Hoang-Linh TO

Curriculum Vitae

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"The bad news is time flies.
The good news is you're the pilot."-Michael Altshuler

Education

2013–2016 **Doctor of Engineering**, *Dept of Information and Communication System*, Inje University, *GPA − 4.46/4.5*.
Major: **Network**.

2011–2013 **Master of Engineering**, *Dept of Information and Communication System*, Inje University, *GPA − 4.25/4.5*.
Major: **Network**.

2004–2009 **Bachelor of Engineering**, *Dept of Industrial Automation*, Hanoi University of Science and Technology, *GPA − 7.97/10*.
Major: **Control and Automation**.

Ph.D Thesis

Title *Control Frameworks for Queue Management in Bufferbloated Networks.*

Advisor Prof. Won-Joo Hwang

Description This thesis proposes two novel control schemes for managing large queue in network devices: cascade (CC-AQM) and optimal (OC-AQM). Through evaluating those algorithms in network routers (simulations, experiments), we successfully manage queueing performance as small as possible by smartly dropping packets.

Master Thesis

Title *Burst Traffic Management Schemes for Quality of Service in Optical Burst Switching Network.*

Advisor Prof. Won-Joo Hwang

Description This thesis proposes different schemes for managing optical burst traffic in bursty environment of future internet. Based on queuing and control theory, we discover loss probability of optical data burst in OMNeT++ simulation framework.

URL http://www.dcollection.net/handler/inje/000000008236

Bachelor Thesis

Title	*Design a 400-Hz 3-phase AC Power Unit.*
Supervisor	Dr. Trong-Minh Tran
Description	This thesis focuses on designing of an AC power unit with a special frequency 400-Hz. We develop a model in MATLAB and an experiment board (dsPIC30F4011) for creating 400-Hz sine wave by PWM by controlling high-power thyristors.

Experience

Full-time

2011–2016 **Researcher**, Computer Network Lab, Inje university.
Doing research on network problems (optical networks and TCP/IP bufferbloat phenomenon).

Detailed duties and achievements:
○ Optical burst switching network: modeling using queuing theory.
○ Bufferbloat and active queue management algorithms: simulating and experiment.
○ Bufferbloat solution extent to smart grid networks.
○ Published 2 SCIE papers as 1st author, 2 SCIE as 2nd author.

2010–2011 **R & D Engineer**, LG Electronics Vietnam, Hung Yen factory.
Problem solving and production line supporting (Home Entertainment division).

Detailed duties and achievements:
○ In charge of new model line up process for LG Plasma TV and LCD/LED Monitor.
○ Develop new parts for Plasma TV and Monitor and negotiate local parts' price.
○ Co-work with outsource partner (4P company) in PCB jig equipments' installation.
○ Support production line for problems related to software and defect circuit parts.
○ Support customers for using LG products better.

Journal Articles

[1] K.-H. Kim, H.-L. To, and W.-J. Hwang, "Infinite queue management via cascade control for industrial routers in smart grid ip networks," *Scientific Programming*, no. Article ID 5796907, 2016. In Press.

[2] A. Radwan, H.-L. To, K.-H. Kim, and W.-J. Hwang, "Optimal control for bufferbloat queue management using indirect method with parametric optimization," *Scientific Programming*, no. Article ID 4180817, 2016. In Press.

[3] Q.-V. Pham, H.-L. To, and W.-J. Hwang, "A multi-timescale cross-layer approach for wireless ad hoc networks," *Computer Networks*, vol. 91, pp. 471–482, November 2015.

[4] H.-L. To, T. M. Thi, and W.-J. Hwang, "Cascade probability control to mitigate bufferbloat under multiple real-world tcp stacks," *Mathematical Problems in Engineering*, no. Article ID 628583, 2015. Online.

[5] H.-L. To, S.-H. Lee, and W.-J. Hwang, "A burst loss probability model with impatient customer feature for optical burst switching networks," *International Journal of Communication Systems*, vol. 28, pp. 1729–1740, July 2015.

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Awards

2014	Best Student Paper Award – JKCCS'14 Conference
2011	Inje University – Global IT Talent Scholarship for Master Course
2008	Petronas – Language Link Scholarship for English Course

Computer Skills

DocProcess	LaTeX, Office.
Programming	Matlab, HTML/CSS, Visual Studio, MPLAB Microchip.
Script	Linux Shell (Ubuntu), Python.

Communication Skills

2011–2015	Oral presentations at Korea Multimedia Society (KMMS) Conferences

Languages

English	**TOEIC: 870**	*Expire: 20-12-2017*
Korean	**Basic**	*Basic conversational*

Interests

- Karaoke
- Travelling
- Chess

References

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