

Son Hong Ngo, Ph.D

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Education

- Oct 2003 – Sep 2006* **Japan Advanced Institute of Science and Technology**
Ph.D, Information System
Kanazawa, Japan
- Oct 2000 – Sep 2002* **Francophone Institute for Computer Science (IFI)**
Master of Engineering, Computer Networks
Vietnam

Research Experience

- Oct 2009– Dec 2009* **Research Fellows**, young researcher JENESYS program
Tohoku University, Department of System Information Sciences
Sendai, Japan
Volunteer Computing
- Sep 2006 – Sep 2007* **PostDoc Position**
Tohoku University, Department of System Information Sciences
Sendai, Japan
Fault Tolerance Distributed Systems
- Apr 2002 – Oct 2002* **Internship**
École Nationale Supérieure d'Informatique et de Mathématiques, IMAG
Grenoble, France
Active and Programmable Networking

Teaching experience

- Dec 2018 – Present* **Senior Lecturer**
Phenikaa University · Computer Science
Course: Java Programming, Cloud Computing
- Sep 2000 – Nov 2018* **Senior Lecturer**
Hanoi University of Science and Technology · Data Communication and
Computer Networks
Courses: Computer Networks, Advanced Internetworking, Networking Labs,
Ubiquitous Computing, Java Programming, Introduction to Computer Science

Intl. Project experience

July, 2017 **Eramus+ LMPI, Member**

Licence, Master Professionel pour le développement, l'administration et la gestion des systemes et reseaux informatiques dans les entreprises (at Hanoi University of Science and Technology)

Dec, 2017 **Eramus+ ICTEntr, Member**

Supporting Entrepreneurial Development in the Field of IT in Vietnamese HEIs (at Hanoi University of Science and Technology)

March, 2013 **HEI ICT development project "ICTEDU", Finland**

Development of University curricula in ICT to enhance the employability of higher education students

Skills & Activities

Skills Computer Networking, Software Defined Systems, Wireless Sensor Network, Network Security, Cloud Computing

Languages English, French

Interests Tennis, Football

Publication Highlights

Books

Book Chapters

Quang-Minh Nguyen, Son-Hong Ngo, Tuan-Dung Cao: *Sport News Semantic Search with Natural Language Questions: An Analysis of Chemosensory Afferents and the Projection Pattern in the Central Nervous System*. Topographic Organization of the Pectine Neuropils in Scorpions, 01/2019: pages 63-73; , ISBN: 978-3-658-25154-3, DOI:10.1007/978-3-030-05873-9_6

Huynh Thi Thanh Binh, Vo Khanh Trung, Ngo Hong Son, Eryk Dutkiewicz, Diep N. Nguyen: *A Local Search Algorithm for Saving Energy Cost in Duty-Cycle Wireless Sensor Network*. Intelligent and Evolutionary Systems, 11/2017: pages 45-59; , ISBN: 978-3-319-49048-9, DOI:10.1007/978-3-319-49049-6_4

Huynh Thi Thanh Binh, Son Hong Ngo: *Survivable Flows Routing in Large Scale Network Design Using Genetic Algorithm*. Advances in Computer Science and its Applications, 01/2014: pages 345-351; , DOI:10.1007/978-3-642-41674-3_50

Journal Publications

Nga Nguyen Thi Thanh, Khanh Nguyen Kim, Son Ngo Hong, Trung Ngo Lam: *Entropy Correlation and Its Impacts on Data Aggregation in a Wireless Sensor Network*. Sensors 09/2018; 18(9):3118., DOI:10.3390/s18093118

Nguyen Thi Thanh Nga, Nguyen Kim Khanh, Ngo Hong Son: *Entropy correlation-based clustering method for representative data aggregation in wireless sensor networks*. International Journal of Sensor Networks 01/2018; 28(4):270., DOI:10.1504/IJSNET.2018.096476

Ngo Hong Son, Nguyen Kim Khanh, Nguyen Thi Thanh Nga: *Entropy correlation-based clustering method for representative data aggregation in wireless sensor networks*. International Journal of Sensor Networks 01 /2018; 28(4):270., DOI:10.1504/IJSNET.2018.10017825

Nguyen Thi Thanh Nga, Nguyen Kim Khanh, Son Ngo Hong: *Entropy-based Correlation Clustering for Wireless Sensor Networks in Multi-Correlated Regional Environments*. 04/2016; 5(2):85-93., DOI:10.5573/IEIESPC.2016.5.2.085

