

# **Cooling System for Field Service Clothes Pt. Pln Persero based on Arduino Nano**

## *Sistem Pendingin Pakaian Dinas Lapangan Pt. Pln Persero Berbasis Arduino Nano*

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Work clothing is a type of clothing that is used specifically by a company or agency to perform a job for the benefit of the company. One of them is the work clothes worn by the substation and transmission maintenance team of PT. PLN (PERSERO). In the design and uniform provisions for transmission substation maintenance teams have been regulated in the Regulation of the Minister of Manpower and Transmigration of the Republic of Indonesia Number Per.08 / Men / Vii / 2010 concerning Personal Protective Equipment. The whole body must be covered by work clothes, SNI standard worker helmets, gloves and shoes. The entire body of the maintenance team must be protected to create security in carrying out the work of securing the area around the substation and transmission tower. In carrying out the work of substation and transmission maintenance teams are often exposed to direct sunlight. So that the maintenance team often feels stifling when working in a high enough ambient temperature, coupled with the uniform covering the whole body causes discomfort to the substation maintenance team and transmission due to excessive sweating. Meanwhile, work clothes that cover the whole body are an obligation for the safety of workers. From this research, the results of the cooling system for the field service for the maintenance team of PT. PLN PERSERO Based on Arduino Nano. The system design in the program uses the C programming language with Arduino software. The idea is to execute the design system, using the ATmega 328p microcontroller as a design control system with a DHT 11 sensor as a temperature sensor which will then activate the cooling fan as a cooling system and the buzzer as an indicator of high working environment temperature. Design system performance supported by 18650 battery power source.

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