

HYUNG JOO SEO

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EDUCATION

The University of Michigan (UMich), Ann Arbor, USA

2016.9- Current

Doctoral Program in Electrical and Computer Engineering

(Advisor: David Blaauw)

-RF/Microwave IC Design, Mixed-Signal IC Design

Tokyo Institute of Technology (Tokyo Tech), Tokyo, Japan

2011.4 – 2013.8 & 2015.9-2016.3

Bachelor's Degree in Electric and Electronic Engineering

(Advisor: Ando Makoto, Hirokawa Jiro)

-Early Graduation with Excellence (**3-year Graduation**) **GPA 94.4/100 :: 3.98/4.00 (1st in class)**

-Preliminary Japanese Language Course for 1 year (2010 - 2011)

-Korean Mandatory Military Service (2013 - 2015)

Selected Courses:

(*: Graduate level)

Analog Electronic Circuits, Digital Electronic Circuits, Circuit Theory, Computer Architecture, Digital Signal Processing, Communication Engineering, Advanced Network Technology, EM Fields and Waves, Wave Transmission Engineering, Advanced Electromagnetic Waves*, Quantum Information Processing*

Gimpo Foreign Language High School, Gimpo, South Korea

2006.9 - 2009.2

Majored in English and Japanese

US Government-Funded Student Exchange Program: Genesee Junior-High/High School, MI, USA (1 year) via CASE Foundation

EXPERIENCE

-Research and Development

Student Researcher (Advisor: Ando Makoto, Hirokawa Jiro—Both are Fellows of *IEEE* and *IEICE*)

2015.9 - 2016.6

Millimeter-Wave Front-End and Antenna Laboratory, Tokyo Institute of Technology

- Designed a **64×64** corporate-feed slot array waveguide antenna system for a **60GHz-Band** using diffusion-bonding half-etching technique.

- Designed supportive structures within the feeding circuits to suppress distortion in each sub-array while maintaining its performance.

Internship (Advisor: Tomoya Urushihara)

2013.8 - 2013.10

Panasonic Corporation R&D Center, Kanagawa, Japan

Millimeter-Wave Team

- Development and evaluation of **60 GHz-Band RF** integrated circuits and systems for **WiGig** Devices.

- Investigation on the relationship between throughputs and beam patterns of **WiGig** transceivers.

Internship (Advisor: Changhyun Noh)

2012.8 - 2012.10

Samsung SDI, Uiwang, South Korea

R&D Department Marketing Strategy Team

- Investigation on electronic industries for the past decade and marketing strategy for future technology development.

HONORS & AWARDS

2016 Selected as a representative of Tokyo Tech, Academic Excellence Award from IEEJ (Institute of Electrical Engineers, Japan)

2010 - 2016 Korea-Japan Joint Government Scholarship for 5 years' tuition and stipend.

2012/2013 Marked Top 5% in department and listed both in 2nd and 3rd year.

2011 Tokyo Tech Foreign Language Speech Contest, Grand Prize of German.

2007 Sungkyunkwan University (SKKU) Math Olympiad, Encouragement Prize (Top 8).

EXTRACURRICULAR ACTIVITIES

2014 Co-organizer of the 1st ASPIRE League E-Olympics at KAIST, Daejeon, South Korea. - [link](#)

2013 Director and Editor of a Youtube video clip of 120K+ views for the university; "Tokyo Tech Style" - [link](#)

2013 Member of Team Tokyo Tech, BIOMOD 2013 (Biomolecular Design Competition)-Cosmetic biomolecular system (Umbrellas)

2012 - 2013 President of Tokyo Tech International Student Association (TISA) - organized various events, parties, programs in to make Tokyo Tech more international and supported students from all around the world. - [link](#)

2012 Tutor Activity for freshmen of Department of Engineering, Tokyo Tech.

2012 Core member of TEDxTitech 2012, Speaker Curation team. - [link](#)

2012 Core member of UCEE NET activities - Activities among Japanese top universities around the country. - [link](#)

SKILLS

-Programming: C++, JAVA, MATLAB, QBASIC, Fortran, Verilog, VHDL, Visual Basic, CASL II

-Software: Cadence(Virtuoso), HFSS, ADS, COMSOL, Mathematica, Labview, AutoCAD, Tools for Routers and Networks

-Languages: English, Korean(Native), Japanese(JLPT N1-Highest Level), Chinese(New HSK level 4-Intermediate)