

# Curriculum Vitae of Edith Ngai

Current Position:       **Associate Professor, Uppsala University, Sweden (2012-present)**  
                              **Guest Researcher, Ericsson Research, Sweden (2015-present)**

Address:   Department of Information Technology, Uppsala University, Sweden  
              Box 337, SE-751 05 Uppsala, Sweden

E-mail:     edith.ngai@it.uu.se

Phone:       +46 (0)70 167 9360

Web:        <http://user.it.uu.se/~eding810/>

Nationality:   Hong Kong, Swedish

## Academic Education and Degrees

- Docent in Computer Communications, Uppsala University, Sweden, 2013
- Post-doc in Department of Electrical and Electronic Engineering, Imperial College London, UK, 2008
- Ph.D. in Computer Science and Engineering, The Chinese University of Hong Kong, 2007
- M.Sc. in Computer Science and Engineering, The Chinese University of Hong Kong, 2004
- Bachelor in Computer Engineering, The Chinese University of Hong Kong, 2002

## Previous Experiences

2008-2012   **Assistant Professor**, Uppsala University, Sweden  
2009-2011   **Visiting Scholar**, UCLA, United States  
2007-2008   **Research Associate**, Imperial College London, United Kingdom  
2004-2007   **Research Assistant**, The Chinese University of Hong Kong  
Oct 2006     **Visiting Research Assistant**, Tsinghua University, China  
2005-2006   **Visiting Research Assistant**, Simon Fraser University, Canada  
2002-2004   **Research Assistant**, The Chinese University of Hong Kong

## Awards and Honors

2016        **ACM Senior Member**  
2015        **IEEE Senior Member**  
2013        **Best Paper Award Runner-Up**, ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN)  
2009        **Best Paper Award Runner-Up**, IEEE International Symposium on Quality of Service (IWQoS)  
2009        **VINNMER Fellow**, Swedish Governmental Agency for Innovation Systems (Vinnova)  
2005, 2006   **Excellent Teaching Assistants of the Year Award**, The Chinese University of Hong Kong  
2005        Sir Edward Youde Memorial Fellowship  
2004        Bronze Award, Hong Kong Computer Society IT Excellence Competition  
2003        Most Innovative Application Award, Microsoft's Asia Student .NET Competition  
2002        The Best .NET Application of the Year Award, Microsoft's Student Developer Competition

- 2002 Dean's List in Engineering Faculty, The Chinese University of Hong Kong  
2001 Silver Award, Hong Kong J2ME Open Competition

### Research Grants

(1usd = 8.2sek)

- 2015-2016 PI, 1.2Msek, Swedish Foundation for Strategic Research (SSF)  
*"Securing data objects for future Internet"*
- 2014-2017 PI, 20.5Msek, Swedish Governmental Agency for Innovation Systems (Vinnova)  
*"GreenIoT: An energy-efficient IoT platform for open data and sustainable development"*
- 2015-2016 PI, 0.2Msek, Uppsala University SPARC Fund for BioMedIT  
*"Chopsticks: Mobile sensing for rehabilitation"*
- 2009-2014 Co-PI in cluster, 5Msek, SSF Profun Project,  
*"Optimization in wireless sensor networks"*
- 2012-2013 PI, 0.25Msek, Swedish Foundation for International Collaboration (STINT)  
*"Green Mobile Cloud: Energy-efficient mobile content distribution and offloading"*
- 2012-2013 PI, 0.5Msek, Swedish Governmental Agency for Innovation Systems (Vinnova)  
*"An information-centric IoT infrastructure for pollution monitoring and sustainable traffic planning"*
- 2010-2012 Uppsala University Leader, 1Msek, SSF Center of Networked Systems  
*"Content-centric networking using mobile gateways"*
- 2009-2012 PI, 1.6Msek, Vinnova VINNMER programme  
*"Effective and secure collaborative sensing with mobile phones and sensors"*
- 2009-2013 Participant, Vinnova Center on Wireless Sensor Networks  
*"Information-centric data collection for wireless sensor networks"*

