Mira Yun

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AREAS OF INTERESTS

- Computer Science Education
- Undergraduate Research
- Heterogeneous Wireless Networks
- Resource Management in Wireless Networks
- Modeling and Analysis of Network Traffic
- Network Protocol Design and Analysis

EDUCATION

Ph.D. in Computer Science
The George Washington University, Washington DC, May 2011

Visiting Scholar – Network and Optimization Research Center at The George Washington University, Washington DC, 2004 - 2005

M.S. in Telematics Engineering
Pukyong National University, Busan, South Korea, February 2004

B.S. in Telematics Engineering
Pukyong National University, Busan, South Korea, February 2002

ACADEMIC EXPERIENCE

Boston College
Professor of the Practice   **Fall 2024 – Present**
Visiting Professor of the Practice   Spring 2023 – Spring2024

Wentworth Institute of Technology
Professor   **Spring 2021 – Fall2022**
Associate Professor   Spring 2016 – Fall2020
Assistant Professor   Fall 2011 – Fall 2015
School of Computing and Data Science

• Teach freshman through senior undergraduate courses in computer science

• Advise students on scheduling, job searches, and graduate study

• Serve on committees relating to program curricula and international education

• Conduct research on computer science education for undergraduate & K-12

- **Course List @ BC:**
  - o CSCI1101 – Computer Science I, Fall 2023
  - o CSCI2254 – Web Application Development, Fall 2023/Spring2024/Fall2024
  - o CSCI2271 – Computer Systems, Spring2023/Spring2024
  - o CSCI3390 – Wireless and Mobile Networks, Spring2023/Fall2024

- **Course List @ WIT:**
  - o COMP105/1170 – Intro to Networking & Systems, Fall2012/2013/2014/2015
  - o COMP1010 – Fundamentals of IT, Fall2022
  - o COMP1100 – Introduction to Networks, Fall2019/2020
  - o COMP 120/128/1000 – Computer Science I (C/C++/JAVA), Fall2011~2014/Fall2021
  - o COMP201/1071 – Computer Science II(C++), Spring2015/Fall2015
  - o COMP400 – Local & Wide Area Networks, Summer2012/2013/2014/2015
  - o COMP520/3171 - 802.11 Wireless Networks, Fall2013-Fall2016
  - o COMP685/4871 – Seminar in CS/Networking, Spring2012/2014/2016
  - o COMP2100 – Network Programming, Fall2016/Fall2017/Fall2022
  - o COMP2160 – Wireless Networks, Spring2017/2018/2019/2020/2021/2022
  - o COMP3800 –Advanced Wireless Networks, Spring2017/2018/2019/2020
  - o COMP3800 – Medical Device Networking, Fall2017
  - o COMP3800 – Wireless Security, Fall2021/Spring2022/Summer2022
  - o COMP4871 – Seminar in Computer Science & networking, Fall2011/2012/2014/2016
  - o COMP4950 – IT Project Management, Spring2021
  - o COMP5500/5501/5502 – Senior Project, Summer2016-2022

AWARDS & HONORS

2018 The President's Achievement Award for Distinguished Academic Advising, WIT

2018 EPIC Mini Grants Award ($5000), WIT

Best Poster Award, 2017 ACM UIST Conference, 2017

2015 WIT Sagan Faculty Grant ($13,719.83)

Best Paper Award, OPNET 2007 Technology Conference, 2007

2008 KOCSEA Moon-Jung Chung Scholarship ($500)

2008 GWU Summer Graduate Research Fellowship in Computer Science ($4,000)

2005-2007 Korea Research Foundation - Graduate Studies Abroad Program Fellowship ($60,000)

2004 Korea Science Foundation - International Collaborative Research Fellowship ($25,000)

SELECTED SERVICE ACTIVITIES

@ BC

Member, Curriculum Committee, Fall 2023 – Present

Member, 2024 MCAS Dean's Scholar Award Selection Committee, Spring 2024

Faculty Advisor, Eau de Boston (the perfume/cologne club) of BC, Fall 2023 - Present
CS Resource Advisor, FYE's Summer Orientation Program, 2023/2024

