

## **Abstract**

The Indonesian country is one of the countries that adheres to a democratic system in which the head of state is elected by the people through general elections or in short elections. In elections, every citizen who has a National Identity Card (KTP) has the same voting rights. With this number counting the vote results in elections is not easy. The final task is to make an implementation of vote counting by using Hadoop with a picture of form C1 as its input. The numbers in figure C1 are processed into INT data types using artificial neural networks (ANN) made using the Restricted Boltzmann Machine (RBM) with training data from MNIST. ANN that has been created is saved to the website so that it can save images into the database on the website. The data stored on the website is crawled using Apache Nutch, then the results of crawling are jobs that are processed using the Hadoop mapreduce algorithm. In testing the system that has been made this results in quite fast results on the sound recapitulation conducted with Apache Nutch and Hadoop with multimode and fair scheduler scheduling algorithms which are one minute twenty five seconds. Whereas Hadoop with a single node configuration and FIFO scheduling algorithm produces a better time of 67 seconds.

Keywords: Hadoop, *mapreduce*, apache nutch, Restricted Boltzmann Machine , C1 form, job