Dr. DANIEL M. DEVASIRVATHAM
SELECTED PUBLICATIONS

(Author - A / co-author - C)

Selected list of Journal papers, conference papers, NASA technical reports, invited presentations/ publications and articles. Some of these have been cited as fundamental references in many books and papers.

Virginia Stouffer(1); William Cotton(3); Thomas Irvine(4); Richard Jennings(2); Ronald Lehmer(2); Randall DeAngelis(2); Michelle Shaver(2); Thanh Nguyen(2); Daniel Devasirvatham(2) 2021 AIAA AVIATION Forum and Exposition " Enabling Urban Air Mobility through Communications and Cooperative Surveillance" August 2021 *(C)*

Devasirvatham, D. (Ed.): "Elements of Context for Cognitive Radio Based Public Safety Communications Systems", Wireless Innovation Forum Public Safety Special Interest Group Report, WINNF-16-P-0019 V1, 15 April 2016. (C)

Devasirvatham, D.: "Spectrum Sharing and Critical Infrastructure Protection: Opportunities and Challenges", Proceedings of WInnComm-Europe 2014, pp 62-66, Rome, November 2014

Devasirvatham D., Austad, W.: "Opportunities and Challenges in Critical Infrastructure with Wireless Communications", Mission Critical Magazine, May 2014 (C)

Neel J., Cook P., Mellen, N., Akbar, I., Devasirvatham D., Sheehe, C., Schutz, R.: "The Role of Context in Cognitive Systems", Journal of Signal Processing Systems, Springer US, April 2014

Devasirvatham, D.: "The Reality of Broadband,", APCO Public Safety Communications Magazine, p 45, April 2014

Wendelken, S., Devasirvatham D.: "User Facility Director Touts National Resource", Mission Critical Communications, p 46, April 2014

Devasirvatham, D. M.: "Contextual Cognitive Communications, Antennas and Measurements", Antenna Measurement Techniques Association Conference AMTA 2013, Columbus, OH, October 6-11, 2013

Neel, J., Cook, P., Akbar, I., Devasirvatham, D., Sheehe, C., Mellen, N., Schutz, R. : "Context Aware Cognitive Radio", Software Defined Radio Forum Conference SDR'13-WInnComm-Europe, Munich, June 11-13, 2013 (C)

Devasirvatham, D., Neel, J., Tompsett, C., Link, K.: "3 Layers of Communications Recovery", Mission Critical Communications, pp 62-65 March 2013 (Invited) (C)

Devasirvatham, D. M.: "Recovering Communications After Large Disasters", Software Defined Radio Forum Conference SDR'11-WInnComm-Europe, pp 61-65, June 22-24, 2011 (Invited)

Devasirvatham, D. M.: “A Modest Proposal: Recovering Operability and Interoperability After Large Incidents”, APCO Public Safety Communications Magazine, pp 26-28, May 2011 (Invited)

Salgado, E., Gadwal, V., Heger, J., Hobson, B., Devasirvatham., D.: “RF Coverage Verification Issues in Public Safety Communications” , MILCOM 2008, WMC8.3 Paper 1338, November 17-19, 2008. (C)

Devasirvatham, D. M. J., and Murray, R. R.: “Time Delay Spread Measurements at Two Frequencies in a Small City.” Proc. IEEE Military Communications Conference, MILCOM 95, pp. 942-946, November 5-8, 1995. (Invited)

Devasirvatham, D. M. J., Murray, R. R., and Wolter, D. R.: “Time Delay Spread Measurements in a Wireless Local Loop Test Bed.” Proc. IEEE Vehicular Technology Conference, VTC 95, pp. 241-245, July 25-28, 1995.

Devasirvatham, D. M. J., Seidel, S. Y., Murray, R. R., Arnold, H. W., and Sutliff, L. G.: “Radiowave Propagation Measurements for Sharing Spectrum Between Point-to-Point Microwave Radios and Personal Communications Systems.” Proc. IEEE Universal Personal Communications Conference, ICUPC 94, pp. 262-266, September 27-October 1, 1994.

