

PORTFOLIO

FRANSISKUS ABEL PRAMUADI PUTRA



ABOUT ME

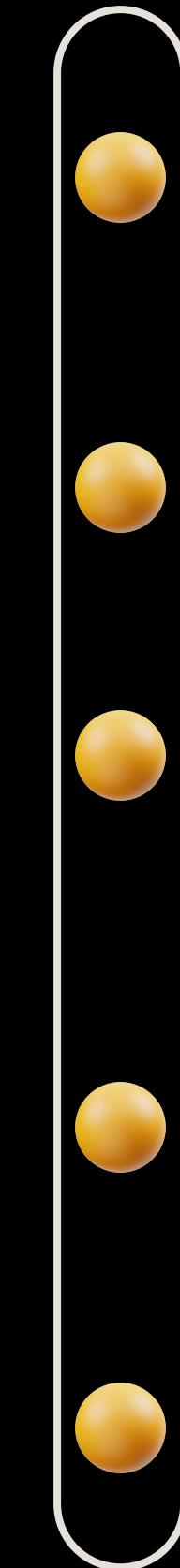
I'm an Electrical Engineering graduate from Telkom University with a focus on Embedded Systems, IoT, PLC, and Machine Learning. I have hands-on experience in designing engineering systems using tools like Arduino IDE, Kodular, Antares, Firebase, CX-Programmer, CX Designer, PVsyst, ETAP, and DIALux. My academic journey, complemented by leadership roles in student organizations, has developed my problem-solving skills and a strong analytical mindset. I am passionate about technology, eager to learn, and driven to contribute to innovative projects that align with my expertise and interests.



CAREER JOURNEY

2023-2023

PT Industri Kereta Api (Persero)
Electrical and Embedded System Engineer



2021-2023

Dasar Komputer Laboratory
Practicum Assistant
Human Resources Development
Vice Chairman of Laboratory Assistant Recruitment



Bangkit Academy
Machine Learning Cohort

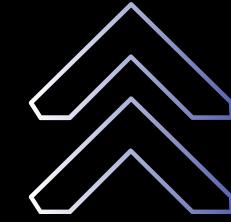


**Keluarga Mahasiswa
Teknik Elektro (KMTE)**
Treasurer of Entrepreneurship Division



Telkom University
Majoring in Electrical Engineering
GPA: 3.70

2024-2024





Muhammad Ihsan Fuadi M012D4KY2873 (Presenting)

PROJECTS

Kampus
Merdeka
INDONESIA JAYA

Future Development



Branding
Social Media/

CAPSTONE PROJECT

CAPSTONE PROJECT

CAPSTONE PROJECT

Copyright

Makesure all of asset
are original

World with Your Fingers™

R62 - [Bangkit 2024 H1] Presentatio...



Tanamin.AI App

Tanamin.AI is an application that utilizes IoT technology and machine learning that can predict suitable plants based on measured soil conditions. Not only that, this application also provides tips on caring for plants that have been recommended for planting and also monitors the nutrients for plants contained in the soil.

Keywords: machine learning, IoT, smart recommendation systems



PROJECTS

Fashion MNIST Classifier (Browser based)

This project is an interactive web application that allows users to draw clothing and classify it using a TensorFlow.js model trained on Fashion MNIST data. The convolutional model recognizes various types of clothing. This project demonstrates the integration of machine learning and web applications.