@ WIT
Chair BSIT Curriculum Committee/Development, 2020 - 2022
Chair, BSCN Curriculum Committee, 2019 – 2022
Chair, CS Faculty Search Committee, 2019 – 2022
Chair, Study Abroad Committee, 2017 – 2022
Member, ABET Committee, 2015 – 2022
Member, Provost's Advisory Committee, 2021-2022
Member, Global Education Opportunities Committee, 2012 – 2022
Member, Enrollment and Admissions Subcommittee of the Faculty Senate, 2019 – 2022
Member, Respectful Engagement Task Force, 2020-2021
Member, Faculty Search Committee, 2016-2018
Member, BSCN Curriculum Committee, 2012 – 2018
Member, BSIS Curriculum Committee, 2016

PROFESSIONAL SERVICES

- Developed and deployed an 8-weeks CS course for K-12 at Hurley Boston Public School, 2019-2020
- Program Committee, International Conference on Wireless Algorithms, Systems and Applications, 2018
- External Reviewer, Tenure and Promotion Committee, University of Houston 2017
- Program Vice Co-Chair:
  - Embedded Computing and Systems Track, International Conference on Frontier of Computer Science and Technology (FCST-2012)
- Technical Program Committee:
  - IEEE Annual Information Technology, Electronics and Mobile Communication Conference (IEEE IEMCON 2022)
  - Multimedia Systems and Networks Track, International Conference on Frontier of Computer Science and Technology (FCST-2012)
  - International Workshop on Data Management and Network Control in wireless networks (DMNC 2010), in conjunction with WASA 2010
  - International Conference on SuComs (Security-enriched Urban Computing and Smart Grid), 2010
- Conference Referee:
  - Reviewer International Conference on Model-Driven Engineering and Software Development, MODELSWARD 2013/2016
  - Reviewer Consortium for Computing Sciences in Colleges (CCSC) 2014/2015
  - Reviewer IEEE Intelligence and Security Informatics 2012/2013/2014/2015/2016/2017
  - Reviewer IEEE International Symposium on Wireless Communication Systems 2009

- Reviewer IEEE International Conference on Mobile Ad-hoc and Sensor Systems 2009
- Reviewer IEEE Vehicular Technology Conference (VTC) 2007/2008
- Journal Referee:
  - MDPI Journals – Sensors, Information, Algorithms, Applied Sciences, Future Internet, Symmetry, Electronics, 2011-Present
  - IEEE Transactions on Network Science and Engineering 2017, 2018
  - IEEE Transactions on Vehicular Technology 2016
  - IEEE Systems, Man and Cybernetics: Systems (SMCS) 2013/2014/2015
  - KSII Transactions on Internet and Information Systems (TIIS) 2013

RESEARCH EXPERIENCE

CS Education for Young Learners

- **Playful CS for Girl Scout Juniors**

  I launched two CS workshops for young girls in fourth and fifth grade as part of a larger Girl Scouts of America initiative. These workshops embrace playfulness as a fundamental design constraint to ensure an early positive association with STEM concepts. Students are exposed to basic coding skills through simple robots that are programmed to play games. Survey results show that these workshops lead to a stronger interest in CS for the participants.

- **Undergraduate Coaches for Young Learners with Playful CS**

  Growing interest in CS has led to a shortage of qualified educators for K-12 level instruction. Many out-of-school-time computing programs are led by well-intentioned individuals with little formal training in education such as undergraduate students pursuing computing degrees. This results in environments that are often not conducive to learning for students coming from diverse cultural and educational backgrounds. I addressed some of these challenges by using undergraduates as coaches in K-12 outreach CS activities for underrepresented students. These coaches are given essential pedagogical training with playful material that allows them to succeed as educators.

Mobile Base Station Placement in Public Safety Networks

- **Efficient Mobile Base Station Placement for First Responders**

  I developed two mobile station placement algorithms to meet the critical communication requirements of first responders in an ad hoc public safety network. By considering the class of first responders and user equipment applications, I provide an efficient base station placement algorithm to maximize critical communication needs according to priority levels.

