

SOOCHANG PARK

Department of Computer Science & Engineering

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RESEARCH INTERESTS

Internet

- (Joined in mail group of the following IETF WGs): Netlmm, Netext, 6lowpan, Mext, Netconf
- AS-level Issues: Multi-homing, Connectivity, and BGP Configurations
- Mobility Management: Mobile IP and Proxy Mobile IP, Horizontal and Vertical Handover, and Service Continuity
- Future Internet: Network Architecture, Cross Layering, Network Virtualization, and Internet Indirection Infrastructure

Ad-hoc Networks

- WSNs (Wireless Sensor Networks): Mobility Supports of Sinks, Nodes, and Events, Multicasting, Real-time Services, Reliability for Packet Forwarding and Event Detection, and Location Services
- MANETs (Mobile Ad hoc Networks): Mobility Support of Nodes, Multicasting

Smart Grid

- Smart Grid Sensor Networks: Inter-domain Communication and Bi-directional Communication
- M2M Communication, Green Wireless Communication, Mobile Internet Eco System, and Green Radio Excellence in Architectures and Technologies (GREAT) Project

EDUCATION

Ph.D. Chungnam National University, Computer Science and Engineering, August 2011
Dissertation: *Data-centric Dissemination Protocols toward Mobile Sink Groups in Wireless Sensor Networks*

B.S. Chungnam National University, Computer, August 2005
Thesis: *Understanding and Configuration of the IPv6 Protocol and Related Routing Protocols*

PROFESSIONAL EXPERIENCE

Research Experience

- 2011-2012 **Research Associate** joined in the research team for Future Wireless Sensor Networks (Funded from National Research Foundation of Korea) in Chungnam National University.
- Design of Real-time Service Support in Future Wireless Sensor Networks
 - Design of Event Reliability for Large-scale Phenomena in Future Wireless Sensor Networks
 - Design of Cost Optimization for Large-scale Phenomena in Future Wireless Sensor Networks
- 2005-2011 **Research Assistant** joined in the Human Resource Development Center for Advanced Information Technology Software of the Brain Korea 21 (BK21) Fund
- Design of Mobility Support Schemes for Mobile Sinks in Wireless Sensor Networks without Global Location Information and Address
 - Design of Mobility Support Schemes for Both Mobile Sinks and Mobile Events in Wireless Sensor Networks based on Publish/Subscribe Communication Paradigm
 - Design of Group Mobility Support Schemes of Mobile Sinks in Wireless Sensor Networks
 - Design of Detection and Tracking Schemes of Continuous Objects in Wireless Sensor Networks
 - Development of Inter-domain Roaming Mechanisms among Proxy Mobile IPv6 Domains
 - Development of Multi-homing Support Mechanisms to Multiple Proxy Mobile IPv6 Domains
 - Conduct for development of the Web-based Fire Alarm System using Wireless Sensor Motes and nesC Programming
 - Conduct for development of the Web-based Intelligent Class System using Wireless Sensor Motes and nesC Programming
- 2005-2009 **Research Coordinator** at the Computer Communication Laboratory (CCLAB) in the Chungnam National University
- Coordinating Research Processes according to Paper Engineering of the CCLAB
Paper Survey of a Target Topic, Problem Analysis, Solution Discussion, Paper Writing Scheduling, Paper Submission Scheduling, Review Analysis, Paper Revision
 - Coordinating Research Teams
Wireless Sensor Network Team
Mobile IPv6/Proxy Mobile IPv6 Team
Future Internet and Green Communication Team

Teaching Experience

- 2009-2011 **Lecturer**, Chungnam National University,
- Computer Network Design (18137)
Book: *Internet Routing Architecture*, Cisco Press
Practice: Intra-/Inter-domain Routing using Cisco Routers (Cisco 2600 and 7200)

 - Advanced Computer Programming (21905)
Object-oriented Programming (C++, C#, and Java)
Interworking with a Database System using the Java DataBase Connectivity (JDBC)
Distributed System Programming using the Java Remote Method Invocation (RMI)
- 2005-2010 **Teaching Assistant** for Practices of Network Configuration and Network Programming in Classes of Prof. Sang-Ha Kim who is the dissertation advisor
- Computer Network Design
Intra-domain Routing Protocol (RIP and OSPF) Configuration using Cisco Routers (Cisco 2600)
Inter-domain Routing Protocol (BGP) Configuration using Cisco Routers (Cisco 2600 and 7200)
Large-scale AS Configuration with interworking BGP, Intra-domain Routing Protocols (RIP and OSPF), and Static Routing using Cisco Routers (Cisco 2600 and 7200)

