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Ramesh Rao has been a faculty member at UC San Diego since 1984. Prior to becoming the director of Qualcomm Institute, Dr. Rao was the director of the Center for Wireless Communications (CWC) at UCSD. Dr. Rao is involved on a day-to-day basis with a wide variety of research initiatives at Qualcomm Institute. He leads several major interdisciplinary and collaborative projects and has been a PI on dozens of federal-, state-, foundation- and industry-funded grants.

1. Professional Roles, Activities, and Awards (as of: July, 2019)

- Fellow of the Institute of Electrical and Electronics Engineers (IEEE) for leadership in wireless communications
- Senior Fellow of the California Council on Science and Technology (CCST)
- Member, Board of Directors, CONNECT
- Qualcomm Endowed Chair in Telecommunications and Information Technology
- Professional Gordon Engineering Leadership Award 2010, Gordon Engineering Leadership Center, UCSD
- Distinguished Alumni Award 2012, A. James Clark School of Engineering (ECE), University of Maryland
- Distinguished Alumnus Award 2008, National Institute of Technology (NITT), Tiruchirappalli
- National Merit Scholarship, Govt. of India, 1967
- Member, Rady Children's Hospital and Health Center Board of Trustees' Information Technology Task Force
- Member, Board of Directors, Academy of Neuroscience for Architecture
- Member of the Board of Governors IEEE Information Theory Society, 1997-1999 and 2000-2002
- Secretary, Technical Activities Council and Technical Committees Board, IEEE Communications Society, 1990-1991
- Publications Editor, IEEE Transactions on Information Theory, 1999-2001
- Editor for Packet Multiple Access, IEEE Transactions on Communications, 1997-2000
- Guest Editor, Special Issue on Multimedia Network Radios, IEEE Journal of Selected Areas in Communications, 1998
- Member, Editorial Board, IEEE Networks, 1997-1999
- Past Member, UC San Diego Health System Advisory Board
- Past Member, Board of Advisors, CommNexus San Diego: A Network of Communications Companies
- Past Member, Young Scholar Award Selection Committee, Marconi Society

- Past Member, Weqaya Advisory Task Force, Health Authority – Abu Dhabi (HAAD), United Arab Emirates
- Member, Clarke Center’s Internal Advisory Board
- Member, Advisory Board, Center for Global Justice
- Member, Steering Committee of Cross-Campus Healthy Aging Initiative, UCSD
- Member, UCSD CREATE STEM Success Initiative Internal Advisory Board
- Chair, the National Research Council's Committee on Using Information Technology to Enhance Disaster Management, the findings were published by the NRC in 2007: "Improving Disaster Management: The Role of IT in Mitigation, Preparedness, Response and Recovery."
- Chair, the National Academies of Sciences, Engineering, and Medicine’s Committee on the Future of Emergency Alert and Warning Systems Research in 2017: “Emergency Alert and Warning Systems: Current Knowledge and Future Research Directions and Integrating Social and Behavioral Sciences Within the Weather Enterprise”
- Testified before House Armed Services Committee on Calit2 research related to Homeland Security, February 2002

2. Publications (as of: July, 2019)

Journals, Books, and Book Chapters

85. Jacob Caylor, Rajiv Reddy, Sopyda Yin, Christina Cui, Mingxiong Huang, Charles Huang, Ramesh Rao, Dewleen G. Baker, Alan Simmons, Dmitri Souza, Samer Narouze, Ricardo Vallejo and Imanuel Lerman, “Spinal cord stimulation in chronic pain: evidence and theory for mechanisms of action,” *Bioelectronic Medicine*, (28 June 2019). DOI: 10.1186/s42234-019-0023-1
84. Giorgio Quer, Tugcan Aktas, Federico Librino, Tara Javidi, Ramesh R Rao, “A Wireless Vehicle-based mobile network infrastructure designed for smarter cities,” *Ad Hoc Networks*, (15 June 2019). DOI: 10.1016/j.adhoc.2018.10.014
83. V. Bhardwaj, A. C. Angkaw, M. Franceschetti, R. Rao, D. G. Baker, “Direct and indirect relationships among post-traumatic stress disorder, depression, hostility, anger, and verbal and physical aggression in returning veterans,” *Aggressive Behavior*. 2019; 45: 417– 426. <https://doi.org/10.1002/ab.21827>
82. Meng Qin, Qinghai Yang, Nan Cheng, Jinglei Li, Weihua Wu, Ramesh R Rao, Xuemin Shen, “Learning-Aided Multiple Time-Scale SON Function Coordination in Ultra-Dense Small-Cell Networks,” *IEEE Transactions on Wireless Communications*. (13 Feb 2019). DOI: 10.1109/TWC.2019.2898002
81. Imanuel Lerman, Bryan Davis, Mingxiong Huang, Charles Huang, Linda Sorkin, James Proudfoot, Edward Zhong, Donald Kimball, Ramesh Rao, Bruce Simon, Andrea Spadoni, Irina Strigo, Dewleen G Baker, Alan N Simmons, “Noninvasive Vagus Nerve Stimulation Alters the Neural and Physiological Response to Noxious Thermal Challenge,” *PloS one*, (13 Feb 2019).

