VOICE DEVICE CONTROL APPLY RECOGNITION API LIBRARY

Le Huy Phat – Student Implementation

Industrial University of Ho Chi Minh City, Faculty of Electronics Technology

Abstract

- Making the place where you are or where you work smart and optimizing daily work to improve lives and increase work productivity is something we are all concerned about.

- That's why I came up with the idea of applying AIOT to build a system capable of recognizing your voice and classifying what you intend to do to take action immediately. Immediately no matter where you are, just within the range of the device's voice recognition, everything around you is just waiting for your voice command to speak.

System Structure
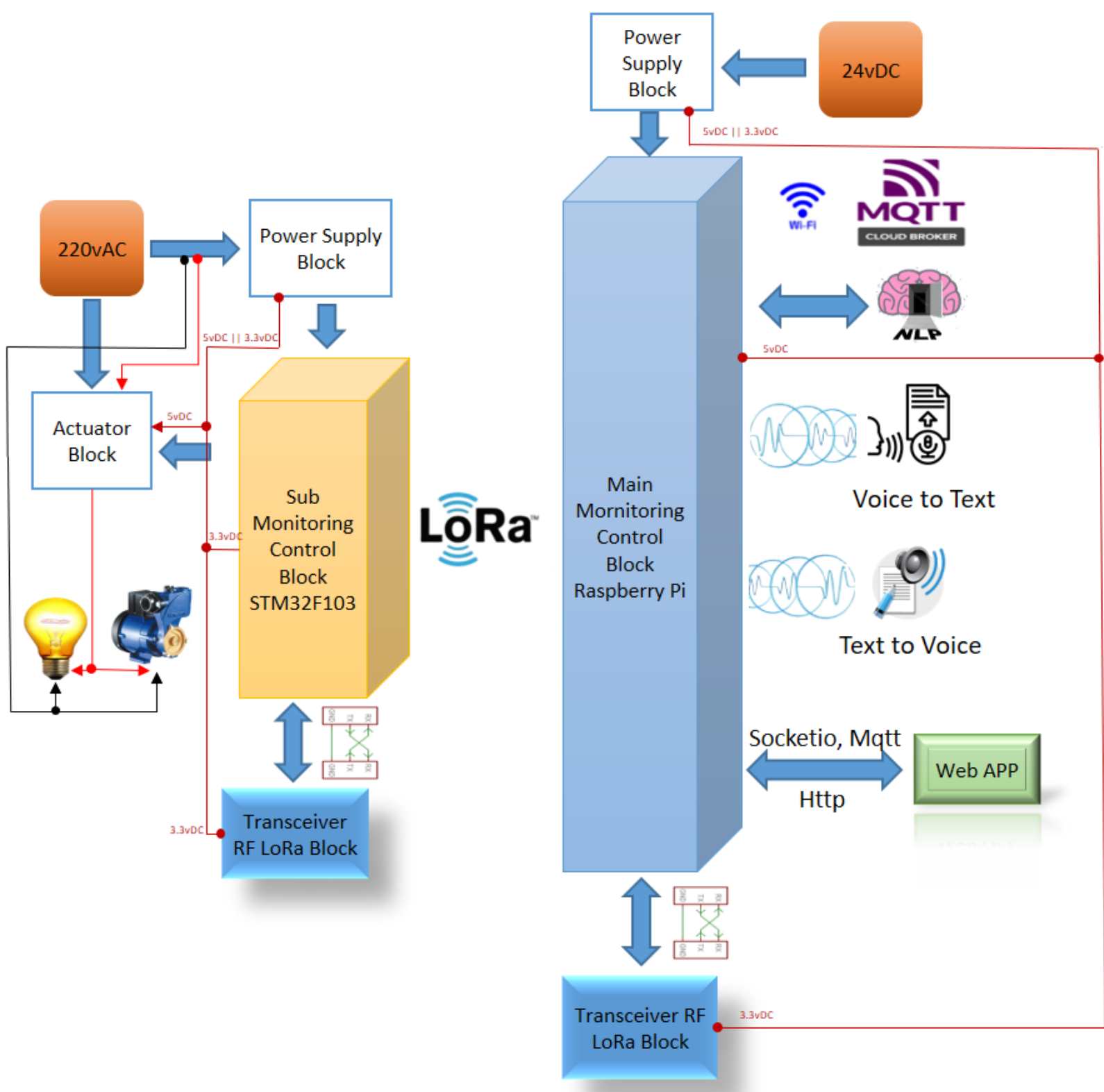
Function/Advantages

Control devices (lights, pumps, ..) by voice and monitor the status of devices on the website.

