

CV of Inder (Jiti) Gupta

Inder Jeet Gupta
8233 Glencullen Ct.
Dublin, OH 43017

(614)292-5951 (office)
(614)657-2952 (cell)
gupta.11@osu.edu

EDUCATION

Ph. D., Electrical Engineering, The Ohio State University, Columbus, Ohio, June 1982.

M. Tech., Electrical Engineering, Indian Institute of Technology, Kanpur, India, July 1977.

B. Sc. (Eng.), Electronics & Electrical Communications, Punjab Engineering College, Chandigarh, India, June 1975.

EMPLOYMENT HISTORY

September 2014 to present, *Emeritus Professor*, September 2009 to August 2014, *Research Professor*, July 1997 to August 2009 – *Senior Research Scientist & Adjunct Professor*, July 1988 to June 1997 – *Research Scientist*, July 1982 to June 1988 – *Senior Research Associate*, April 1979 to July 1982 – *Graduate Research Associate*, Department of Electrical and Computer Engineering, The Ohio State University, Columbus, Ohio.

September 1978 to March 1979 – *Graduate Research Assistant*, University of Tennessee Space Institute, Tullahoma, Tennessee.

December 1977 to August 1978 – *Research Scholar*, August 1977 to December 1977 – *Research Engineer*, July 1976 to July 1977 – *Research Assistant*, Indian Institute of Technology, Kanpur, India.

PROFESSIONAL HONORS and AWARDS

Fellow – Institute of Electrical and Electronics Engineers (IEEE)

Fellow – Institute of Navigation (ION)

Edmond S. Gillespie Fellow – Antenna Measurement Techniques Association (AMTA)

IEEE Antennas and Propagation Society's 2018 John Kraus Antenna Award

The Ohio State University ElectroScience Laboratory's 2017 George Sinclair Award

Institute of Navigation's 2015 Capt. R.V.H. Weems Award

Air Force Material Command (AFMC) News, March 11, 2009

AMTA 2007 Distinguish Achievement Award

The Ohio State University, College of Engineering's **Lumley Research Award** for the years 1991, 1998, 2005 and 2011

IEEE Antennas and Propagation Society's **1991 H.A. Wheeler Applications Prize Paper Award**

LEADERSHIP POSITION IN PROFESSIONAL ORGANIZATIONS

Chairman (1985-86), Vice Chairman (1984-85) and Secretary/Treasurer (1983-84) of the Columbus Chapter of IEEE Antennas and Propagation/Microwave Theory and Techniques Societies.

Technical Coordinator, Antenna Measurement Techniques Association, 1995 and 1996.

President, Antenna Measurement Techniques Association, 1997.

Member, Advisory Board, Antenna Measurement Techniques Association, 1999 to 2004.

Co-Chair, Technical Program Committee, IEEE Antennas and Propagation Society's 2003 International Symposium

Member, Technical Program Committee, AMTA, 2007 - 2012

Principal Investigator, EM Range Consortium, The Ohio State University ElectroScience Laboratory, July 2002 till 2010

Principal Investigator, ESL-CERF (ElectroScience Laboratory Consortium on Electromagnetics and Radio Frequencies), The Ohio State University, 2010 - 2012

University Representative, Consortium of Ohio Universities on Navigation and Timekeeping (COUNT), 2006 - 2018

Regular Session Chair at IEEE APS Symposiums, AMTA Annual Symposium and Institute of Navigation meetings.

Technical reviewer for more than ten professional journals

PUBLICATIONS: A list of journal papers, conference papers and conference abstracts is given below. All the journal articles are peer reviewed. Coauthors with * next to their names indicate the students advised by Dr. Gupta. Coauthors with ** next to their names are indicate students not advised by Dr. Gupta; whereas coauthors with *** indicates non-Ohio State University persons.

Archived Journal Papers

1. J. Compaleo* and I.J. Gupta, "Spectral Domain Sparse Representation for DOA Estimation of Signals with Large Dynamic Range," *Sensors*, **2021**, 21, 5164. <https://doi.org/10.33390/s21155164>.
2. J. Compaleo* and I.J. Gupta, "Application of Sparse Representation to Bartlett Spectra for Improved Direction of Arrival Estimation," *Sensors*, **2021**, 21, 77. <https://dx.doi.org/10.33390/s21010077>.
3. A.L. Kintz* and I.J. Gupta, "A Modified MUSIC Algorithm for Direction of Arrival Estimation in the Presence of Antenna Array Manifold Mismatch," *IEEE Trans. Antennas and Propagation*, vol. 64, pp. 4836-4847, November 2016.
4. M. Buchanan*, Y.C. Chuang*, A.J. O'Brien and I.J. Gupta, "Verification of an Optimal Adaptive Filtering Algorithm for GNSS Antenna Arrays," *NAVIGATION, Journal of the Institute of Navigation*, vol. 63, pp. 391-402, Winter 2016.
5. I.J. Gupta, I.M. Weiss*** and A.W. Morrison***, "Desired Features of Adaptive Antennas for GNSS Receivers," *Proc. of IEEE*, vol. 104, pp. 1195-1206, June 2016.
6. Y.C. Chuang* and I.J. Gupta, "On-the-fly Estimation of Antenna Induced Biases in SFAP based GNSS Antenna Arrays," *NAVIGATION - Journal of the Institute of Navigation*, volume 61, No. 4, pages 323-330, Winter 2014.
7. A.S.C. Svendsen*, A.J. O'Brien and I.J. Gupta, "A Novel GPS Algorithm for Continuous Tracking on Spinning Cylindrical Platforms," *NAVIGATION- Journal of the Institute of Navigation*, vol. 60, No. 1, pages 11-30, Spring 2013.
8. A.S.C. Svendsen* and I.J. Gupta, "The Effect of Mutual Coupling on the Nulling Performance of Adaptive Antennas," *IEEE Antennas and Propagation Magazine*, Vol. 54, No. 3, pages 17-38, June 2012.
9. C. M. Church*, A.J. O'Brien and I.J. Gupta, "A novel method to measure array manifolds of GNSS adaptive antennas," *NAVIGATION - Journal of the Institute of Navigation*, Vol. 58, No. 4, pages 345-356, Winter 2011.
10. A.S.C. Svendsen* and I.J. Gupta, "Adaptive Antennas for handheld GPS receivers," *NAVIGATION - Journal of the Institute of Navigation*, Vol. 58, No. 3, pages 221-228, Fall 2011.
11. K.A. Griffith* and I.J. Gupta, "Inclusion of Rotor Blade Modulation in Hardware-in-the-loop Testing of RF Systems," *IEEE Transactions on Aerospace and Electronic Systems*, Vol. 47, No. 3, pages 1580-1593, July 2011.
12. A.J. O'Brien* and I.J. Gupta, "Mitigation of Adaptive Antenna-Induced Bias Errors in GNSS Receivers," *IEEE Transactions on Aerospace and Electronic Systems*, Vol. 47, No. 1, pages 524-538, January 2011.

