

DESIGNING AND BUILDING AUTOMATIC DOOR CONTROLLING WITH IDENTIFYING FACE CHARACTERISTICS USING EUCLIDEAN RANGE METHOD AND FUZZY C-MEAN

¹Purnawarman Musa, ²Nur Yuliani, ³Missa Lamsani

Fakultas Ilmu Komputer dan Teknologi Informasi, Universitas Gunadarma

^{1,2,3}{[fp_musa](mailto:fp_musa@staff.gunadarma.ac.id), [nryulia](mailto:nryulia@staff.gunadarma.ac.id), [missa](mailto:missa@staff.gunadarma.ac.id)}@staff.gunadarma.ac.id

ABSTRACT

Research in image processing growth very fast so that it can be applied in many areas such as security, health, entertainment, military, science and technology, industry, robotics, and agriculture. An example of application of information technology in security, which related to identification and verification, employs biometrics, such as DNA, fingerprint, face, palm, and signature. The use of biometrics is believed to be more secure than traditional system, such as password and ID card for authentication purposes. The objective of this research is to design automatic control system by way of identification of face characteristics using Euclidean Distance and Fuzzy C-Means. The face acquisition process utilizes object capturing sensor prior to computer processing. The results demonstrate that the system recognized face characteristics from 5 peoples in the database. The recognition rate of this system out of 10 faces is 35%.

Keyword(s): *Image processing, Euclidean distance, Fuzzy C-Means.*

Subject Description : *I.5. Pattern Recognition / I.5.5. Implementation / Special architecture*