

Abstract

Air pollution has now become a problem that can improve the welfare and health of the people in the world because of the rapid growth of industrialization and the increasing number of vehicles in urban areas being the main source of economic improvement. But now the public still lacks information about air quality in an area. Therefore in this study, the authors plan to create a system that can provide quality information in an area to the community. The system that will be made in this study consists of a gps module, a gas sensor, and a mobile application. GPS modules and gas sensors are used to retrieve CO data and location data which will then be sent to the server for processing so that the system can predict the value of AQI. The method used to predict AQI is Backpropagation Neural Network. The test is carried out by making 3 different models so as to produce a high MSE value of 0.0001 with a value of the learning rate of 0.01 and the age of 800.

Keywords : air quality index, prediction, bp neural network.