

Robin Chataut
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Wireless communication researcher with three years of experience in design, implementation, and optimization of wireless networks. Seeking for opportunities where my skills and experience in wireless communication will be enhanced and utilized.

Summary of Skills

- Currently working on optimization of massive MIMO systems for 5G networks
- Comprehensive knowledge of wireless networks and protocols, microwaves/millimeter waves
- Extensive knowledge of wireless communications standards: IEEE 802.11, 5G, LTE, 3GPP, UMTS
- Programming Languages: Proficient in C, C++, Matlab/Simulink
- Operating systems: Hands-on experience with Linux based operating systems
- Excellent communicator with good organizational skills

Education

University of North Texas, Computer Science and Engineering
PhD Student, Computer and Information Sciences

Denton, Texas, USA
Aug 2016 - Present

Tribhuvan University, Institute of Engineering
Bachelor of Engineering in Electronics and Communication Engineering

Kathmandu, Nepal
Aug 2010 – Dec 2014

Experience Summary:

Wireless Sensor Lab, University of North Texas

Title: Graduate Research Assistant

Denton, Texas, USA
August 2016 - Present

- Research focus on optimization for Massive MIMO system for 5G communication
- Design and implementation of detection, precoding and channel estimation algorithm for Massive MIMO systems
- Research on IoT and Smart Cities implementation issues

Nepal Telecom

Title: Intern

Kathmandu, Nepal
April 2015-Sept 2015

- Assisted technicians in equipment inspection and gathered and compiled data for projects as well as prepare weekly status reports

Jhilko Innovations

Title: Software Developer

Kathmandu, Nepal
Sept 2015-July 2016

- Developed an interactive Android Application targeted to children with autism and their parents (App Name: Beautiful Minds).

Projects:

Optimization for Massive MIMO Systems (Collaboration with NSF NCCS and I/UCRC)

- Working on this project for optimizing precoding, detection and channel estimation methods/algorithms for massive MIMO systems
- Developing methods for minimizing pilot contamination problem in massive MIMO systems

Beautiful Mind Project (Collaboration with UNICEF Nepal and Autism Care Nepal society)

- Worked as an Android developer to create an interactive Android Application targeted to children with autism and their parents.

Vehicle Over Speed Detection and License Plate Recognition (Collaboration with Traffic Police Nepal)

- Created a system to detect over speeded vehicle using microwave radar sensor and detect its number plate using image processing algorithms.

Publications:

- [1] **R. Chataut** and R. Akl, "Optimal Pilot Reuse Factor Based on User Environment in 5G Massive MIMO," 2018 IEEE 8th Annual Computing and Communication Workshop and Conference (CCWC), Las Vegas, NV, USA, 2018, pp. 845-851.
- [2] **R. Chataut** and R. Akl, "Efficient and Low Complex Uplink Detection for 5G Massive MIMO Systems," 2018 IEEE 19th Wireless and Microwave Technology Conference (WAMICON), Sand Key, FL, 2018, pp. 1-6.
- [3] **R. Chataut** and R. Akl, "Huber Fitting based ADMM Detection for Uplink 5G Massive MIMO Systems," manuscript accepted at 2018 9th IEEE Annual Ubiquitous Computing, Electronics and Mobile Communication Conference (UEMCON), New York, NY, 2018.
- [4] R. Chataut, R. Akl and U. K. Dey, "Least Square Regressor Selection Based Detection for Uplink 5G Massive MIMO Systems," 2019 IEEE 20th Wireless and Microwave Technology Conference (WAMICON), Cocoa Beach, FL, USA, 2019, pp. 1-6.
- [5] R. Chataut., R. Akl . "Channel Gain Based User Scheduling for 5G Massive MIMO Systems,".accepted at 2019 IEEE 16th International Conference on Smart Cities: Improving Quality of Life Using ICT & IoT and AI (HONET-ICT).
- [6] .U.K. Dey, R. Akl,R. Chataut. ."Data Sharing Among Autonomous Vehicles Using MIMO,".submitted to 2019 IEEE Vehicular Networking Conference (VNC).
- [7] R. Chataut., R. Akl ." Everything You Wanted to Know About Massive MIMO Systems for 5G Networks: Overview, Benefits, and Challenges". Submitted to IEEE Access Journal.

Honors and Awards

2019:	College of Engineering Department Award, University of North Texas.
2019:	TGS GSC Travel Grant, University of North Texas.
2019:	TGS Summer Award, University of North Texas.
2018	Texas Public Education Grant awarded by Texas Legislature
2018-2020	Multi-Cultural Scholastic Award
2018-2019	Karnes Bryant Centennial Scholarship
2016- Present	Tuition Benefit Program Award, University of North Texas
2010-2014	Nepal Government full scholarship for academic excellence
2008-2010	Mahatma Gandhi Scholarship award for academic excellence awarded by Embassy of India in Nepal