### Commission of Trust

- 2016 Review Panel, NT-13 in Swedish Research Council (VR), Sweden
- 2015-2016 Review Panel, VINNOVA Strategic Innovation Programme on IoT, Sweden
- 2015-2017 Evaluation committee, Uppsala CleanTech Challenge, Sweden
- 2012-2017 PhD thesis external examiner:
- University of Linköping, Sweden (2017)
  - Royal Institute of Technology (KTH), Sweden (2016)
  - University of Goettingen, Germany (2015)
  - National University of Singapore, Singapore (2014)
  - The Hong Kong Polytechnics University, Hong Kong (2014)
  - Sapienza University of Rome, Italy (2012)

## **Professional Services**

### *Journal Editorial:*

- Editorial Board, EAI endorsed Transactions on Collaborative Computing (2015-present)
- Technical Committee, Elsevier Computer Communications (2014-present)
- Lead Guest Editor, Special Issue on IoT for Smart Cities and Urban Informatics (2016), IEEE Transactions on Industrial Informatics
- Guest Editor, Special Issue on Cloud Computing for IoT (2015), IEEE Internet of Things Journal
- Guest Editor, Special Issue on Quality of Service for Heterogeneous Wireless Networks (2014), Springer Mobile Networks and Applications (MONET)
- Guest Editor, Special Issue on Design, Implementation, and Evaluation of Wireless Sensor Network Systems (2010), EURASIP Journal on Wireless Communications and Networking

### *Steering Committee Chair:*

- IEEE Infocom Workshop on Smart Cities and Urban Informatics, 2016-2017

### *Program Chair:*

- ACM womENCourage 2015  
The ACM-W Europe womENCourage Conference is a scientific event aimed at networking and exploring career opportunities for women in computer science and related disciplines. The number of participants was around 200 people from all over Europe and other places during 24-26 September 2015 in Uppsala, Sweden.

### *Co-organiser:*

- Dagstuhl Seminar on Information-centric Networking and Security, Jun 2016

### *TPC Co-chair:*

- ICIN Workshop on IoT Infrastructures and Data Analytics for Smart Cities (IIDASC 2017)
- IEEE International Conference on Smart City (IEEE Smart City 2015)
- EAI International Conference on Smart Urban Mobility Services (SUM 2015)
- IEEE Infocom First International Workshop on Smart Cities and Urban Informatics (SmartCity 2015)
- IEEE Sensor Networks Track, International Conference on Intelligent Sensors, Sensor Networks and Information Processing (IEEE ISSNIP 2015)
- International Conference on Heterogeneous Networking for Quality, Reliability, Security and Robustness (QShine 2014)
- Swedish National Computer Networking Workshop (SNCNW 2012)

### *Publicity Co-chair:*

- ACM Conference on Information Centric Networking (ACM ICN 2017)
- IEEE/ACM International Symposium on Quality of Service (IWQoS 2016)
- IEEE International Conference on Mobile Ad-hoc and Sensor Networks (MSN 2012)

### *Publication Chair:*

- IEEE/ACM International Symposium on Quality of Service (IWQoS 2015)

Regularly serve as TPC member in conferences: IEEE Infocom, IEEE ICDCS, IEEE/ACM IWQoS, IEEE ICC, IEEE Globecom, IEEE LCN, etc.

Regularly serve as reviewer for journals: ACM TOSN, IEEE TMC, IEEE TVT, IEEE TPDS, IEEE TCC, Computer Networks, etc.

### Teaching Experience

- |              |                                                                                                     |
|--------------|-----------------------------------------------------------------------------------------------------|
| 2013-2016    | Director of Master Programme in Computer Science, Uppsala University, Sweden                        |
| 2012-present | Senior Lecturer, Department of Information Technology, Uppsala University, Sweden                   |
| 2008-2012    | Lecturer, Department of Information Technology, Uppsala University, Sweden                          |
| 2007-2008    | Demonstrator, Department of Electrical and Electronic Engineering, Imperial College London, UK      |
| 2004-2007    | Teaching Assistant, Department of Computer Science and Engineering, Chinese University of Hong Kong |
| 2003-2004    | Teaching Assistant, Open University of Hong Kong                                                    |

