NGUYEN HOANG TRAN

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508, Department of Computer Science and Engineering, Kyung Hee University

1732 Deogyeong-daero, Giheung, Yongin, Gyeonggy, 446-701, Korea

EDUCATION

Kyung Hee University

    Ph.D in Computer Science and Engineering   February 2011

    Thesis: *Distributed and Optimal Resource Allocation in Wireless Networks*

HoChiMinh City University of Technology

    B.S. in Electrical and Electronics Engineering   March 2005

RELEVANT COURSES

Deep Learning for Communication Networks, Resource Allocation for 5G Networks and Services, Machine Learnings, Network Economics, Game Theory

SELECTED HONORS AND AWARDS

Best Paper Award in IEEE International Conference on Communications (ICCS)   2016

Best Paper Award in APNOMS   2016

Best Paper Award in IEEE International Conference on Communications (ICC)   2016

Best Foreign Student Award for the Ph.D Thesis   2011

IEEE Seoul Section Bronze Paper Award   2009

Two runner-up papers for the Best Paper Award at AsiaFI School   2009

Korean Government IT Scholarship for combined Ms-Ph.D Program   2006-2011

RESEARCH OVERVIEW

My research interest is mainly on employing various applied mathematical tools such as stochastic modelling, queueing theory, optimization theory and game theory to design, analyze and optimize the cutting-edge applications in complexed networks such as: fog/edge computing and data center, deep learning for network slicing (virtualization) and traffic analytics in Internet of Things.

Research keywords: Fog Computing, Deep Learning, Network Slicing, Traffic Analytics in Internet of Things, Network Function Virtualization

EMPLOYMENT

Assistant Professor   2012-pres
Department of Computer Science and Engineering, Kyung Hee University

Post Doc   2011-2012
Department of Computer Science and Engineering, Kyung Hee University

GRANT SUPPORT

ETRI Research Grant ($30K), Co-Principle Investigator   2011-2012

BK21 grant ($1 Million/year for whole computer science and engineering dept.), Co-Principle Investigator   2013-2020

NAFOSTED ($20K), Co-Principle Investigator   2016-2018

NRF Basic Science and Research ($350K), Principle Investigator   2016-2023

PROFESSIONAL ACTIVITIES

Editor:

- Guest Editor: Journal of Internet Technology   2012-2013

- Editor: Journal of Ambient Wireless Communications and Smart Environments   2013-pres

- Editor: IEEE Transaction on Green Communications and Networking   2016-pres

- Editor: IEEE Technical Committee on Cognitive Networks (TCCN) Newsletter, special topic in Internet of Things and Machine Learnings   2017

Professional Membership:

- IEEE ComSoc Society   2010-pres

Conference services:

- *Technical Program Committee*: CCNC'18, ICOIN'17, SigTelCom'17, CCNC'17, BIG COM'16, WCNC'16, ISWCS'16, NICS'16, ICOIN'16, ICOIN'15, Chinacom'15, ATC'15, ISWCS'2015, ComManTel'2015, ATC'2014, VTC'2014 Fall, SoICT'2013, ICCSA/PMCFN'2013

Invited Referee for Journals and Conferences (each listed once):

- *Journals*: IEEE Journal of Seclected Areas in Communications, IEEE Transactions on Mobile Computing, IEEE Transactions on Wireless Communications, IEEE Transactions on Signal Processing, IEEE Transaction on Vehicular Technology, IEEE Communications Letters, (Elsevier) Wireless Communications and Mobile Computing Journal, (Elsevier) Mathematical and Computer Modeling Journal, IEEE/KICS Journal of Communication Networks, EURASIP Journal on Wireless Communications and Networking, IET Intelligent Transport Systems, Journal of Network and Computer Applications, Software Practice and Experience, IEEE Transactions on Big Data, IEEE Transactions on Cognitive Communications and Networking, IET Communications

- *Conferences*: IEEE Infocom, IEEE Globecom, IEEE WCNC, IEEE Greencom, AINA

Invited Talks:

- INRS-EMT Universite du Quebec, University of Houston, Posts and Telecommunications Institute of Technology (Hochiminh City), Thu Dau Mot University, The University of Danang, Nha Trang University.