- **Dynamic placement Algorithm for Multiple Classes of Mobile Base Station**

  I defined different classes of mobile base stations that have varying performance characteristics and devised three different first responders mobility models. My proposed algorithm applies the modern clustering technique to deal with the characteristics of different kinds of mobile base stations.

Channel Assignment and Scheduling Algorithms in Wireless Mesh Networks

- **Multi-Radio Multi-Channel Scheduling considering Switching Overheads**

  I generated two channel assignment algorithms (centralized and distributed) with considering switching overhead. Switching overhead is a major factor that limits overall network throughput in dynamic channel assignment schemes. I extended existing algorithms, Greedy Maximal Scheduling and Distributed Maximal Scheduling, taking the switching delay into account in the channel assignment.

- **RL-based Queue Management for QoS Support**

  I developed a RL based queue management scheme that supports QoS in multi-radio multi-channel wireless mesh networks. I developed an algorithm that takes into account differentiated queue management and channel assignment together. I used the technique of RL for the important step of assigning packet to one of the queues.

Transmission of Patient Data in Wireless Hospital Networks

- **Intelligent Transmission of Patient Sensor Data in Wireless Hospital Networks**

  By applying reinforcement learning (RL)-based queue management and scheduling methods, I designed an intelligent patient data transmission scheme in Wireless Hospital Networks. In this scheme, I used a game-theoretical approach where patients compete for transmission resources by assigning different utility values to data packets. These utility functions are largely based on data criticality and deadline, which together determine the data's scheduling priority.

Online Math Education System (e-learning)

- **Intelligent Math Education System**

  I established an on-line math education system that provide higher quality education by allowing the users to work through the curricula at a self-set pace. I developed a parser based on context-free grammar to generate the semantic meaning of each mathematical problem at a high-school level.

Optimal Resource Management in Multi-Access Networks

- **Multi-Network Expert System (MNES)**

  I implemented a decision support system that optimizes service-network combinations within multi-access wireless network environments considering network load and service traffic characteristics both from marketing and network engineering points of view.

- **MANSim: Multiple Access Network Simulator**

  I built a large-scale wireless network simulator that analyzes the performance of Common Radio Resource Management (CRRM). I used a utility-based approach to access selection in Multi-access Wireless Networks.

- **Scheduling and Rate Assignment for Policy Driven QoS Support in HSDPA**

  I created a QoS-aware policy-driven scheduling algorithm in HSDPA (High-Speed Downlink Packet Access). I considered the problem of scheduling and rate assignment on

the forward link while maximizing total utility in a multiuser system where multiple users can be scheduled during each interval. I developed a knapsack-like greedy algorithm to the utility maximizing problem and proved that the total utility under the algorithm converges to the maximum.

Resource Management Schemes for User-Generated Content (UGC) Service

- **Uplink Traffic Management Scheme in Enhanced Mobile Data Networks**

  I constructed various uplink scheduling algorithms for HSUPA/EvDO Rev. A/WiMAX. Utility function based Common Radio Resource Management algorithms, Round Robin, Proportional Fair, and Maximum C/I algorithm were developed and implemented in UGC Service Network Test-bed.

PUBLICATIONS

Journal Articles

[1] Jaeeun Jang, Sangmin Kim, Howon Moon, Sang Heong Shin, **Mira Yun**, Charles Wiseman, "Instance-level Entity Linking System with Superior Numerical Information Recognition", submiited to Complex & Intelligent Systems, 2024.

[2] **[Book Chapter]** Leonidas Deligiannidis, Charlie Wiseman, **Mira Yun**, and Hamid R. Arabnia, "Security Projects for Systems and Networking Professionals", Emerging Trends in Information and Communication Technologies Security, pp. 111 -122, Nov 2013

[3] Jae-Hoon Kim, Jung-Gyo Sohn, **Mira Yun**, Ga-Young Oh, Hyeong-In Choi1, Hyeong-Ah Choi, "Design of a Web-based Decision Support System for Service Portfolios in Heterogeneous Radio Access Network Environment," Journal of Network and Systems Management, 2012.