### Current Students

- Xiuming Liu, PhD student, 2015-
- Teng Xi, visiting PhD student from Beijing University of Post and Telecommunications, 2015-
- Abdulrahman Khankan (M.Sc. student, 2016-)
- Mohammad Alsioufi (M.Sc. student, 2016-)
- Max Wijnbladh (M.Sc. student, 2016-)
- Sami Kaivonen (M.Sc. student, 2016-)

### Completed PhD Students

- Frederik Hermans, Uppsala University, completed PhD in Oct 2014. (Currently in Google, Sweden)
- Farshid Hassani Bijarbooneh, Uppsala University, completed PhD in Mar 2015. (Currently post-doc in HKUST)
- Chunsheng Zhu, visiting PhD student from University of British Columbia, Canada (co-supervised with Prof. Victor Leung), Jul 2015 (Currently post-doc at UBC)
- Zheng Song, visiting PhD student from Beijing University of Posts and Telecommunications (co-supervised with Prof. Wendong Wang), China, Jul-Aug 2014 (Currently post-doc at Virginia Tech, USA)
- David Koll, visiting PhD student from University of Goettingen, Germany (co-supervised with Prof. Xiaoming Fu), Feb-Mar 2014 (Currently post-doc at University of Goettingen)

- Xiping Hu, visiting PhD student from University of British Columbia, Canada (co-supervised with Prof. Victor Leung), Aug 2013 (Currently Professor at Chinese Academy of Sciences, Shenzhen)
- Ryan Shea, visiting PhD student from Simon Fraser University, Canada (co-supervised with Prof Jiangchuan Liu), Jun 2012 (Currently post-doc at SFU)
- Junjie Xiong, visiting PhD student from Chinese University of Hong Kong (co-supervised with Prof. Michael Lyu), May-Aug 2010 (Currently Lecturer in Shanghai University of Finance and Economics)

### **Completed Master Students**

- Varun Subramanian, Data Analysis for Predicting Air Pollution in Smart City Uppsala, Feb 2016.
- Rudolfs Agrens, Sensor Network for Real-Time Air Quality Measurement, Jan 2016.
- Aji John Pushpam, Wireless Air quality and Emission Monitoring, Nov 2015.
- Varun Subramanian, Smart City Uppsala: IoT for Pollution Detection and Monitoring System, Nov 2015.
- Iosif Karkanis, Exploring Eye Tracking Techniques on Smartphones. Student thesis, Jun 2015.
- Daniel Forsell, Mitigation of Virtunoid Attacks on Cloud Computing Systems, Feb 2015.
- Georgios Fotopoulos, Context-Aware Mobile Sensing for Safe Driving, Jan 2015.
- Kiril Goguev, SADHealth: An E-Health Profile for Cataloguing Life Statistics Based on Light Exposure, Jun 2014.
- Negar Makvandian, Monitoring Seasonal Affective Disorder Using Light Intensity Sensors, Jan 2013.
- Yemao (Nick) Man, Energy-Efficient Location-Based Services for Mobile Sensing, Jun 2013.
- Soodeh Gholamzadeh, Context-Oriented Programming for Mobile and Sensor Networks, Aug 2013.
- Gang Xu, Collaborative Data Collection for Mobile Sensor Networks, Student thesis, Sep 2012.
- Xiaoyu Tong, Efficient Collaborative Sensing with Sensors and Mobile phones, Jun 2011.
- He Huang, A Publish/Subscribe Data Gathering Framework Integrating Wireless Sensor Networks and Mobile Phones, 2010.
- Joao Guerreiro, Secure Web Services for Wireless Sensor Networks, 2010.
- Guduru Pradeep, An Adaptive Cross-Layer Design for Energy-Efficient Wireless Communications, 2009.
- Zheng Ruan, Wireless Sensor Network Deployment in Mobile Phones Assisted Environment, 2009.
- Gregory Humber, Quality of Information Aware Data Delivery in Wireless Sensor Networks, 2009.
- Pontus Ekberg, Swarm-Intelligent Localization, 2009.

### **Invited Talks**

- "GreenIoT and data modelling for smart cities," Invited talk, Sun Yat-Sen Univeristy, China, 14 Dec 2016.
- "GreenIoT and data modelling for smart cities," Invited talk, Beijing University of Posts and Telecommunications, China, 7 Dec 2016.

