

# Jeong Min Kong

Mail: jeongminkong@ucla.edu

Site: JeongMinKong.github.io

## Background

- Nationality: **Canada**
- Country of Birth: **Republic of Korea**

## Education

- **University of California, Los Angeles - Ph.D. in Electrical and Computer Engineering 2024 - 2028**  
-Advisor: Professor **Ian Roberts**  
-Received the *UCLA Electrical and Computer Engineering Departmental Award (Fellowship)*
- **University of Toronto - M.A.Sc. in Electrical and Computer Engineering 2022 - 2024**  
-Advisor: Professor **Elvino Sousa**  
-Received the *Edward S. Rogers Sr. Graduate Scholarship and Research Fellowship*
- **University of Toronto - B.A.Sc. in Electrical and Computer Engineering (Honors) 2016 - 2022**  
-Major in Communications, Signal Processing, and Photonics  
-Awarded the *J. E. Reid Memorial Prize*, which is given to the graduating undergraduate student with the highest aggregate marks in electronic communications
- **Regiopolis-Notre Dame Catholic Secondary School - O.S.S.D. 2012 - 2016**

## Research Position

- **Researcher** - Dept. of Electrical and Computer Engineering, UCLA 2024/09 - Present  
Advisor: Professor **Ian Roberts**
- **Researcher** - Dept. of Electrical and Computer Engineering, University of Toronto 2022/09 - 2024/04  
Advisor: Professor **Elvino Sousa**
- **Research Assistant** - Dept. of Mathematics, University of Toronto 2021/05 - 2021/08  
Advisor: Professor **Adrian Nachman**
- **Research Intern** - Huawei Mathematical and Algorithmic Sciences Lab 2020/05 - 2021/04  
Advisor: Professor **Merouane Debbah** and Professor **George Alexandropoulos**
- **Research Student** - Dept. of Physics, The University of Tokyo 2018/11 - 2019/02  
Advisor: Professor **Kathrin Wimmer**

## Publication

- **Jeong Min Kong** and Ian P. Roberts, "Active Beam Learning for Full-Duplex Wireless Systems", 2024 *Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, USA, 2024, pp. 1-5.
- **Jeong Min Kong** and Elvino Sousa, "Piggybacking on UAV Package Delivery Systems to Simultaneously Provide Wireless Coverage: A Deep Reinforcement Learning-Based Trajectory Design", 2024 *IEEE Conference on Computer Communications (INFOCOM) Workshops*, Vancouver, BC, Canada, 2024, pp. 1-6.
- **Jeong Min Kong** and Elvino Sousa, "Adaptive Ratio-Based-Threshold Gradient Sparsification Scheme for Federated Learning", 2023 *International Symposium on Networks, Computers and Communications (ISNCC)*, Doha, Qatar, 2023, pp. 1-5.

## Skill

- **Language:** English, Korean
- **Programming Language:** Python, C++, C, MATLAB, Simulink, Julia, GEANT4, ROOT, HTML, CSS, LaTeX, Excel
- **Programming Library:** NumPy, SciPy, Matplotlib, Tkinter, Pandas, PyTorch, TensorFlow

- **Coursework:** Communication Systems, Digital Communications, Wireless Communications/Advanced Cellular Systems (4G/5G), Modern Wireless Communication Systems, Information Theory, Detection and Estimation Theory, Game Theory and Evolutionary Games, Internet of Things, Optical Communications and Networks, Multimedia Systems, Signals and Systems, Optics, Fields and Waves, Electric and Magnetic Fields, Quantum and Semiconductor Physics, Algorithms and Data Structures, Artificial Intelligence, Bayesian Networks, Medical Imaging, Multivariable and Vector Calculus, Complex Analysis, Differential Equations, Probability Theory and Applications, Linear Algebra, Engineering Economics

## Teaching Assistant

- **MAT290 - Differential Equations and Complex Analysis** | University of Toronto *Fall 2023*  
Held weekly tutorial sessions for 30 undergraduate students.
- **ECE316 - Communication Systems (Head)** | University of Toronto *Spring 2023, Spring 2024*  
Held weekly tutorial and/or lab sessions for 25 to 45 undergraduate students, graded midterms and final exams.
- **ECE472 - Engineering Economics** | University of Toronto *Fall 2022, Spring 2023*  
Held weekly tutorial sessions for 45 to 60 undergraduate students, graded final exams.

## Professional Service

- **Member of the Technical Program Committee**  
*2025 IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)*
- **Member of the Technical Program Committee**  
*2025 IEEE Wireless Communications and Networking Conference (WCNC)*
- **Member of the Technical Program Committee**  
*2024 IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)*
- **Member of the Technical Program Committee**  
*2024 IEEE Wireless Communications and Networking Conference (WCNC)*

## Award

- **UCLA Electrical and Computer Engineering Departmental Award (Fellowship) 2024**  
Issued: UCLA
- **Edward S. Rogers Sr. Graduate Scholarship and Research Fellowship 2022**  
Issued: University of Toronto
- **J. E. Reid Memorial Prize 2022**  
Issued: University of Toronto
- **President's Scholarship 2016**  
Issued: University of Toronto
- **Mary Alice Murray Scholarship 2016**  
Issued: City of Kingston
- **Research Assistant Fellowship 2019 (Declined)**  
Issued: Nobel Laureate in Physics Professor Theodor Haensch's Group at the Max Planck Institute of Quantum Optics
- **2nd Place, Microsoft College Team Coding Competition 2017**  
Issued: Microsoft and University of Toronto

## Reference

- **Ian Roberts** *Assistant Professor*  
Dept. of Electrical and Computer Engineering, UCLA, Los Angeles, USA  
Contact: ianroberts@ucla.edu
- **Elvino Sousa**, *Professor and Jeffrey Skoll Chair in Computer Networks*  
Dept. of Electrical and Computer Engineering, University of Toronto, Toronto, Canada  
Contact: es.sousa@utoronto.ca
- **Adrian Nachman**, *Professor*

Dept. of Mathematics, University of Toronto, Toronto, Canada

Contact: nachman@math.toronto.edu

- **Merouane Debbah**, *Professor and Director*

6G Centre, Khalifa University, Abu Dhabi, UAE

Contact: merouane.debbah@ku.ac.ae

- **Raviraj Adve**, *Professor*

Dept. of Electrical and Computer Engineering, University of Toronto, Toronto, Canada

Contact: rsadve@ece.utoronto.ca

- **Kathrin Wimmer**, *Researcher and Deputy Department Head*

GSI Helmholtz Centre for Heavy Ion Research, Darmstadt, Germany

Contact: k.wimmer@gsi.de