Nguyễn Thái Dương, Huỳnh Thị Thanh Bình, Ngô Hồng Sơn: *Heuristic and genetic algorithms for solving minimum-energy multicasting problem in duty-cycled wireless sensor networks*. 10/2014; 30(3), DOI:10.15625/1813-9663/30/3/3328

Huynh Thi Thanh Binh, Son Hong Ngo: *All capacities modular cost survivable network design problem using genetic algorithm with completely connection encoding*. 07 /2014; 4(1):13., DOI:10.1186/s13673-014-0013-y

Ngo Hong Son: *Genetic Algorithm for Solving Survivable Network Design with Simultaneous Unicast and Anycast Flows*. International Conference on Bio-inspired Computing 07 /2013;, DOI:10.1007/978-3-642-37502-6_144

H.V. Tran, S.H. Ngo: *An enhanced greedy node mapping algorithm for resource allocation in network virtualization*. Journal of Science and Technology 12 /2012;

Hoan Le, S.H. Ngo: *Evaluation of an approximate algorithm for optimal relay station placement problem in WiMax 802.16j*.

Vinh Trong Le, Xiaohong Jiang, Son-Hong Ngo, Susumu Horiguchi, Yasushi Inoguchi: *A novel dynamic survivable routing in WDM optical networks with/without sparse wavelength conversion*. Optical Switching and Networking 12 /2006; 3(3):173-190., DOI:10.1016/j.osn.2006.07.001

Son-Hong Ngo, Xiaohong Jiang, Vinh Trong Le, Susumu Horiguchi: *Ant-based survivable routing in dynamic WDM networks with shared backup paths*. The Journal of Supercomputing 06/2006; 36(3):297-307., DOI:10.1007/s11227-006-8299-9

Son Hong Ngo, Xiaohong Jiang, Susumu HIRIGUCHI: *Ant-Based Alternate Routing in All-Optical WDM Networks*. IEICE Transactions on Communications 03 /2006; E89B(3), DOI:10.1093/ietcom/e89-b.3.748

Son Hong Ngo, Xiaohong Jiang, Susumu Horiguchi: *An ant-based approach for dynamic RWA in optical WDM networks*. Photonic Network Communication 01 /2006; 11(1):39-48., DOI:10.1007/s11107-006-5322-2

Conference Proceedings

Nguyen Thi Thanh Nga, Nguyen Kim Khanh, Son Ngo Hong: *Entropy correlation and its impact on routing with compression in wireless sensor network*. the Seventh Symposium; 12 /2016, DOI:10.1145/3011077.3011115

Nguyen Thi Thanh Nga, Son Hong Ngo, Nguyen Kim Khanh: *Entropy based Correlation Clustering for Wireless Sensor Network in Multi-Correlated Regional Environment*. 15th International Conference on Electronics, Information and Communication; 01 /2016, DOI:10.1109/ELINFOCOM.2016.7562984

Thai Duong Nguyen, Son Hong Ngo, Huynh T. Thanh Binh: *Group steiner tree model for energy efficient multicast in Duty-Cycle Wireless Sensor Networks*. 2014 IEEE Fifth International Conference on Communications and Electronics (ICCE); 07 /2014, DOI:10.1109/CCE.2014.6916710

Hoang Tran-Viet, Toan Nguyen-Duc, Kien Nguyen, Son Hong Ngo, Quang Tran Minh, Shigeki Yamada: *Experimental Study on the Performance of Linux Ethernet Bonding*. International Conference on Testbeds and Research Infrastructures; 05 /2014, DOI:10.1007/978-3-319-13326-3_29

Toan Nguyen-Duc, Hoang Tran-Viet, Son Hong Ngo, Kien Nguyen, Quang Tran Minh, Shigeki Yamada: *Investigating the Performance of Link Aggregation on OpenFlow Switches*. International Conference on Testbeds and Research Infrastructures; 05 /2014, DOI:10.1007/978-3-319-13326-3_19

Nguyen Thi Thanh Nga, Son Hong Ngo, Ngo Quynh Thu: *Correlation-based clustering in wireless sensor network for energy saving protocol*. SoICT; 12 /2013, DOI:10.1145/2542050.2542082