- "GreenIoT: An energy efficient IoT platform for open data and sustainable development," Invited talk, UniverCITY Conference, Stockholm, Sweden, 14 Oct 2016.
- "GreenIoT for smart cities and urban informatics," Invited talk, IBM Research Watson, New York, USA, 8 Dec 2015.
- "Opportunities and challenges of globally networked sensors and cameras," Panel in IEEE International Conference on Cloud Computing Technology (CloudCom 2015), Vancouver, Canada, 2 Dec 2015.
- "Green Internet-of-Things for smart cities and urban informatics," Invited talk, City University of Hong Kong, 17 Jun 2015.
- "Optimizing quality-of-information from mobile sensor networks to mobile crowdsensing," Invited talk, Beijing University of Posts and Telecommunications, 22 Dec 2014.
- "Information-centric and ubiquitous data collection for Internet-of-Things applications," Keynote speech, NSERC DIVA Workshop on Vehicular Networks and Intelligent Transportation, Ottawa, Canada, 12 Nov 2013.
- "Information-centric and ubiquitous data collection for Internet-of-Things," University of Goettingen, Germany, 26 Nov 2013.
- "Information-Centric Internet-of-Things - A Paradigm for Future Internet," Docent lecture, Uppsala University, 18 Sep 2013.
- "Developing an Information-Centric Internet-of-Things", Tsinghua University, Beijing, China, Mar 2013.
- "Developing an Information-Centric Internet-of-Things: Opportunities and Challenges", ICT-Pub Uppsala, Sweden, Oct 2012.
- "Context-Aware Information Sharing for Mobile Sensing Networks," in Simon Fraser University, Canada, Jul 2012.
- "Context-Aware Sensor Data Dissemination for Mobile Users in Remote Areas," in Chinese University of Hong Kong, China, Apr 2012.
- "Context-Aware Sensor Data Dissemination for Mobile Users in Remote Areas," in KTH, Stockholm, Sweden, Feb 2012.
- "Information-Aware Traffic Reduction for Wireless Sensor Networks," in Swedish Institute of Computer Science (SICS), Stockholm, Sweden, Dec 2009.
- "Information-Aware Data Reporting for Wireless Sensor Networks," in Women in Mathematics and Information Technology, Uppsala University, Feb 2009.
- "Adaptive QoS Routing for Significant Events in Wireless Sensor Networks," in Department of Information Technology, Uppsala University, Sweden, Oct 2008.
- "Adaptive Random Re-Routing in Sensor Networks," Vrije University, Amsterdam, Netherland, May 2008.
- "Adaptive Random Re-Routing in Sensor Networks," Seoul National University, Korea, Apr 2008.
- "Random Re-Routing in Sensor Networks," Lecture, Imperial College London, UK, Mar 2008.
- "Reliable Reporting of Delay-Sensitive Events in Wireless Sensor-Actuator Networks," in Tsinghua National Laboratory for Information Science and Technology, Tsinghua University, Beijing, China, Oct 2006.