CURRENT GROUP MEMBERS:

Joint with Prof. Choong Seon Hong:

- Syed Muhammad Ahsan Raza Kazmi, Post Doc

- Tuan LeAnh, Post Doc

- Kyi Thar, Ph.D student
- Tai Manh Ho, Ph.D student
- Oanh Kim Tran, Ph.D student
- Anupam Kumar Bairagi, Ph.D student
- Anupam Kumar Bairagi, Ph.D student
- Anselme Ndikumana, Ph.D student
- Ashis Talukder, Ph.D student
- Sarder Fakhrul Abedin, Ph.D student
- Tra Huong Thi Le, Ph.D student
- Aunas Manzoor, Ph.D student
- Yan Kyaw Tun, Ph.D student
- Nguyen Dang Tri, Ph.D student
- Chit Wutyee Zaw, Ph.D student
- Minh N.H Nguyen, Master student

ALUMNI:

- Chuan Pham, Ph.D 2017, "Markov Approximation and Matching Game Approaches for Network Service Chain Placement on Cloud Datacenters"
- Thant Zin Oo, Ph.D 2016, "Cognitive MAC Protocol Design and Data Offloading in Heterogeneous Networks via Markov Process"
- Dai H. Tran, M.S. 2015, "Offload as a Service in Fog Computing Environment: A Novel Approach"
- Cuong T. Do, Ph.D 2014, "An Optimal Spectrum Access Control in Cognitive Radio Networks"

VISITORS:

- Prof. Zhu Han, University of Houston, U.S.A   2015, 2017
- Prof. Dusit (Tao) Niyato, Nanyang University, Singapore   2015
- Prof. Walid Saad, Virginia Tech, U.S.A   2015
- Prof. My T. Thai, University of Florida, U.S.A   2016, 2017
- Prof. Duy T. Ngo, University of Newcastle, Australia   2016

TEACHING EXPERIENCE

Courses taught at Kyung Hee University:

Network Optimization   Spring 2015-2016

Evaluation in Spring 2015: Grade: 98.29/100, (58% response rate)

Evaluation in Spring 2016: Grade: 98.76/100, (91% response rate)

Advanced Probability and Stochastic Process   Spring 2012-2016

Evaluation in Spring 2012: Grade: 93.37/100, (80% response rate)

Evaluation in Spring 2013: Grade: 99.86/100, (61% response rate)

Evaluation in Spring 2014: Grade: 96.96/100, (64% response rate)

Evaluation in Spring 2015: Grade: 96.57/100, (88% response rate)

Evaluation in Spring 2016: Grade: 92.19/100, (83% response rate)

Optimization Theory   Fall 2012-2016

Evaluation in Fall 2012: Grade: 95.46/100, (69% response rate)

Evaluation in Fall 2013: Grade: 95.56/100, (45% response rate)

Evaluation in Fall 2014: Grade: 96.43/100, (70% response rate)

Evaluation in Fall 2015: Grade: 97.37/100, (83% response rate)

Evaluation in Fall 2016: Grade: 98.57/100, (82% response rate)

Queueing Theory   Fall 2012-2016

Evaluation in Fall 2012: Grade: 98.44/100, (60% response rate)

Evaluation in Fall 2013: Grade: 93.14/100, (37% response rate)

Evaluation in Fall 2014: Grade: 95.6/100, (65% response rate)

Evaluation in Fall 2015: Grade: 92.59/100, (93% response rate)

Evaluation in Fall 2016: Grade: 95.17/100, (75% response rate)

PUBLICATIONS

Books

1. Thant Zin Oo, Nguyen H. Tran, Choong Seon Hong, Shaolei Ren, *Coordinated Power Management in Multi-tenant Data Centers*, contracting with Springer, 2017.

Book Chapters

1. Thant Zin Oo, Nguyen H. Tran, Choong Seon Hong, Shaolei Ren, and Gang Quan, "Power Management in Data Centers: Cost, Sustainability, and Demand Response," *Energy Efficiency in Data Centers and Clouds, Advances in Computer*, vol.100, pp.1-288, Elsevier, editors: Ali R. Hurson and Hamid Sarbazi-Azad, 2016.

Journal Publications

1. Yanru Zhang, Yunan Gu, Miao Pan, Nguyen H. Tran, Zaher Dawy, Zhu Han, "Multi-Dimensional Incentive Mechanism in Mobile Crowdsourcing with Moral Hazard," *IEEE Transactions on Mobile Computing*, (in press).