Keywords: browser-based, interactive drawing, tensorflow.js

Hand Sign MNIST Classifier

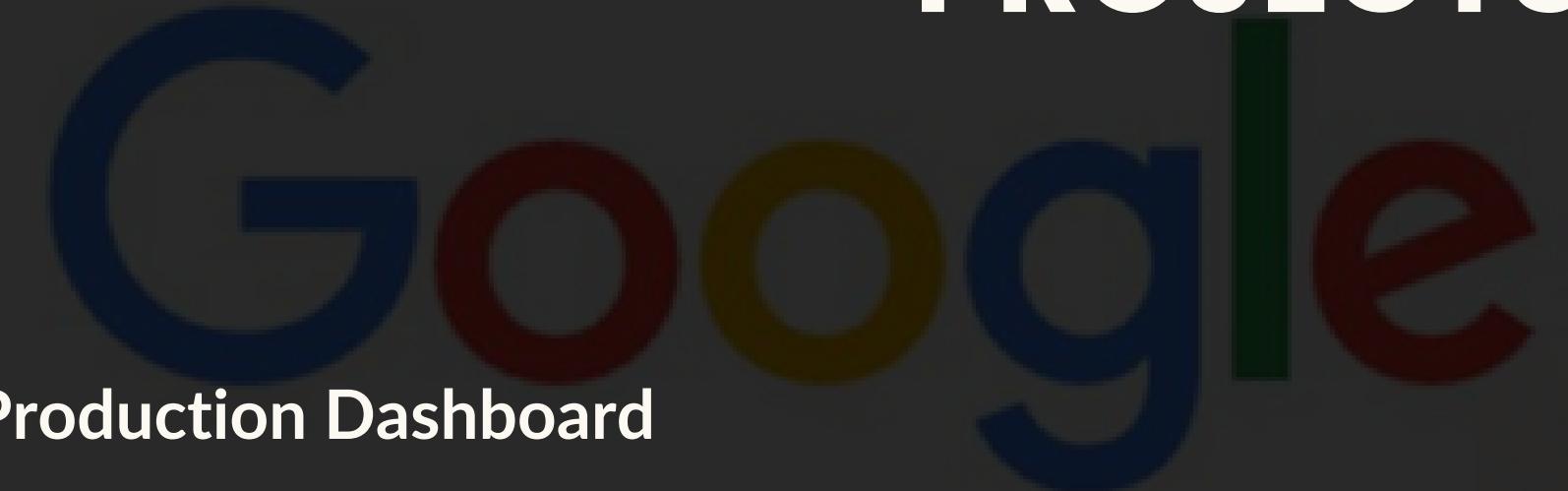
This project involves training a CNN to classify hand-sign images from the Sign Language MNIST dataset, which includes 28x28 images of the 26 English letters. The dataset is pre-processed from CSV files, and data generators handle image augmentation. Performance is evaluated with accuracy and loss charts.

Keywords: CNN, Sign Language, tensorflow





PROJECTS



CO2 Production Dashboard

This project involved a tableau to visualize and create a dashboard of CO2 production around the world.

Keywords: tableau, visualization, dashboard

Fransiskus Abel Pramuadi Putra



has successfully completed

Bike Sharing Dashboard

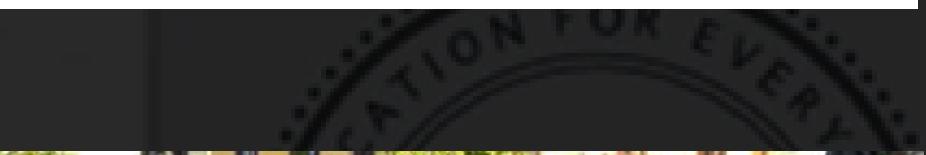
Crash Course on Python
an online non-credit course authorized by Google and offered through Coursera

This project uses Streamlit to visualize trends and analyze bike rental data. It explores rental patterns across different seasons, the impact of working days on rentals, and general trends over time, using Python libraries such as Pandas, Matplotlib, and Seaborn.

Keywords: data analysis, streamlit, bike sharing



COURSE
CERTIFICATE





PROJECTS

Melbourne Temperature Forecast

Forecasting daily minimum temperatures in Melbourne using a time series model. The data is preprocessed, split into training and validation sets, and a neural network with Conv1D and LSTM layers is trained. The model's performance is evaluated using MSE and MAE.