Devasirvatham, D. M. J., Murray, R. R., Arnold, H. W., and Cox, D. C.: “Four Frequency CW Measurements in Residential Environments for Personal Communications” Proc. IEEE Vehicular Technology Conference, VTC 94, April 1994.

Devasirvatham, D. M. J., Murray, R. R., Arnold, H. W., and Cox, D. C.: “Four Frequency CW Measurements in Residential Environments for Personal Communications” Proc. IEEE 1993 International Symposium on Personal, Indoor and Mobile Radio Communications. PIMRC ‘93, Yokohama, Japan, Paper A2.4, pp. 201-205, September 8-11, 1993.

Devasirvatham, D. M. J., Seidel, S. Y., and Murray, R. R.: “Propagation Studies for Sharing Spectrum between PCS and Fixed Microwave (OFS) Systems”, Document TIA TR14.11-92, Washington, D. C., January 27, 1994. Published in ICUPC ‘94, Seattle, WA, 1994.

Varma, V. K., Arnold, H. W., Devasirvatham, D. M. J., Ranade, A. M., Sutliff, L. G.: "Interference, Sensitivity and Capacity Calculations for Measurement-based Wireless Access Spectrum Sharing", Proc. IEEE, Veh. Tech. Symp., Secaucas, NJ, May 1993.

Varma, V. K., Arnold, H. W., Devasirvatham, D. M. J., Sollenberger, N. R., Sutliff, L. G.: "A Beacon Detection Method for Sharing Spectrum between PCS and Fixed Microwave (OFS) Systems", Proc. IEEE, Veh. Tech. Symp., Secaucas, NJ, May 1993. Journal Paper published in VT Transactions, 1994.

Devasirvatham, D. M. J.: "Two Frequency Radiowave Propagation Measurements in Brooklyn", Proc. IEEE International Conference on Universal Personal Communications '92 (ICUPC '92). Dallas, TX, Paper 1.05, pp. 23-28, September 29 - October 3, 1992.

Devasirvatham, D. M. J., Banerjee, C., Krain, M. J., & Rappaport, D. A.: "Multi-Frequency Radiowave Propagation Measurements In the Portable Radio Environment", Proc. IEEE ICC '90, Vol. 4, No. 335.1, pp. 1334-1340, April 1990.

Devasirvatham, D. M. J.: "Experiment Based Indoor Multi-Frequency Radiowave Propagation Models for the Portable Radio Environment", Proc. 4th Nordic Digital Mobile Radio Conference, DMR IV, Oslo, Norway, Paper 9.1, June 25-28, 1990.

Devasirvatham, D. M. J.: "Radio Propagation Studies in a Small City for Universal Digital Portable Communications", IEEE Vehicular Technology Conference, Proc. IEE VTC '88, Philadelphia, PA, pp. 100-104, June 15-17, 1988.

Devasirvatham, D. M. J.: "Propagation Time Delay Jitter Measured at 850 MHz in the Portable Radio Environment", IEEE JSAC Special Issue on Portable and Mobile Communications, Vol. SAC-5, No. 5, pp. 855-861, June 1987.

Devasirvatham, D. M. J.: "Multipath Time Delay Spread in the Digital Portable Radio Environment", IEEE Communications Magazine, Vol. 25, No. 6, pp. 13-21, June 1987. (Invited)

Devasirvatham, D. M. J.: "Time Delay Spread and Signal Level Measurements of 850 MHz Radio Waves in Building Environments", IEEE Trans. Ant. and Prop., Vol. AP-34, No. 11, pp. 1300-1305, November 1986.

Devasirvatham, D. M. J.: "Multi-frequency Propagation Measurements and Models in a Large Metropolitan Commercial Building for Personal Communications", Proc. IEEE 1991 International Symposium on Personal, Indoor and Mobile Radio Communications, PIMRC'91, London, UK, Paper 4.5, September 23-25, 1991.

Devasirvatham, D. M. J., Murray, R. R., and Banerjee, C: "Time Delay Spread Measurements at 850 MHz and 1.7 GHz Inside a Metropolitan Office Building", Electronics Letters, Vol. 25, No. 3, pp. 194-196, 2nd February 1989.

