

# Coretest

PLN Safety Garment Testing System - Real-time Resistance Measurement Web Application

## PROJECT OVERVIEW

Coretest adalah sistem pengujian baju safety PLN berbasis web untuk menentukan kelayakan penggunaan baju pelindung berdasarkan nilai resistansi. Sistem ini mengintegrasikan hardware pengujian dengan platform web, memungkinkan pengukuran resistansi dilakukan secara real-time dan hasilnya langsung tersimpan di server. Baju safety PLN yang memiliki nilai resistansi sesuai standar akan dinyatakan layak pakai, sedangkan yang tidak memenuhi standar akan ditandai sebagai tidak layak.

## KEY FEATURES

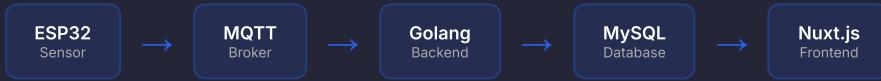
- Real-time Measurement**  
Pengukuran resistansi via MQTT
- Compliance Report**  
Generate laporan kelayakan

- Data Storage**  
Penyimpanan di MySQL server
- Safety Standard**  
Validasi standar PLN otomatis

## TECH STACK

- ESP32 IoT
- MQTT Protocol
- Golang Backend
- MySQL Database
- Nuxt.js Frontend
- Tailwind Styling
- HTML Markup
- CSS Styling
- JavaScript Programming

## SYSTEM ARCHITECTURE



## SCREENSHOTS

The screenshots illustrate the various components of the Coretest system:

- Dashboard Overview:** Shows a summary of test results with counts for 'Per Tanggal', 'Per Kantor', and 'Jenis Baju'. It includes a line chart showing resistance values over time.
- Measurement Interface:** A detailed view of device monitoring, showing two connected devices (both labeled 'Connected'). It includes fields for Device ID, Device Type, and System Status.
- Report Generation:** A configuration page for generating reports, showing sections for 'Informasi Pengujian' (Test Information) and 'Konfigurasi Pengujian' (Test Configuration).
- Data Management:** A list of historical test records ('Riwayat Pengujian') with columns for Date, Test Code, Location, and Status.
- Welcome back!**: A login screen with fields for 'Username' and 'Password', and links for 'Forgot Password?' and 'Not a member? Register now'.
- System Config:** A configuration page for the system, featuring a large 'CORE Test' logo and a brief description of the system's purpose.