Book of ICTVET 2018

Technical & Vocational Education Training on The Industrial Revolution 4.0

In the 3rd International Conference on Technical and Vocational Education and Training (3rd ICTVET) Hosted by Faculty of Engineering, Universitas Negeri Jakarta, at Grand Mercure Jakarta Harmoni Hotel, Indonesia on October 20th-21st, 2018

Universitas Negeri Jakarta
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**Date:** October

**Time**

- 08.00 – 08.30
- 08.30 – 09.00
- 09.00 – 09.20
- 09.20 – 09.45
- 09.45 – 10.35
- 10.35 – 12.00
- 12.00 – 13.00
COLOR BLINDNESS TEST BY ISHIHARA METHOD BASED ON MICROCONTROLLER SYSTEM
Dudy Suparyadi¹, Muhammad Yusro², Pitoyo Yulatmajo³

ABSTRACT
Ishihara is the most commonly used conventional test for color blindness testing. Ishihara test is a collection of stacked pictorial cards and colored spots, often used to diagnose red-green deficiency. The purpose of this research is to make Ishihara method of color blindness test based on microcontroller system to get more accurate test results. This color blindness test system works by using a microcontroller (Arduino) as a processing device that processes input data from the user's touchscreen (instead of manual images) and saves the test results into a database server. The results show that this color blindness test works very well because it can distinguish between normal vision and color blindness. This tool produces test information that is more accurate than conventional tests. This tool is also able to store test results in the database server and can be accessed by users via smartphones android and personal computers.

PROTOTYPE OF TEMPERATURE AND DUST MONITORING IN ROOM BASED ON MICROCONTROLLER SYSTEM
Agung Pangestu¹, Muhammad Yusro², Wisnu Djatmiko³

ABSTRACT
The results show the prototype of dust monitor and temperature in the room can monitor dust and temperature in normal air condition and dusty/unsafe air. When the dust level is more than 0.15 mg/m³ then the led indicator 1 and the active sprayer inform and neutralize the dust levels in the air. When the temperature intensity is greater than 35 °C then the led indicator 2 and the active sprayer inform and neutralize the temperature intensity in the room. When both threshold values are met, then the led indicator 1, led 2, buzzer, the sprayer will actively jointly notify and neutralize air and temperature in the room.

NETWORK THROUGHPUT IMPROVEMENT ON CAMPUS NETWORK WITH OSPF METRIC ROUTING PROTOCOL MODIFICATION
Lipur Sugiyanta, Ze Ferdi Faizan
Informatics Education Studies Program, Electrical Engineering, Faculty of Engineering, State University of Jakarta

ABSTRACT
OSPF (Open Shortest Path First) is routing protocol that are widely used in computer networks. Selection of routing protocols is very important in improving network performance. Calculation of OSPF metrics will determine the performance of data packet delivery. It is based on Shortest Path Tree. To find the best route from source to destination, it must determine the shortest path between itself and each router in the network. The router creates this perspective by taking the information in the LSDB and transforming it into a shortest path first tree or SPF tree. It is an algorithmic calculation to construct logical network view performed by the computer within the network.
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Color Blindness Test by Ishihara Method Based on Microcontroller System

for Presenting the Paper

Presenter

as

Muhhamad Yusro

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