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RESEARCH INTERESTS	Stochastic design and analysis of 5G networks, mmWave communications for vehicular networks, applications of machine learning on 5G-NR and LTE-Advanced.	
EDUCATION	<b>NYU Tandon School of Engineering</b> , New York, NY, U Ph.D., Electrical and Computer Engineering, September 2016 - February 2022 <ul style="list-style-type: none"> <li>▪ <b>CGPA:</b> 3.97/4.00</li> <li>▪ <b>Advisor:</b> Prof. Dr. Shivendra Panwar</li> <li>▪ <b>Dissertation title:</b> "Mitigating the Challenges of Low-Latency Services in Future Wireless Networks"</li> <li>▪ Ernst Weber Fellowship, Ph.D.</li> <li>▪ <b>Related Courses Taken:</b> Wireless Communications, Massive MIMO, Advanced Machine Learning, Convex/Nonsmooth Optimization, Information Theory, Advanced Signal Processing, Queuing Theory</li> </ul> <b>Bilkent University</b> , Ankara, Turkey M.S., Electrical and Electronics Engineering, September 2013 - June 2016 <ul style="list-style-type: none"> <li>▪ <b>CGPA:</b> 3.84/4.00</li> <li>▪ <b>Advisor:</b> Prof. Dr. Nail Akar</li> <li>▪ <b>Thesis title:</b> "Energy Management in Energy Harvesting Wireless Sensor Nodes With Lifetime Constraints"</li> <li>▪ TUBITAK Graduate Scholarship</li> </ul> B.S., Electrical and Electronics Engineering, August 2009 - June 2013 <ul style="list-style-type: none"> <li>▪ <b>CGPA:</b> 3.77/4.00</li> <li>▪ Comprehensive Scholarship by Placement Examination (OYS)</li> </ul> <b>Ankara Ataturk Anatolian High School</b> , Ankara, Turkey September 2005 - June 2009	
PROFESSIONAL EXPERIENCE	<b>AT&amp;T Labs Research</b> , Middletown, NJ, USA <i>Senior Inventive Scientist</i> March 2022 - Present <ul style="list-style-type: none"> <li>▪ Research and development of future wireless technologies</li> </ul> <b>NYU Wireless, NYU Tandon School of Engineering</b> , New York, NY, USA <i>Teaching/Research Assistant</i> September 2016 - February 2022 <b>Samsung Research America</b> , Berkeley Heights, NJ, USA <i>Intern, Standard and Mobility Innovation (SMI)</i> May 2020 - August 2020 <ul style="list-style-type: none"> <li>▪ Electric and magnetic fields (EMF)-based power control for Massive MIMO</li> </ul> <b>Futurewei Technologies</b> , Bridgewater, NJ, USA <i>Systems Engineering Intern</i> May 2019 - August 2019 <ul style="list-style-type: none"> <li>▪ Data/statistical analysis and machine learning-based prediction/performance improvement of link adaptation in 5G-NR</li> </ul> <i>Systems Engineering Intern</i> May 2018 - August 2018 <ul style="list-style-type: none"> <li>▪ Optimizing link adaptation in 5G-NR using machine learning techniques</li> </ul> <i>Systems Engineering Intern</i> May 2017 - August 2017 <ul style="list-style-type: none"> <li>▪ Carrier aggregation in LTE-Advanced</li> </ul> <b>Bilkent University</b> , Ankara, Turkey <i>Research Assistant, Graduate Teaching Assistant</i> Fall 2013 - Spring 2016 <b>ASELSAN</b> , Ankara, Turkey <i>Part-Time System Engineer</i> December 2012 - June 2013 <ul style="list-style-type: none"> <li>▪ Design of Wireless Communication Devices and Networks for Police and Gendarmerie</li> </ul>	

JOURNAL PUBLICATIONS	<ul style="list-style-type: none"> <li>▪ <b>C. Tunc</b> and S. Panwar. "Mitigating the Impact of Blockages in Millimeter-Wave Vehicular Networks through Vehicular Relays", <i>IEEE Open Journal of Intelligent Transportation Systems</i>, July 2021.</li> <li>▪ <b>C. Tunc</b>, MF. Özkoç, F. Fund and S. Panwar. "The Blind Side: Latency Challenges in Millimeter Wave Networks for Connected Vehicle Applications", <i>IEEE Transactions on Vehicular Technology</i>, December 2020.</li> <li>▪ E. O. Gamgam, <b>C. Tunc</b> and N. Akar. "On the Queuing Model of the Energy-Delay Trade-Off in Wireless Links with Power Control and Link Adaptation", <i>IEEE Transactions on Communications</i>, February 2019.