2. Chuan Pham, Nguyen H. Tran, Choong Seon Hong, "Virtual Network Function Scheduling: A Matching Game Approach," *IEEE Communications Letters*, (in press).

3. S. M. Ahsan Kazmi, Nguyen H. Tran, Tai Manh Ho, Choong Seon Hong, "Hierarchical Matching Game for Wireless Network Virtualization," *IEEE Communications Letters*, (in press).

4. S. M. Ahsan Kazmi, Nguyen H. Tran, Walid Saad, Zhu Han, Tai Manh Ho, Thant Zin Oo, Choong Seon Hong, "Mode Selection and Resource Allocation in Device-to-Device Communications: A Matching Game Approach," *IEEE Transactions on Mobile Computing*, (in press)

5. Cuong T. Do, Nguyen H. Tran, Choong Seon Hong, Charles Kamhoua, Kevin Kwiat, Erik Blasch, Shaolei Ren, Niki Pissinou, Sundaraja Sitharama Iyengar, "Game Theory for Cyber Security and Privacy," *ACM Computing Surveys*, (in press).

6. Chuan Pham, Nguyen H. Tran, Shaolei Ren, Walid Saad, Choong Seon Hong, "Traffic-aware and Energy-efficient NFV placement for Service Chaining: Joint Sampling and Matching Approach," *IEEE Transactions on Services Computing*, (in press).

7. Nguyen H. Tran, Chuan Pham, Minh N.H Nguyen, Shaolei Ren, Choong Seon Hong, "Incentivizing Energy Reduction for Emergency Demand Response in Multi-Tenant Mixed-Use Buildings," *IEEE Transactions on Smart Grid*, (in press).

8. Thant Zin Oo, Nguyen H. Tran, Walid Saad, Dusit Niyato, Zhu Han, Choong Seon Hong, "Offloading in HetNets: A Coordination of Interference Mitigation, User Association and Resource Allocation," *IEEE Transactions on Mobile Computing*, (in press).

9. Dai H. Tran, Nguyen H. Tran, Chuan Pham, S. M. Ahsan Kazmi, Eui-Nam Huh, Choong Seon Hong, "OaaS: offload as a service in fog network," *Computing*, (in press).

10. Mohammad A. Islam, Kishwar Ahmed, Hong Xu, Nguyen H. Tran, Gang Quan, Shaolei Ren, "Exploiting Spatio-Temporal Diversity for Water Saving in Geo-Distributed Data Centers," *IEEE Transactions on Cloud Computing*, (in press).

11. Tuan LeAnh, Nguyen H. Tran, Walid Saad, Long Bao Le, Dusit Niyato, Tai Manh Ho, Choong Seon Hong, "Matching Theory for Distributed User Association and Resource Allocation in Cognitive Femtocell Network," *IEEE Transactions on Vehicular Technology*, (in press).

12. Md. Jalil Piran, Nguyen H. Tran, Doug Young Suh, Ju Bin Song, Zhu Han, "QoE-Driven Channel Allocation and Handoff Management for Seamless Multimedia in Cognitive 5G Cellular Networks," *IEEE Transactions on Vehicular Technology*, (in press).

13. VanDung Nguyen, Thant Zin Oo, Nguyen H. Tran, and Choong Seon Hong, "An Efficient and Fast Broadcast Frame Adjustment Algorithm in VANET," *IEEE Communications Letters*, (in press).

14. Yanru Zhang, Chunxiao Jiang, Lingyang Song, Nguyen H. Tran, Zaher Dawy, Zhu Han, "Social-Aware Framework for Efficient Information Dissemination in Wireless Ad Hoc Networks," *IEEE Communications Magazine*, vol.55, no.1, pp.174-179, January 2017.

15. Shaharyar Kamal, Cesar Meza, Nguyen H. Tran, Kyesan Lee, "Low-PAPR Hybrid Filter for SC-FDMA," *IEEE Communications Letters*, vol.21, no.4, pp.905-908, April 2017.

16. Tuan LeAnh, Nguyen H. Tran, Duy Trong Ngo, Choong Seon Hong, "Resource Allocation for Virtualized Wireless Networks with Backhaul Constraints," *IEEE Communications Letters*, vol.21, no.1, pp.148-151, January 2017.