[4] **Mira Yun**, Ju-Dong Shin, Chang-Hyun Jeong, Jun-Mo Cho, Oh-Han Kang, Sung-Un Kim, "Optical-LSP Establishment and a QoS Maintenance Scheme Based on Differentiated Optical QoS Classes in OVPNs," Photonic Network Communications, 7:2, pp. 161-178, March 2004.

Conference Papers

[5] J. Jang, S. Kim, M. Lee, **Mira Yun**, and Charles Wiseman, "*imEL*: Instance-level Masked Entity Linking Model", 2024 58th Annual Conference on Information Sciences and Systems (CISS), Princeton, NJ, March 2024

[6] M. Wojtaszek, C. Hakimian, S. Park, M. Ellabidy, and **Mira Yun**, "PiManager ", In Proc. of Hawaii International Conference on Education 2023, Hawaii, USA, January 2023

[7] M. Vasconcelos, M. Vasconcelos, M. Ellabidy, D. Albanese, and **Mira Yun**, "PiShield: Low-Cost Shield for Public Wi-Fi", In Proc. of Hawaii International Conference on Education 2023, Hawaii, USA, January 2023

[8]   N. Bohan, M. Manzi and **Mira Yun**, "Network2U: Cloud Business Templates," In Proc. of 2022 IEEE 13th Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON), 2022, pp. 0014-0018.

[9]   D. Coles, M. Peterson, S. Park and **Mira Yun**, "RokuControl-Conducting MITM Attacks on Roku," In Proc. of 2022 IEEE 13th Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON), 2022, pp. 0440-0444.

[10] A. Beauchaine, O. Collins, and **Mira Yun**,"BotsideP2P: A Peer-to-Peer Botnet Testbed", In Proc. of the 2021 IEEE 12th Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (UEMCON), pp. 0236-0242, December 2021

[11] J. Spanilo, D. Edwards, S. Park, and **Mira Yun**, "DenCity: A WiFi Location Tracking Solution", In Proc. of the 2021 IEEE 12th Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (UEMCON), pp. 0309-0312, December 2021

[12] A. Lohr, J. Thebarge, M. Kwong, **Mira Yun,** and M. Ellabidy, "VICTR: Virtualized Infrastructure with Cyber and Testbed Resources", In Proc. of the 14th Annual International Conf. of Edu. Research and Innovation (ICERI'21), pp. 9628-9635, November 2021

[13] S. Ellington, V. Titenko, D. Chan, **Mira Yun,** and L. Deligiannidis, "Homegrown Acoustic Data Transmission: An Examination of Wave-Gui", In Proc. of the 14th Annual International Conf. of Edu. Research and Innovation (ICERI'21), pp. 9612-9620, November 2021

[14] A. Beauchaine, M. Macchiaroli, and **Mira Yun**, "iBoT: IoT Botnet Testbed", In Proc. of 2021 16th International Conference on Computer Science & Education (ICCSE), Lancaster, United Kingdom, pp. 822-827, August 2021

[15] J. Park, **Mira Yun**, A. Jung, and C. Wiseman, "Undergraduate Coaches for Young Learners with Playful Computer Science", In Proc. of the 17th Int'l Conf on Frontiers in Education: Computer Science and Computer Engineering (FECS'21), July 2021

[16] **Mira Yun**, J. Park, A. Jung, and C. Wiseman, "Playful Computer Science for Girl Scout Juniors," In Proc. of the 2020 IEEE Global Engineering Education Conference (EDUCON), Porto, Portugal, pp. 1259-1265, April 2020

[17] S. J. Lee, A. Jung, J. Park and **Mira Yun**, "Cost-efficient Hands-on Learning Design for Computer Organization Course," In Proc. of the 2020 15th International Conference on Computer Science & Education (ICCSE), Delft, Netherlands, pp. 150-155, August 2020

[18] Chris Kaberle, Anthony Milani, **Mira Yun**, and Magdy Ellabidy, "Easy as Pi Vehicle Safety System", In Proc. of Hawaii International Conference on Education 2020, Hawaii, USA, January 2020

[19] Kai Zhao, Olivia Deng, Johnny Huang, and **Mira Yun**, "Hungry Leopards", In Proc. of Hawaii International Conference on Education 2020, Hawaii, USA, January 2020

[20] Andrew Corsi, Edgar Romero, **Mira Yun**, and Leonidas Deligiannidis "CrossConnect: A Cross Registration Tool", In Proc. of the 2019 International Conference on Computational Science & Computational Intelligence (CSCI' 2019), Las Vegas, USA, December 2019.

