Thanh Van Nguyen

Engineer

Date of Birth Dec 04, 1994

Gender Male

[redacted]

ABOUT

Experience in power electronics with design and control of DC/DC, DC/AC converters
Embedded C programming skills for MCUs (ATmega, TI DSP, ARM Cortex-M)
Good ability in research
High passion for work and willingness to learn to get higher working performance

WORK EXPERIENCE

Apr 2020 - Present	**Gasdna Co., Ltd** *Incheon, South Korea* - Software engineer - Programming the MCUs in the sensor devices
Mar 2018 - Mar 2020	**Servo Control and Power Conversion Lab** *Seoul National University of Science and Technology (SNUST)* - Master's student - Researched and implemented power management and control strategies in DC microgrid - Built a hardware system of DC microgrid consisting of utility grid connection, battery-based ESS, wind power generation system emulator, and DC loads
Aug 2017 - Dec 2017	**R&D Department** *Panasonic Appliances Vietnam* - Hardware engineer - Designed and evaluated the control board of washing machines
May 2015 - Jun 2017	**Institute of Control Engineering and Automation (ICEA)** *Ha Noi University of Science and Technology (HUST)* - Bachelor's student - Designed flyback converter - Designed LLC converter applied for high power LEDs

EDUCATION

Mar 2018 - Mar 2020	**Master's Student** *Seoul National University of Science and Technology (SNUST)* Servo Control and Power Conversion Lab Major: System Control and Power Electronics
Jul 2012 - Jun 2017	**Bachelor's Student** *Ha Noi University of Science and Technology (HUST)* Power Electronics Lab Major: Control and Automation Engineering CPA: 3.77/4.00 (Degree Classification: Excellent)

HONORS & AWARDS

Oct 2019	Hanshin scholarship for Vietnamese student in Korea
Feb 2017	Tinh Loi scholarship for the outstanding performance HUST's students
Feb 2017	IHI scholarship for outstanding performance HUST's students (second time)
Jan 2017	Top 15 students of talent engineer training program between HUST and Panasonic Vietnam group
Dec 2016	Student with FIVE good merits award
Dec 2016	HUST's certificate for top 25 students achieved excellent performance
Sep 2015	OSHIMA scholarship for outstanding performance HUST's students
Feb 2015	IHI scholarship for outstanding performance HUST's students (first time)
Apr 2014	Second prize of circuit theory I Olympic

PUBLICATIONS

Patent

DC 마이크로그리드에서의 MAS 기반의분산형 제어 시스템 및 방법 – MAS (Multi-Agent Systems)-based distributed control system and method in DC microgrid)

Application No. : 10-2019-0158735
Status: Pending

SCI/SCIE Journal Paper

An Improved Power Management Strategy for MAS-Based Distributed Control of DC Microgrid under Communication Network Problems

Thanh Van Nguyen and Kyeong-Hwa Kim
Journal: Sustainability, vol. 12, no. 1, 122

SCI/SCIE Journal Paper

Power Flow Control Strategy and Reliable DC-Link Voltage Restoration for DC Microgrid under

Grid Fault Conditions

Thanh Van Nguyen and Kyeong-Hwa Kim
Journal: Sustainability, vol. 11, no. 14, 3781

Scopus Journal Paper
Current control of grid-connected inverter using integral sliding mode control and resonant compensation

Seung-Jin Yoon, Thanh Van Nguyen, and Kyeong-Hwa Kim
Journal: International Journal of Power Electronics and Drive System (IJPEDS), vol. 10, no. 2, 1022-1033

Scopus Journal Paper
Maximum Power Point Tracking Method for PMSG-based Wind Energy Conversion Systems using Torque Observer

Thanh Van Nguyen and Kyeong-Hwa Kim
Journal: International Journal of Applied Engineering Research (IJAER), vol. 13, no. 13, 11295-11304

Magazine
Modeling and Control of LLC Resonant Converter in LED Power Supply Applications

Nguyen Van Thanh, Vu Hoang Phuong, Tran Trong Minh
Automation Today Magazine, pp. 64-74

PROJECTS

Highway Addressable Remote Transducer (HART) Protocol-based Communication

- Built Nuvoton MCU-based hybrid HART communication to communicate over legacy 4~20mA analog communication to enhance the flexibility of the system during the operation

Power Management Strategy of MAS-Based Distributed Control for DC Microgrid under Communication Network Problems

- Designed a prototype of MAS-based DCMG using the DSP TMS320F28335 for local agent controllers
- Operated system with grid-connected and islanded modes
- Implemented the proposed control scheme to deal with the failure of communication line conditions
- Published a paper in SCI/SCIE Journal (Sustainability)

Centralized Approach-based Control Strategy for DC Microgrid under Grid Fault Conditions

- Built the DCMG hardware system including grid-connected inverter (bidirectional AC/DC converter), battery-based ESS converter (interleaved bidirectional DC/DC converter), wind power generation emulator (Motor + Generator + AC/DC unidirectional converter)
- Used the DSP TMS320F28335 as the central controller
- Published a paper in SCI/SCIE Journal (Sustainability)

SKILLS

Technical skills	Embedded C programming (ATmega, TI DSP, ARM Cortex-M), hardware design (Altium designer), Matlab-Simulink, PSIM, PLECS
Soft skills	Teamwork, flexibility, time management
Computer skills	Offices, Visio

LANGUAGES

English	Good reading, writing, and communication skills
Korean	Basic communication skills

VOLUNTEER EXPERIENCE

The 6th Annual Conference Of Vietnamese Young Scientists (ACVYS 2019)

12th Sports Festival of the Vietnamese Student in Korea 2019

Seoultech Badminton Championship for Vietnamese in Korea

A certificate of the Vietnamese Students' Association in Korea (VSAK)

INTERESTS

Sports and reading books