Phan, Duy Thang

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RESEARCH INTERESTS

I am interested in Internet of Things, Embedded Systems, Sensors, Wireless Sensor Networks. My current focuses include:

- Internet of Things applications
- Sensors integration

EDUCATION

Soongsil University — Seoul, KR
MSc. Information and Communication — 2014–2016

- Thesis: "Distributed Scheduling for Bandwidth Guarantee in 6TiSCH Networks"

Ha Noi University of Science and Technology (HUST) — Hanoi, VN
BSc. Electronics and Telecommunications — 2008–2013

- Thesis: "Research and Design An Energy Monitoring System"

EXPERIENCE

Beuth University of Applied Sciences Berlin — Berlin, GER
Research Assistant at FVII (Elektrotechnik - Mechatronik - Optometrie) — 2019–2021

- Development of IoT device firmware
- Assembly of test setup and measurements for system evaluation
- Evaluation of radio architecture for wireless communication of sensor devices
- Project management in cooperation with interdisciplinary research teams
- Minor
  * Design and deployment of IoT platform for healthcare system
  * Design of circuitry for smart sensor devices
  * Development of mobile application for data virtualization, and algorithms for data processing

Dresden University of Technology — Dresden, GER
Research Assistant at Software Technology Group — 2018–2019

- Development of IoT device firmware
- Assembly of test setup and measurements for system evaluation
- Minor
  * Design and development of IoT platform for smart sensor devices
  * Development of web application for data virtualization

HUMAX Co., Ltd.   Seoul, KR
Software Engineer   2016–2018

- Deployment of test system for DOCSIS gateway

Soongsil University   Seoul, KR
Research Assistant at Distributed Data Communication Lab (DCN)   2014–2016

- Design and development of low-power MAC scheduling algorithms for IEEE 802.15.4e/6TiSCH networks
- Assembly of test setup and measurements for system evaluation

Samsung Electronics Vietnam   Hanoi, VN
Software Engineer at Samsung Vietnam Mobile Center (SVMC)   2013–2014

- Development of audio framework for Android OS on Samsung mobile devices

VTC Co., Ltd.   Hanoi, VN
Student Intern at VTC Intecom   2012–2013

- Development of chat application based on MFC framework

Vietnam Research Institute of Electronics, Informatics and Automation   Hanoi, VN
Student Intern at Green Technology Center (GTC)   2012–2013

- Design and development of energy monitoring system
- Design of circuitry for smart sensor devices
- Development of IoT device firmware
- Assembly of test setup and measurements for system evaluation
- Minor
  * Development of digital signage system based on Xibo

Ha Noi University of Science and Technology   Hanoi, VN
Student Research Assistant at Research and Development Lab of Multimedia Technology (RDLAB)   2011–2012

- Assembly of test setup and measurements for zigbee wireless sensor networks evaluation

SKILLS

- **Programming:** C/C++, Java, HTML/CSS, JavaScript
- **Embedded System:** STM32, ESP32/ESP8266, Arduino, Raspberry Pi, etc
- **Circuit Design:** Altium, KiCad
- **Knowledge:** Electronics, Networking, IoT (MQTT, LoRa, BLE, 6TiSCH, etc)
- **Framework:** Flutter, React-native, Vue
- **Operating System:** Windows, Linux (Ubuntu)
- **Cloud Service:** AWS, Firebase
- **Open Source:** OpenStack, Mosquitto, Grafana, etc
- **Tools/Techs:** Docker, Git/Github, Trello

LANGUAGES

- **English:** Proficient

Projects

See full list of projects on linkedin.com/in/pdt590

- **MUDE** (2019–2021)
  Multi-radio device to support high-density wireless networking

- **IoSense** (2018–2019)
  The Electronic Component Systems for European Leadership Joint Undertaking

- **South Initatives** (2011–2012)
  Exploring future university development cooperation in rural North Vietnam supported by existing partnerships: a harvest and seed approach

- **PrintED** (2019–2021)
  Development of printed moisture sensors that are integrated into incontinence products for adults

- **No.IITP-2016-H8501-16-1008** (2014–2016)
  Information & Communications Technology Promotion

Scholarships and Awards

- The best oral presentation at the annual conference of Vietnamese Young Scientists (ACVYS)   2017
- Master program scholarship   2014–2016
- Prize for student scientific research   2013

Publications

[1] **P. Thang**, "Towards wireless industrial control over 6tisch networks", in *Proceedings of the Seventh International Conference on Telecommunications and Remote Sensing (ICTRS)*, Oct. 2018.

[2] **P. Thang**, "Plugplayco: An iot platform based on dashboard and data logging services for vietnam iot community", in *Annual conference of Vietnamese Young Scientists (ACVYS)*, Jun. 2017.

[3] **P. Thang**, T. Dinh, and Y. Kim, "Distributed timeslot and channel selection for scheduling function in 6tisch networks", *International Journal on Computer Standards & Interfaces*, Mar. 2017.

[4] T. Dinh, **P. Thang**, and Y. Kim, "An efficient interactive model for on-demand sensing services of sensor-cloud", in *ICC*, Jun. 2016.

[5] **P. Thang**, T. Dinh, and Y. Kim, "A rapid joining scheme in highly dynamic tsch networks", *International Journal of Distributed Sensor Networks*, Jun. 2016.

[6] **P. Thang** and Y. Kim, "An efficient joining scheme in ieee 802.15.4e", in *International Conference on Information and Communication Technology Convergence (ICTC)*, Oct. 2015.

[7] **P. Thang**, Y. Kim, and H. Yang, "A sensing system based on alljoyn framework for smart home", in *General Conference on Computer*, Jun. 2015.

REFERENCES

- **Prof. Dr. Ing. Dr. rer. oec. Michael Niedermayer**
  Fachbereich VII (Elektrotechnik - Mechatronik - Optometrie)
  Beuth University of Applied Sciences Berlin,
  Haus Gauss, Room B322,
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- **Prof. Younghan Kim**
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- **Prof. Nguyen Chan Hung**
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