

Emotion Detection from Facial Expressions

Sukanya Pravin Padul¹, Priti Rajesh Waghmare², Prof. N. S. Kharatmal³

Student, Computer Science and Engineering ^{1,2}

Lecturer, Computer Science and Engineering ³

Matsyodari Shikshan Sanstha College of Engineering and polytechnic, Jalna, India

Sukanyapadul9@gmail.com, pritiwaghmare2007@gmail.com, nanditakhartmal27@gmail.com

Abstract: *Crucial for enhancing human-computer interaction and applications in healthcare and robotics. The proposed method utilizes Convolutional Neural Networks (CNNs) for high-accuracy classification of fundamental emotions like happiness, sadness, and anger, outperforming traditional approaches. After face detection and feature extraction, the model is trained on datasets such as FER-2013, achieving significant performance, thereby paving the way for more emotionally intelligent AI systems.*

Keywords: Emotion Detection, Facial Expression Analysis, Facial Emotion Recognition, Convolutional Neural Networks (CNN), Deep Learning, Computer Vision, Affective Computing, Human-Computer Interaction