 - Data Communication and Network Programming
Inter-process Communication (IPC) Programming using C++
Ethernet Communication Programming using WinPcap Driver and C++
Bridge Programming using WinPcap Driver and C++
Address Resolution Protocol (ARP) Programming using WinPcap Driver and C++
Packet Forwarding (Router) Programming using WinPcap Driver and C++
Network Address Translation (NAT) Programming using WinPcap Driver and C++

Funded Project Experience

1. "The Study of Integrated Services in Next Generation Wireless Sensor Networks," supported by the National Research Foundation (NRF), 2010-2012.
2. "Group Mobility Support of Mobile Sinks in Wireless Sensor Networks," supported by the Chungnam National University (CNU), 2010-2011.
3. "The Study of Tussles for Architecture Design in the Future Internet,"

supported by the Electronics and Telecommunications Research Institute (ETRI), 2010-2011.

4. "Data Dissemination Protocol Supporting Mobile Sinks and Events in Wireless Sensor Networks," supported by the Chungnam National University (CNU), 2008-2009.
5. "Network-based Mobility Management for Mobile Nodes on the Internet," supported by the Electronics and Telecommunications Research Institute (ETRI), 2007.
6. "Mobility Support Protocols for Mobile Sinks, Mobile Nodes, and Mobile Events in Wireless Sensor Networks," supported by the Electronics and Telecommunications Research Institute (ETRI), 2006-2007.
7. "The Study of Next-Generation Mobile Communication Services and Competitiveness," supported by the Electronics and Telecommunications Research Institute (ETRI), 2006-2006.
8. "The Study of Integrated Service Models in Next Generation Networks (NGNs)," supported by the Electronics and Telecommunications Research Institute (ETRI), 2005-2006.

Military Experience

1997-2000 Sergeant in the Navy of Republic of Korea (ROK)
Electronic Counter Measure (ECM)

AWARDS AND CERTIFICATIONS

2005-2011 Brain Korea 21 (BK21) Scholarship from the Korea Research Foundation

2005 Bronze Medal at Service Proposal Competition on Open Service Architecture of Next Generation Networks, Organized by the Electronics and Telecommunications Research Institute (ETRI)

2004 Certification for Completing the Intermediate Levels of the Intensive English Course at the ELS Language Centers in U.S.A.

2004 Certification for Completing the Cisco Career Certification Test Requirements as a Cisco Certified Network Associate (CCNA)

2001 Certification for Fulfilling All Requirements as a SUN Certified System Administrator (SCSA) for the Solaris Operating Environment 7

2000 Certification for Fulfilling All Requirements as a SUN Certified Java Programmer (SCJP) for the JAVA 2 Platform

1999 Certification for Completing a Two-week Course in Operators Training and ECM Techniques APECS II EW System of ARGOSystem