Devasirvatham, D. M. J., Banerjee, C., Krain, M. J., & Rappaport, D. A.: "Radio Propagation Measurements at 850 MHz, 1.7 GHz and 4 GHz Inside Two Dissimilar Office Buildings", Electronics Letters, Vol. 26, No. 7, pp. 445-447, 29th March 1990.

"Time Delay Spread Measurements at 850 MHz and 1.7 GHz inside a Metropolitan Office Building", Electronics Letters, December 1988. (C)

Devasirvatham, D. M. J.: "A Comparison of Time Delay Spread and Signal Level Measurements Within Two Dissimilar Office Buildings", IEEE Trans. Ant. and Prop., Vol. AP-35, No. 3, pp. 319-324, March 1987. (A)

"A Comparison of Time Delay Spread Measurements Within Two Dissimilar Office Buildings" , Proc. IEEE ICC '86, pp. 852-857, Toronto, Canada, June 22-25, 1986. (A)

"Time Delay Spread Measurements of 850 MHz Radio Waves in Building Environments", Proc. IEEE Globecom '85, Vol. 2, pp. 970-973, December 2-5, 1985. (A)

"Time Delay Spread Measurements of Wideband Radio Signals Within a Building", Electronics Letters, Vol. 20, No. 23, pp. 950-951, 8th November 1984. (A)

"COMSTAR and CTS Angle-of-Arrival Measurements", Annales des Telecommunications, tome 35, Nos. 11-12, Nov.-Dec. 1980. (C)

"Amplitude Scintillations at 2 and 30 GHz on Earth Space Paths", Transactions of the URSI Conference, La Baule, France, 1976. (C)

"Effects of Atmospheric Turbulence on Microwave and Millimeter Wave Satellite Communications Systems", No. 712759-6, The ElectroScience Laboratory, also the National Technical Information Service (NTIS), Washington, D.C. Prepared under Contract No. NASW-3393 for the National Aeronautics and Space Administration, NASA headquarters, Washington, D.C., September 1981. (C)

"Amplitude Scintillations on Earth-Space Propagation Paths at 2 and 30 GHz", No. 4299-4, March 1977, The ElectroScience Laboratory, Columbus, Ohio. Also the National Technical Information Service (NTIS), Washington, D.C. Prepared under Contract No. NAS5-22575 for NASA Goddard Space Flight Center. (C)

Amplitude and Angle-of-Arrival Measurements on a 28.56 GHz Earth-Space Path", No. 712759-4, March 1981, The ElectroScience Laboratory, Columbus, Ohio. Also the National Technical Information Service (NTIS), Washington, D.C. Prepared under Contract No. NASW-3393 for NASA Headquarters, Washington, D.C. (A)

"Power Law Relationships for Rain Attenuation and Reflectivity", No. 784650-2, January 1978, The ElectroScience Laboratory, Columbus, Ohio. Also the National Technical Information Service (NTIS), Washington, D.C. Prepared under Contract No. NAS5-23850 for NASA Goddard Space Flight Center. (C)

"An Analysis of Multi-Frequency High Resolution Radar Rain Rate Data", No. 784650-3, December 1977, The ElectroScience Laboratory, Columbus, Ohio. Also the National Technical Information Service (NTIS), Washington, D.C. Prepared under Contract No. NAS5-23850 for NASA Goddard Space Flight Center. (A)

PUBLIC TUTORIALS

“Disaster Recovery Communications”, Wireless @ Virginia Tech Symposium, Blacksburg, VA, May 29-31, 2013

“Radiowave Propagation for Personal Communications”, Invited expert presentation to Oregon Center for Advanced Technologies, OCATE, Oregon, April 8, 1994.

"Radio Wave Propagation Measurements and Modeling For Personal Communications", IEEE ICC '93, Geneva, Switzerland, May 27, 1993.

"Wireless Channel Measurement, Characterization and Modeling". Wireless '92, Calgary, Alberta, Canada, July 8, 1992 (Invited).