## Publications

### *Journal Articles*

- J1. **E. C.-H. Ngai**, J. Liu, and M. R. Lyu, An Efficient Intruder Detection Algorithm Against Sinkhole Attacks in Wireless Sensor Networks, *Computer Communications*, vol. 30, September 2007, pp. 2353-2364. (Impact factor: 1.35)
- J2. **E. C.-H. Ngai**, J. Liu and M. R. Lyu, An Adaptive Delay-Minimized Route Design for Wireless Sensor-Actuator Networks, *IEEE Transactions on Vehicular Technology*, vol. 58, no. 9, 2009, pp. 5083-5094. (Impact factor: 2.642)
- J3. E. Gelenbe and **E. C.-H. Ngai**, Adaptive Random Re-Routing for Differentiated QoS in Sensor Networks, *The Computer Journal*, vol. 53, no. 7, 2010, pp. 1052-1061. (Impact factor: 1.024)
- J4. **E. C.-H. Ngai**, Y. Zhou, M. R. Lyu and J. Liu, A Delay-Aware Reliable Event Reporting Framework for Wireless Sensor-Actuator Networks, *Ad Hoc Networks*, vol. 8, Issue 7, September 2010, pp. 694-707. (Impact factor: 2.907)
- J5. **E. C.-H. Ngai**, On Providing Sink Anonymity for Sensor Network, *Security and Communication Networks*, vol. 4, 2011, pp. 1-10. (Impact factor: 0.433)
- J6. Z. Ruan, **E. C.-H. Ngai**, and J. Liu, Wireless Sensor Network Deployment in Mobile Phones Assisted Environment, *Computer Networks*, vol. 55, issue 15, 2011, pp. 3224-3245. (Impact factor: 1.282)
- J7. R. Shea, J. Liu, **E. C.-H. Ngai**, and Y. Cui, Cloud Gaming: Architecture and Performance, *IEEE Network*, vol. 27, issue 4, Jul/Aug 2013, pp. 16-21. (Impact factor: 3.72)
- J8. **E. C.-H. Ngai** and I. Rodhe, On Providing Location Privacy for Mobile Sinks in Wireless Sensor Networks, *Wireless Networks*, 19(1), 2013, pp. 115-130. (Impact factor: 1.055)
- J9. **E. C.-H. Ngai** and P. Gunningberg, Quality-of-Information Aware Data Collection for Mobile Sensor Networks, *Pervasive and Mobile Computing*, vol. 11, Apr 2014, pp. 203-215. (Impact factor: 1.667)
- J10. X. Hu, X. Li, **E. C.-H. Ngai**, V. C.M. Leung, P. Kruchten, Multi-Dimensional Context-Aware Social Network Architecture for Mobile Crowdsensing, *IEEE Communication Magazine*, vol. 52, no. 6, Jun 2014, pp. 78-87. (Impact factor: 4.46)
- J11. Y. Man and **E. C.-H. Ngai**, Energy-Efficient Automatic Location-Triggered Applications on Smartphones, *Computer Communications*, *Computer Communications*, vol. 50, Sep 2014, pp. 29-40. (Impact factor: 1.35)
- J12. X. Hu, T. Chu, V. Leung, **E. C.-H. Ngai**, P. Kruchten, and H. Chan, A Survey on Mobile Social Networks: Applications, Platforms, System Architectures, and Future Research Directions,

*IEEE Communications Surveys & Tutorials*, accepted, 2014. (Impact factor: 6.49)

