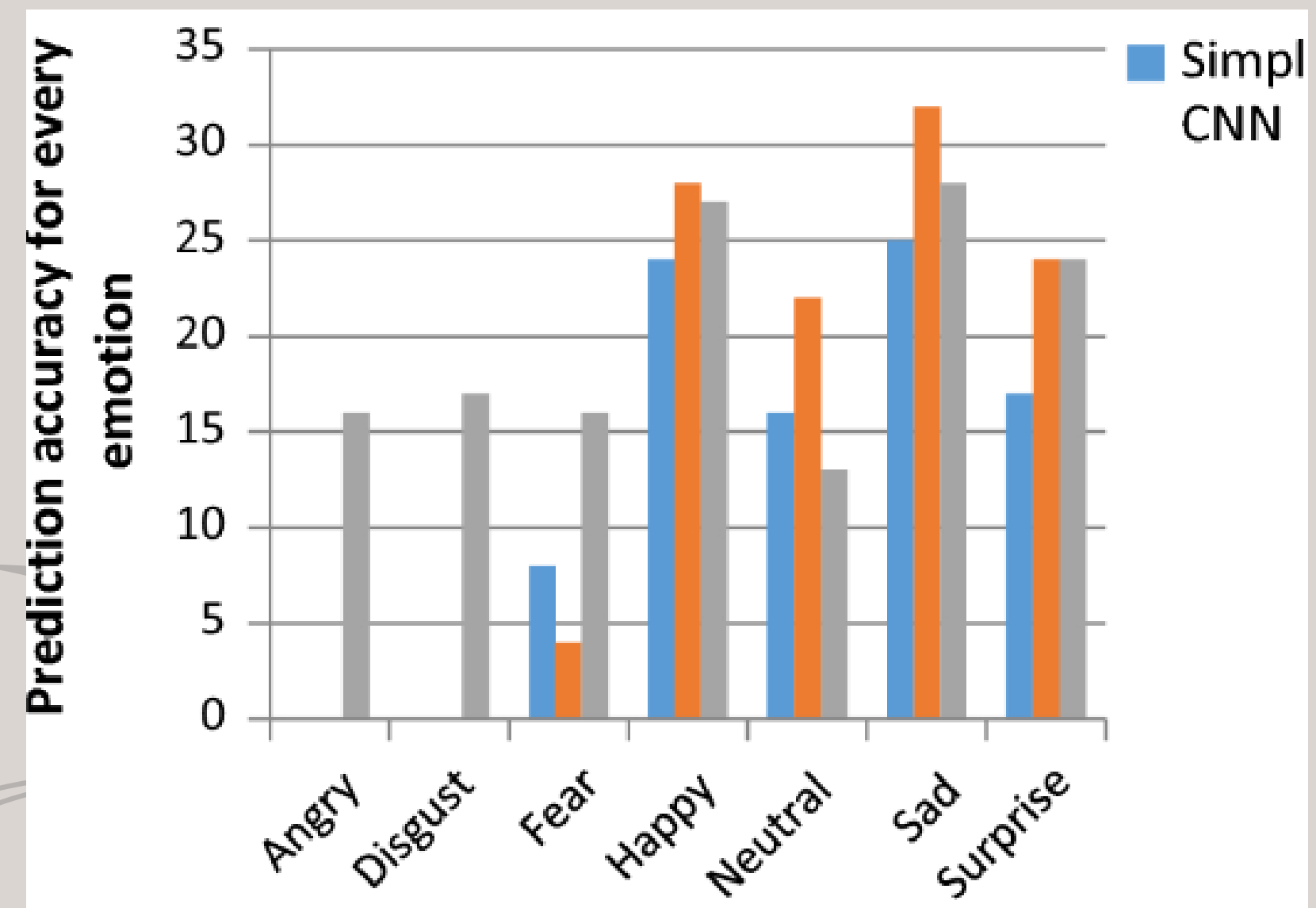


# MODELLING



- Collecting diverse facial expression data
- Designing a deep CNN
- Training and optimizing it
- Ensuring real-time deployment
- Addressing ethical concerns
- Validating performance
- Integrating into applications
- Iteratively refining for improvement.

# Frequency rate



# RESULTS

**Results from Facial Expression Recognition (FER) with Deep CNN Architectures demonstrate superior accuracy and real-time response, enhancing user experience, security, healthcare, market research, law enforcement, and entertainment.**



# SAMPLE OUTPUTS