✓ Simple and easy to use
✓ Monitor all the time
✓ Doesn't take up much spaceSimple chat
✓ Control smart devices

Results and Discussion

Figure 5: Website interface on raspberry

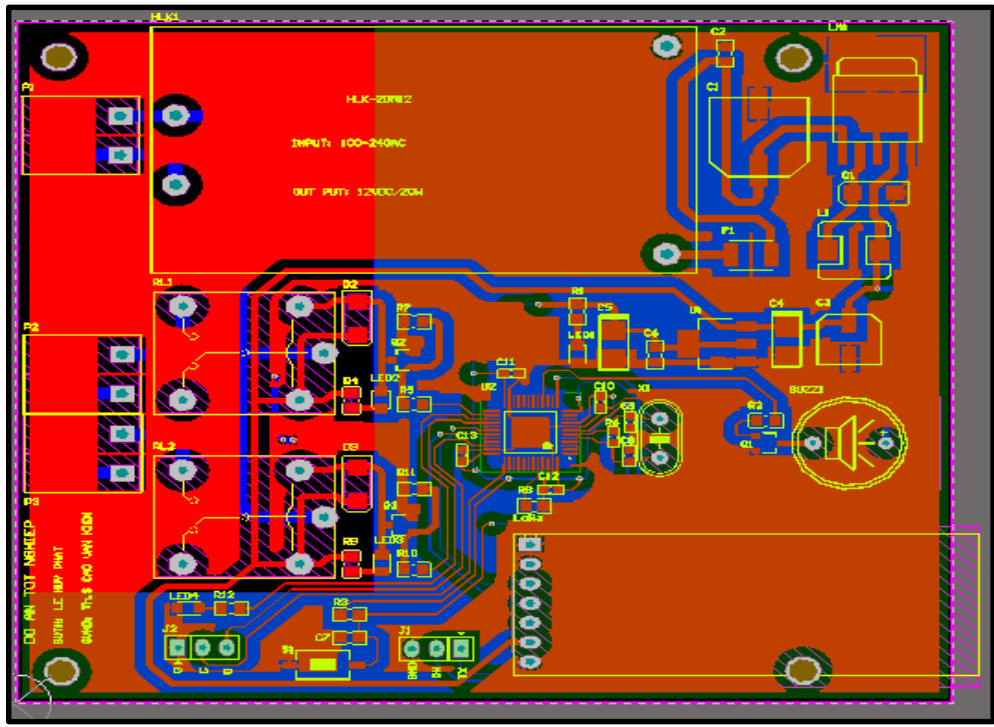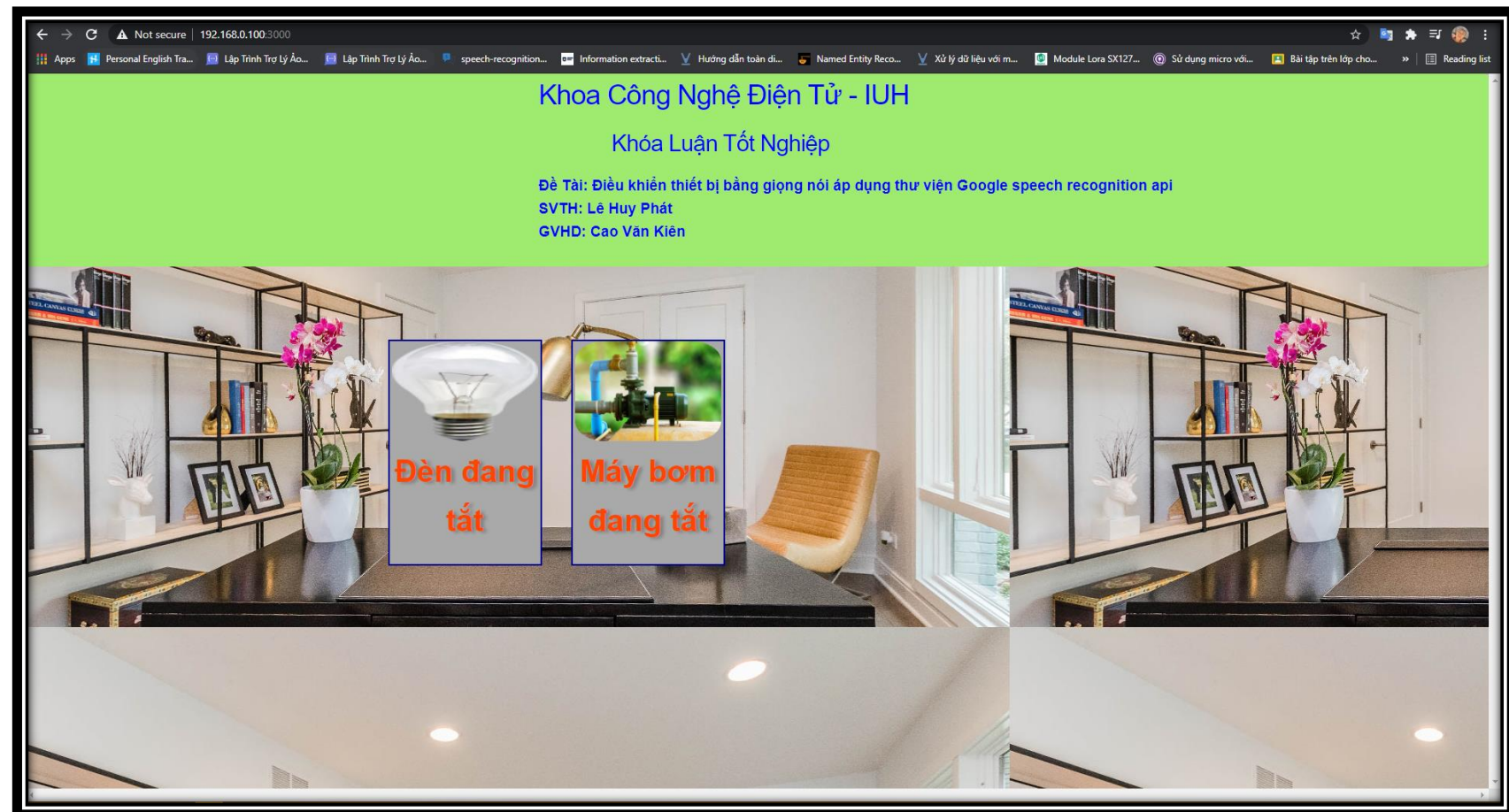
Figure 6: Results of controlling lights by voice through predictive machine learning model on 10 output layers

