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Yang G. Kim, Ph.D.

OBJECTIVE A rewarding career as an adjunct position in Mathematics & CS at the Mercy College

**PROFESSIONAL
ACHIEVEMENTS**

CONTRIBUTIONS TO IEEE 802.15.4E STANDARD (IEEE802.15.4 AMENDMENT FOR INDUSTRIAL APPLICATIONS)

- Project: IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) Standards
- Contributions: *Multi-Hop Extension for IEEE 802.15.4e*

Tae Rim Park, Yang G. Kim, Myung J. Lee and Jong-suk Chae

- Contribution: *A tunable parameter, multi-superframe order (MO) to consolidate multiple small superframes into a large superframe to adapt to varying offered traffics*

Yang G. Kim, Gahng Seop Ahn and Myung J. Lee

IEEE COMMUNICATION MAGAZINE REVIEWER

- Smart Home Services for a Smart Grid (April 2010)
 - Smart Grid Communications Interoperability, Architecture, and Standards (January 2011)
 - Prevention and Detection of Black Hole Attack in AODV based Mobile Adhoc Networks - A Review (October 2012)
 - Device-to-Device Communications for National Security and Public Safety (February 2014)
 - Lifetime Maximization by Partitioning in Wireless Sensor Networks (December 2015)
 - Crowd Associated Network: Exploiting over Smart Garbage Management System (April 2016)
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WORK HISTORY

PATENT EXAMINER, US PATENT AND TRADEMARK OFFICE, ALEXANDRIA, VIRGINIA

June 2015 – April 2016

ADJUNCT LECTURER, ADJUNCT ASSISTANT PROFESSOR, CITY COLLEGE OF NEW YORK, NEW YORK, NY

DIGITAL SWITCHING SYSTEM

February 2007 – May 2015

ADJUNCT ASSISTANT PROFESSOR, NEW YORK CITY COLLEGE OF TECHNOLOGY, NEW YORK, NY, FEEDBACK CONTROL SYSTEM, AND ELECTRICAL CIRCUIT

August 2014 – May 2015

ADJUNCT LECTURER, HOSTOS COMMUNITY COLLEGE OF NEW YORK, NEW YORK, NY,

COLLEGE ALGEBRA, AND QUANTITATIVE REASONING

August 2013 – May 2014

ADJUNCT LECTURER, CITY COLLEGE OF NEW YORK, NEW YORK, NY

DIGITAL SWITCHING SYSTEM (DAY AND EVENING SESSIONS)

September 2009 – December 2010

ADJUNCT LECTURER, CITY COLLEGE OF NEW YORK, NEW YORK, NY

ELECTRICAL CIRCUITS (AC AND DC)

February 2007 – December 2009

ADJUNCT LECTURER, CITY COLLEGE OF NEW YORK, NEW YORK, NY

ELECTRONICS LABORATORY II

February 2006 – December 2006

TEACHING ASSISTANT, CITY COLLEGE OF NEW YORK, NEW YORK, NY

WIRELESS COMMUNICATIONS AND WIRELESS MULTIMEDIA NETWORK COURSES,

September 2005 – May 2006

COMPUTER NETWORK TECHNICIAN, TRADING CORPORATION, COTTAGEVILLE, NEW JERSEY

August 1996 – November 1997

MAINTENANCE OF CIRCUIT SWITCHING SYSTEMS, KOREAN TELECOMMUNICATIONS, KOREA

March 1992 – May 1993

EDUCATION

PH.D., ELECTRICAL ENGINEERING, CITY UNIVERSITY OF NEW YORK, NEW YORK, NY

September 2004 – September 2013

- Research Area: Medium Access Control and Routing for Communication Networks, Wireless Personal Area Networks, Wireless Home Networks, Wireless Ad-hoc Networks, Wireless Sensor Networks, and Optimization
- The Title of PhD Thesis: Heuristic Algorithms for Scheduling Multiple Timeslots and Multiple Channels in Industrial Wireless Sensor Networks

M.S., ELECTRICAL ENGINEERING, CITY COLLEGE OF NEW YORK, NEW YORK, NY

September 2001 – August 2003

- The Title of Master Thesis: Three Generation of Cellular Network Systems

M.S., CONTROL AND INSTRUMENT ENGINEERING, KYUNG HEE UNIVERSITY, KOREA

March 1989– February 1992

- The Title of Master Thesis: The Position and Velocity of Control in Induction Motor

B.S., MECHANICAL ENGINEERING, HAN YANG UNIVERSITY, KOREA

March 1982 – February 1986

PUBLICATIONS

- Yang G. Kim and Myung J. Lee, "Scheduling Multi-channel and Multi-timeslot in Time Constrained Wireless Sensor Networks via Simulated Annealing and Particle Swarm Optimization," IEEE Communication Magazine, vol. 52, no. 1, January, 2014, pp. 122-129.
- Gahng-Seop Ahn, Yang G. Kim, et al., "IEEE 802.15.4e DSME Mode: Multi-channel MAC for Industrial Wireless Sensor Networks," IEEE Communication Magazine, submitted for publication.
- Yang G. Kim and Byoung Seob Park, "An End-to-End Delay-based Scheduling Algorithm in IEEE 802.15.4e Networks" International Journal of Future Generation Communication and Networking (IJFGCN), vol. 9, no. 7, July 2016.
- Yang G. Kim, Yu Wang, Byoung Seob Park, and Hyo Hyun Choi, "A Heuristic Resource Scheduling Scheme in Time-Constrained Networks", Computers & Electrical Engineering - Journal - Elsevier to be accepted for publication.
- Yang G. Kim and Myung J. Lee, "Scheduling of Multi-channel and Multi-timeslot in Time Constrained Wireless Sensor Networks," UKC 2013, New Jersey, August, 2013.
- Gahng-Seop Ahn, Yang G. Kim, Anwar Hussain, and Myung J. Lee, "Multi-channel MAC for Industrial Wireless Sensor Networks," UKC 2014, San Francisco, August, 2014.
- Byoung Seob Park, Yang G. Kim and Won Joo Lee, "Push-based Content Sharing System for Smart Devices in Home Network", AWCIT 2014, Jeju island, Korea, December, 2014.
- Yang G. Kim, Byoung Seob Park, and Hyo Hyun Choi, "Heuristic Algorithms for Scheduling Resources in Time-constrained Wireless Sensor Networks", PlatCon-15, Jeju island, Korea, January, 2015.
- Yang G. Kim, Yu Wang, Byoung Seob Park, and Hyo Hyun Choi, "A Heuristic Algorithms for Scheduling Resources in Time-Constrained Wireless Sensor Networks", IEEE Proceeding, July, 2015.

PATENT

SCHEDULING METHOD OF MULTI-CHANNEL AND MULTI-TIMESLOT IN WPAN

Patents U.S. and China Patents filed.

COMPUTER SKILLS

**ARDUNINO, SOLIDWORKS, OPNET, MATLAB, MULTISIM, LOGICWORKS,
ELECTRONIC WORKBENCH, MS OFFICE, A+ CERTIFIED, CERTIFIED NOVELL
ADMINISTRATOR, AND CERTIFIED NOVELL ENGINEER**

REFERENCES

M. ÜMIT UYAR, PROFESSOR, ELECTRICAL ENGINEERING, CITY COLLEGE OF NEW YORK

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GAHNG SEOP AHN, PH.D., RESEARCH SCIENTIST, INTELLIGENT AUTOMATION, INC.

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