



## Education

### BACHKHOA UNIVERSITY

Major: Control and Automation

GPA: 7.67/10

JUN 2013 - NOV 2018

GRADUATION THESIS: 8.5/10



## Bachelor Thesis

Title: Automatic watering system

Supervisors: Assoc. Prof. Dr. HO PHAM HUY ANH

Description: The design and implementation of a low-cost system for monitoring and remote control of a greenhouse using fuzzy logic. For the control system a website was designed to visualize the main indicators such as nutrient, temperature, relative humidity, soil moisture and light level...The system was controlled and monitored by the webserver. The webserver was programmed with a fuzzy algorithm by Node-RED to monitor and perform control actions for soil moisture and nutrient. For connectivity to the webpage, an ESP8266 Wemos was used and the local area network was established with Lora wireless technology for data transmission. Thus, it was possible to establish a local area network, monitor and control the greenhouse climate variables manually or automatically. The application designed allowed access to the configuration, monitoring, and control of climatic conditions in the greenhouse. Thus, the use of resources for a gable roof greenhouse prototype was optimized.



## Working Experience

### COMPANY: 3STONE CO.LTD

JUNE 2017 - AUG 2017

POSITION: Embedded Software Engineer (Internship)

RESPONSIBILITY: Researching environment monitoring project and exchange data with company's server using Raspberry Pi 3, Arduino and some sensor to collect data with Python, C++ and SQL Programming.

### COMPANY: XTEK CO.LTD

DEC 2017 - AUGUST 2018

POSITION: Embedded Software Engineer (Developer)

RESPONSIBILITY: Automatic system for Green House, Automatic Fire Alarm, automatic dosing nutrient for Hydroponic System.



## Research Experience

### Object detection

Using YOLO (Convolution Neural Network) to detect person then use Face recognition and Deep Sort to track.

AUGUST 2018 -

PRESENT

### Classifying MNIST Digits Using Logistics Regression.

Applying logistics regression to MNIST digits classifying.

MARCH 2018 -

APRIL 2018

### Wireless Sensor Network

Modifying the free ZigBee Stack for the MRF24J40MA module to remote control devices and display data on Web-Server.

Building the Wireless Network architecture like Star topology with Master/Slave protocol.

FEBRUARY 2017

- JANUARY 2018

DC-DC boot buck converter with PID controller

2016



Born on Jan, 18, 1995, in Ho Chi Minh city, Viet Nam



Male



(+84)355488193



hoanglocbk2216@gmail.com



Ho Chi Minh, Vietnam

## FIELD OF INTERESTS

- Image Processing
- Pattern Recognition
- Deep Learning
- Intelligent control
- Identification & Control of Nonlinear Systems

Simulation DC-DC converter with Matlab Simulink and design PCB circuit.

### Design the chicken incubator

2015

Using PID controller for control temperature and ON-OFF controller for relative humidity.



## PERSONAL SKILLS

### LANGUAGES PROGRAMMING:

Understanding and using programming languages:

+C/ C++

+Python

+Matlab

Modeling: Matlab Simulink.

Open Liabraries: Open CV, Tensorflow.

### ENGLISH :

+ Reading, can understand a wider variety of texts on topics of personal or professional interest that may consist of some specialized language.

+ Listening, can understand a conversation or a lecture with moderate speed.

+ Writing, can express ideas with simple sentences.

+ Speaking, can communicate in routine situations which requiring a simple and directexchange of information on familiar topics and activities.



## Activities

### SELF-LEARNING

OCTOBER 2017 -

PRESENT

- Machine Learning by Prof. Andrew Ng on coursera.org.

- Tensorflow for Deep Learning Research by Stanford University on <http://web.stanford.edu>.

- Convolution Neural Network by Stanford University on youtube.com.

### MEMBERS OF " STUDENTS ANDYOUTH" ORGANIZATIONS

JAN 2014 - PRESENT

"Students and youth" groups have over 4000 members.

- Attend charity blood donation.

Attend volunteers in nursing homes, help the elderly...

### VIETNAMESE STUDENTS' ASSOCIATION

JUN 2014 - JULY 2014

Green Summer Volunteer Campaign.



## Honors & Awards

### 40 years of Control & Automation Robot contest(2nd)

2016

Programming Line Follower Robot for 40 th year of Control & AutomationContest using ARM Controller.