1998 An Award for the Best ECM Privates with Excellent Results from an Admiral in the ROK Navy

PUBLICATIONS

Refereed Journal Publications

1. **Soochang Park**, Euisin Lee, Ki-Dong Nam, and Sang-Ha Kim, "Event-to-Sink Reliable Transport for Large-scale Phenomena in Wireless Sensor Networks," submitted to *IEEE Transactions on Transactions on Parallel and Distributed Systems* in Mar. 2012.
2. **Soochang Park**, Euisin Lee, Jeongcheol Lee, and Sang-Ha Kim, "Spatiotemporal Communication Scheme for Mobile Sinks in Wireless Sensor Networks," submitted to *IEEE Communications Letters* in Mar. 2012.
3. **Soochang Park**, Seungmin Oh, Euisin Lee, Sang-Ha Kim, "Band-based Geocasting for Mobile Sink Groups in Wireless Sensor Networks," submitted to *IEEE Transactions on Mobile Computing* in Jan. 2012.
4. **Soochang Park**, Euisin Lee, Jeongcheol Lee, and Sang-Ha Kim, "Communication Architecture to Reflect Multi-User Mobility Issue in Wireless Sensor Networks," submitted to *IEEE Transactions on Consumer Engineering* in Dec. 2011.
5. **Soochang Park**, Euisin Lee, Hosung Park, and Sang-Ha Kim, "Mobility Support for Multiple Users on Wireless Sensor Networks without Location Information," submitted to *IEEE Transactions on Consumer Engineering* in Dec. 2011.
6. **Soochang Park**, Hosung Park, Euisin Lee, and Sang-Ha Kim, "Reliable and Flexible Detection of Large-scale Phenomena on Wireless Sensor Networks," to appear in *IEEE Communications Letters*.
7. Euisin Lee, **Soochang Park**, Jeongcheol Lee, and Sang-Ha Kim, "Local Location Search based Progressive Geographic Multicast Protocol in Wireless Sensor Networks," to appear in *IEICE Transactions on Communications*.
8. Hosung Park, Jeongcheol Lee, **Soochang Park**, Seungmin Oh, and Sang-Ha Kim, "Multicast Protocol for Real-time Data Dissemination in Wireless Sensor Networks," *IEEE Communications Letters*, Vol. 15, No. 12, pp. 1291-1293, Dec. 2011.
9. Euisin Lee, **Soochang Park**, Jeongcheol Lee, and Sang-Ha Kim, "Geographic Multicast Protocol for Mobile Sinks in Wireless Sensor Networks," *IEEE Communications Letters*, Vol. 15, No. 12, pp. 1320-1322, Dec. 2011.
10. Euisin Lee, **Soochang Park**, Jeongcheol Lee, Seungmin Oh, and Sang-Ha Kim, "Novel Service Protocol for Supporting Remote and Mobile Users in Wireless Sensor Networks with Multiple Static Sinks," *Springer Wireless Networks*, Vol. 17, No. 4, pp. 861-875, May 2011.
11. **Soochang Park**, Euisin Lee, Juhyun Jung, and Sang-Ha Kim, "Real-time Routing Based on On-demand Multi-hop Lookahead in Wireless Sensor Networks," *IEICE Transactions on Communications*, Vol. E94-B, No. 2, pp. 569-572, Feb. 2011.
12. **Soochang Park**, Euisin Lee, Min-Sook Jin, and Sang-Ha Kim, "Cluster-based Communication for Mobile Sink Groups in Large-scale Wireless Sensor Networks," *IEICE Transactions on Communications*, Vol. E94-B, No. 1, pp. 307-310, Jan. 2011.

13. Euisin Lee, **Soochang Park**, Hosung Park, and Sang-Ha Kim, "Quality-based Event Reliability Protocol in Wireless Sensor Networks," *IEICE Transactions on Communications*, Vol. E94-B, No. 1, pp. 293-296, Jan. 2011.
14. Fucai Yu, **Soochang Park**, Euisin Lee, and Sang-Ha Kim, "Scalable Location Guide Overlay Multicast in Mobile Ad Hoc Networks Using Tree Partition Scheme," *Wiley Wireless Communications and Mobile Computing*, doi: 10.1002/wcm.1028, Oct. 2010.
15. **Soochang Park**, Euisin Lee, Hosung Park, Hyungjoo Lee, and Sang-Ha Kim, "Mobile Geocasting to Support Mobile Sink Groups in Wireless Sensor Networks," *IEEE Communications Letters*, Vol. 14, No. 10, pp. 939-941, Oct. 2010.
16. Euisin Lee, **Soochang Park**, Fucai Yu, and Sang-Ha Kim, "On Selection of Energy-Efficient Data Aggregation Node in Wireless Sensor Networks," *IEICE Transactions on Communications*, Vol. E93-B, No. 9, pp. 2436-2439, Sep. 2010.
17. **Soochang Park**, Euisin Lee, Fucai Yu, and Sang-Ha Kim, "Scalable and Robust Data Dissemination for Large-scale Wireless Sensor Networks," *IEEE Transactions on Consumer Electronics*, Vol. 56, No. 3, pp. 1616-1624, Aug. 2010.
18. Euisin Lee, **Soochang Park**, Fucai Yu, and Sang-Ha Kim, "Communication Model and Protocol based on Multiple Static Sinks for Supporting Mobile Users in Wireless Sensor Networks," *IEEE Transactions on Consumer Electronics*, Vol. 56, No. 3, pp. 1652-1660, Aug. 2010.
19. Euisin Lee, **Soochang Park**, Fucai Yu, and Sang-Ha Kim, "Data Gathering Mechanism with Local Sink in Geographic Routing for Wireless Sensor Networks," *IEEE Transactions on Consumer Electronics*, Vol. 56, No. 3, pp. 1433-1441, Aug. 2010.
20. Euisin Lee, Fucai Yu, **Soochang Park**, and Sang-Ha Kim, "Sink Location Service Based on Circle and Line Paths in Wireless Sensor Networks," *IEEE Communications Letters*, Vol. 14, No. 8, pp. 710-712, Aug. 2010.
21. **Soochang Park**, Euisin Lee, Min-Sook Jin, and Sang-Ha Kim, "Inter-Domain Roaming Mechanism Transparent to Mobile Nodes among PMIPv6 Networks," *IEICE Transactions on Communications*, Vol. E93-B, No. 6, pp. 1608-1611, Jun. 2010.
22. Fucai Yu, **Soochang Park**, Euisin Lee, and Sang-Ha Kim, "Elastic Routing: a Novel Geographic Routing for Mobile Sinks in Wireless Sensor Networks," *IET Communications*, Vol. 4, No. 6, pp. 716-727, Apr. 2010.
23. Fucai Yu, Euisin Lee, **Soochang Park**, and Sang-Ha Kim, "A Simple Location Propagation Scheme for Mobile Sink in Wireless Sensor Networks," *IEEE Communications Letters*, Vol. 14, No. 4, pp. 321-323, Apr. 2010.
24. **Soochang Park**, Euisin Lee, Min-Sook Jin, and Sang-Ha Kim, "Novel Strategy for Data Dissemination to Mobile Sink Groups in Wireless Sensor Networks," *IEEE Communications Letters*, Vol. 14, No. 3, pp. 202-204, Mar. 2010.
25. Fucai Yu, **Soochang Park**, Euisin Lee, Youngwhan Choi, Sang-Ha Kim, "QSLs: Efficient Quorum Based Sink Location Service for Geographic Routing in Irregular Wireless Sensor Networks," *IEICE Transactions on Communications*, Vol. E92-B, No. 12, pp. 3935-3938, Dec. 2009.
26. Fucai Yu, **Soochang Park**, Euisin Lee, and Sang-Ha Kim, "Hole Modeling and Detour Scheme for Geographic