- J.13. L. Zhou, X. Hu, **E. C.-H. Ngai**, H. Zhao, S. Wang, J. Wei, and V. Leung, A Dynamic Graph-based Scheduling and Interference Coordination Approach in Heterogeneous Cellular Networks, *IEEE Transactions on Vehicular Technology*, accepted, 2015. (Impact factor: 2.642)
- J.14. W. Li, C. Zhu, L. Yang, L. Shu, **E. C.-H. Ngai**, and Y. Ma, Subtasks Scheduling for Distributed Robots in Cloud Manufacturing, *IEEE Systems Journal*, accepted, 2015, pp.1-10. (Impact factor: 1.746)
- J.15 X. Hu, J. Deng, J. Zhao, W. Hu, **E. C.-H. Ngai**, R. Wang, J. Shen, M. Liang, X. Li, V. Leung, Y.-K. Kwok, SAFeDJ: A Crowd-Cloud Co-design Approach to Situation-aware Music Delivery for Drivers, *ACM Transactions on Multimedia Computing Communications and Applications*, Article 21 (October 2015), 24 pages. (Impact factor: 1.59)
- J.16 C. Zhu, V. C. M. Leung, Lei Shu and **E. C.-H. Ngai**, Green Internet of Things for Smart World, in *IEEE Access*, vol. 3, pp. 2151-2162, 2015.
- J.17 F. Bijarbooneh, W. Du, **E. C.-H. Ngai**, X. Fu, and J. Liu, Cloud-Assisted Data Fusion and Sensor Selection for Internet-of-Things," in *IEEE Internet of Things Journal*, vol. 3, no. 3, pp. 257-268, June 2016.
- J.18 L. McNamara and **E. C.-H. Ngai**, SADHealth: A Personal Mobile Sensing System for Seasonal Health Monitoring, *IEEE System Journal*, accepted, 2016. (Impact factor: 1.746)
- J.19 L. Zhang, D. Fu, J. Liu, **E. C.-H. Ngai**, W. Zhu, On Energy-Efficient Offloading in Mobile Cloud for Real Time Video Applications, *IEEE Transactions on Circuits and Systems for Video Technology*, accepted, 2016. (Impact factor: 2.615)
- J.20 Y. Tian, W. Wang, J. Wu, Q. Kou, Z. Song, and **E. C.-H. Ngai**, Privacy Preserving Social Tie Discovery Based on Cloaked Human Trajectories, *IEEE Transactions on Vehicular Technology*, accepted, 2016. (Impact factor: 2.642)
- J.21 Q. Liu, X. Hu, **E. C.-H. Ngai**, M. Liang, V. C.M. Leung, Z. Cai, J. Yin, A Security Patch Addressing Bandwidth Request Vulnerabilities in the IEEE 802.16 Standard, *IEEE Network Magazine*, accepted, 2016. (Impact factor: 2.54)
- J.22 W. Wang, T. Xi, **E. C.-H. Ngai**, and Z. Song, Energy-Efficient Collaborative Outdoor Localization for Participatory Sensing, *Sensors*, accepted, 2016. (Impact factor: 2.245)
- J.23 C. Zhu, X. Li, V. Leung, L. Yang, **E. C.-H. Ngai**, L. Shu, Towards Pricing for Sensor-Cloud, *IEEE Transactions on Cloud Computing*, accepted, 2016.
- J.24 B. Ahlgren, M. Hidell, and **E. C.-H. Ngai**, Internet-of-Things for Smart Cities: Interoperability and Open Data, *IEEE Internet Computing*, accepted, 2016. (Impact factor: 2.0)



**Conference Papers**

- C1. **E. C.-H. Ngai**, M. R. Lyu, and J. Liu, A Real-Time Communication Framework for Wireless Sensor-Actuator Networks, *IEEE Aerospace Conference 2006*, Big Sky, Montana, USA, March 2006, pp. 1-9.
- C2. **E. C.-H. Ngai** and M. R. Lyu, An Authentication Service Based on Trust and Clustering in Wireless Ad Hoc Networks: Description and Security Evaluation, *IEEE International Conference on Sensor Networks, Ubiquitous, and Trustworthy Computing (SUTC'06)*, Taichung, Taiwan, June 2006, pp. 1-8.
- C3. **E. C.-H. Ngai**, J. Liu, and M. R. Lyu, On the Intruder Detection for Sinkhole Attack in Wireless Sensor Networks, *IEEE International Conference on Communications (ICC'06)*, Istanbul, Turkey, June 2006, pp. 3383-3389.
- C4. Y. Zhou, H. Yang, M. R. Lyu, and **E. C.-H. Ngai**, A Point-Distribution Index And Its Application to Sensor Grouping in Wireless Sensor Networks, *International Wireless Communications and Mobile Computing Conference (IWCMC'06)*, Vancouver, Canada, July 2006, pp. 1171-1176.
- C5. **E. C.-H. Ngai**, Y. Zhou, M. R. Lyu, and J. Liu, Reliable Reporting of Delay-Sensitive Events in Wireless Sensor-Actuator Networks, *IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS'06)*, Vancouver, Canada, October 2006, pp. 101-108.
- C6. **E. C.-H. Ngai**, J. Liu, and M. R. Lyu, Delay-Minimized Route Design for Wireless Sensor-Actuator Networks, *IEEE Wireless Communications & Networking Conference (WCNC'07)*, Hong Kong, March 2007, pp. 3736 - 3740.
- C7. Y. Zhou, **E. C.-H. Ngai**, M. R. Lyu, and J. Liu, POWER-SPEED: A Power-Controlled Real-Time Data Transport Protocol for Wireless Sensor-Actuator Networks, *IEEE Wireless Communications & Networking Conference (WCNC'07)*, Hong Kong, March 2007, pp. 3675-3680.
- C8. **E. C.-H. Ngai**, J. Liu, and M. R. Lyu, An Adaptive Delay-Minimized Route Design for Wireless Sensor-Actuator Networks, *The 4th IEEE International Conference on Mobile Ad-Hoc and Sensor Systems (MASS'07)*, Pisa, Italy, October 2007, pp. 1-9.
- C9. **E. C.-H. Ngai**, Y. Zhou, M. R. Lyu, and J. Liu, LOFT: A Latency-Oriented Fault Tolerant Transport Protocol for Wireless Sensor-Actuator Networks, *IEEE Global Telecommunications Conference (Globecom'07)*, Washington, DC, USA, November 2007, pp. 1318-1323.
- C10. R. Lent and **E. C.-H. Ngai**, Lightweight Clustering in Wireless Sensor-Actuator Networks on Obstructed Environments, *IEEE International Symposium on Wireless Pervasive Computing (ISWPC'08)*, Santorini, Greece, May 2008, pp. 26-32.
- C11. E. Gelenbe and **E. C.-H. Ngai**, Random Re-Routing in Sensor Networks, *Annual Conference of International Technology Alliance (ACITA)*, Imperial College London, September 2008, pp. 348-349.