17. Nguyen H. Tran, Thant Zin Oo, Shaolei Ren, Zhu Han, Eui-Nam Huh, Choong Seon Hong, "Reward-to-Reduce: An Incentive Mechanism for Economic Demand Response of Colocation Datacenters," *IEEE Journal on Selected Areas in Communications*, vol.69, no.12, pp.3941-3953, December 2016.

18. Cuong T. Do, Nguyen H. Tran, Eui-Nam Huh, Choong Seon Hong, Dusit Niyato, Zhu Han, "Dynamics of Service Selection and Provider Pricing Game in Heterogeneous Cloud Market," *Elsevier Journal of Network and Computer Applications*, vol.69, pp.152-165, July 2016.

19. Tuan LeAnh, Nguyen H. Tran, Choong Seon Hong, Sungwon Lee, Eui-Nam Huh, and Zhu Han, "Distributed Power and Channel Allocation for Cognitive Femtocell Network using a Coalitional Game in Partition Form Approach," *IEEE Transactions on Vehicular Technology*, vol.66, no.4, pp.3475-3490, April 2017.

20. Tai Manh Ho, Nguyen H. Tran, Long Bao Le, Walid Saad, S.M Ahsan Kazmi, Choong Seon Hong, "Coordinated Resource Partitioning and Data Offloading in Wireless Heterogeneous Networks," *IEEE Communications Letters*, vol.20, no.5, pp.1089-7798, May 2016.

21. S.M Ahsan Kazmi, Nguyen H. Tran, Walid Saad, Long Bao Le, Tai Manh Ho, Choong Seon Hong, "Optimized Resource Management in Heterogeneous Wireless Networks," *IEEE Communications Letters*, vol.20, no.7, pp.1397-1400, July 2016.

22. Chuan Pham, Nguyen H. Tran, Cuong T. Do, Eui-Nam Huh, and Choong Seon Hong, "Joint Consolidation and Service-Aware Load Balancing for Datacenters," *IEEE Communications Letters*, vol.20, no.2, pp.292-295, February 2016.

23. Nguyen H. Tran, Dai H. Tran, Shaolei Ren, Zhu Han, Eui-Nam Huh, and Choong Seon Hong, "How Geo-distributed Data Centers Do Demand Response: A Game-Theoretic Approach," *IEEE Transactions on Smart Grid*, vol.7, no.2, pp.937-947, February 2016.

24. Thant Zin Oo, Nguyen H. Tran, Duc Ngoc Minh Dang, Zhu Han, Long Bao Le, Choong Seon Hong, "OMF-MAC: An Opportunistic Matched Filter-based MAC in Cognitive Radio Networks," *IEEE Transaction on Vehicular Technology*, vol.65, no.4, pp.2544-2559, April 2016.

25. Nguyen H. Tran, Cuong T. Do, Shaolei Ren, Zhu Han, Choong Seon Hong, "Incentive Mechanisms for Colocation Datacenters Economic and Emergency Demand Response," *IEEE Journal on Selected Areas in Communications*, vol.33, no.12, pp.2892-2905, December 2015.

26. Tai Manh Ho, Nguyen H. Tran, Cuong T. Do, S.M Ahsan Kazmi, Eui-Nam Huh, Choong Seon Hong, "Power Control for Interference Management and QoS Guarantee in Heterogeneous Networks," *IEEE Communications Letters*, vol.19, no.8, pp.1402-1405, August 2015.

27. Nguyen H. Tran, Long Bao Le, Shaolei Ren, Zhu Han, Choong Seon Hong, "Joint Pricing and Load Balancing for Cognitive Access Control in Cognitive Radio Networks: Cooperation vs Non-Cooperation," *IEEE Journal on Selected Areas in Communications*, vol.33, no.5, pp.972-985, May 2015.

28. Cuong T. Do, Nguyen H. Tran, Zhu Han, Long Bao Le, Sungwon Lee, Choong Seon Hong, "Optimal Pricing for Duopoly in Cognitive Radio Networks: Cooperate or Not Cooperate?" *IEEE Transaction on Wireless Communications*, vol.13, no.5, pp.2574-2587, May 2014.

29. Phuong L. Vo, Nguyen H. Tran, Choong Seon Hong, Sungwon Lee, "Network Utility Maximization Framework with Multiclass Traffic," *IET Networks*, vol.2, no.3, pp.152-161, September 2013.