- Routing in Wireless Sensor Networks,” *Journal of Communications and Networks (JCN)*, pp. 327-336, Aug. 2009.
27. Euisin Lee, **Soochang Park**, Fucai Yu, and Sang-Ha Kim, “Exploiting Mobility for Efficient Data Dissemination in Wireless Sensor Networks,” *Journal of Communications and Networks (JCN)*, pp. 337-349, Aug. 2009.

Refereed Conference Publications

1. Hosung Park, Seungmin Oh, Euisin Lee, **Soochang Park**, Sang-Ha Kim, and Wanseop Lee, “Selective Wakeup Discipline for Continuous Object Tracking in Grid-based Wireless Sensor Networks,” in *Proc. of IEEE Wireless Communications and Networking Conference (WCNC) 2012*, Paris, Apr. 2012.
2. **Soochang Park**, Euisin Lee, Yongbin Yim, Fucai Yu, and Sang-Ha Kim, “X-Geocasting: Data Dissemination to Mobile Sink Groups in Wireless Sensor Networks,” in *Proc. of IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC) 2011*, Toronto, Sep. 2011.
3. Euisin Lee, **Soochang Park**, Hosung Park, Yongbin Yim, and Sang-Ha Kim, “Data Dissemination Protocol based on Independent Grid Structure in Wireless Sensor Networks,” in *Proc. of IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC) 2011*, Toronto, Sep. 2011.
4. Euisin Lee, **Soochang Park**, Jeongcheol Lee, Seungmin Oh, and Sang-Ha Kim, “Real-time Routing Protocol based on Expect Grids for Mobile Sinks in Wireless Sensor Networks,” in *Proc. of IEEE 74th Vehicular Technology Conference (VTC2011-Fall)*, San Francisco, Sep. 2011.
5. Wanseop Lee, **Soochang Park**, Jeongcheol Lee, and Sang-Ha Kim, “A Cluster-based Continuous Object Tracking Scheme in Wireless Sensor Networks,” in *Proc. of IEEE 74th Vehicular Technology Conference (VTC2011-Fall)*, San Francisco, Sep. 2011.
6. **Soochang Park**, Euisin Lee, Sang-Ha Kim, Ki-dong Nam, and Sungkee Noh, “Reliability Support Protocol for Continuous Object Detection in Large-scale Wireless Sensor Networks,” in *Proc. of IEEE International Conference on Advanced Information Networking and Applications (AINA) 2011*, Singapore, Mar. 2011.
7. **Soochang Park**, Euisin Lee, Hosung Park, Jeongcheol Lee, and Sang-Ha Kim, “Group Mobility Support Protocol for Mobile Sinks Based on Grid Clusters in Wireless Sensor Networks,” in *Proc. of IEEE International Conference on Advanced Information Networking and Applications (AINA) 2011*, Singapore, Mar. 2011.
8. Ki-Dong Nam, Sungkee Noh, **Soochang Park**, Hosung Park, and Sang-Ha Kim, “Reliable Continuous Objects Detection Algorithm in Wireless Sensor Networks,” in *Proc. of IEEE Consumer Communications and Networking Conference (CCNC) 2011*, Las Vegas, Jan. 2011.
9. Hyungjoo Lee, **Soochang Park**, Hosung Park, Yongbin Yim, and Sang-Ha Kim, “M-Geocasting for Mobile Sink Groups in Wireless Sensor Networks,” in *Proc. of IEEE Consumer Communications and Networking Conference (CCNC) 2011*, Las Vegas, Jan. 2011.
10. **Soochang Park**, Euisin Lee, Hosung Park, Juhyun Jung, and Sang-Ha Kim, “Strategy for Real-time Data