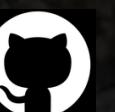
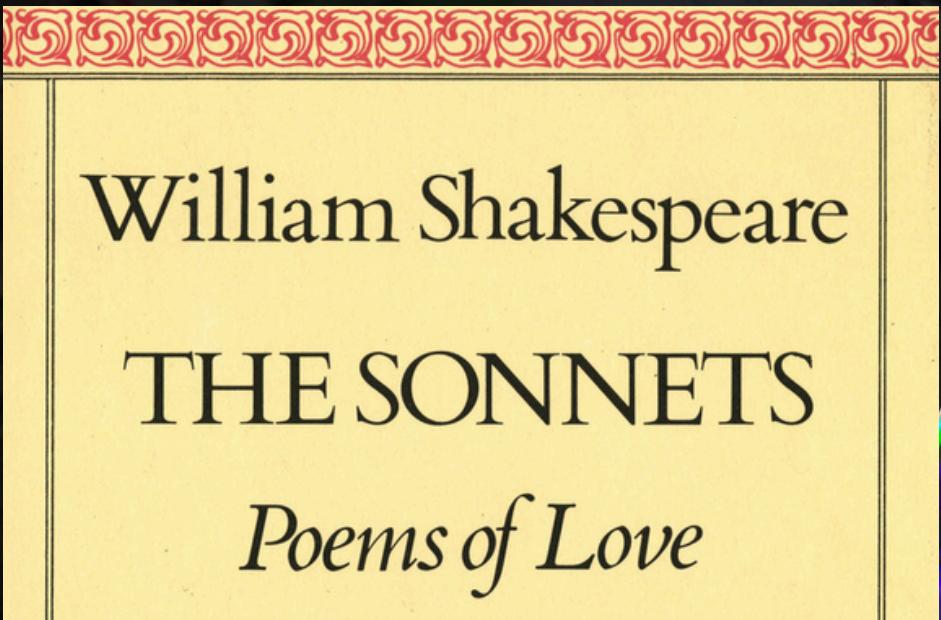
Keywords: LSTM, temperature predicting, tensorflow



Predicting Next Words

This project involves creating a text generation model using Shakespeare's sonnets. The process includes tokenizing text, generating n-grams, padding sequences, and splitting data into features and labels. Finally, a Bidirectional LSTM model is trained to predict the next word in a sequence.

Keywords: LSTM, text prediction, tensorflow

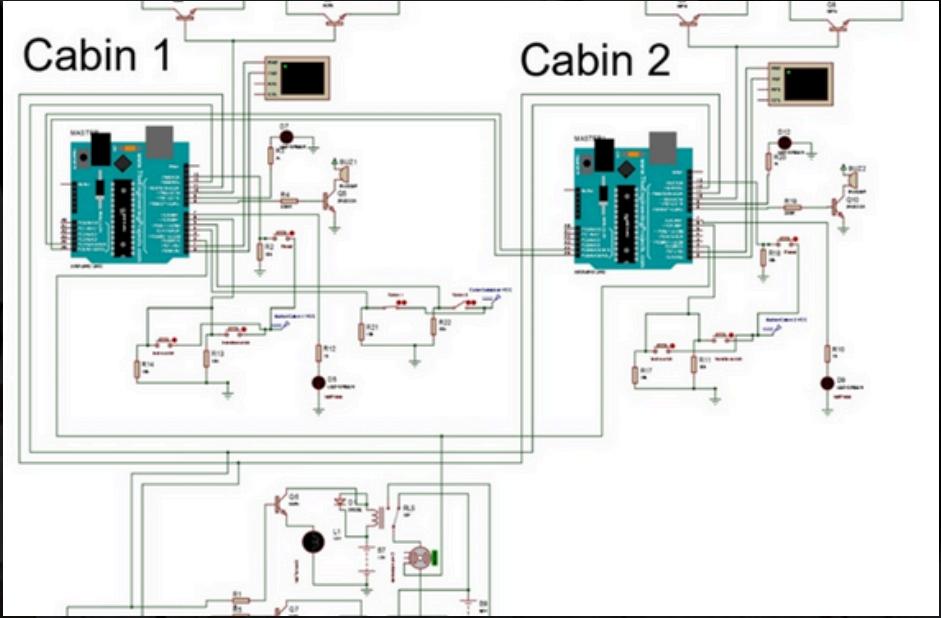


PROJECTS

Deadman Control and Emergency System Modularization

Modularizing the Deadman & Emergency Control system from a complex electronic setup into an embedded system. This project involved breaking down the system into simpler, integrated modules to enhance reliability and efficiency. The system ensures train driver vigilance and triggers emergency braking if no response is detected within a specified time.