Product

Figure 1: Node device

Figure 2: Control device

System Design
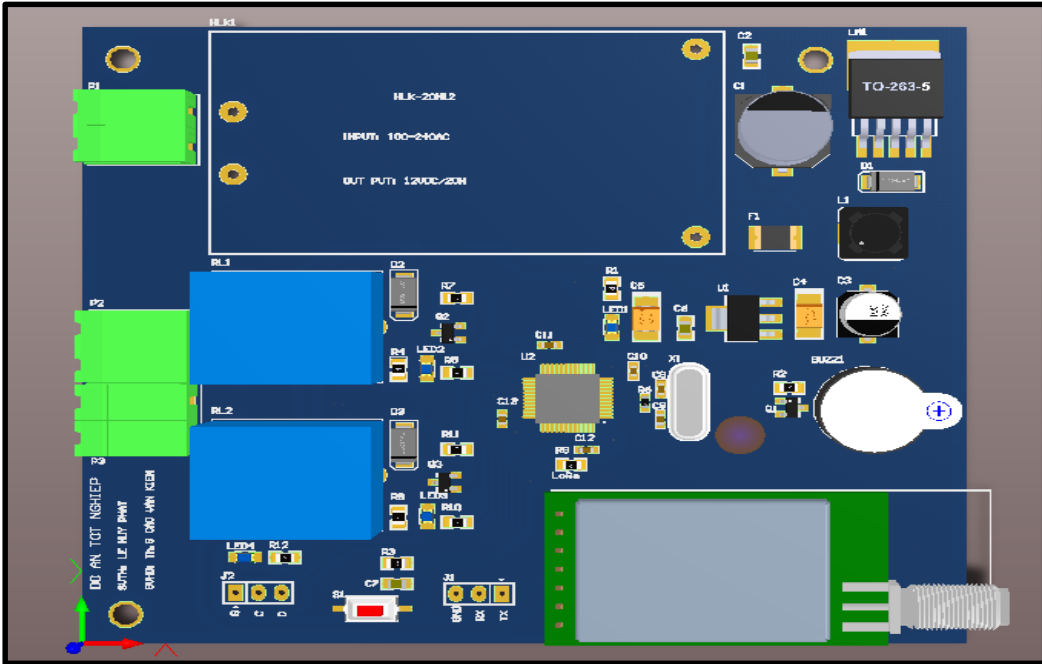
Figure 3: Design 3D for End Node

Figure 4: Design 2D for End Node

Conclusions

- Latency of Node device and Control device depends on internet speed and processor speed of microcontroller.
- Lora transmission distance is just over 100m in obstructed environment and 500m in unobstructed environment.
- The accuracy of the predictive model depends on the number of documents that are included in training the model.

How To Operate

✓ Step 1: Turn on the power and wait for the system to boot
✓ Step 2: Connect to the internet for Control device
✓ Step 3: Control the device by voice through the microphone.

Warning !!!

✓ No throw the device
✓ No water in the circuit board

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Contact

Le Huy Phat
Industrial University of Ho Chi Minh City
Email: phatlhcs2005002@fpt.edu.vn
Phone: 0349055566

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