

ABSTRACT

Parking system is an important and inseparable component of public facility services. Parking system can support better public facilities. The parking system requires a system that can coordinate the parking lot properly, so it is necessary to conduct research that designs a prototype parking monitoring system while making recommendations. Existing research, still cannot recommend empty parking slots. The AHP method still has problems in finding empty parking slots that are still not fulfilled. The Collaborative Filtering method can only recommend parking from one user. Convolutional Neural Network method that recognizes an image. So this research uses Artificial Neural Network which can be used as a parking recommendation system. Data in the form of 6 inputs from 6 available parking slots and produce 1 output that best suits the user. User perception data collection will be carried out by survey and using GoogleForm. The data obtained will be connected to ANN which is connected to Arduino. Testing the recommendation system requires several respondents to analyze the output produced in accordance or not with what the respondent wants. All devices have been tested 10 times and succeeded in all trials, which shows that the device is functioning properly. ANN has obtained satisfactory results. The output of the recommendation system has been widely approved by respondents. This result is a good value for the system to recommend parking using ANN to users.

KeyWords: *Parking Recommendation System, Artificial Neural Network*