

## **ABSTRACT**

*Tracking and activating facial activities from images or videos has attracted great attention in the field of computer vision. Face movements that change by three turns. First, at the bottom of the facial features point to each component of the face, namely the eyebrows and mouth to collect fully detailed facial shape information. Second, at the secondary level, facial expressions, which are defined in the facial expression coding system, represent contractions of certain facial muscles, namely the eyebrows and pupils. Third, at the top level, the six facial expressions (angry, neutral, sad, happy, surprised) represent the entire muscle movements that can be used to describe the emotional state of humans. Although humans are very good at improving expression, research in face recognition is still being developed to improve intelligence in human and computer interactions.*

*In this research discusses the detection of human faces in Indonesia using the Dynamic Bayesian Network (DBN) method and using the Indonesian Mixed Emotions (IMED) data as data. The author uses several processes to facilitate the extraction of features, namely preprocessing is face detection, cutting, resizing and grayscaled. In this study there are training data and test data as augmentation data. The final result of this study is the Dynamic Bayesian Network (DBN) algorithm which can prove the human face in Indonesia with an accuracy of around 80% after testing.*

**Keywords:** *human face expression, Dynamic Bayesian Network (DBN), machine learning, Indonesian Mixed Emotion Dataset (IMED).*