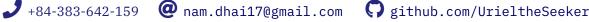
### **Dinh Hai Nam**

#### <CURRICULUM VITAE>









Automation and Control



**Sep.8th** 2000



Hanoi

Motivated engineer with a Master's degree in Automation and Control, specializing in Power Electronics, and 2+ years of experience across design, development, and project management. Proficient in both hardware and software integration, with experience spanning from circuit design to system implementation, along with additional experience as a quoting engineer and inspection engineer. Recognized for adaptability, collaborative mindset, and a commitment to finding effective solutions in automation and power electronics

# Competences & Languages

Hardware Design

Altium Designer, Orcad

**Programming** 

C, C++

**Simulation Tools** 

PSIM, LTspice, MATLAB/Simulink, Plecs, Ansys, etc..

**Soft Skills** 

Capable of instructing and transferring knowledge in an engaging

June 2025 | Master in Automation and Control

manner(especially in Power Electronics), Event Management.

A Z Languages

Vietnamese(native), English(fluent), Chinese(fluent),

### **Education**

September 2018	School of Electrical and Electronic Engineering, <b>Hanoi University of Science and</b>
	Technology
September 2022	Bachelor in Automation and Control
June 2023	School of Electrical and Electronic Engineering, Hanoi University of Science and
	Technology

## 🗫 Hardware Skills

- > Power Electronics Expertise: Strong foundation in electronics with a focus on power electronics, including the design and application of advanced components such as MOSFETs, IGBTs, diodes, and associated semiconductor circuits.
- > Circuit Design: Skilled in designing driver circuits, snubber circuits, desaturation protection circuits, and auxiliary circuits for semiconductor devices.
- > Passive Components: Strong understanding of passive component design, including resistors, capacitors, inductors, and transformers.
- > Analog Components: Proficient in designing and working with operational amplifiers, comparators, and transistors.
- > Measurement & Testing: Experience in designing and implementing measurement circuits for power electronic converters, with a strong focus on ensuring accuracy and reliability.
- > Cross-referencing & Commercialization: Adept at cross-referencing designs for commercial power electronic products, ensuring manufacturability and adherence to industry standards.

## </> Firmware Skills

- > Confident in applying C++ programming of object-oriented programming.
- > Experienced in programming STM32 and C2000 microcontrollers using C

## 🖶 Work

➤ Institute for Control Engineering and Automation(ICEA) — Researcher

November 2022 — August 2024

➤ ATC — Researcher

August 2024 - Present

# Projects

February 2022 August 2022

#### Design a statistic wireless charger for Automated Guided Vehicle

- > Conducted extensive research on Wireless Power Transfer (WPT) technology to enhance power transfer efficiency and system performance.
- > Used a phase shift full bridge combined with a two-sided LCC compensation circuit to improve transmission efficiency.
- > Successfully created a 1.5 kW prototype for a wireless power transfer (WPT) charger.

June 2023 June 2025

#### Design isolated resonant DC/DC converter for DC charger station

- > Learned about the structure of DC fast charging stations to understand their design and functionality.
- ➤ Designed a high-performance DC/DC isolated converter featuring a constant input voltage of 700VDC, an adjustable output voltage range from 150VDC to 1000VDC, and a power rating of 30kW.
- > Proposed a resonant DC/DC converter structure using an LLC resonant circuit. The design features a series connection to split the DC-link voltage, and an output configuration that can be adjusted between parallel or series states by switching relays, allowing for an adjustable voltage range from 150VDC to 1000VDC.
- ➤ Successfully operated the converter in (Constant Current)-(Constant Voltage) CC-CV mode, achieving an efficiency of up to 97.6%.

October 2023 Present

#### Design 7,2 kW Two-State V2L converter

- ➤ Researched various structures of V2L (Vehicle-to-Load) converters and examined their applications.
- ➤ The V2L converter, designed for vehicles with a 400V battery system, operates with an input voltage range of 280V to 470V DC, provides output voltages of 120V and 240V AC at 56/60Hz, and delivers 7.2kW of power with an estimated efficiency of 98%.
- > Proposed a two-stage structure: a full bridge LLC resonant DC/DC converter isolates the battery system, followed by two half bridge DC/AC converters, each generating 120VAC for a combined output of 240VAC.
- > Remained under testing.

## **\$** Experiments

November 2022

#### Research and design of a 15kW charging station for electric vehicles

June 2025

- ➤ We conducted extensive research on Wireless Power Transfer (WPT) technology to enhance power transfer efficiency and system performance.
- > Used a phase shift full bridge combined with a two-sided LCC compensation

November 2022 June 2025

#### Research and design of non-thermal plasma devices power

Design ground power unit for Vietnam People's Army

- ➤ We conducted extensive research on Wireless Power Transfer (WPT) technology to enhance power transfer efficiency and system performance.
- ➤ Used a phase shift full bridge combined with a two-sided LCC compensation

November 2024 June 2025

> Classified

# **G** Certifications

## **References**

> Assoc. Prof. Dr. Nguyen Kien Trung School of Electrical and Electronic Engineering Hanoi University of Science and Technologies, Hanoi, Vietnam