

# Curriculum Vitae Hyun Kyu CHUNG / August 2018

## 1. Personal details

Name: Hyun Kyu CHUNG  
Born: 1963, Incheon, Republic of KOREA  
Status: Married  
Address: Hyper-connected Communication Laboratory, Electronics and Telecommunications Research Institute(ETRI), 218 Gajeong-ro, Yuseong-gu, Daejeon, KOREA  
Email: [hkchung@etri.re.kr](mailto:hkchung@etri.re.kr)  
Fax : +82 50 4134 5342  
Phone: +82 10 3708 5342  
Group web page:  
Home: 110-904, 43 Gajeong-ro, Yuseong-gu, Daejeon, KOREA  
Federation IDF:

## 2. Higher Education

<u>Date:</u> <u>From-To</u>	<u>Institute</u>	<u>Degree</u>	<u>Area of</u> <u>specialization</u>
1998-2000	Polytechnic Institute of New York University	Ph.Degree Supervisor: Prof. Henry Bertoni	Radio Propagation from VHF to UHF, Mobile Communication
1986-1988	Korea Advanced Institute of Science and Technology (KAIST)	Master Degree Supervisor: Prof. Bien Zeungnam	Robotics, Command and Control
1981-1984	Seoul National University (SNU)	Bachelor Degree	Electrical Engineering

## 3. Appointments

<u>Date</u> <u>:</u>	<u>Institute</u>	<u>Title</u>	<u>Research area</u>
2001-Present	Research Institute(ETRI)	Research Fellow	Mobile Communications

2000	Lucent Technologies.	Member of Technical	Wideband CDMA system
1993-1998	SK Telecom	Head of US R&D Center	Mobile Communications Networks
1988-1993	Korea Telecom.	Research	Electronics Switching System

#### 4. **Additional Functions/Tasks**

Last 10 year achievements:.

**Total 20 Journal Papers, 44 International Conference Papers, 164 international/domestic Patents.**

**Dr. Hyun Kyu Chung** is a research fellow and vice president of ETRI(Electronics and Telecommunications Research Institute). He was head of 5G Giga-Service Research Laboratory, which was responsible for mobile communication R&D for the Giga-Korea Project in ETRI. He received B.S. degree from Seoul National University in 1985 and his master degree on electrical engineering from KAIST in 1988. He joined to Korea Telecom in 1988 as a researcher. After moving his career to SK Telecom in 1993, he had served as a researcher for deploying world-first CDMA commercial networks and head of SK Telecom U.S. R&D Center at Fairfield, New Jersey. In U.S. he pursued Ph.D. degree in electrical engineering in Polytechnic Institute of NYU, Brooklyn, New York, where he majored wave propagation for mobile communications. After his doctoral degree in 2000, he joined to Lucent Technologies in New Jersey as a member of technical staff, before joining to ETRI in 2001. His research interests are wireless technologies for mobile communication. Dr. Chung is actively involved in industrial and academic activities in Korea as a vice chair of 5G Forum, KICS(Korean Institute of Communications and Information Science) and IEIE(Institute of Electronics and Information Engineer). He takes part in the activities of ITU-R Study Group 5 Working Party 5D (IMT Systems) and Study Group 3(Radiowave Propagations).

#### 5. **Other Activities**

**Awards:**

- 2005: Korea Government Award from Ministry of Information and Communication (MIC)
- 2007: Best Paper Awards, IEEE VTS(Vehicular Technology Society) APWCS 2007(Asian Pacific Wireless Communications Symposium)
- 2017: Korea Government Award from Ministry of Science and ICT(MSIT)

#### 6. **List of Publications (last 10 years)**

***Main Publication in English***

1. 5GCHAMPION - Disruptive 5G Technologies for Roll-Out in 2018, ETRI Journal, 2018, pp. 10-25

2. Measurement-Based Propagation Channel Characteristics for Millimeter-Wave 5G Giga Communication Systems, 2016, ETRI Journal pp. 1031-1041
3. NLOS Path Loss Model for Low-Height Antenna Links in High-Rise Urban Street Grid Environments, International Journal of Antennas and Propagation, 2015, pp. 1-10
4. SINR Distribution for MIMO MMSE Receivers in Transmit-Correlated Rayleigh Channels: SER Performance and High-SNR Power Allocation, IEEE Transactions on Vehicular Technology, 2013, pp. 4083-4087
5. Performance Analysis of Spatially Correlated MIMO-OFDM Beamforming Systems with the Maximum Eigenvalue Model from Measured MIMO Channels, IEEE Transactions on Wireless Communications, 2012, pp. 3744-3753
6. Distribution of Eigenvalues for  $2 \times 2$  MIMO Channel Capacity based on Indoor Measurements, IEEE Transactions on Wireless Communications, 2012, pp. 1255-1259
7. Performance Analysis and High-SNR Power Allocation for MIMO ZF Receivers with a Precoder in Transmit-Correlated Rayleigh Channels, IEEE Communications Letters, 2012, Volume: 16, Issue: 8
8. Measurement-Based Stochastic Cross-Correlation Models of a Multilink Channel in Cooperative Communication Environments, ETRI Journal, 2012, pp. 858-868
9. An efficient synchronization signal structure for OFDM-based cellular systems, IEEE Transactions on Wireless Communications, 2010, Volume: 9, Issue: 1
10. Opportunistic Beamforming Communication With Throughput Analysis Using Asymptotic Approach, IEEE Transactions on Vehicular Technology, 2009, pp. 2608-2614