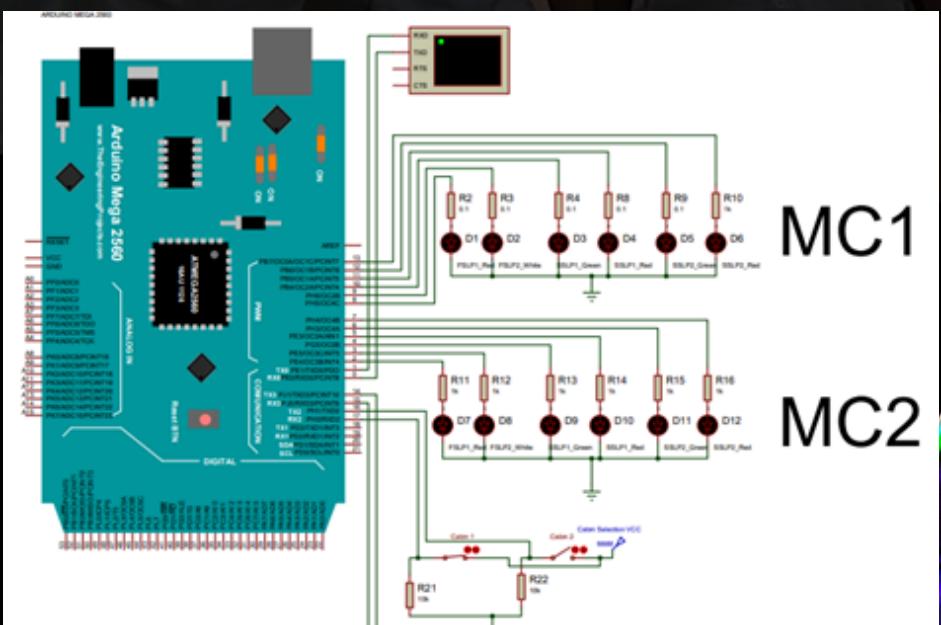
Keywords: proteus, embedded system, emergency control



Signal Lamp of Cabin Selection Modularization

Modularizing the Signal Lamp Control System, which manages the activation of lamps based on train movement (forward or reverse) and the selected cabin on the master control. Simplifying system and improving its reliability