30. Nguyen H. Tran, Choong Seon Hong, Zhu Han, Sungwon Lee, "Optimal Pricing Effect on Equilibrium Behaviors of Delay-Sensitive Users in Cognitive Radio Networks," *IEEE Journal on Selected Areas in Communications*, vol.31, no.11, pp.2566-2579, November 2013.

31. Nguyen H. Tran, Choong Seon Hong and Sungwon Lee, "Cross-layer Design of Congestion Control and Power Control in Fast-Fading Wireless Networks," *IEEE Transactions on Parallel and Distributed Systems*, vol.24, no.2, pp.260-274, February 2013.

32. Cuong T. Do, Nguyen H. Tran, Choong Seon Hong, Sungwon Lee, A Lightweight Algorithm for Probability-based Spectrum Decision Scheme in Multiple Channels Cognitive Radio Networks, *IEEE Communications Letters*, vol.17, no.3, pp.509-512, March 2013.

33. Cuong T. Do, Nguyen H. Tran, Mui Van Nguyen, Choong Seon Hong, Sungwon Lee, "Social Optimization Strategy in Unobserved Queueing Systems in Cognitive Radio Networks," *IEEE Communications Letters*, vol.16, no.12, December 2012.

34. Cuong T. Do, Nguyen H. Tran, Choong Seon Hong and Sungwon Lee, "Finding an Individual Optimal Threshold of Queue Length in Hybrid Overlay/ Underlay Spectrum Access in Cognitive

Radio Networks," *IEICE Transaction on Communications*, vol.E95-B, no.06, pp.1978-1981, June 2012.

35. Nguyen H. Tran, Choong Seon Hong and Sungwon Lee, "Joint Congestion Control and Power Allocation with Outage Constraint in Wireless Multihop Networks," *IEEE Transaction on Vehicular Technology*, vol.61, no.2, February 2012.

36. Nguyen H. Tran, Choong Seon Hong and Sungwon Lee, "Utility Maximization with Packet Collision Constraint in Cognitive Radio Networks," *IEICE Transaction on Communications*, vol.E95-B, no.01, January 2012.

37. Nguyen H. Tran, Choong Seon Hong and Sungwon Lee, "Distributed Throughput-Optimal Scheduling Framework with Delay Analysis in Multi-hop Wireless Networks," *(Elsevier) Mathematical and Computer Modeling,* vol.53, pp.2149-2161, March 2011.

38. Nguyen H. Tran, Choong Seon Hong, "Joint Rate and Power Control in Wireless Network: A Novel Successive Approximations Method," *IEEE Communication Letters*, vol.14, no.9, pp.872-874, September 2010.

Submitted to Journal

1. Anselme Ndikumana, Kyi Thar, Tai Manh Ho, Nguyen H. Tran, Dusit Niyato, Choong Seon Hong, "Incentive Mechanism for Paid Content Caching in Content Centric Networking," submitted to *IEEE Transactions on Network and Service Management.*

2. Chuan Pham, Luong A. T. Nguyen, Nguyen H. Tran, Eui-Nam Huh, Choong Seon Hong, "Phishing-Aware: A Neuro-Fuzzy Approach for Anti-Phishing on Fog Networks," submitted to *IEEE Transactions on Network and Service Management.*

3. Chuan Pham, Nguyen H. Tran, Choong Seon Hong, "Virtual Network Function Scheduling: A Matching Game Approach," submitted to *IEEE Communication Letters.*

4. Sarder Fakhrul Abedin, Md. Golam Rabiul Alam, S. M. Ahsan Kazmi, Nguyen H. Tran, Dusit Niyato, Choong Seon Hong, "Resource Allocation for Ultra-reliable and Enhanced Mobile Broadband IoT Applications in Fog Network," submitted to *IEEE Transactions on Communications.*

5. Minh N.H Nguyen, Nguyen H. Tran, Chuan Pham, Islam Atiq, Shaolei Ren, Choong Seon Hong, "Fair Sharing of Backup Power Supply in Multi-Operator Wireless Cellular Towers," submitted to *IEEE Transactions on Wireless Communications.*