[21] W. Shue, N. Paudyal, M. Rabiah, D. E. Dow, M. Ergezer ,and **Mira Yun** "A Thermally Regulated Footwear & Alerting System", In Proc. of 2019 IEEE 10th Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (UEMCON), New York City, NY, USA, 2019, pp. 0179-0182.

[22] Jason Fagerberg, Eric Wahlstrom, Calvin Phung, Kevin Mick, and **Mira Yun**, "AutoNote", In Proc. of 2019 IEEE MIT Undergraduate Research Technology Conference (URTC)), Cambridge, MA, October 2019

[23] Sara Al Sowaimel, Amanda Sossong, and **Mira Yun**, "Cat Nanny: Affordable Cat Caring System", In Proc. of 2019 IEEE MIT Undergraduate Research Technology Conference (URTC)), Cambridge, MA, October 2019

[24] Miles Macchiaroli, Spencer Bourassa, Adam Beauchaine, Subin Bastola, and **Mira Yun**, "Data Transmission over Audible Spectrums with OOK", In Proc. of 2019 IEEE MIT Undergraduate Research Technology Conference (URTC)), Cambridge, MA, October 2019

[25] Suk Jin Lee, Andrew Jung, and **Mira Yun**, "Creative Internet of Things (IoT) for Undergraduates.", In Proc. of IEEE The 14th International Conference on Computer Science and Education, Toronto, Canada, August 2019

[26] Chen Shen, **Mira Yun**, Amrinder Arora, and Hyeong-ah Choi, "Dynamic Placement Algorithm for Multiple Classes of Mobile Base Stations in Public Safety Networks.", Cognitive Radio-Oriented Wireless Networks (CrownCom 2019), Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, vol 291. Springer, Cham, August 2019

[27] Leonidas Deligiannidis, Chen-Hsiang Yu, **Mira Yun**, and Hongsheng Wu, "Case Study: Skymap Data Analysis.", In Proc. of the 2019 International Conference on Artificial Intelligence (ICAI'19), pp.54-59, Las Vegas, USA, Jul 2019

[28] Chen Shen, **Mira Yun**, Amrinder Arora, and Hyeong-ah Choi, "Efficient Mobile Base Station Placement for First Responders in Public Safety Networks", In Proc. of Future of Information and Communication Conference (FICC) 2019, San Francisco, March 2019.

[29] Lam Pham, Chen-Hsiang Yu, and **Mira Yun**, "Fennec: Enhance English Listening Skill with Video-Watching Experiences", In Proc. of Hawaii International Conference on Education 2019, Hawaii, USA, January 2019

[30] Sean Guillen, Chris Fernandes, **Mira Yun**, Chen-Hsiang Yu, and Magdy Ellabidy, "ReadyComm: A Hands-on Practice for VoIP Network", In Proc. of Hawaii International Conference on Education 2019, Hawaii, USA, January 2019

[31] Benjamin Creem, Brett Grossman, and **Mira Yun,** "LiGET: Transfering files via Li-Fi", In Proc. of 2018 IEEE MIT Undergraduate Research Technology Conference (URTC)), Cambridge, MA, October 2018

[32] Nick Orr, Brendan Sileo, and **Mira Yun**, "WireLost: Ad-Hoc Wireless Tracking System", In Proc. of 2018 IEEE MIT Undergraduate Research Technology Conference (URTC)), Cambridge, MA, October 2018

[33] Nicholas Clark, Thomas Evangelista, John Scarfo, Garrett Stonis, Chen-Hsiang Yu and **Mira Yun**, "Knockoff Drive: A Portable Data Storage System", In Proc. of 2018 IEEE MIT Undergraduate Research Technology Conference (URTC)), Cambridge, MA, October 2018

[34] Jonathan Sudiaman, Tareq Almutairi, **Mira Yun**, Chen-Hsiang Yu and Leonidas Deligiannidis. "Undergraduate Project Example: LizardTag - An NFC-based System for Attendance Management.", In Proc. of The 14th International Conference on Frontiers in Education: Computer Science and Computer Engineering (FECS), July 2018.

