Abstract

The final score is something that is very important for all students at each campus. Especially for students of IT Telkom, that have deadline to issue a final score by Lecturer. The final score is used as one of the requirements if the student graduated in a subject, or must take an exam to get a Remedial for better results. With existing systems Lecturer particular course, fill final score to Telkom Institute of Technology database by logging with each user name, then Lecturer values manually entering data into the database accordance with the student's name and students number. The lecturer must match data one by one of students to avoid mistakes when fill the final score of the course. Of course this will take quite a long time than if entering final score can be done automatically.

In this design and implementation data recapitulation system of students score based digital image, created a system can read a human writing to fill students score data. With three systems feature extraction to compared characteristic of each image, there are the four areas, six areas and nine areas. These methods are respectively applied to the Matlab program with neural network system for the classification is Backpropagasi to classifica the numbers. Image processing begins from the image data acquisition, retrieval characteristics of the area that has been divided into smaller ones and then to the classification system. The result from this program coped to one Microsoft Excel work sheet, that use to process students score.

In the end all three methods were compared time and accuracy. From the test results it can be concluded that the division of the image area into six smaller area of the image produced the best accuracy of 60%. Compared with retrieval systems feature of four areas and nine areas that produce maximum accuracy of 40%. With 80 pictures this system have 31 seconds to computing that data.

Keywords: Recapitulation of the final score, Artificial Neural Networks, Backpropagation, Digital Image