Keywords: proteus, embedded system, signal control





PROJECTS

Lighting Design with DIALux

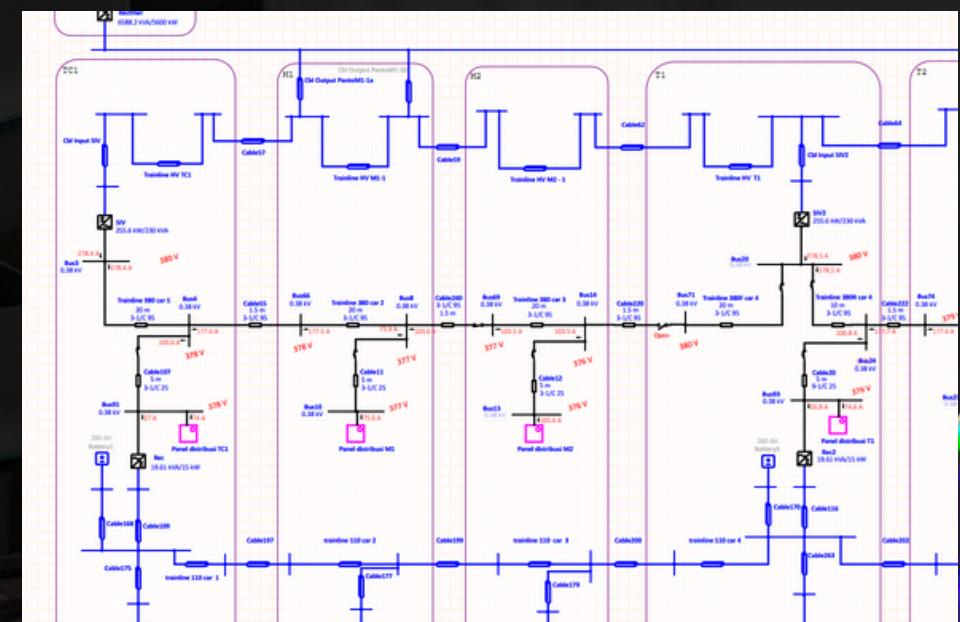
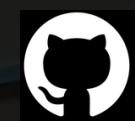
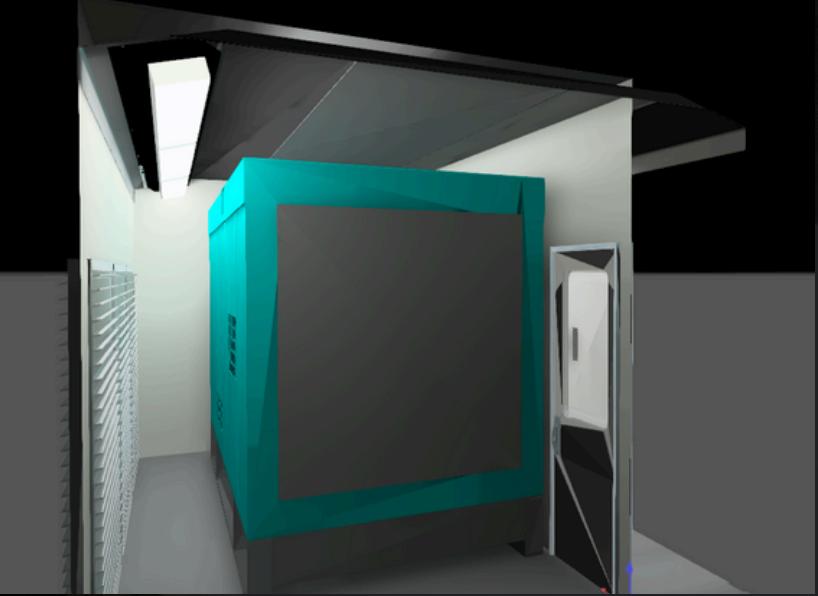
Designing the lighting for the interior of Train 612 using DIALux software. This involved visualizing the optimal lighting system, including lamp placement, light intensity distribution, and illuminance levels. The design ensured proper lighting with accurate lux measurements, representing the amount of light falling on specific surfaces.

Keywords: dialux, room design, light intensity

Load Flow and Cable Size Analysis with ETAP

Ensure a balanced distribution of power loads, maintain voltage within the allowed standard limits, and ensure that the electrical system of KRL meets the required safety, efficiency, and reliability standards using ETAP software.

Keywords: etap, load analysis, electrical





Automatic Gate System with a Fusion of Vehicle License Plate Recognition and Face Recognition

The system uses YOLO for detecting license plates and PaddleOCR for reading the text, while face recognition is implemented using the `face_recognition` package. The system verifies both license plates and driver faces, storing successful recognitions in a database and integrating with an Arduino for access control.