6. Tai Manh Ho, Nguyen H. Tran, S.M Ahsan Kazmi, Zhu Han, Long Bao Le, Choong Seon Hong, "Wireless Virtualization Design with Dynamic Isolation Provisioning and Energy Efficiency Optimization for Wireless Heterogeneous Networks," submitted to *IEEE Transactions on Mobile Computing.*

7. Kyi Thar, Nguyen H. Tran, Ullah Saeed, Choong Seon Hong, "Cost-Aware Caching and Efficient Forwarding in Content Centric Networking," submitted to *IEEE Transactions on Mobile Computing.*

8. Yanru Zhang, Yunan Gu, Miao Pan, Zaher Dawy, Nguyen Tran, and Zhu Han, "Energy-Aware Multi-Dimensional Incentive Mechanism in Crowdsourcing with Moral Hazard," submitted to *IEEE Transactions on Mobile Computing.*

9. Sayef Azad Sakin, Md. Abdur Razzaque, Mohammad Mehedi Hassan, Nguyen H. Tran, "Joint Power and Downlink Channel Allocation for Self-coexistence among IEEE 802.22 Networks," submitted to *IEEE Access.*

10. Anselme Ndikumana, Saeed Ullah, Kyi Thar, Bang Ju Park, Choong Seon Hong, "Novel Cooperative and Fully-distributed Congestion Control Mechanism in Information-Centric Networking,"

submitted to *Computing*.

Conference Publications

1. Huong Tra Le, Nguyen H. Tran, Phuong L. Vo, Zhu Han, Mehdi Bennis, Choong Seon Hong, "Contract-based Cache Partitioning and Pricing Mechanism in Wireless Network Slicing," *IEEE Global Communications Conference (GLOBECOM'2017)*, Singapore, Dec. 2017.

2. Anselme Ndikumana, Kyi Thar, Tai Manh Ho, Nguyen H. Tran, Phuong L. Vo, Dusit Niyato, Choong Seon Hong, "In-Network Caching for Paid Contents in Content Centric Networking," *IEEE Global Communications Conference (GLOBECOM'2017)*, Singapore, Dec. 2017.

3. Anupam Kumar Bairagi, Nguyen H. Tran, Choong Seon Hong,"LTE-U Sum-Rate Maximization Considering QoS and Co-existence Issue," *IEEE International Conference on Big Data and Smart Computing (BigComp 2017)*, Jeju, Korea, February 13-16, 2017.

4. Tai Manh Ho, Nguyen H. Tran, S.M Ahsan Kazmi, Choong Seon Hong,"Dynamic Pricing for Resource Allocation in Wireless Network Virtualization: A Stackelberg Game Approach," *The International Conference on Information Networking (ICOIN 2017)*, Da Nang, Vietnam, January 11-13, 2017.

5. Minh N. H. Nguyen, Chuan Pham, Nguyen H. Tran, Choong Seon Hong,"Outliers Detection and Correction for Cooperative Distributed Online Learning in Wireless Sensor Network," *The International Conference on Information Networking (ICOIN 2017)*, Da Nang, Vietnam, January 11-13, 2017.

6. Yanru Zhang, Nguyen H. Tran, Dusit Niyato, Zhu Han, "Multi-Dimensional Payment Plan in Fog Computing with Moral Hazard," *The 15th IEEE International Conference on Communication Systems (IEEE ICCS 2016)*, **Best Paper Award**, Shenzhen, China, December 2016.

7. S. M. Ahsan Kazmi, Nguyen H. Tran, Tai Manh Ho, Dong Kyu Lee, and Choong Seon Hong, "Decentralized Spectrum Allocation in D2D Underlying Cellular Networks," *The 18th Asia-Pacific Network Operations and Management Symposium(APNOMS 2016)*, **Best Paper Award**, Kanazawa, Japan, October 5-7, 2016.

8. Tri Nguyen Dang, S. M. Ahsan Kazmi, Tai Manh Ho, Nguyen H. Tran, Choong Seon Hong,"A Double-Auction Mechanism for Wireless Charging Networks," *The 18th Asia-Pacific Network Operations and Management Symposium(APNOMS 2016)*, Kanazawa, Japan, October 5-7, 2016.

9. Tra Huong Thi Le, Nguyen H. Tran, Tuan LeAnh and Choong Seon Hong,"User Matching Game in Virtualized 5G Cellular Networks," *The 18th Asia-Pacific Network Operations and Management Symposium(APNOMS 2016)*, Kanazawa, Japan, October 5-7, 2016.

