ABSTRACT

In the case of victims of natural disasters or accidents, often found problems in the identification process. In the process of identifying a particular issue, identification using fingerprints, iris scans, and DNA has been difficult or impossible to use. In this final assigment use palatine rugae as an object to an alternative method of identification when using the primary identification difficult or impossible to use. Rugae Palatina is part of the human body are located in the ceiling in the human oral cavity. The advantages of using the Palatine rugae pattern are it is very specific ,unique, and the location is well protected.

In this research a number of samples taken palatine rugae patterns that may represent the palatine rugae pattern in humans. Moulds palatine rugae pattern obtained from the Faculty of Dentistry, University Padjadjaran Bandung. In general the design and implementation with digital image processing, the preprocessing step, that is by using active contour segmentation and conjugate gradient backpropagation classification. Active contour refers flexibility to minimize the dynamic energy that was adapted by an image while the conjugate gradient backpropagation depend on the direction orthogonal conjugate whose value is so that they can quickly achieve convergence approaching a solution.

The ability of the system is expressed with the accuracy of the data test against the existing databases. From this research, the accuracy is 78,57% from 42 image training and 28 image testing.

Keywords : Palatine Rugae, Active Contour, CGB.