Keywords: YOLO, PaddleOCR, `face_recognition`

FINAL PROJECT
FINAL PROJECT
FINAL PROJECT

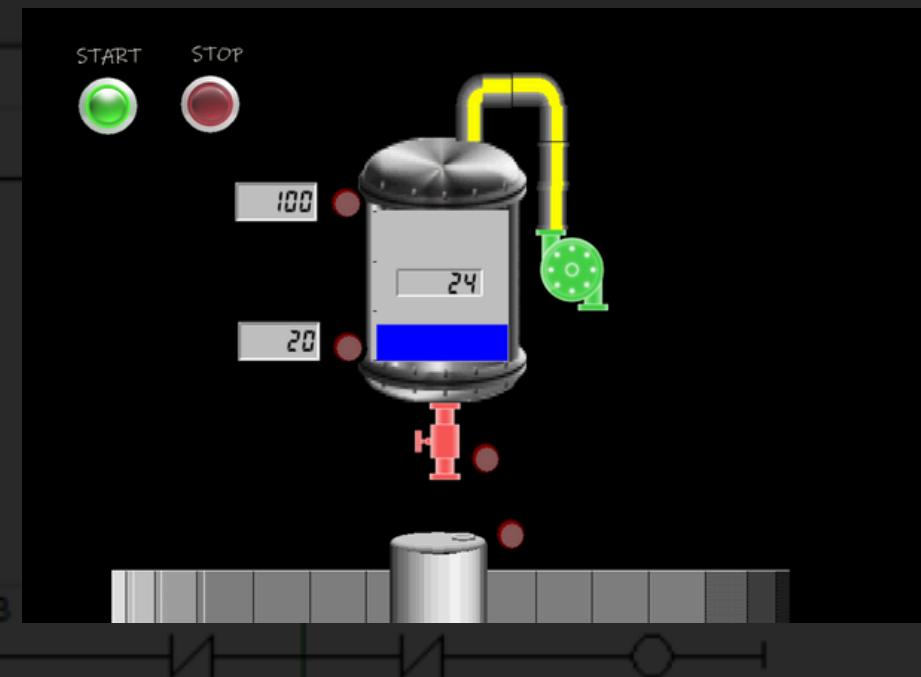


PROJECTS

Water Level Monitoring and Automatic Water Refill

This project uses Omron PLC with ladder diagram made using CX-Programmer and HMI using CX-Designer. This tool will fill the water storage tank automatically, after it is full it will be distributed to the container automatically.

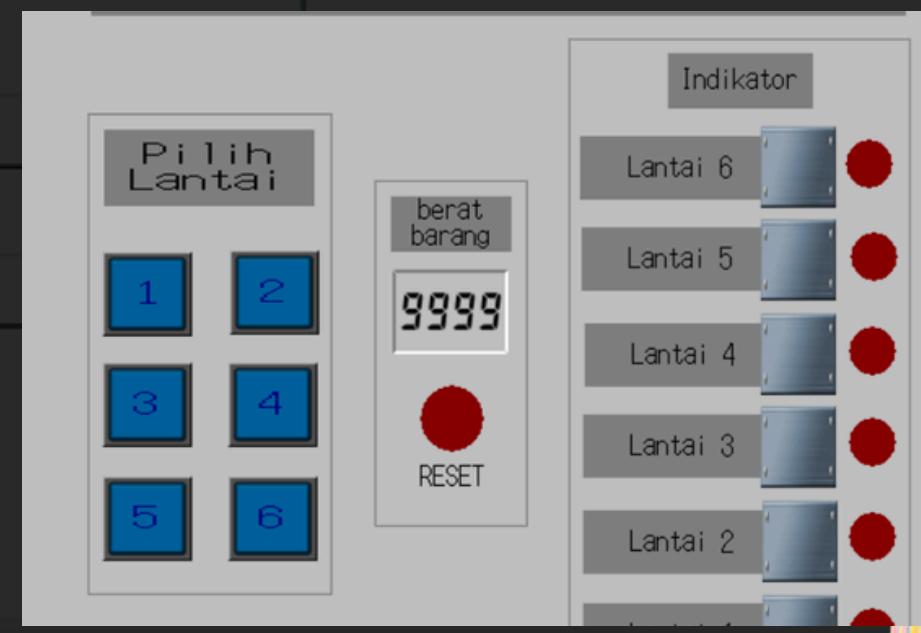
Keywords: omron, PLC, ladder diagram



Goods Elevator

This project uses Omron PLC with ladder diagram created using CX-Programmer and HMI using CX-Designer. This project is a goods elevator that can deliver goods automatically to the floor according to the weight of the goods.