[35] Hwankyu Park, **Mira Yun**, and Chen-Hsiang Yu, "Telepubbies: Indoor Positioning System with Wi-Fi support", In Proc. of Hawaii International Conference on Education 2018, Hawaii, USA, January 2018

[36] Eric Alfano, Meaghan Callahan, **Mira Yun**, Magdy Ellabidy and Chen-Hsiang Yu, "Octoplus: Software-Defined Networking (SDN) for Undergraduate Education", In Proc. of Hawaii International Conference on Education 2018, Hawaii, USA, January 2018

[37] Andrew Jung, Jinsook Park, Andrew Ahn, and **Mira Yun**, "CS for ALL: Introducing Computational Thinking with Hands-on Experience in College", In Proc. of the 4th Annual Conference on Computer Science & Computational Intelligence (CSCI 2017), Las Vegas, USA, December 2017.

[38] Brandon Dalton, Chen-Hsiang Yu, and **Mira Yun**, "Jaguar: Indoor Navigation System for Organizations," (**Best Poster Award**) In Adjunct Publication of the 30th Annual ACM Symposium on User Interface Software and Technology (UIST '17), pp. 129-131, Québec City, Canada, October 2017.

[39] Chen-Hsiang Yu, and **Mira Yun**, "WOW: A Wizard for School Opening Events", In Proc. of Hawaii International Conference on Education 2017, pp.2069-2074, Hawaii, USA, January 2017

[40] Magdy Ellabidy, Chen-Hsiang Yu, and **Mira Yun**, "Building a Cybersecurity Lab with Legacy Equipment", In Proc. of ICERI2016 Conference, pp.4407-4411, Spain, November 2016

[41] Nicolas Bonzani, Edward Kang, Chen-Hsiang Yu, and **Mira Yun**, "Smart Guide: Mid-Scale NFC Navigation System", 2015 IEEE MIT URTC (Undergraduate Research Technology Conference), Accepted, November 2015

[42] **Mira Yun**, Magdy Ellabidy, and Bowu Zhang, " Project-based Learning Example: Wireless Mesh Networks for Undergraduates", The Journal of Computing Science in Colleges, Vol 30:2, pp.52-59, December 2014 .

[43] Bowu Zhang, and **Mira Yun**, "Transforming Computing Education Through Integrated Learning: A 3D Programming Course For Undergraduate Students ", In Proc. of the 2014

International Conference on Frontiers in Education: Computer Science and Computer Engineering (FECS'14), July 21-24 2014, Las Vegas NV, USA.

[44] **Mira Yun**, Charlie Wiseman, and Leonidas Deligiannidis, "802.11 Wireless Networks: Incorporating Hands-On Learning Experience into the Undergraduate Classroom", In Proc. of the 2013 International Conference on Frontiers in Education: Computer Science and Computer Engineering (FECS'13), pp.140-146, July 22-25, 2013, Las Vegas NV, USA.

[45] Danielle Bragg, **Mira Yun**, Haya Bragg, and Hyeong-Ah Choi, "Intelligent Transmission of Patient Sensor Data in Wireless Hospital Networks", In Proc. of AMIA(American Medical Informatics Association) 2012 symposium, Chicago, Nov 2012

[46] Leonidas Deligiannidis, Charlie Wiseman, **Mira Yun**, and Tom Goulding, "Network Security Course: A Demonstration of Project-Based Learning", In Proc. of the 2012 International Conference on Frontiers in Education: Computer Science and Computer Engineering (FECS'12), pp.28-34, July 16-19, 2012, Las Vegas NV, USA

[47] **Mira Yun**, Danielle Bragg, Amrinder Arora, and Hyeong-Ah Choi, "Battle Event Detection using Sensor Networks and Distributed Query Processing," In Proc. of INFOCOM Workshops 2011, IEEE, CPNS 2011, Shanghai, China, April 2011