- C12. E. Gelenbe and **E. C.-H. Ngai**, Adaptive QoS Routing for Significant Events in Wireless Sensor Networks, *IEEE International Conference on Mobile Ad-Hoc and Sensor Systems (MASS'08)*, Atlanta, Georgia, 29 Sep – 2 Oct 2008, pp. 410-415.
- C13. S. Zahedi, **E. C.-H. Ngai**, E. Gelenbe, D. Mylaraswamy, and M. Srivastava, Information Quality Aware Sensor Network Services, *Asilomar Conference on Signals, Systems, and Computer*, Pacific Grove, CA, October 2008, pp. 1155-1159.
- C14. E. Gelenbe, **E. C.-H. Ngai**, and P. Yadav, Routing of High-Priority Packets in Wireless Sensor Networks, *SPIE Symp. Defense, Security and Sensing*, April 2009, Orlando USA, pp. 1-9.
- C15. **E. C.-H. Ngai**, E. Gelenbe, G. Humber, Information-Aware Traffic Reduction for Wireless Sensor Networks, *IEEE Conference on Local Computer Networks (LCN'09)*, Zurich, Switzerland, October 2009, pp. 451-458.
- C16. **E. C.-H. Ngai** and I. Rodhe, On Providing Location Privacy for Mobile Sinks in Wireless Sensor Networks, *ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM'09)*, Tenerife, Canary Islands, Spain, October 2009, pp. 116-123.
- C17. G. Humber and **E. C.-H. Ngai**, Quality-of-Information Aware Data Delivery for Wireless Sensor Networks: Description and Experiments, *IEEE Wireless Communications and Networking Conference (WCNC'10)*, Sydney, Australia, April 2010, pp. 1-6.
- C18. Z. Ruan, **E. C.-H. Ngai**, and J. Liu, Wireless Sensor Network Deployment in Mobile Phones Assisted Environment, *IEEE International Workshop on Quality of Service (IWQoS'10)*, Beijing, China, June 2010, pp. 1-9. **(Best Paper Award Runner-up, 4 out of 133 submissions)**
- C19. F. H. Bijarbooneh, P. Flener, **E. C.-H. Ngai** and J. Pearson, Energy-Efficient Task-Mapping for Data-Driven Sensor Network Macroprogramming Using Constraint Programming, *International Workshop on Constraint Modelling and Reformulation (ModRef'10)*, St. Andrews, Scotland, UK, September 2010, pp. 1-11.
- C20. F. Chen, X. Tong, **E. C.-H. Ngai** and F. Dresslor, Mode Switch - Adaptive Use of Delay-Sensitive Or Energy-Aware Communication in IEEE 802.15.4-Based Networks, *IEEE International Conference on Mobile Ad-Hoc and Sensor Systems (MASS'10)*, San Francisco, CA, USA, November 2010, pp. 302-311.
- C21. F. H. Bijarbooneh, P. Flener, **E. C.-H. Ngai** and J. Pearson, Energy-Efficient Task-Mapping for Data-Driven Sensor Network Macroprogramming Using Constraint Programming, *INFORMS Computing Society Conference (ICS'11)*, Monterey, California, USA, January 2011, pp. 1-13.
- C22. F. Hermans, **E. C.-H. Ngai** and P. Gunningberg, Mobile Sources in an Information-Centric Network with Hierarchical Names: An Indirection Approach, *Swedish National Computer Networking Workshop (SNCNW)*, Linköping, June 2011, pp. 1-4.
- C23. **E. C.-H. Ngai**, H. Huang, J. Liu and M. Srivastava, OppSense: Information Sharing for Mobile Phones in Sensing Field with Data Repositories, *IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON)*, Salt Lake City, Utah, USA,