13. I.J. Gupta, T.-H. Lee, K.A. Griffith*, C.D. Slick*, C.J. Reddy***, M.C. Bailey*** and D. DeCarlo***, "Non-planar Adaptive Antenna Arrays for GPS Receivers," *IEEE Antennas and Propagation Magazine*, Vol. 52, No. 5, pages 35-51, October 2010.
14. D.A. Grejner-Brzezinska, C. Toth, I.J. Gupta, L. Lei* and X. Wang*, "Challenged Positions: Dynamic Sensor Network, Distributed GPS Aperture, and Inter-nodal Ranging Signals," *GPS World*, pages 35-42, September 2010.
15. A.J. O'Brien* and I.J. Gupta, "An Optimal Adaptive Filtering Algorithm with Zero Antenna-Induced Bias for GNSS Antenna Arrays," *NAVIGATION - Journal of the Institute of Navigation*, Vol. 57, No. 2, pages 87-100, Summer 2010.
16. K.A. Griffith* and I.J. Gupta, "Effects of Mutual Coupling on the Performance of GNSS Antennas," *NAVIGATION - Journal of the Institute of Navigation*, volume 56, pages 161-174, Fall 2009.
17. C.M. Church* and I.J. Gupta, "Estimation of Adaptive Antenna Induced Code and Carrier Phase Bias in GNSS Receivers," *NAVIGATION - Journal of the Institute of Navigation*, volume 56, pages 151-160, Fall 2009.
18. A.J. O'Brien* and I.J. Gupta, "Comparison of Output SINR and Receiver C/No for GNSS Receivers," *IEEE Transactions on Aerospace and Electronic Systems*, volume 45, pages 1630-1639, October 2009.
19. J.A. Kasemodel**, C.-C. Chen, I.J. Gupta and J.L. Volakis, "Miniature Continuous Coverage Antenna Arrays for GNSS Receivers," *IEEE Antennas and Wireless Propagation Letters*, volume 7, pages 592-595, 2008.
20. J.D. Krieger*, E.H. Newman and I.J. Gupta, "The Single Antenna Method for the Measurement of Antenna Gain and Phase," *IEEE Transactions on Antennas and Propagation*, volume 54, pages 3562-3565, November 2006.
21. I.J. Gupta, J.A. Ulrey* and E.H. Newman, "Effects of Antenna Element Bandwidth on Adaptive Array Performance," *IEEE Transactions on Antennas and Propagation*, Vol. 53, pp. 2332-2336, July 2005.
22. I.J. Gupta, "Stray Signal Source Location in Far-Field Antenna/RCS Ranges," *IEEE Antennas and Propagation Magazine*, Vol. 46, No. 3, pp. 20-29, June 2004.
23. I.J. Gupta and T.D. Moore*, "Space-Frequency Adaptive Processing (SFAP) for Radio Frequency Interference Mitigation in Spread-Spectrum Receivers," *IEEE Transactions on Antennas and Propagation*, Vol. AP-52, No. 6, pp. 1611-1616, June 2004.
24. R.J. Burkholder, I.J. Gupta and J.T. Johnson, "Comparison of Monostatic and Bistatic Radar Images," *IEEE Antennas and Propagation Magazine*, Vol. 45, No. 3, pp. 41-50, June 2003.
25. I.J. Gupta, J.R. Baxter*, S.W. Ellingson, H.G. Park***, H.S. Oh*** and M.G. Kyeong***, "An Experimental Study of Antenna Array Calibration," *IEEE Transactions on Antennas and Propagation*, Vol. AP-51, No. 3, pp. 664-668, March 2003.

26. A. van der Merwe* and I.J. Gupta, "A Novel Signal Processing Technique for Clutter Reduction in GPR Measurements," *IEEE Transactions on GeoScience and Remote Sensing*, Vol. 38, pp. 2627-2637, November 2000.
27. M.J. Gerry**, L.C. Potter, I.J. Gupta and A. van der Merwe*, "A Parametric Model for Synthetic Aperture Radar Measurements," *IEEE Transactions on Antennas and Propagation*, Vol. AP-47, No.7, pp. 1179-1188, July 1999.
28. L.-C. T. Chang*, I.J. Gupta, W.D. Burnside and C.-L. T. Chang*, "A Data Compression Technique for Scattered Fields from Complex Targets," *IEEE Transactions on Antennas and Propagation*, Vol. AP-45, No. 8, pp. 1245-1251, August 1997.
29. M.-W. Tu*, I.J. Gupta and E.K. Walton, "Application of Maximum Likelihood Estimation to Radar Imaging," *IEEE Transactions on Antennas and Propagation*, Vol. AP-45, No. 1, pp. 20-27, January 1997.
30. I.J. Gupta, M. Beals* and A. Moghaddar*, "Data Extrapolation for High Resolution Radar Imaging," *IEEE Transactions on Antennas and Propagation*, Vol. AP-42, No. 11, pp. 1540-1545, November 1994.
31. J.W. Nehrbass* and I.J. Gupta, "A Vectorized Multiple Plate Scattering Code," *Applied Computational Electromagnetics Society Journal*, Vol. 9, No.2, pp. 135-141, July 1994.
32. W.D. Burnside and I.J. Gupta, "A Method to Reduce Stray Signal Errors in Antenna Pattern Measurements," *IEEE Transactions on Antennas and Propagation*, Vol. AP-42, No. 3, pp. 399-405, March 1994.
33. I.J. Gupta, "High Resolution Radar Imaging Using 2-D Linear Prediction," *IEEE Transactions on Antennas and Propagation*, Vol. AP-42, No. 1, pp. 31-37, January 1994.
34. Z. Al-Hekil*, I.J. Gupta and W.D. Burnside, "Scattering from Thin Dielectric Straps Surrounding a Perfectly Conducting Structure," *IEEE Transactions on Antennas and Propagation*, Vol. AP-41, No. 4, pp. 442-447, April 1993.
35. T. Lee, T. Clark**, W.D. Burnside and I.J. Gupta, "Critical Range Evaluation using a Diagonal Flat Plate," *IEEE Transactions on Antennas and Propagation*, Vol. AP-40, no. 8, pp. 966-974, August 1992.
36. I.J. Gupta, D. Brown*, W.D. Burnside and W. Lin, "A Serrated Edge Gregorian Subreflector for Dual Compact Range System," *IEEE Transactions on Antennas and Propagation*, Vol. AP-39, No. 8, pp. 1258-1260, August 1991.
37. I.J. Gupta and W.D. Burnside, "Compact Range Measurement Systems for Electrically Small Test Zones," *IEEE Transactions on Antennas and Propagation*, Vol. AP-39, No. 5, pp. 632-638, May 1991.
38. R.L. Dilsavor* and I.J. Gupta, "An Experimental SMI Adaptive Antenna Array for Weak Interfering Signals," *IEEE Transactions on Antennas and Propagation*, Vol. AP-39, No. 2, pp.236-243, February, 1991.