[48] Yu Zhou, Danielle Bragg, **Mira Yun**, and Hyeong-Ah Choi, "On Data Transmission Scheduling considering Switching Penalty in Mobile Sensor Networks," In Proc. of INFOCOM Workshops 2011, IEEE, CPNS 2011, Shanghai, China, April 2011

[49] Mikyung Kang, Dong-In Kang, **Mira Yun**, Gyung-Leen Park and Junghoon Lee, "Design for run-time monitor on cloud computing," In Proc. of CCIS 78: International Conference on SuComs (Security-Enriched Urban Computing and Smart Grid), Daejeon, Korea, Sep. 2010.

[50] **Mira Yun**, Timothy Kim, Yu Zhou, Amrinder Arora, Joseph Gomes and Hyeong-Ah Choi, "Uplink Resource Management Design in Multi-Access Wireless Networks," Lecture Notes in Computer Science, LNCS 5682, pp. 499-508, August 2009.

[51] Yu Zhou, **Mira Yun**, Timothy Kim, Amrinder Arora, and Hyeong-Ah Choi, "RL-based Queue Management for QoS Support in Multi-Channel Multi-Radio Mesh Networks," In Proc. of 2009 IEEE International Symposium on Network Computing and Applications, IEEE NCA09, Cambridge, USA, July 2009

[52] **Mira Yun**, Yu Zhou, Amrinder Arora, and Hyeong-Ah Choi, "Channel-Assignment and Scheduling in Wireless Mesh Networks considering Switching Overhead," In Proc. of 2009 IEEE International Conference on Communications, ICC 2009, Dresden, Germany, June 2009

[53] Amrinder Arora, **Mira Yun**, Timothy Kim, Yu Zhou, and Hyeong-Ah Choi, "Automated Ride Share Selection using Vehicular Area Networks," In Proc. of 2009 IEEE International Conference on Communications, ICC 2009, Dresden, Germany, June 2009

[54] **Mira Yun**, Yanxia Rong Yu Zhou, Hyeong-Ah Choi, Jae-Hoon Kim, JungKyo Sohn, Hyeong-In Choi, "Analysis of Uplink Traffic Characteristics and Impact on Performance in

Mobile Data Networks," In Proc. of 2008 IEEE International Conference on Communications, ICC 2008, Beijing, China, May 2008

[55] J. Gomes, **Mira Yun**, H.-A. Choi, J.-H. Kim, J. K. Sohn, and H. I. Choi, "Providing Strict Quality of Service in HSDPA for Real Time Services," (**Best Paper Award**) In Proc. of OPNETWORK 2007, Washington, DC, August 2007.

[56] J. Gomes, **Mira Yun**, H.-A. Choi, J.-H. Kim, J. K. Sohn, and H. I. Choi, "Scheduling Algorithms for Policy Driven QoS Support in HSDPA Networks," In Proc. of VTC2007, Dublin, Ireland, April 2007.

[57] Yen-Hung Hu, **Mira Yun**, Debra Tang, Hyeong-Ah Choi, "A Study of Traffic Survivability Under Malicious Attacks, " In the Proc. of 2006 IEEE Sarnoff Symposium, Princeton, NJ, March 2006.

[58] Jin-Ho Hwang, Ju-Dong Shin, **Mira Yun,** Jeong-Nyeo Kim, Sang-Su Lee, Sung-Un Kim, "Fault/Attack tolerant Recovery Mechanism under SRLG Constraint in the Next Generation Optical VPN," Lecture Notes in Computer Science, LNCS 3262, pp. 386-396, October 2004.

Dissertation and Thesis

[59] **Mira Yun** (Ph.D.), "Performance Enhancement in Heterogeneous Wireless Networks," (March 2011), Department of Computer Science, The George Washington University

[60] **Mira Yun** (M.S.), "Differentiated Optical QoS Service Framework in Next Generation Optical VPN," (February 2004), Department of Telematics Engineering, Pukyong National University, South Korea