- Dissemination to Mobile Sinks in Wireless Sensor Networks,” in *Proc. IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC) 2010*, Istanbul, Sep. 2010.
11. Jeongcheol Lee, Euisin Lee, **Soochang Park**, Seungmin Oh and Sang-Ha Kim, “Consecutive Geographic Multicasting Protocol in Large-Scale Wireless Sensor Networks,” in *Proc. IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC) 2010*, Istanbul, Sep. 2010.
 12. Seung-Woo Hong, Sung-Kee Noh, Euisin Lee, **Soochang Park**, and Sang-Ha Kim, “Energy-Efficient Predictive Tracking for Continuous Objects in Wireless Sensor Networks,” in *Proc. IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC) 2010*, Istanbul, Sep. 2010.
 13. Hyun Woo Oh, Jong Hyun Jang, Kyeong Deok Moon, **Soochang Park**, Euisin Lee, and Sang-Ha Kim, “An Explicit Disjoint Multipath Algorithm for Cost Efficiency in Wireless Sensor Networks,” in *Proc. IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC) 2010*, Istanbul, Sep. 2010.
 14. Bomi Park, **Soochang Park**, Euisin Lee, and Sang-Ha Kim, “Detection and Tracking of Continuous Objects for Flexibility and Reliability in Sensor Networks,” in *Proc. IEEE International Conference on Communications (ICC) 2010*, Cape Town, May 2010.
 15. **Soochang Park**, Euisin Lee, Fucal Yu, Sungkee Noh, Sang-Ha Kim, “Inter-domain Roaming Mechanism Transparent to IPv6-Node among PMIPv6 Networks,” in *Proc. IEEE 71st Vehicular Technology Conference (VTC2010-Spring)*, Taipei, May 2010.
 16. Jeongcheol Lee, Euisin Lee, **Soochang Park**, Hosung Park, and Sang-Ha Kim, “Sink-initiated Geographic Multicasting Protocol in Wireless Sensor Networks,” in *Proc. IEEE International Conference on Advanced Information Networking and Applications (AINA) 2010*, Perth, Apr. 2010.
 17. Seungmin Oh, Euisin Lee, **Soochang Park**, Juhyun Jung, and Sang-Ha Kim, “Communication Scheme to Support Sink Mobility in Multi-hop Clustered Wireless Sensor Networks,” in *Proc. IEEE International Conference on Advanced Information Networking and Applications (AINA) 2010*, Perth, Apr. 2010.
 18. Euisin Lee, Fucal Yu, **Soochang Park**, Juhyun Jung, Sang-Ha Kim and Sungkee Noh, “General Sink Location Service Based on Circle and Line Paths in Wireless Sensor Networks,” in *Proc. IEEE Wireless Communications and Networking Conference (WCNC) 2010*, Sydney, Apr. 2010.
 19. Juhyun Jung, **Soochang Park**, Euisin Lee, Seungmin Oh, and Sang-Ha Kim, “OMLRP: Multi-hop Information based Real-Time Routing Protocol in Wireless Sensor Networks,” in *Proc. IEEE Wireless Communications and Networking Conference (WCNC) 2010*, Sydney, Apr. 2010.
 20. **Soochang Park**, Euisin Lee, Fucal Yu, Min-Sook Jin, and Sang-Ha Kim, “Information Communication Mechanism for Loosely Coupled Mobile User Groups in Wireless Sensor Fields,” in *Proc. IEEE International Conference on Advanced Information Networking and Applications (AINA) 2009*, Bradford, May 2009.
 21. **Soochang Park**, Euisin Lee, Fucal Yu, Min-Sook Jin, and Sang-Ha Kim, “Communication Scheme Independent of