39. S.W. Ellingson*, I.J. Gupta and W.D. Burnside, "Analysis of Blended Rolled Edge Reflectors Using Numerical UTD," *IEEE Transactions on Antennas and Propagation*, Vol. AP-38, No. 12, pp. 1969-1971, December 1990.
40. K. Steadman*, I.J. Gupta and E.K. Walton, "Performance of a Modified Feedback Loop Adaptive Array with TVRO Satellite Signals," *IEEE Transactions on Antennas and Propagation*, Vol. AP-38, No. 10, pp. 1701-1709, October 1990.
41. I.J. Gupta, K. Ericksen* and W.D. Burnside, "A Method to Design Blended Rolled Edges for Compact Range Reflectors," *IEEE Transactions on Antennas and Propagation*, Vol. AP-38, No. 6, pp. 853-861, June 1990.
42. I.J. Gupta, A.K. Lai* and W.D. Burnside, "Scattering by Dielectric Straps with Potential Application as Target Support Structures," *IEEE Transactions on Antennas and Propagation*, Vol. AP-37, No. 9, pp. 1109-1115, September 1989.
43. J. Ward* and I.J. Gupta, "Effects of the Desired Signal on the Performance of a Sidelobe Canceller," *IEEE Transactions on Antennas and Propagation*, Vol. AP-37, No. 9, pp. 1109-1115, September 1989.
44. J. Ward*, E. Walton, I. Gupta and A. Ksienski, "An Experimental Adaptive Array to Suppress Weak Interfering Signals," *IEEE Transactions on Antennas and Propagation*, Vol. AP-34, No. 11, pp. 1551-1559, November 1988
45. I.J. Gupta, C.W.I. Pistorius** and W.D. Burnside, "An Efficient Method to Compute Spurious End Point Contributions in PO Solution," *IEEE Transactions on Antennas and Propagation*, Vol. AP-35, No. 12, pp. 1426-1435, December 1987.
46. I.J. Gupta and W.D. Burnside, "A Physical Optics Correction for Backscattering from Curved Surfaces," *IEEE Transactions on Antennas and Propagation*, Vol. AP-35, No. 5, pp. 553-561, May 1987.
47. I.J. Gupta, "Two-State Feedback Loop Adaptive Arrays for Pulsed Interference Signals," *IEEE Transactions on Aerospace and Electronic Systems*, Vol. AES-22, No. 6, pp. 716-724, November 1986.
48. I.J. Gupta, "SMI Adaptive Antenna Arrays for Weak Interfering Signals," *IEEE Transaction on Antennas and Propagation*, Vol. AP-34, No. 10, pp. 1237-1243, October 1986.
49. I.J. Gupta and A.A. Ksienski, "Adaptive Antenna Arrays for Weak Interfering Signals," *IEEE Transactions on Antennas and Propagation*, Vol. AP-34, No. 3, pp. 420-427, March 1986.
50. I.J. Gupta, "Performance of a Modified Applebaum Adaptive Array," *IEEE Transactions on Aerospace and Electronic Systems*, Vol. AES-20, No. 5, pp. 583-593, September 1984.
51. I.J. Gupta, "Effect of Jammer Power on the Performance of Adaptive Arrays," *IEEE Transactions on Antennas and Propagation*, Vol. AP-32, No. 9, pp. 933-937, September 1984.

52. I.J. Gupta, "Adaptive Arrays for Multiple Simultaneous Desired Signals," *IEEE Transactions on Aerospace and Electronic Systems*, Vol. AES-19, No. 5, pp. 761-767, September 1983.
53. I.J. Gupta and A.A. Ksienski, "Effect of Mutual Coupling on the Performance of Adaptive Arrays," *IEEE Transactions on Antennas and Propagation*, Vol. AP-31, No. 5, pp. 785-791, September 1983.
54. I.J. Gupta and A.A. Ksienski, "Prediction of Adaptive Array Performance," *IEEE Transactions on Aerospace and Electronic Systems*, Vol. AES-19, No. 3, pp. 380-388, May 1983.
55. I.J. Gupta and A.A. Ksienski, "Dependence of Adaptive Array Performance on Conventional Array Design," *IEEE Transactions on Antennas and Propagation*, Vol. AP-30, No. 4, pp 549-553, July 1982.
56. A. Paul*** (Master's Advisor) and I.J. Gupta, "An Analysis of Log Periodic Antenna with Printed Dipoles," *IEEE Transactions on Microwave Theory and Techniques*, Vol. MTT-29, No. 2, pp. 114-118, February 1981.

Conference Papers

1. L. Tchorowski* and I.J. Gupta, "Antenna Modelling on Complex Platforms via Sparse Constrained Equivalent Distributions," IEEE Antennas and Propagation Society International Symposium, Atlanta, GA, July 2019.
2. J. Compaleo* and I.J. Gupta, "Application of Sparse Representation to Beamforming for Direction of Arrival Estimation," IEEE Antennas and Propagation Society International Symposium, Atlanta, GA, July 2019.
3. L. Tchorowski* and I.J. Gupta "Antenna Modeling on Complex Platforms through Constrained Equivalent Aperture Distributions," Antenna Measurement Techniques Association's Annual Meeting and Symposium, Williamsburg, VA, November 2018.
4. L. Tchorowski* and I.J. Gupta, "Far-Field Equivalence through Equivalent Current Distributions," IEEE Antennas and Propagation Society International Symposium, Boston, MA, July 2018.
5. E. Loria*, A. O'Brien and I.J. Gupta, "Detection & Separation of Coherent Reflections in GNSS-R Measurements using CYGNSS Data," IEEE International Geoscience and Remote Sensing Symposium, Valencia, Spain, July 2018.
6. A.L. Kintz* and I.J. Gupta, "Direct Mapping Method for Time Difference of Arrival Based Geolocation," *IEEE International Symposium on Antennas and Propagation*, Fajardo, PR, July 2016.
7. A.L. Kintz* and I.J. Gupta, "Experimental In-Situ Antenna Array Calibration with Signals of Opportunity," *Annual Meeting and Symposium, Antenna Measurement Techniques Association*, Long Beach, CA, October 2015
8. T.-H. Lee and I.J. Gupta, "Scattering from a Panel," *Annual Meeting and Symposium, Antenna Measurement Techniques Association*, Long Beach, CA, October 2015