Keywords: omron, PLC, ladder diagram

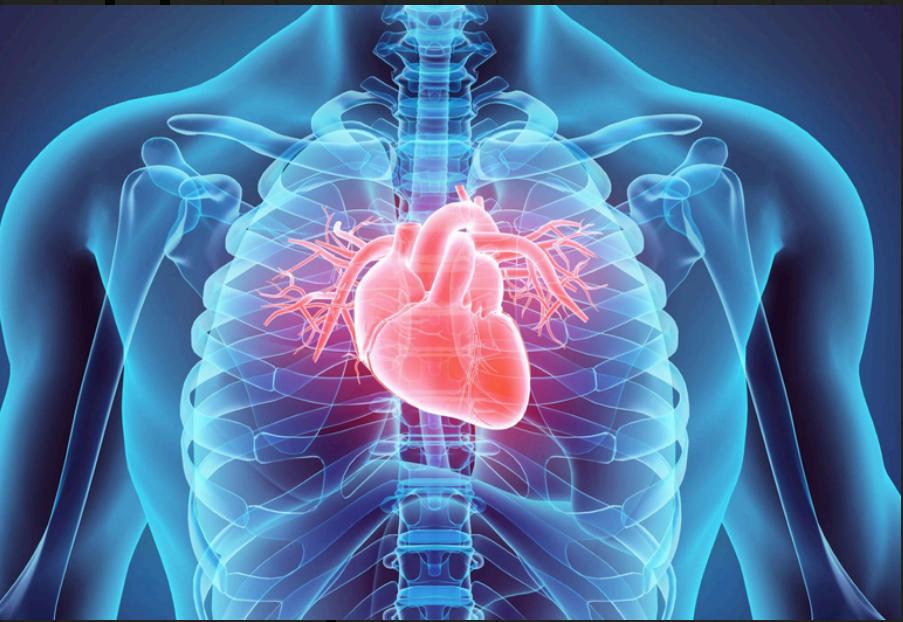


PROJECTS

Heart Diseases Prediction

Analyze heart disease data using a Decision Tree classifier in Python. It processes the dataset, visualizes correlations, and evaluates model performance using accuracy, confusion matrix, ROC AUC, and precision-recall curves. Finally, it predicts heart disease status on new data and exports the results.

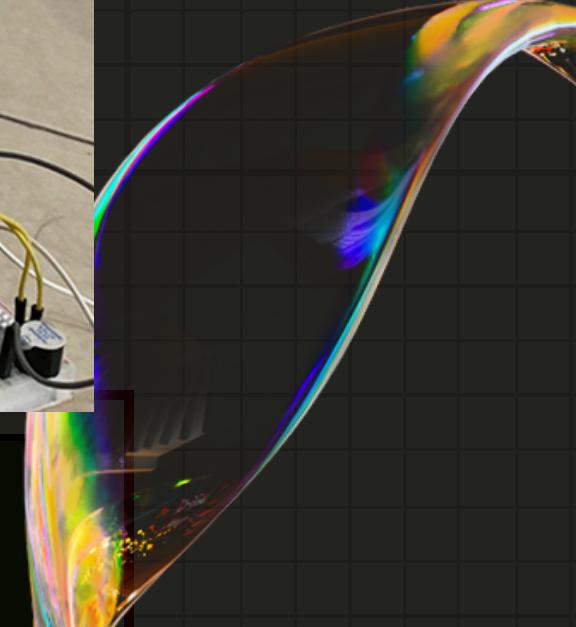
Keywords: machine learning, data processing, prediction



Automatic Water Refill

Automatic water dispenser using an ultrasonic sensor, servo motor, buzzer, and LCD. The system detects water levels and fills the container when low, displaying the status and signaling with a buzzer. It loops until the desired level is reached.

Keywords: embedded system, microcomputer





Smart Incubator

Develop an incubator monitoring and control system using DHT sensors, ESP8266, Firebase, Kodular, and Google Sheets. The system captures real-time temperature and humidity data, displays it in a GUI on Kodular, and stores it in Google Sheets. Users can control incubator lights through Kodular and see the status of the incubator condition.