- Publishers and Subscribers for Large-Scale Sensor Applications,” in *Proc. IEEE Wireless Communications and Networking Conference (WCNC) 2009*, Budapest, Apr. 2009.
22. Euisin Lee, **Soochang Park**, Fucai Yu, Min-Sook Jin, and Sang-Ha Kim, “Communication Scheme for Loosely Coupled Mobile User Groups in Wireless Sensor Fields,” in *Proc. IEEE Wireless Communications and Networking Conference (WCNC) 2009*, Budapest, Apr. 2009.
 23. Min-Sook Jin, Hosung Park, Euisin Lee, **Soochang Park**, and Sang-Ha Kim, “A Data Dissemination Model Base on Content-based Publish/Subscribe Paradigm in Large-scale Wireless Sensor Networks,” in *Proc. IEEE Wireless Communications and Networking Conference (WCNC) 2009*, Budapest, Apr. 2009.
 24. Euisin Lee, **Soochang Park**, Hosung Park, Jeongchul Lee, and Sang-Ha Kim, “Geographic Routing based on On-demand Neighbor Position Information in Large- Scale Mobile Sensor Networks,” in *Proc. IEEE International Symposium on Autonomous Decentralized Systems (ISADS) 2009*, Athens, Mar. 2009.
 25. **Soochang Park**, Euisin Lee, Fucai Yu, Min-Sook Jin, and Sang-Ha Kim, “Distributed Data Gathering and Data Multicasting for Wireless Sensor Networks with Multiple Mobile Sinks,” in *Proc. IASTED Parallel and Distributed Computing and Networks (PDCN) 2009*, Innsbruck, Feb. 2009.
 26. Euisin Lee, **Soochang Park**, Min-Sook Jin, Taehee Kim, Hosung Park, and Sang-Ha Kim, “Correlated Data Collection through Using Local Sink in Geographic Routing for Wireless Sensor Networks,” in *Proc. IASTED Parallel and Distributed Computing and Networks (PDCN) 2009*, Innsbruck, Feb. 2009.
 27. Euisin Lee, **Soochang Park**, Fucai Yu, Min-Sook Jin, Hosung Park and Sang-Ha Kim, “Dynamic Rectangle Zone-based Collaboration Mechanism for Tracking Continuous Objects in Wireless Sensor Networks,” in *Proc. IEEE International Conference on Wireless Communications, Networking and Mobile Computing (WiCOM) 2008*, Oct. 2008.
 28. Fucai Yu, Younghwan Choi, **Soochang Park**, Euisin Lee, Ye Tian, Minsuk Jin, Sang-Ha Kim, “Anchor Node Based Virtual Modeling of Holes in Wireless Sensor Networks,” in *Proc. IEEE International Conference on Communications (ICC) 2008*, Beijing, May 2008.
 29. Ye Tian, Fucai Yu, Younghwan Choi, **Soochang Park**, Euisin Lee, Minsook Jin, and Sang-Ha Kim, “Energy-Efficient Data Dissemination Protocol for Detouring Routing Holes in Wireless Sensor Networks,” in *Proc. IEEE International Conference on Communications (ICC) 2008*, Beijing, May 2008.
 30. **Soochang Park**, Euisin Lee, Younghwan Choi, Fucai Yu, and Sang-Ha Kim, “Communication Architecture to Support Multiple Mobile Users in Wireless Sensor Networks,” in *Proc. IEEE Wireless Communications and Networking Conference (WCNC) 2008*, Las Vegas, Mar. 2008.
 31. Fucai Yu, Younghwan Choi, **Soochang Park**, Euisin Lee, Min-Sook Jin, and Sang-Ha Kim, “Sink Location Service for Geographic Routing in Wireless Sensor Networks,” in *Proc. IEEE Wireless Communications and Networking Conference (WCNC) 2008*, Las Vegas, Mar. 2008.