9. A. Kintz* and I. Gupta, "A New Approach to Resolving Emitter Locations in the Presence of Antenna Manifold Mismatch," *IEEE International Symposium on Antennas and Propagation*, Vancouver, BC, July 2015.
10. A. Kintz and I. Gupta, "Demonstration of the Direct Mapping Method for Locating Multiple Emitters," *IEEE International Symposium on Antennas and Propagation*, Vancouver, BC, July 2015.
11. Y.C. Chuang* and I.J. Gupta, "Calibration of Multi-Channel Adaptive Array Receivers," *Annual Meeting and Symposium, Antenna Measurement Techniques Association*, Tucson, AZ, October 2014.
12. A. Kintz* and I.J. Gupta, "Use of Satellite Signals to Calibrate GNSS Receiver Antenna Arrays," *Annual Meeting and Symposium, Antenna Measurement Techniques Association*, Tucson, AZ, October 2014.
13. Y.C. Chuang* and I.J. Gupta, "Two Stage Beamformer for GNSS Receiver Antenna Arrays," *ION GNSS+ 2014*, Tampa, FL, September 2014
14. Y.C. (Jay) Chuang*, M. Buchanan*, A.J. O'Brien and I. J. Gupta, "Prediction of Antenna Induced Biases for Precision GNSS Receivers, *International Technical Meeting of the Institute of Navigation*," San Diego, CA, January 2014.
15. A.J. O'Brien and I.J. Gupta, "Low-Cost, High Fidelity Data Acquisition System for Precision GNSS Adaptive Antenna Arrays," *International Technical Meeting of the Institute of Navigation*, San Diego, CA, January 2014.
16. A. Kintz* and I.J. Gupta, "Spaceborne Antenna Array Calibration with Signals of Opportunity," *Antenna Measurement Techniques Association Annual Meeting and Symposium*, Columbus, OH, October 2013.
17. Y.C. (Jay) Chuang* and I.J. Gupta, "On-the-fly Estimation of Antenna Induced Biases in SFAP Based GNSS Antenna Arrays," *26th International Technical Meeting of the Satellite Division of the Institute of Navigation*, Nashville, TN, September 2013.
18. A. Kintz* and I.J. Gupta, "Airborne Antenna Array Calibration with Signals of Opportunity," *IEEE International Symposium on Antennas and Propagation*, Lake Buena Vista, FL, July 2013.
19. Y.C. Chuang* and I.J. Gupta, "Antenna Induced Biases in GNSS Receivers," *Proceedings of ION 2013 International Technical Meeting*, San Diego, CA, January 2013.
20. A.S.C. Svendsen*, I.J. Gupta and C.C. Chen, "Dual Band GPS Antenna for Small Cylindrical Platforms," *Proceedings of Thirty Fourth Annual Meeting and Symposium*, Antenna Measurement Techniques Association, Seattle, WA, October 2012.
21. A. Kintz* and I.J. Gupta, "RF Emitter Location Estimation in the Presence of Antenna Array Manifold Mismatch," *IEEE International Symposium on Antenna and Propagation*, Chicago, IL, July 2012.
22. Y.C. Chuang*, A.J. O'Brien and I.J. gupta, "Beam Pointing in Rotorcraft Mounted GPS Receivers," *Proceedings of ION 2012 International Technical Meeting*, Newport Beach, CA, January 2012.

23. A.J. O'Brien and I.J. Gupta, "Precise Calibration of Adaptive Antennas for GNSS Receivers on Platforms," *Proceedings of ION 2011 GNSS Meeting*, Portland, OR, September 2011.
24. S. Goodman*, R.J. Burkholder and I. J. Gupta, "Plane Wave Synthesis Approach to Compensate Range Induced Errors in Antenna Measurements," *IEEE International Symposium on Antenna and Propagation, Spokane, WA, July 2011*.
25. A.S.C. Svendsen*, I.J. Gupta and C.-C. Chen, "Satellite Coverage for GPS Antennas on Small Spinning Projectiles," *IEEE International Symposium on Antenna and Propagation, Spokane, WA, July 2011*.
26. K. Hayhurst*, I. J. Gupta and A.J. O'Brien, "Interference Source Localization using GPS Antenna Arrays," Institute of Navigation 2011 International technical meeting," San Diego, CA, January 2011.
27. A.J. O'Brien and I.J. Gupta, "Self Calibration Algorithm for Precision GNSS Antennas on Moving Platforms," *Proceedings of ION 2010 GNSS Meeting*, Portland, OR, September 2010.
28. I.J. Gupta and T.H. Lee, "Combining Multiple FRPA for AJ Functionality in GPS Receivers," *Proceedings of ION 2010 GNSS Meeting*, Portland, OR, September 2010.
29. A.S.C. Svendsen* and I.J. Gupta, "Adaptive Antennas for Hand-held GPS Receivers," *Proceedings of the 2010 Position, Location and Navigation Symposium, Institute of Navigation, Indian Wells, CA, May 2010*.
30. A.J. O'Brien* and I.J. Gupta, "Space-Time adaptive processing for Mitigation of Platform Generated Multipath," *Proceedings of the 2010 International Technical Meeting, Institute of Navigation, San Diego, CA, January 2010*.
31. K.A. Griffith* and I.J. Gupta, "Inclusion of Rotor Blade Modulation in Computer Simulations or Wavefront Simulators," *Proceedings of ION 2009 GNSS Meeting*, Savannah, GA, September 2009.
32. A. O'Brien*, K. Hayhurst* and I.J. Gupta, "Effects of Rotor Blade Modulations on GNSS Receiver Measurements," *Proceedings of ION 2009 GNSS Meeting*, Savannah, GA, September 2009.
33. C.M. Church* and I.J. Gupta, "Calibration of GNSS Adaptive Antennas," *Proceedings of ION 2009 GNSS Meeting*, Savannah, GA, September 2009.
34. D. Brzezinska, C. Toth, L. Li**, J. Park**, X. Wang**, H. Sun, I.J. Gupta, and Y. Zheng, "Positioning in GPS-Challenged Environments: Dynamic Sensor Network with Distributed Aperture and Inter-Nodal ranging Signals," *Proceedings of ION 2009 GNSS Meeting*, Savannah, GA, September 2009.
35. I.J. Gupta and K.A. Griffith*, "Simulation of Antennas Mounted on Retrocrafts," *Proceedings of ION 2008 GNSS Meeting*, Savannah, GA, September 2008.
36. A.J. O'Brien* and I.J. Gupta, "Optimum Adaptive Filtering for GNSS Antenna Arrays," *Proceedings of ION 2008 GNSS Meeting*, Savannah, GA, September 2008.