10. Tai Manh Ho, Nguyen H. Tran, S.M Ahsan Kazmi, Do Hyun Kim and Choong Seon Hong,"Distributed Resource Allocation for Interference Management and QoS Guarantee in Underlay Cognitive Femtocell Networks," *The 18th Asia-Pacific Network Operations and Management Symposium(APNOMS 2016)*, Kanazawa, Japan, October 5-7, 2016.

11. Kyi Thar, Nguyen H. Tran, Jaehyeok Son, Choong Seon Hong,"Resources Management in Virtualized Information Centric Wireless Network," *The 18th Asia-Pacific Network Operations and Management Symposium(APNOMS 2016)*, Kanazawa, Japan, October 5-7, 2016.

12. Anupam Kumar Bairagi, Nguyen H. Tran, Namho Kim and Choong Seon Hong,"QoS Aware Collaborative Communications with Incentives in the Downlink of Cellular Network : A Matching Approach," *The 18th Asia-Pacific Network Operations and Management Symposium(APNOMS 2016)*, Kanazawa, Japan, October 5-7, 2016.

13. Nguyen H. Tran, Chuan Pham, Shaolei Ren, Zhu Han, Choong Seon Hong, "Coordinated Power Reduction in Multi-Tenant Colocation Datacenter: An Emergency Demand Response Study,"

IEEE International Conference on Communications (IEEE ICC), **Best Paper Award**, Kuala Lumpur, Malaysia, May 2016.

14. Nguyen H. Tran, Chuan Pham, Minh N.H. Nguyen, Choong Seon Hong, "Incentive-aligned Mechanism for Emergency Demand Response in Multi-tenant Mixed-Use Buildings," *IEEE INFOCOM Workshop on Green and Sustainable Networking and Computing (GSNC)*, San Francisco, USA, April 2016.

15. Tuan LeAnh, Nguyen H. Tran, Choong Seon Hong, "Distributed Power and Channel Allocation for Cognitive Femtocell Network using a Coalitional Game Approach," *Proc. the 3rd Big Data and Smart Computing (BigComp)*, HongKong, China, January 2016.

16. Chuan Pham, Nguyen H. Tran, Minh N.H. Nguyen, Shaolei Ren, Walid Saad, Choong Seon Hong, "Hosting Virtual Machines on a Cloud Datacenter: A Matching Theoretic Approach," *Proc. IEEE/IFIP Network Operations and Management Symposium (NOMS)*, Istanbul, Turkey, April 2016.

17. Tuan LeAnh, Nguyen H. Tran, Walid Saad, Seungil Moon, Choong Seon Hong, "Matching-based Distributed Resource Allocation in Cognitive Femtocell Networks," *Proc. IEEE/IFIP Network Operations and Management Symposium (NOMS)*, Istanbul, Turkey, April 2016.

18. Thant Zin Oo, Nguyen H. Tran, Walid Saad, Jaehyeok Son, Choong Seon Hong, "Traffic Offloading via Markov Approximation in Heterogeneous Cellular Networks," *Proc. IEEE/IFIP Network Operations and Management Symposium (NOMS)*, Istanbul, Turkey, April 2016.

19. Nguyen H. Tran, Chuan Pham, Shaolei Ren, and Choong Seon Hong, "Coordinated Energy Management for Emergency Demand Response in Mixed-Use Buildings," *IEEE ICUWB Workshop on Next Generation of Green ICT and 5G Networking (GreeNets)*, **Invited paper**, Montreal, Canada, November 2015.

20. Nguyen H. Tran, Cuong T. Do, Shaolei Ren, Zhu Han, Choong Seon Hong, "Coordinated Colocation Datacenters for Economic Demand Response," *Proc. ACM SIGMETRICS Workshop on Distributed Cloud Computing*, Portland, USA, June 2015.

21. Tai Manh Ho, Nguyen H. Tran, Long Bao Le, S.M Ahsan Kazmi, Seung Il Moon, Choong Seon Hong, "Network Economics Approach to Data Offloading and Resource Partitioning in Two-Tier LTE HetNets," *Proc. IFIP/IEEE International Symposium on Integrated Network Management (IM)*, Ottawa, Canada, May, 2015.