Hoang Viet Tran, Son Hong Ngo: *Improved Heuristics for Online Node and Link Mapping Problem in Network Virtualization*. International Conference on Computational Science and Its Applications; 06/2013, DOI:10.1007/978-3-642-39640-3_11

S.-H. Ngo, Xiaohong Jian, S. Horiguchi: *Hybrid deflection and retransmission routing schemes for OBS networks*. High Performance Switching and Routing, 2006 Workshop on; 01/2013, DOI:10.1109/HPSR.2006.1709739

Minh H. Nguyen, Son H. Ngo: *Dynamic connection provisioning with signal quality guaranteed in all-optical networks*. Proceedings of the 2011 Symposium on Information and Communication Technology, SoICT 2011, Hanoi, Viet Nam, October 13-14, 2011; 10/2011, DOI:10.1145/2069216.2069230

Tung Hai Ta, Son Hong Ngo: *A novel signal acquisition method for GPS dual-frequency L1 C/A and L2C receivers*. Advanced Technologies for Communications (ATC), 2011 International Conference on; 08/2011, DOI:10.1109/ATC.2011.6027473

Son Hong Ngo, Xiaohong Jiang: *Burst Loss Probability Model for Hybrid Deflection and Retransmission Routing in OBS Networks*. Computing and Communication Technologies, Research, Innovation, and Vision for the Future (RIVF), 2010 IEEE RIVF International Conference on; 12/2010, DOI:10.1109/RIVF.2010.5633064

Son Hong Ngo, Masaru Fukushi, Xiaohong Jiang, Susumu Horiguchi: *Efficient Scheduling Schemes for Sabotage-Tolerance in Volunteer Computing Systems*. Advanced Information Networking and Applications, 2008. AINA 2008. 22nd International Conference on; 04/2008, DOI:10.1109/AINA.2008.129

V.T. Le, S.H. Ngo, XH Jiang, S. Horiguchi, Y. Inoguchi: *A Hybrid Algorithm for Dynamic Lightpath Protection in Survivable WDM Optical Networks*. Parallel Architectures, Algorithms and Networks, 2005. ISPAN 2005. Proceedings. 8th International Symposium on; 01/2006, DOI:10.1109/ISPAN.2005.8

V T Le, S H Ngo, X Jiang, S Horiguchi, Y Inoguchi: *A Hybrid Algorithm for Dynamic Survivable Routing in WDM Optical Networks*. The 8th International Symposium on Parallel Architectures, Algorithms, and Networks (ISPAN'05); 12/2005

Vinh Trong Le, Xiaohong Jiang, Son Hong Ngo, S. Horiguchi: *Dynamic RWA Based on the Combination of Mobile Agents Technique and Genetic Algorithm in WDM Networks with Sparse Wavelength Conversion*. Parallel and Distributed Processing Symposium, 2005. Proceedings. 19th IEEE International; 05/2005, DOI:10.1109/IPDPS.2005.182

Son-Hong Ngo, Xiaohong Jiang, Susumu Horiguchi: *Dynamic Lightpath Protection in WDM optical Networks Using Ant-based Mobile Agents*. Proceedings of the 2005 IEEE/WIC/ACM International Conference on Intelligent Agent Technology, Compiegne, France, September 19-22, 2005; 01/2005, DOI:10.1109/IAT.2005.68

Son-Hong Ngo, Xiaohong Jiang, S. Horiguchi: *Adaptive routing and wavelength assignment using ant-based algorithm*. Networks, 2004. (ICON 2004). Proceedings. 12th IEEE International Conference on; 12/2004, DOI:10.1109/ICON.2004.1409214

Vinh Trong Le, Son-Hong Ngo, Xiaohong Jiang, Susumu Horiguchi, Minyi Guo: *A Genetic Algorithm for Dynamic Routing and Wavelength Assignment in WDM Networks*. Parallel and Distributed Processing and Applications, Second International Symposium, ISPA 2004, Hong Kong, China, December 13-15, 2004, Proceedings; 12/2004, DOI:10.1007/978-3-540-30566-8_103

Son-Hong Ngo, Xiaohong Jiang, Susumu Horiguchi, Minyi Guo: *Dynamic Routing and Wavelength Assignment in WDM Networks with Ant-Based Agents*. Embedded and Ubiquitous Computing, International Conference EUC 2004, Aizu-Wakamatsu City, Japan, August 25-27, 2004, Proceedings; 08/2004, DOI:10.1007/978-3-540-30121-9_79