37. K.A. Griffith* and I.J. Gupta, "Effect of Mutual Coupling on the Performance of GPS AJ Antennas," *Proceedings of 2008 Position, Location, and Navigation Symposium (PLANS)*, Monterey, CA, May 2008.
38. A.J. O'Brien* and I.J. Gupta, "Mitigation of Adaptive Antenna Induced Biases in GNSS Receivers," *Proceedings of ION 2008 National Technical Meeting*, San Diego, CA, January 2008.
39. J.A. Kasemodel**, C.C. Chen, I.J. Gupta and J.L. Volakis, "Compact Wideband Antenna Array for GNSS Receivers," *Proceedings of AMTA 2007 Annual Meeting and Symposium*, St. Louis, MO, November 2007.
40. S. Goodman* and I.J. Gupta, "A Method to Correct Measurement Errors in Far-Field Antenna Ranges," *Proceedings of AMTA 2007 Annual Meeting and Symposium*, St. Louis, MO, November 2007.
41. C.M. Church* and I.J. Gupta, "GNSS Receiver Biases Due to Non-Linear Phase of Controlled Pattern and Fixed Pattern Antennas," *Proceedings of ION 2007 GNSS Meeting*, Fort Worth, TX, September 2007.
42. K.A. Griffith* and I.J. Gupta, "Reduced Order Antenna Array Calibration," *IEEE International Symposium on Antennas and Propagation*, Honolulu, Hawaii, July 2007.
43. S. Goodman* and I.J. Gupta, "Measurement of Low Sidelobe Antennas in Far-Field Test Ranges," *IEEE International Symposium on Antennas and Propagation*, Honolulu, Hawaii, July 2007.
44. C.M. Church*, I.J. Gupta and A.J. O'Brien*, "Adaptive Antenna Induced Biases in GNSS Receivers," *Proceedings of ION 2007 Annual Meeting*, Harvard, MA, April 2007.
45. I.J. Gupta, J.L. Volakis and C.C. Chen, "A Reduced Size CRPA (R-CRPA) for GNSS Receivers," *Proceedings of ION 2007 National Technical Meeting*, San Diego, CA, January 2007.
46. I.J. Gupta, C. Church*, A. O'Brien*, and C. Slick*, "Prediction of Antenna and Antenna Electronics Induced Biases in GNSS Receivers," *Proceedings of ION 2007 National Technical Meeting*, San Diego, CA, January 2007.
47. I.J. Gupta and T.H. Lee, "Measurement of Circular Polarized Antennas," *Proceedings of Antenna Measurement Techniques Association's 2006 Annual Meeting and Symposium*, Austin, TX, October 2006.
48. I.J. Gupta, J.A. Ulrey*, C.J. Reddy*** and C.B. Ravipati***, "Non-Planar Controlled Reception Pattern Antennas for GPS Receivers," *Proceedings of Institute of Navigation's 2006 GNSS Meeting*, Fort Worth, TX, September 2006.
49. M.L. Rankin*, I.J. Gupta and A. O'Brien*, "Effects of Sampling Rate on STAP-Based RFI Suppression Systems," *Proceedings of IEEE Antennas and Propagation Society's International Symposium*, Albuquerque, NM, July 2006.
50. T.M. Sokol*, I.J. Gupta and E.H. Newman, "Finite Impulse Response (FIR) Filters to Simulate Response of an Antenna," *Proceedings of IEEE Antennas and Propagation Society's International Symposium*, Albuquerque, NM, July 2006.

51. I.J. Gupta and J.A. Ulrey*, "Optimum Element Distribution for Circular Adaptive Antenna Systems," *Proceedings of Institute of Navigation's 2006 National Technical Meeting*, Monterey, CA, January 2006.
52. I.J. Gupta, E.H. Newman, C.-C. Chen, W.D. Burnside and J.D. Krieger*, "A Novel Method for Antenna Gain and Phase Calibration," *Antenna Measurement Techniques Association Annual Meeting*, New Port, RI, October - November 2005.
53. I.J. Gupta, J.A. Ulrey* and E.H. Newman, "Antenna Element Bandwidth and Adaptive Array Performance," *IEEE Antennas and Propagation Society International Symposium*, Washington, D.C., July 2005.
54. T.-H. Lee, I.J. Gupta, W.D. Burnside, A.J. Fenn*** and G. Somers***, "Rolled Edge Reflector for MIT Lincoln Laboratory New Compact Range," *Antenna Measurement Techniques Association's 26 Annual Symposium – AMTA '2004*, Stone Mountain, GA, October 2004.
55. I.J. Gupta, W.D. Burnside, J.F. Lee and R. C. Flippo***, "A Novel Structure for Accurate Measurements of Antenna Mounted on Ground Planes," *Antenna Measurement Techniques Association's 25th Annual Symposium – AMTA'2003*, Irvine, CA, October 2003.
56. I.J. Gupta and S.W. Ellingson, "Adaptive Antenna Research at the ElectroScience Laboratory," *Proc. of IEEE Antennas and Propagation Society's International Symposium*, Vol. 4, pp. 590-593, Columbus, OH, June 2003.
57. I.J. Gupta and T.D. Moore*, "Space Frequency Adaptive Processing (SFAP) for RFI Mitigation in Spread Spectrum Receivers," *Proc. of IEEE Antennas and Propagation Society's International Symposium*, Vol. 4, pp. 172-175, Columbus, OH June 2003.
58. T.D. Moore* and I.J. Gupta, "The Effect of Interference Power and Bandwidth on Space-Time Adaptive Processing," *Proc. of IEEE Antennas and Propagation Society's International Symposium*, Vol. 1, pp. 53-56, Columbus, OH June 2003.
59. I.J. Gupta, "Time Domain Near Field Focusing to Map Stray Signals in Spherical Ranges," *Antenna Measurement Techniques Association's 24th Annual Symposium – AMTA '2002*, Cleveland, OH, November 2002.
60. I.J. Gupta and W.D. Burnside, "Performance of an Experimental Outdoor RCS Range with R-Card Fences," *Antenna Measurement Techniques Association's 23rd Annual Symposium – AMTA '2001*, Denver, CO, October, 2001.
61. I.J. Gupta, "Stray Signal Source Location in Antenna/RCS Ranges," *Proc. of IEEE Antennas and Propagation Society's International Symposium*, Boston, MA, Vol. 4, pp. 424-427, July 2001.
62. J.T. Johnson, R.J. Burkholder and I.J. Gupta, "Comparison of Monostatic and Bistatic Radar Images," *Proc. of IEEE Antennas and Propagation Society's International Symposium*, Boston, MA, Vol. 4, pp. 281-284, July 2001.
63. T.D. Moore* and I.J. Gupta, "Comparison of SFAP and STAP for Interference Suppression in GPS Receivers," *Proc. of ION's Annual Meeting*, Albuquerque, NM, June 2001.