</li> <li>▪ N. Akar, <b>C. Tunc</b>, M. A. Gaertner and F. Erden. "Performance of Shortest Cumulative Access Time First (SCATF) Disk Scheduling Algorithms", <i>The Turkish Journal of Electrical Engineering &amp; Computer Sciences</i>, July 2017.</li> <li>▪ <b>C. Tunc</b> and N. Akar. "Markov Fluid Queue Model of an Energy Harvesting IoT Device with Adaptive Sensing", <i>Performance Evaluation</i>, May 2017.</li> <li>▪ <b>C. Tunc</b> and N. Akar. "Fixed-point Analysis of a Network of Routers with Persistent UDP and TCP Flows and Class-based Weighted Fair Queuing" <i>Telecommunication Systems</i>, July 2016.</li> <li>▪ <b>C. Tunc</b> and N. Akar. "Mapping Time-varying IP Traffic to Flexible Optical Paths in Flexgrid Optical Networks" <i>Photonic Network Communications</i>, August 2014.</li> </ul>
PATENTS	<ul style="list-style-type: none"> <li>▪ Z. Lin, S. Das, <b>C. Tunc</b> and J. Zhang. "Apparatus and method for managing the exposure to electric and magnetic fields (EMF)", US11064443B1, July 2021.</li> </ul>
CONFERENCE PUBLICATIONS	<ul style="list-style-type: none"> <li>▪ MF. Özkoç, <b>C. Tunc</b> and S. Panwar. "Data-Driven Beamforming Codebook Design to Improve Coverage in Millimeter Wave Networks", accepted to <i>IEEE 95th Vehicular Technology Conference: VTC2022-Spring</i>.</li> <li>▪ <b>C. Tunc</b> and S. Panwar. "Analysis of Outage Probability and Duration in Millimeter Wave Vehicle-to-Infrastructure Networks", <i>IEEE 92nd Vehicular Technology Conference: VTC2020-Fall</i>, Victoria, BC Canada.</li> <li>▪ <b>C. Tunc</b> and S. Panwar. "Optimal Transmission Policies for Energy Harvesting Age of Information Systems with Battery Recovery", <i>2019 Asilomar Conference on Signals, Systems, and Computers</i>, Pacific Grove, CA, USA.</li> <li>▪ <b>C. Tunc</b>, MF. Özkoç and S. Panwar. "Millimeter Wave Coverage and Blockage Duration Analysis for Vehicular Communications", <i>IEEE 90th Vehicular Technology Conference: VTC2019-Fall</i>, Honolulu, Hawaii, USA.</li> <li>▪ <b>C. Tunc</b> and N. Akar. "Efficient Transport of Time-varying IP Traffic in Flexi-grid Optical Networks", <i>Signal Processing and Communications Applications Conference (SIU)</i>, Trabzon, Turkey, April 2014.</li> </ul>
WORKING PAPERS	<ul style="list-style-type: none"> <li>▪ <b>C. Tunc</b>, MF. Özkoç and S. Panwar. "Uplink Channel-based Smart Handover for Delay Minimization in 5G-Supported Cloud Applications", in progress.</li> </ul>
PRESENTATIONS	<b>C. Tunc</b> and N. Akar. "Performance Modeling of Delay-based Dynamic Speed Scaling", <i>The Ninth International Conference on Matrix-Analytic Methods in Stochastic Models (MAM9)</i> , Budapest, Hungary, June 2016.
THESIS	<b>C. Tunc</b> . "Energy Management in Energy Harvesting Wireless Sensor Nodes with Lifetime Constraints." <i>MS Thesis</i> , Bilkent University, June 2016.
LANGUAGES	<b>English</b> : Fluent, <b>Spanish</b> : Moderate, <b>German</b> : Beginner, <b>Turkish</b> : Native
COMP. SKILLS	MATLAB/CVX/Gurobi, Python, Torch, TensorFlow, VHDL, Java, R, AMPL, Assembly.
AWARDS & ACHIEVEMENTS	<ul style="list-style-type: none"> <li>▪ Ernst Weber Fellowship (Ph.D.), NYU Tandon School of Engineering</li> <li>▪ TUBITAK Graduate Scholarship</li> <li>▪ Bilkent University Master of Science Study Full Scholarship</li> <li>▪ Bilkent University High Honor Student ( 2009-2010 Fall, 2009-2010 Spring, 2010-2011 Fall, 2010-2011 Spring, 2011-2012 Fall, 2012-2013 Fall, 2012-2013 Spring)</li> <li>▪ Bilkent University Honor Student ( 20011-2012 Spring)</li> <li>▪ TUSIAD's 'Bu Gençlikte İş Var' Honourable Mention Award</li> <li>▪ Ranked 420th in University Entrance Exam among 1.4 million candidates</li> </ul>