



Letter of Acceptance for Participant

No.

063/Senasains/FST/V/2022

Kepada : M Sujanarko

Bismillaahirrohmaanirroohim

Assalamu 'alaikum, wr, wb

Dengan senang hati kami informasikan bahwa artikel Anda, berjudul:

"RANCANG BANGUN PENGAMAN REM PADA SEPEDA MOTOR MATIC BERBASIS ARDUINO UNO ", telah diterima untuk dipresentasikan pada konferensi SENASAINS-5-2022, yang Insya Allah diselenggarakan Desember 2022.

Silahkan mengikuti tahapan yang harus dilakukan pada web kami :
<https://senasains.umsida.ac.id/> untuk informasi lebih lanjut. Terima kasih.

Walhamdulillahirobbil 'alaamin

Wassalamu 'alaikum, wr, wb

Salam,

Ketua Panitia,

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Arduino Uno-based Brake Safety Design for Matic Motorcycles

Rancang Bangun Pengaman Rem Pada Sepeda Motor Matic Berbasis Arduino Uno



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Abstract

Failed brakes are an event or damage to a motorized vehicle component that can cause an accident as well as be a life threat to the driver. There are several factors that can cause brake failure, including thin or worn brake pads, and clogged brake fluid hoses. The problem that often occurs is overheating in the brake system which causes brake failure (fading). Failed brake events are more common in hilly descent areas, these accidents make brake failure the second most common accident after driver negligence such as drowsiness. One of the efforts to prevent the failure of the brakes to occur is to make a brake safety system on an automatic Arduino Uno motorcycle. The method applied includes planning, manufacturing, and testing of tools. This detector uses the DS18B20 sensor as input, Arduino uno as a microcontroller, 16 x 2 LCD as direct monitoring, and the output is an LED light and a buzzer. The working principle of this tool is that the temperature of the brake calipers has started to heat up, so the DS18B20 sensor works by generating data that will be displayed on the LCD, and when it reaches the temperature limit of 100 degree Celsius at the same time the buzzer sounds and the LED light turns on and the water pump functions which will spray part of the system, braking. During the heating process, the temperature will be monitored via the LCD display on the vehicle. The test results of this tool will be affected by the hot temperature of the DS18B20 sensor.

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Crash, Fading, Heat Sensor, Microcontroller, Overheating

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