Support Vector Feature Extraction Based Lasso For Gender Recognition From Object Classification

CURRENT STATUS: UNDER REVIEW

Journal of Big Data

Damodara Krishna Kishore Galla
Krishna University

kishoreresearch.9@gmail.com Corresponding Author

BabuReddy Mukamalla
Krishna University

Prakasha Reddy
Wollega University

DOI: 10.21203/rs.3.rs-17037/v1

SUBJECT AREAS
Biochemical Research Methods

KEYWORDS
RR, EN, LR, LRGs and gender classification
Abstract
Image processing is a field in which biometric traits such as Face, voice, lip movements, hand geometry, odour, gait, iris, retina, fingerprint etc., are essential for recognition. The face is the most critical biometric trait for recognition because the face is an easily approachable biometric trait. There is no need for attention from a human being for face recognition. Human face classification is a challenging task for a machine. In this project, minimum distance classifier used with LASSO based gender classification. Database of 100 images (50 male and 50 female face images which considered from 4 different databases) used for face recognition and classification. Original face image database used for the gender classification. This approach of dual classification ((1) Recognizing or classifying human faces from various objects and (2) Classifying gender through face recognition) is made possible with the help of combining modified SIFT feature in combination with ridge regression (RR), elastic net (EN) and lasso regression with GSVM (LRGS) based classifications. The final classification results with accuracy are as follows for RR- 89.6%, EN- 93.5%, LR-93.2% and proposed approach(LRGS) with 98.4% accurate detection rate with redction names.

Full-text
Due to technical limitations, full-text HTML conversion of this manuscript could not be completed. However, the manuscript can be downloaded and accessed as a PDF.