June 2011, pp. 107-115.

- C24. **E. C.-H. Ngai** and J. Xiong, Adaptive Collaborative Sensing Using Mobile Phones and Stationary Sensors, *International workshop on Adaptive and Dependable Mobile Ubiquitous Systems*, Hong Kong, China, June 2011, pp. 280-285.
- C25. P. Ekberg and **E. C.-H. Ngai**, A Distributed Swarm-Intelligent Localization for Sensor Networks with Mobile Nodes, *International Wireless Communications and Mobile Computing Conference (IWCMC 2011)*, Istanbul, Turkey, July 2011, pp. 83-88.
- C26. Y. Kim, **E. C.-H. Ngai**, and M. B. Srivastava, Cooperative State Estimation for Preserving Privacy of User Behaviors in Smart Grid, *IEEE International Conference on Smart Grid Communications (SmartGridComm)*, Brussels, Belgium, October 2011, pp. 178-183.
- C27. J. Xiong, **E. C.-H. Ngai**, Y. Zhou and M. R. Lyu, RealProct: Reliable Protocol Conformance Testing with Real Nodes for Wireless Sensor Networks, *IEEE International Conference on Trust, Security and Privacy in Computing and Communications (TrustCom)*, Changsha, China, November 2011, pp. 572-581.
- C28. **E. C.-H. Ngai** and P. Gunningberg, Quality-of-Information Aware Data Collection for Mobile Sensor Networks, *International Workshop on Information Quality and Quality of Service for Pervasive Computing (IQ2S)*, Lugano, Switzerland, March 2012, pp. 1-6. (Invited paper)
- C29. **E. C.-H. Ngai**, M. B. Srivastava and J. Liu, Context-Aware Sensor Data Dissemination for Mobile Users in Remote Areas, *IEEE International Conference on Computer Communications (Infocom)*, Orlando, FL, USA, March 2012, pp. 2711-2715.
- C30. H. Huang, **E. C.-H. Ngai** and J. Liu, A Location-Based Publish/Subscribe Framework for Wireless Sensors and Mobile Phones, *IEEE Wireless Communications and Networking Conference (WCNC)*, Paris, France, April 2012, pp. 2173-2178.
- C31. F. H. Bijarbooneh, P. Flener, **E. C.-H. Ngai** and J. Pearson, An Optimization-based Approach for Wireless Sensor Deployment in Mobile Sensing Environments, *IEEE Wireless Communications and Networking Conference (WCNC)*, Paris, France, April 2012, pp. 2108-2112.
- C32. X. Tong and **E. C.-H. Ngai**, A Ubiquitous Publish/Subscribe Platform for Wireless Sensor Networks, *IEEE International Conference on Distributed Computing in Sensor Systems (DCOSS)*, Hangzhou, China, May 2012, pp. 99-108.
- C33. F. Hermans, **E. C.-H. Ngai** and P. Gunningberg, Global Source Mobility in the Content-Centric Networking Architecture, *ACM MobiHoc Workshop on Emerging Name-Oriented Mobile Networking Design (NOM)*, South Carolina, USA, June 2012, pp. 13-18.
- C34. F. Chen, J. Liu, Y. Zhao, and **E. C.-H. Ngai**, Collaborative View Synthesis for Interactive Multi-view Video Streaming, *ACM International Workshop on Network and Operating System Support for Digital Audio and Video (NOSSDAV)*, Toronto, Canada, June 2012, pp. 51-56.

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