64. I.J. Gupta and T.D. Moore*, "Space-Frequency Adaptive Processing (SFAP) for Interference Suppression in GPS Receivers," *Proc. of ION National Technical Meeting*, Long Beach, CA, pp 377-385, January 2001.
65. I.J. Gupta, W.D. Burnside and R.N. Silz, "Performance of a Well Designed Rolled Edge Compact Range System," *Antenna Measurement Techniques Association's 22nd Annual Symposium – AMTA '2000*, Philadelphia, PA, November 2000.
66. I.J. Gupta and T.D. Moore*, "Calibration of Range Probe Data for Stray Signal Analysis," *Antenna Measurement Techniques Association's 22nd Annual Symposium – AMTA '2000*, Philadelphia, PA, November 2000.
67. I.J. Gupta and T.D. Moore*, "Time Domain Processing of Range Probe Data for Stray Signal Analysis," *Antenna Measurement Techniques Association's 21st Annual Symposium - AMTA '99*, Monterey, CA, October 1999.
68. S. Nag**, LO. Peters, Jr., I.J. Gupta and C.C. Chen, "Ramp Response Signatures for the Detection of Anti-Personnel Mines," *SPIE Proceedings on Detection and Remediation Technology for Mines and Mine like Targets III*, vol. 3710, pp. 1313-1322, Orlando, FL April 1999.
69. A. van der Merwe*, I.J. Gupta and L. Peters, Jr., "A Clutter Reduction Technique for GPR Data from Mine Like Targets," *SPIE Proceedings on Detection and Remediation Technology for Mines and Mine like Targets III*, vol. 3710, pp. 1094-1105, Orlando, FL, April 1999.
70. I.J. Gupta, A. van der Merwe* and C.-C. Chen, "Extraction of Complex Resonances Associated with Buried Targets," *SPIE Proceedings on Detection and Remediation Technology for Mines and Mine like Targets III*, vol. 3710, pp. 1094-1105, Orlando, FL April 1998.
71. I.J. Gupta and A. Gandhe*, "Comparison of Various Enhanced Radar Imaging Techniques," *SPIE Proceeding on Algorithm for Synthetic Aperture Radar Imagery V*, vol. 3370, pp. 250-260, Orlando FL, April 1998.
72. I.J. Gupta, W.D. Burnside, E.K. Walton and J.D. Young, "Some Top-Down Experiments for Range Characterization," *Antenna Measurement Techniques Association's Nineteenth Annual Symposium – AMTA '97*, Boston, MA, November 1997.
73. I.J. Gupta, W.D. Burnside and R. McArthur***, "A Technique to Reduce the Scan Length in Near-Field Antenna Measurements," *Antenna Measurement Techniques Association's Nineteenth Annual Symposium – AMTA '97*, Boston, MA, November 1997.
74. I.J. Gupta, W.D. Burnside, B.M. Kent***, C.W. Chuang and M.C. Gilreath***, "Design and Testing of New Curved Pyramidal Absorber," *Antenna Measurement Techniques Association's Nineteenth Annual Symposium – AMTA '97*, Boston, MA, November 1997.
75. W.D. Burnside, C. Handel*, C.W. Chuang I.J. Gupta, and B.M. Kent***, "Design and Performance of the Absorber Fence for WL Advanced Compact Range Facility,"

Antenna Measurement Techniques Association's Nineteenth Annual Symposium – AMTA '97, Boston, MA, November 1997.

76. A. van der Merwe*, M.J. Gerry**, L.C. Potter and I.J. Gupta, "Feature Estimation Performance Using a Two-Dimensional Parametric Model of Radar Scattering," (co-authors) *SPIE Proceedings on Algorithm for Synthetic Aperture Radar Imagery IV*, vol. 3070, pp. 322-333, Orlando, FL, April 1997.
77. I.J. Gupta, W.D. Burnside and E.K. Walton, "Time and Direction of Arrival Estimation of Stray Signals in a RCS/Antenna Range," *Antenna Measurement Techniques Association's Eighteenth Annual Symposium – AMTA '96, Seattle, WA, October 1996.*
78. I.J. Gupta, W.D. Burnside, E.K. Walton and J.D. Young, "A Top-Down versus Bottom-Up RCS Range Certification Approach," *Antenna Measurement Techniques Association's Eighteenth Annual Symposium – AMTA '96, Seattle, WA, October 1996.*
79. I.J. Gupta and A. Gandhe*, "Comparison of Radar Imaging Using Data Extrapolation and Adaptive FIR Filters," *Antenna Measurement Techniques Association's Eighteenth Annual Symposium – AMTA '96, Seattle, WA, October 1996.*
80. I.J. Gupta and A. van der Merwe*, "Compact Range Evaluation at Low Frequencies," *Antenna Measurement Techniques Association's Seventeenth Annual Symposium – AMTA '95, Williamsburg, VA, October 1995.*
81. M. Gerry** and I.J. Gupta, "Analysis of Amplitude Dispersion in Radar Scattering Using the MUSIC Algorithm," *Antenna Measurement Techniques Association's Seventeenth Annual Symposium – AMTA '95, Williamsburg, VA, October 1995.*
82. E. Walton, L.Cai** and I.J. Gupta, "Inverse Synthetic Aperture Imaging Studies of a Ship at X-Band," *Antenna Measurement Techniques Association's Seventeenth Annual Symposium – AMTA '95, Williamsburg, VA, October 1995.*
83. W. Odendaal***, I.J. Gupta, and E.K. Walton, "Enhanced High Resolution Radar Imaging," *Antenna Measurement Techniques Association's Sixteenth Annual Symposium – AMTA '94, Long Beach, CA, October 1994.*
84. I.J. Gupta, M. Tu* and E.K. Walton, "Application of ML Estimation to Radar Imaging," *Antenna Measurement Techniques Association's Sixteenth Annual Symposium – AMTA '94, Long Beach, CA, October 1994.*
85. I.J. Gupta and W.D. Burnside, "An Ultra Low Sidelobe Antenna Measurement Error Correction Technique," *Antenna Measurement Techniques Association's Sixteenth Annual Symposium – AMTA '94, Long Beach, CA, October 1994.*
86. I.J. Gupta and M. Beals*, "High Resolution Radar Imaging Using Data Extrapolation," *Antenna Measurement Techniques Association's Fifteenth Annual Symposium – AMTA '93, Dallas, TX, October 1993.*
87. E.K. Walton, I.J. Gupta, M. Tu* and A. Moghaddar*, "Super Resolution Radar Target Imaging of Realistic Targets," *Antenna Measurement Techniques Association's Fourteenth Annual Symposium – AMTA '92, Columbus, OH, October 1992.*