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80. Shams Al Ajrawi, Hayden Bialek, Mahasweta Sarkar, Ramesh Rao, Syed Hassan Ahmed, "Bi-directional channel modeling for implantable UHF–RFID transceivers in brain–computer interface applications," *Future Generation Computer Systems*, (1 Nov 2018). DOI: 10.1016/j.future.2018.03.036
79. Meng Qin, Qinghai Yang, Nan Cheng, Haibo Zhou, Ramesh R Rao, Xuemin Shen, "Machine learning aided context-aware self-healing management for ultra dense networks with QoS provisions," *IEEE Transactions on Vehicular Technology*, (24 Oct 2018). DOI: 10.1109/TVT.2018.2877910
78. Zewei Jing, Meng Qin, Qinghai Yang, Kyung-Sup Kwak, Ramesh R Rao, "Energy efficient millimetre-wave fronthaul and OFDMA resource optimisation in C-RANs," *IET Communications*, (24 April 2018). Pages: 1595-1601
77. Mahmood Karimi, Ramesh R Rao, "On the estimation and control of human body composition," *Transactions of the Institute of Measurement and Control*, (30 May 2018). Pages: 2536-2545
76. Jinglei Li, Qinghai Yang, Kyung-sup Kwak, Ramesh Rao, "Age-Friendly Communities Initiative: Public Health Approach to Promoting Successful Aging," *IEEE Transactions on Vehicular Technology*, (August 2017). DOI: 10.1109/TVT.2017.2665649
76. Jeste DV, Blazer DG 2nd, Buckwalter KC, Cassidy KK, Fishman L, Gwyther LP, Levin SM, Phillipson C, Rao RR, Schmeding E, Vega WA, Avanzino JA, Glorioso DK, Feather J., "Age-Friendly Communities Initiative: Public Health Approach to Promoting Successful Aging," *The American Journal of Geriatric Psychiatry*, (December 2016). DOI: 10.1016/j.jagp.2016.07.021
75. Meng Qin, Qinghai Yang, Jian Yang, Kyung-sup Kwak, Ramesh R Rao, "Throughput of QoS Guaranteed Wireless Systems with/without Channel State Information," *IEEE Transactions on Vehicular Technology*, (19 December 2016). DOI: 10.1109/TVT.2016.2641443
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69. M. Danieleto, G. Quer, R. Rao, and M. Zorzi "CARMEN: A Cognitive Networking Testbed on Android OS Devices," *IEEE Communications Magazine*, Vol. 52, Issue 9 (12 September 2014), pp. 98-107
68. M. Danieleto, G. Quer, R. Rao, and M. Zorzi "Traffic Sensing and Characterization in Multi-Channel Wireless Networks for Cognitive Networking," *Computer Networks*, Vol. 56, Issue 7 (3 May 2012), pp. 1968-1982
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43. V. Srinivasan, P. Nuggehalli, C.F. Chiasserini, and R. R. Rao, "An Analytical Approach to the Study of Cooperation in Wireless Ad Hoc Networks," *IEEE Transactions on Wireless Communications*, Vol. 4, No. 2 (March 2005), pp. 722. DOI: [10.1109/TWC.2004.842950](https://doi.org/10.1109/TWC.2004.842950)
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184. C Yu Hans, Giorgio Quer, Ramesh R Rao, "Wireless SDN mobile ad hoc network: From theory to practice", *Proceedings of the 2017 IEEE International Conference on Communications (ICC)*, Paris, France, May 21-25, 2017, pp. 1-7.
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