



**이재용** Jaiyong Lee

전기전자공학과 / Electrical Engineering

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**Curriculum Vitae**

Career Experience /

2020. 3 ~ present : Professor, Electrical Electronics Computer Engineering Dept. UNIST

1994.9~ 2020.2 : Professor, School of EE, Yonsei University

1987.6 ~ 1994.8 : Associate Professor, Computer Science Department, POSTECH

1977.3 ~ 1982.6 Researcher, ADD (Agency for Defence Development)

**Academic Credential**

- 1987.5 Ph.D Iowa State University, Computer Engineering

- 1984.5 MS Iowa State University, Computer Engineering

- 1977.2 BS Yonsei University, Electronics Eng.

**Awards/Honors/Memberships**

Awards/

1. 해동상 (교육부문) 2020.01 한국공학한림원

2. 한송엽 공학교육상 2019.09 한국공학고

육학회

3 공학교육 표창장 (장관상) 2016.11 교육부

4. 우수성과창출과제상 (원장상) 2014.12

정보통신기술진흥기술센터

5. 공로상 2014.10 5G Forum

6. Special Contribution Award 2011.08

IEEE 54th MWSCAS

Honors/

- 석좌교수 한국통신학회

- 명예교수 연세대학교

Membership/

-Member IEEE

-Regular Member NAEK (National

Academy fo Engineering Korea)

**Ubiquitous Network Lab**

**유비쿼터스 네트워크 연구실**

\* Edge Computing Acceleration Technology development for 5G Ultra-low latency services

- Design Architecture for Accelerating Edge Computing

- Intenetworking Programmable HW for edge computing with Container tech,

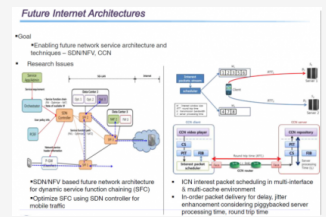
\* SDN based Slice manager desgin and analysis for End-to End QoS Service

The service requirements of the next-generation mobile communication network include low latency, high capacity, massive connection, and high reliability, and various radio, access, and core network technologies have been proposed to support this. In particular,

the next-generation mobile communication network needs a network slicing function that can flexibly handle various network resources and satisfy quality of service (Qos) end-to-end to reflect future service requirements. SDN (software-defined networking)-based slice manager architecture design that can guarantee end-to-end service quality to service providers is required.

\* MP-TCP

This research aims to improve transmission performance by reducing network throughput, reliable transmission, and transmission delay by using multiple transmission paths. For this purpose, transmission path management, packet transmission scheduling, subflow management, and congestion control in mutipath are handled. Performance analysis in a real network environments are performed for the evaluation of the MP-TCP.



**관심분야**

Real time Access Network for edge/distributed cloud service, Multi-Path TCP Protocol design and analysis Reliable IoT Service Management

**희망분야**

smart network for smart factory,

**Research Keywords and Topics**

\* Real-time Access Network Architecture for Edge Cloud Services using SDN/NFV/CCN

- distributed cloud service architecture

- real time wireless access architectue

\* Multi-path TCP

- QoS enhancement for multi interface network

- Data scheduling for MPTCP in wireless netwrok

\* Open IoT Software Platform Development for IoT Services

- Sensor Network Life time Enhance ment /Energy efficient Protocol design

- Sustainable Service Network Management architecture

**Research Publications**

1. J. Kim, K. Kim, J. Lee, "Energy-Efficient Relay Selection of Cooperative HARQ based on the Number of Transmissions over Rayleigh-Fading Channels," in IEEE Transactions on Vehicular Technology, vol.66, no.1, pp.610, 2017

2. B. H. Oh, J. Lee, "Feedback-Based Path Failure Detection and Buffer Blocking Protection for MPTCP," in IEEE/ACM Transactions on Networking, vol.24, no.6, pp.3450, 2016

3. OH, Bong-Hwan, LEE, Jaiyong. "Constraint-based proactive scheduling for MPTCP in wireless networks". in IEEE Computer Networks, 2015, 91: 548-563.

**Patents**

1. 컨텐츠 중심 네트워크를 구성하는 단말 장치 및 이의 통신 방법, 이재용 외, 2017.1. 24 미국 (등록번호 9553790)

2. 이중의 무선 통신 네트워크에서 핸드오버 장치 및 방법, 이재용 외, 2016.04 19 미국 (등록번호 9319958)