88. A. Moghaddar* and I.J. Gupta, "High Resolution radar Imaging Using Parametric Modeling and Data Extrapolation, *Antenna Measurement Techniques Association's Fourteenth Annual Symposium – AMTA '92*, Columbus, OH, October 1992.
89. I.J. Gupta, S. Suleiman* and W.D. Burnside, "Estimation of RMS Surface Error in Compact Range Reflectors," *Antenna Measurement Techniques Association's Fourteenth Annual Symposium – AMTA '92*, Columbus, OH, October 1992.
90. T. Clark**, T. Lee, W.D. Burnside, I.J. Gupta, "Imaging Stray Signals in a Compact Range Using a Diagonal Flat Plate," *Antenna Measurement Techniques Association's Thirteenth Annual Symposium – AMTA '91*, Boulder, CO, October 1991.
91. I.J. Gupta, "Performance of Super Resolution Techniques in Imaging Compact Range Probe Data," *Antenna Measurement Techniques Association's Thirteenth Annual Symposium – AMTA '91*, Boulder, CO, October 1991.
92. I.J. Gupta and P.A. Beyerle*, "A Resistive Edge Treated Gregorian Subreflector for a Dual Chamber Compact Range Measurement System," *IEEE AP-S 1991 International Symposium*, London, Ontario, June 1991.
93. I.J. Gupta, "Imaging the Compact Range Probe Data Using MUSIC Algorithm," *International Conference on Millimeter Wave and Microwave*, Dehra Dun, India, December 1990.
94. I.J. Gupta and W.D. Burnside, "Imaging the Compact Range Probe Data," *Antenna Measurement Techniques Association's Twelfth Annual Symposium – AMTA '90*, Philadelphia, PA, October 1990.
95. P. Joseph**, R. Mariano*, W. D. Burnside and I.J. Gupta, "Analysis of Absorber Scattering in Compact Range Measurement System," *Antenna Measurement Techniques Association's Twelfth Annual Symposium – AMTA '90*, Philadelphia, PA, October 1990.
96. I.J. Gupta, D. Brown*, W. Lin and W. D. Burnside, "Serrate Edge Gregorian Subreflector for Use in Dual Chamber Compact Range Systems," *Antenna Measurement Techniques Association's Twelfth Annual Symposium – AMTA '90*, Philadelphia, PA, October 1990.
97. I.J. Gupta and W.D. Burnside, "Compact Range Measurement System for Electrically Small Targets," *Antenna Measurement Techniques Association's Twelfth Annual Symposium – AMTA '90*, Philadelphia, PA, October 1990.
98. I.J. Gupta, K. Steadman* and E. K. Walton, "Performance of Modified Feedback Loop Adaptive Array with TVRO Satellite Signals," *IEEE AP-S 1990 International Symposium*, Dallas, TX, May 1990.
99. Z. Al-Hekail*, W.D. Burnside and I.J. Gupta, "Scattering from Thin Dielectric Straps Surrounding a Perfectly Conducting Structure," *Antenna Measurement Techniques Association's Eleventh Annual Symposium – AMTA '89*, Monterey, CA, October 1989.
100. I.J. Gupta and W.D. Burnside, "Scattered Fields of Metallic Tapes Used to Cover Gaps in Compact Range Reflectors," *Antenna Measurement Techniques Association's Eleventh Annual Symposium – AMTA '89*, Monterey, CA, October 1989.

101. I.J. Gupta and R.J. Mariano*, "Analysis of Serrated Edge Compact Range Reflectors," *Antenna Measurement Techniques Association's Eleventh Annual Symposium* – AMTA '89, Monterey, CA, October 1989.
102. S. W. Ellingson*, I.J. Gupta and W. D. Burnside, "Analysis of Blended Rolled Edge Reflectors Using Numerical UTD," *Antenna Measurement Techniques Association's Eleventh Annual Symposium* – AMTA '89, Monterey, CA, October 1989.
103. I.J. Gupta and W.D. Burnside, "A Method to Remove GO and Cross-Polarization Errors from Compact Scattering Measurements," *IEEE AP-S 1989 International Symposium*, San Jose, CA, June 1 1989.
104. B. Taute*, I.J. Gupta and W. D. Burnside, "Envelope Radar Cross Section Analysis of Faired Composite Bodies," *IEEE AP-S 1989 International Symposium*, San Jose, CA, June 1989.
105. I.J. Gupta and R.L. Dilsavor*, "An Experimental SMI Adaptive Antenna Array for Weak Interfering Signals," *IEEE AP-S 1989 International Symposium*, San Jose, CA, June 1989.
106. A. Dominek, I.J. Gupta and W. D. Burnside, "A Novel Approach for Two- and Three-Dimensional Imaging," *Antenna Measurement Techniques Association's Tenth Annual Symposium* – AMTA '88, Atlanta, GA, September 1988.
107. I.J. Gupta, K. Ericksen* and W. D. Burnside, "Design of Blended Rolled Edge for Arbitrary Rim Shape Compact Range Reflectors," *Antenna Measurement Techniques Association's Tenth Annual Symposium* – AMTA '88, Atlanta, GA, September 1988.
108. E. K. Walton, I.J. Gupta, J. Ward* and A.A. Ksienski, "Hardware Simulation of an Adaptive Array with Low Level Interference," *Antenna Measurement Techniques Association's Ninth Annual Symposium* – AMTA '87, Seattle, WA, September-October 1987.
109. B.J.E. Taute*, W.D. Burnside and I.J. Gupta, "The Effect of Mechanical Discontinuities on the Performance of Compact Range Reflectors," *Antenna Measurement Techniques Association's Ninth Annual Symposium* – AMTA '87, Seattle, WA, September-October 1987.
110. I.J. Gupta, W.D. Burnside and C.W.I. Pistorius**, "Design of Blended Rolled Edge for Compact Range Reflectors," *Antenna Measurement Techniques Association's Ninth Annual Symposium* – AMTA '87, Seattle, WA, September-October 1987.
111. I.J. Gupta and W.D. Burnside, "A Numerical Method to Compute Diffraction from Blended Surfaces," *IEEE AP-S 1987 International Symposium*, Blacksburg, VA, June 1987.
112. W. D. Burnside, R. C. Rudduck, I.J. Gupta and J. Clerici**, "Electromagnetic Performance Study of Scientific-Atlanta's New Compact Range Reflector," *Antenna Measurement Techniques Association's Eighth Annual Symposium* – AMTA '86, Ottawa, Canada, September 1986.