32. Fucai Yu, Younghwan Choi, **Soochang Park**, Euisin Lee, Ye Tian, and Sang-Ha Kim, "Virtual Circle Based Geometric Modeling of Holes for Geographic Routing," in *Proc. IEEE Wireless Communications and Networking Conference (WCNC) 2008*, Las Vegas, Mar. 2008.
33. Euisin Lee, **Soochang Park**, Fucai Yu, Younghwan Choi Choi, Min- Sook Jin, and Sang-Ha Kim, "A Predictable Mobility-based Data Dissemination Protocol for Wireless Sensor Networks," in *Proc. IEEE International Conference on Advanced Information Networking and Applications (AINA) 2008*, Okinawa, Mar. 2008.
34. Min-Sook Jin, Younghwan Choi, Fucai Yu, Euisin Lee, **Soochang Park**, and Sang-Ha Kim, "A Data Dissemination Protocol based on Multiple Virtual Grids in Wireless Sensor Network," in *Proc. IEEE Consumer Communications and Networking Conference (CCNC) 2008*, Las Vegas, Jan. 2008.
35. Younghwan Choi, **Soochang Park**, Euisin Lee, Fucai Yu, and Sang-Ha Kim, "Passive Data Dissemination Scheme for Supporting Inquirer Mobility in Wireless Sensor Networks," in *Proc. IEEE Consumer Communications and Networking Conference (CCNC) 2008*, Las Vegas, Jan. 2008.
36. Fucai Yu, Younghwan Choi, **Soochang Park**, Euisin Lee, Ye Tian, and Sang-Ha Kim, "An Edge Nodes Energy Efficient Hole Modeling in Wireless Sensor Networks," in *Proc. IEEE Global Communications Conference (GLOBECOM) 2007*, Washington D.C., Nov. 2007.
37. Fucai Yu, Younghwan Choi, **Soochang Park**, Donghun Lee, Euisin Lee, Ye Tian and Sang-Ha Kim, "A Tree Partition-based Overlay Multicast in Mobile Ad Hoc Networks," in *Proc. IEEE International Conference on Wireless Communications, Networking and Mobile Computing (WiCOM) 2007*, Sep. 2007.
38. Fucai Yu, **Soochang Park**, Younghwan Choi, Donghun Lee, Euisin Lee, Ye Tian and Sang-Ha Kim, "A Stability-based Overlay Multicast for Mobile Ad Hoc Networks," in *Proc. IEEE 66th Vehicular Technology Conference (VTC2007-Fall)*, Baltimore, Sep. 2007.
39. **Soochang Park**, Donghun Lee, Euisin Lee, Younghwan Choi, and Sang-Ha Kim, "A Communication Architecture to Reflect User Mobility Issue in Wireless Sensor Fields," in *Proc. IEEE Wireless Communications and Networking Conference (WCNC) 2007*, Hong Kong, Mar. 2007.
40. Younghwan Choi, Euisin Lee, Donghun Lee, **Soochang Park**, Fucai Yu, and Sang-Ha Kim, "An Implicit Cluster-based Overlay Multicast Protocol for Mobile Ad hoc Networks," in *Proc. IEEE Wireless Communications and Networking Conference (WCNC) 2007*, Hong Kong, Mar. 2007.
41. Euisin Lee, Younghwan Choi, **Soochang Park**, Donghun Lee, and Sang-Ha Kim, "A Novel Mechanism to Support Mobility of Users in Wireless Sensor Networks Based on Multiple Static Sinks," in *Proc. IEEE Consumer Communications and Networking Conference (CCNC) 2007*, Las Vegas, Jan. 2007.

IETF Draft

1. J. Na, S. Park, J. Moon, **S. Park**, E. Lee, and S. Kim, "Roaming Mechanism between PMIPv6 Domains," **draft-**

park-netlmm-pmipv6-roaming-01, Aug. 2008.

