## Pengenalan Etnis Indonesia Berdasarkan Citra Wajah Menggunakan Uniform Local Binary Pattern (ULBP) dan Color Histogram

Tiani Tiara Putri<sup>1</sup>, Ema Rachmawati<sup>2</sup>, Febryanti Sthevanie<sup>3</sup>

<sup>1,2,3</sup>Fakultas Informatika, Universitas Telkom, Bandung <sup>1</sup>tianitiaraputri@students.telkomuniversity.ac.id, <sup>2</sup>emarachmawati@telkomuniversity.ac.id, <sup>3</sup>sthevanie@telkomuniversity.ac.id

## Abstract

Ethnicity can be used to categorize individuals in populations or large groups. One of the areas in the human body that has the most dominant characteristic is the face region. Therefore, knowing the ethnicity of a human individual makes it easier to identify someone as an individual. This final project will discuss the recognition of Indonesian ethnicity based on the regions contained in facial images, namely the periorbital region. The method used is Uniform Local Binary Pattern (ULBP) and Color Histogram. Classification using Random Forest. Based on testing using cross validation with optimal k values 5, the performance of the model produces an accuracy of 98.25%.

Keywords: Ethnic, Uniform Local Binary Pattern (ULBP), Color Histogram. Random Forest.