113. I.J. Gupta, "Transient Response of Adaptive Antenna Arrays to Wideband Jammers," *IEEE Global Telecommunication Conference – GLOBECOM '84*, Atlanta, GA, November, 1984
114. I.J. Gupta and A.A. Ksienski, "Prediction of Adaptive Array Performance," *IEEE Military Communication Conference – MILCOM '82*, Boston, MA, October 1982.

Conference Abstracts

1. A.J. O'Brien, J. Kuric* and I.J. Gupta, "Incorporating Anti-Jam Antenna Electronics into a GNSS Software-Defined Receiver," Joint Navigation Conference of the Institute of Navigation, Long Beach, CA, July 2019.
2. J. Kuric and I.J. Gupta, "STAP Based GPS Receiver Antennas with and without FIR Filter in the Reference Channel," Joint Navigation Conference of the Institute of Navigation, Long Beach, CA, July 2019.
3. T.-H. Lee, I.J. Gupta, C.C. Chen, "Small Foot-Print Antenna Array for all Signal GNSS Receiver," Joint Navigation Conference of the Institute of Navigation, Long Beach, CA, July 2018.
4. J. Kuric* and I.J. Gupta, "SMI Implementation of Adaptive Weighting Algorithms in GNSS Receiver Antenna Arrays," Joint Navigation Conference of the Institute of Navigation, Long Beach, CA, July 2018.
5. I.J. Gupta, J.D. Kuric* and J.M. Hebert, "Adaptive Antenna Electronics for All GNSS Receivers," Joint Navigation Conference of the Institute of Navigation, Dayton, OH, June 2017.
6. N. Tchorowski*, I.J. Gupta and J.M. Hebert***, "GPS Anti-Jam Antennas and Situational Awareness," *Joint Navigation Conference*, Institute of Navigation, Dayton, OH, June 2016
7. I. Gupta, A. Kintz and A. O'Brien, "Experimental Verification of Direct Mapping Method for Geolocation of Multiple Ground-Based RF Emitters," *Joint Navigation Conference*, Institute of Navigation, Orlando, FL, June 2015.
8. A. Kintz* and I.J. Gupta, "Direct Mapping of Ground-Based Emitters in the Presence of Antenna Array Manifold Mismatch," *Joint Navigation Conference*, Institute of Navigation, Orlando, FL, June 2014.
9. A. O'Brien et. al., "Prediction of Antenna Induced Biases in a Real World Anti-Jam GPS Receiver," *Joint Navigation Conference*, Institute of Navigation, Orlando, FL, June 2014.
10. Y.C. Chuang*, A.J. O'Brien and I.J. Gupta, "Fixed Beam Adaptive Antennas for GNSS Receivers," Joint Navigation Conference, Colorado Springs, CO, June 2012.

11. D. Elsherbeni***, C.J. Reddy***, A.S.C. Svendsen*, G. Gerber*, k. Sainath* and I.J. Gupta, "Adaptive Antennas for GNSS Receivers," Joint Navigation Conference, Colorado Springs, CO, June 2012.
12. A. Kintz*, I.J. Gupta and E. Wemhoff***, "Direct Mapping of Emitters in the presence of Antenna Array Manifold Mismatch," Joint Navigation Conference, Colorado Springs, CO, June 2012.
13. E. Wemhoff***, A. Kintz* and I.J. Gupta, "Empirical Statistical Modeling of Angle-of-Arrival Error Enables Enhanced Data Fusion for Emitter Geolocation," Joint Navigation Conference, Colorado Springs, CO, June 2012.
14. A.S.C. Svendsen*, I.J. Gupta and C.-C. Chen, "Satellite Coverage for GPS Receivers Mounted on Spinning Projectiles," Joint Navigation Conference, Colorado Springs, CO, May 2011.
15. D.A. Grejner-Brzezinska, C. Toth and I.J. Gupta, "Collaborative Navigation for Ground Vehicles in GPS-Challenged Environments," 2010 Position, Location and Navigation Symposium, Institute of Navigation, Indian Wells, CA, May 2010.
16. A. Svendsen* and I.J. Gupta, "Effects of Rotor Modulation on the Nulling Performance of GNSS Adaptive Antennas," *Proceedings of Joint Navigation Conference*, Orlando, FL, June 2009.
17. I.J. Gupta, C. Slick* and J. Duly*, "Performance of GPS Adaptive Antennas Under Emerging Threats," *ION 2007 Annual Meeting*, classified session, Harvard, MA, April 2007.
18. C.D. Slick* and I.J. Gupta, "Non-Planar Adaptive Antennas for GPS Receivers," *2007 Joint Navigation Conference*, Orlando, FL, March 2007.
19. A. O'Brien* and I.J. Gupta, "Relationship between Output SINR of GNSS Adaptive Antennas and Receiver C/N Performance," *2007 Joint Navigation Conference*, Orlando, FL, March 2007.
20. I.J. Gupta and C.D. Slick*, "Multiple Beam Antenna Electronics and Legacy GPS Receivers," *Joint Navigation Conference*, Las Vegas, NV, May 2006.
21. I.J. Gupta and R.T. Compton, Jr., "Diagonal Unloading in AE for Weak Interfering Signals," *Joint Navigation conference*, Las Vegas, NV, May 2006.
22. I.J. Gupta, J.A. Ulrey* and A. O'Brien*, "Advanced Antenna Electronics With and Without Beam Forming," *Institute of Navigation 2005 Satellite Navigation Conference (GNSS 2005)*, classified session, Long Beach, CA, September 2005.
23. I.J. Gupta, "Performance of GPS AE in the Presence of Jammer Multipath," *Institute of Navigation (ION) 61st Annual Meeting*, classified session, Cambridge, MA, June 2005.
24. I.J. Gupta, "Performance of Various Spatial AJ Techniques with a GAS-1 CRPA Mounted on a C-12J Aircraft," *2005 Joint Navigation Conference*, Orlando, FL, April 2005.

25. I.J. Gupta, W.D. Burnside, E.K. Walton and J.D. Young, "Deterministic Error Issues in RCS Range Certification," *NIST 1997 RCS Range Certification Meeting*, Boulder, CO, March 1997.
26. I.J. Gupta, "Radar Imaging at Ohio State University," *Antenna Measurement Techniques Association's 1994 Workshop*, Seattle, WA, June 1994.
27. G. Somers**, I.J. Gupta and P. Pathak, "Electromagnetic Scattering by Metallic Tapes on Paneled Compact Range Reflectors," *URSI Radio Science Meeting*, Dallas, TX, May 1990.
28. I.J. Gupta, "Evaluation of Compact Ranges by Field Probing," *URSI Radio Science Meeting*, Dallas, TX, May 1990.