PAPER REVIEW

1. *IET Networks*, "A Routing Protocol Considering Both Throughput Enhancement and Energy Efficiency in Mobile Ad Hoc Network," by Y. Kim, Mar. 2012.
2. *Elsevier Computer Communications*, "Energy Efficient Distributed Multi-parent Routing for Wireless Sensor Network Computer Communications," by P. Kaushik and J. Singhai, Feb. 2012
3. *IEEE Communications Letters*, "Hybrid Flooding Scheme for Mobile Wireless Networks," by D. G. Reina, S.L. Toral, P. Johnson, and F. Barrero, Oct. 2011.
4. *IEEE Communications Letters*, "Two-level Redeployment Algorithm for Mobile Wireless Sensor Networks," by Wei Li, Shunsheng Zhang, and Wei Zhang, Sep. 2011.
5. *IEEE Communications Letters*, "A Continuous Monitoring and Event Detection Reporting Protocol on Wireless Sensor Networks," by Mario E. Rivero-Angeles and Gerardo Rubino, Jan. 2011.
6. *IEEE Communications Letters*, "Coverage-Aware Node-Disjoint Multipath Selection in Wireless Multimedia Sensor Networks," by Daniel G. Costa and Luiz Affonso Guedes, Oct. 2010.
7. *IEEE Communications Letters*, "A New Lower Bound on Range-free Localization Algorithms in Wireless Sensor Networks," by Yiu Wing Edwin Chan and Boon Hee Soong, Aug. 2010.
8. *IEEE Global Communications Conference (GLOBECOM) 2010*, "Cross Layer Ad hoc Multicasting Protocol," by Xianglong WU and Yewen Cao, Aug. 2010
9. *IEEE Communications Letters*, "Increasing Spatial Efficiency of Nearest Neighbor Forwarding," by Ralph Tanbourgi, Holger Jakel, and Friedrich K. Jondral, Jul. 2010.
10. *IEEE Communications Letters*, "A New Lower Bound on Range-free Localization Algorithms in Wireless Sensor Networks," by Yiu Wing Edwin Chan and Boon Hee Soong, May 2010.
11. *IEEE Wireless Communications and Networking Conference (WCNC) 2007*, "A Low Overhead Routing Protocol for Target Tracking in Wireless Sensor Networks," by Jun Wang, Peng Zeng, and Yu Hai-bin, Nov. 2006.

RELEVANT COURSES

Ph.D. Courses

- Network Performance Analysis I
- Information Communication Networks
- Special Topics in Computer Science (Mobile Ad-hoc Networks)
- Internet Communication Protocols
- Open API Networks
- Network Performance Analysis II
- Ubiquitous Computing
- Sensor Networks

- Special Topics in Computer Communications 1 (Internet Protocol v6, Mobile IPv6, and Proxy Mobile IPv6)
- Special Topics in Computer Communications 2 (Wireless Sensor Networks)
- Paper Research I (Network-based Mobility Management of Mobile Nodes in 4G Networks)
- Cryptography Theory
- Advanced Internet Routing
- Wireless Internet Security
- Computer Applications Laboratory 1
- Special Topics in Computer Communications 3 (and Future Internet)
- Next Generation Mobile Communication Networks
- Computer Applications Laboratory 3
- Special Topics in Data Communications (Performance of Computer Communication Systems)
- Paper Research II (Group Mobility Support of Mobile Sinks in Wireless Sensor Networks)
- Multimedia Communications
- Wireless Internet
- Computer Applications Laboratory 2
- Internship

B.S. Courses

- Chemistry Lab. 1
- Physics Lab. 1
- Reading Comprehension and Composition
- Chemistry Lab. 2
- Sports in Life 1
- Introduction to Computer
- English Reading
- History and Culture of Korea
- Object-Oriented Systems
- Microorganisms and Humanity
- Media and Information Society
- Introduction to Psychology
- Advanced Computer Programming
- Operating Systems
- Photography 1
- System Software
- Computer Programming Languages
- Data Processing for Business
- Filed Practice
- Classical Readings
- Design and Life
- Mathematics 1
- Physics
- Chemistry
- Mathematics 2
- English Conversation
- Sports in Life 2
- Computer Programming
- Data Communications
- Distributed Systems
- Algorithms
- Computer Architectures 1
- Computer Networks
- Database System
- Laws for Living
- Operating Systems Practice
- File Processing
- Data Structures and Lab. 1

- Mobile and Satellite Communications
- Network Programming
- Software Engineering
- Multimedia
- Project Lab.
- Software System Analysis and Design
- Special Topics in Information and Communications

- Compilers
- Linear Algebra
- Global Business Management and Theory
- Computer Networks Lab.
- Intermediate Chinese Classics
- Horticulture in Human Life

REFERENCES

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