22. Cuong T. Do, Nguyen H. Tran, Dai H. Tran, Chuan Pham, Md. Golam Rabiul Alam, Choong Seon Hong, "Toward Service Selection Game in a Heterogeneous Market Cloud Computing," *Proc. IFIP/IEEE International Symposium on Integrated Network Management (IM)*, Ottawa, Canada, May, 2015.

23. Nguyen H. Tran, Dai H. Tran, Long Bao Le, Zhu Han, Choong Seon Hong, "Load Balancing and Pricing for Spectrum Access Control in Cognitive Radio Networks," *Proc. IEEE Global Communications Conference (GLOBECOM'2014)*, Austin, USA, December 2014.

24. Nguyen H. Tran, Shaolei Ren, Zhu Han, Sung Man Jang, Seung Il Moon, Choong Seon Hong, "Demand Response of Data Centers: A Real-time Pricing Game between Utilities in Smart Grid," *USENIX Feedback Computing Workshop (FC'2014)*, Philadelphia, USA, June 2014.

25. Nguyen H. Tran, Cuong T. Do, Seung Il Moon, Choong Seon Hong, "Pricing Mechanisms and Equilibrium Behaviors of Noncooperative Users in Cognitive Radio Networks," *Proc. IEEE Global Communications Conference (GLOBECOM'2013)*, Atlanta, USA, December 2013.

26. Cuong T. Do, Nguyen H. Tran, Choong Seon Hong, "Optimal Queueing Control in Hybrid OverlayUnderlay Spectrum Access in Cognitive Radio Networks," *IEEE 75th Vehicular Technology*

Conference (VTC 2012), Yokohama, Japan, May. 2012.

27. Nguyen H. Tran, Choong Seon Hong, "Joint Congestion and Power Control in Fast-Fading Wireless Network using Successive Convex Approximation Method," *The Fourth Internetional Conference on Communications and Electronics (ICCE 2012)*, Hue, Vietnam, August 1-3, 2012.

28. Nguyen H. Tran, Choong Seon Hong, "Joint Congestion Control and Power Allocation with Outage Constraint in Wireless Multihop Networks," *Proc. IEEE Wireless Communications and Networking Conference (WCNC'2012)*, Paris, France, April 2012.

29. Cuong T. Do, Nguyen H. Tran and Choong Seon Hong, "Throughput Maximization for The Secondary User over Multi-channel Cognitive Radio Networks," *The International Conference on Information Networking 2012 (ICOIN 2012)*, Bali, Indonesia, February1-3, 2012.

30. Phuong Luu Vo, Nguyen H. Tran, Choong Seon Hong, "Jointly Rate and Power Control for Elastic and Inelastic Traffic in Multihop Wireless Networks," *Proc. IEEE Global Communications Conference (GLOBECOM'2011)*, Houston, USA, December 2011.

31. Phuong Luu Vo, Nguyen H. Tran, KiJoon Chae and Choong Seon Hong, "A Joint Congestion Control, Routing, and Scheduling Algorithm in Multihop Wireless Networks with Heterogeneous Flows," *The International Conference on Information Networking 2011 (ICOIN 2011)*, Kuala Lumpur, Malaysia, January 26-28, 2011.

32. Nguyen H. Tran, Choong Seon Hong, "Joint Rate Control and Spectrum Allocation under Packet Collision Constraint in Cognitive Radio Networks," *Proc. IEEE Global Communications Conference (GLOBECOM'2010)*, Miami, USA, November 2010.

33. Nguyen H. Tran, Choong Seon Hong, "On The Throughput-Optimal Distributed Scheduling Schemes with Delay Analysis in Multi-hop Wireless Net-works," *IEEE International Workshop on Broadband Convergence Networks (BcN 2010), co-located with IEEE/IFIP Network Operations and Management Symposium (NOMS 2010)*, Osaka, Japan, April 2010.

34. Nguyen H. Tran, Choong Seon Hong, "Joint Scheduling and Channel Allocation in Wireless Mesh Networks," *Proc. IEEE Consumer Communications and Networking Conference (CCNC'2008)*, Las Vegas, USA, January 2008.

35. Nguyen H. Tran, Choong Seon Hong, "Scheduling Management in Wireless Mesh Networks," *Proc. Asia-Pacific Network Operations and Management Symposium (APNOMS 2007), LNCS4773*, Sapporo, Japan, October 2007.

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