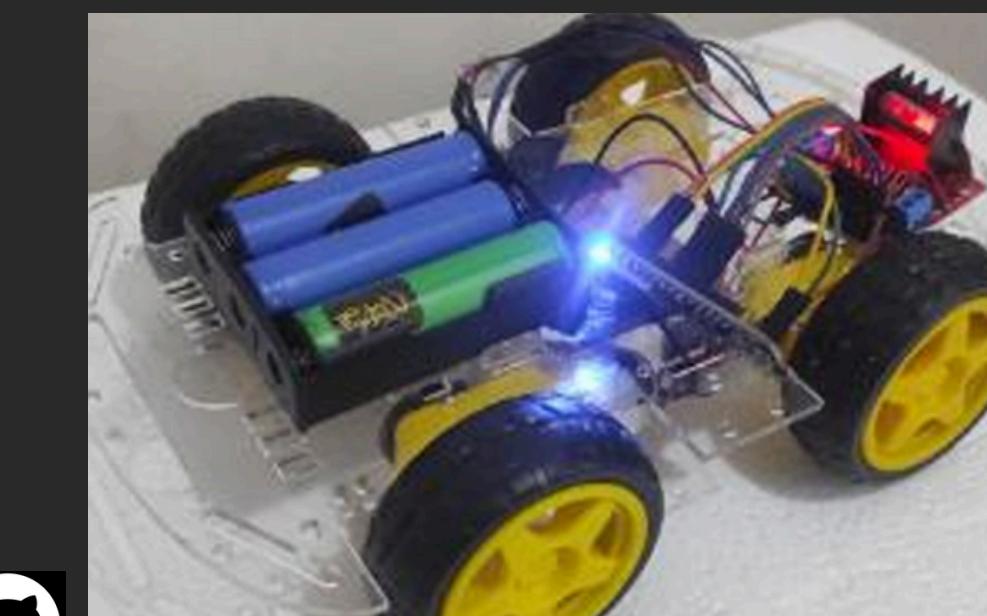
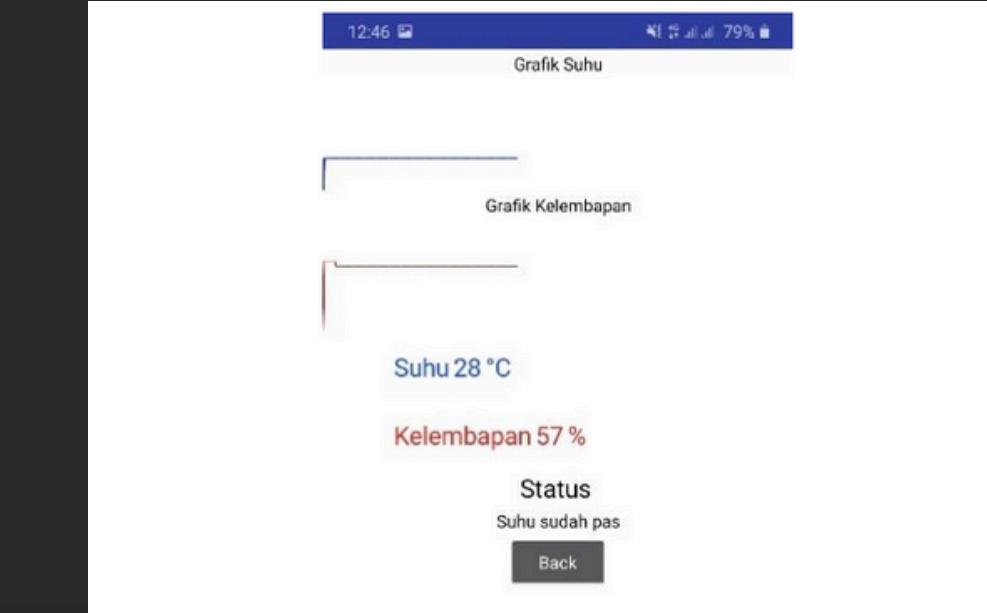
Keywords: IoT, data acquisition, embedded system

Gyroscope Controlled Robot

This project uses smartphone gyroscope data from Kodular to control motor movements via Firebase. The ESP8266 reads the data and adjusts the motors in real time based on the gyroscope input. Directions include forward, backward, left, and right based on the phone's orientation.

Keywords: kodular, firebase, gyroscope, IoT

PROJECTS



THANK YOU

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