

Dr Hisamatsu Nakano

Professor

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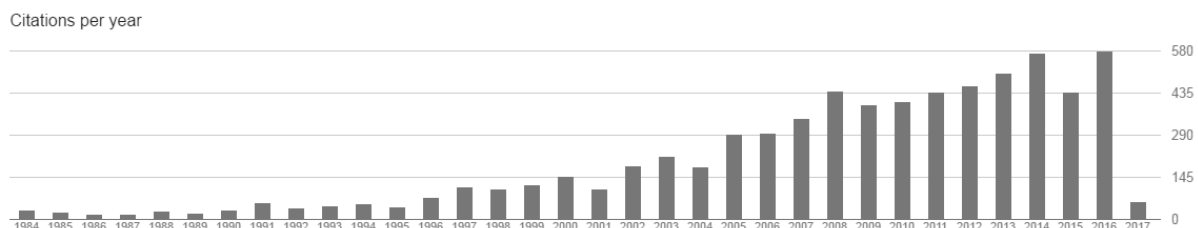
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Biography

Professor Hisamatsu Nakano (IEEE Life Fellow) received the Dr. E. degree from Hosei University, Tokyo, Japan, in 1974. Since 1973, he has been a member of the faculty of Hosei University, where he is now a professor emeritus and a special-appointment researcher at the graduate school. His research topics include numerical methods for low- and high-frequency antennas and optical waveguides. Prof. Nakano received the IEEE Transactions on Antennas and Propagation "H. A. Wheeler Award" in 1994. He was also the recipient of the IEEE Antennas and Propagation Society "Chen-To Tai Distinguished Educator Award" in 2006 and the recipient of "the Prize for Science and Technology from Japan's Minister of Education, Culture, Sports, Science, and Technology" in 2010. More recently, he received the 2016 IEEE Antennas and Propagation Society "Distinguished Achievement Award." Prof. Nakano is an Associate Editor of several journals and magazines, such as Electromagnetics and the IEEE Antennas and Propagation Magazine. He served as a member of the IEEE APS administrative committee (2000-2002) and a Region 10 Representative (2001-2010).

Total citations: 6941

hi-index: 40



Selected Publications

Books and Book Chapters:

Hisamatsu Nakano, "Low-profile Natural and Metamaterial Antennas: Analysis Methods and Applications ", 1, Wiley-IEEE Press, 2017.

Journals:

1. H. Nakano, K. Nogami, S. Arai, H. Mimaki and J. Yamauchi, "A spiral antenna backed by a conducting plane reflector," in IEEE Transactions on Antennas and Propagation, vol. 34, no. 6, pp. 791-796, Jun 1986.

2. J. Shibayama, M. Muraki, J. Yamauchi and H. Nakano, "Efficient implicit FDTD algorithm based on locally one-dimensional scheme," in *Electronics Letters*, vol. 41, no. 19, pp. 1046-1047, 15 September 2005.
3. H. Nakano, S. Okuzawa, K. Ohishi, H. Mimaki and J. Yamauchi, "A curl antenna," in *IEEE Transactions on Antennas and Propagation*, vol. 41, no. 11, pp. 1570-1575, Nov 1993.
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5. H. Nakano, S. R. Kerner and N. G. Alexopoulos, "The moment method solution for printed wire antennas of arbitrary configuration," in *IEEE Transactions on Antennas and Propagation*, vol. 36, no. 12, pp. 1667-1674, Dec. 1988.
6. H. Nakano, N. Ikeda, Yu-Yuan Wu, R. Suzuki, H. Mimaki and J. Yamauchi, "Realization of dual-frequency and wide-band VSWR performances using normal-model helical and inverted-F antennas," in *IEEE Transactions on Antennas and Propagation*, vol. 46, no. 6, pp. 788-793, Jun 1998.
7. H. Nakano, H. Takeda, Y. Kitamura, H. Mimaki and J. Yamauchi, "Low-profile helical array antenna fed from a radial waveguide," in *IEEE Transactions on Antennas and Propagation*, vol. 40, no. 3, pp. 279-284, Mar 1992.
8. H. Nakano, Y. Shinma and J. Yamauchi, "A monofilar spiral antenna and its array above a ground plane-formation of a circularly polarized tilted fan beam," in *IEEE Transactions on Antennas and Propagation*, vol. 45, no. 10, pp. 1506-1511, Oct 1997.
9. H. Nakano, H. Takeda, T. Honma, H. Mimaki and J. Yamauchi, "Extremely low-profile helix radiating a circularly polarized wave," in *IEEE Transactions on Antennas and Propagation*, vol. 39, no. 6, pp. 754-757, Jun 1991.
10. H. Nakano, J. Eto, Y. Okabe and J. Yamauchi, "Tilted- and axial-beam formation by a single-arm rectangular spiral antenna with compact dielectric substrate and conducting plane," in *IEEE Transactions on Antennas and Propagation*, vol. 50, no. 1, pp. 17-24, Jan 2002.
11. H. Nakano, K. Kikkawa, N. Kondo, Y. Iitsuka and J. Yamauchi, "Low-Profile Equiangular Spiral Antenna Backed by an EBG Reflector," in *IEEE Transactions on Antennas and Propagation*, vol. 57, no. 5, pp. 1309-1318, May 2009.
12. J. Yamauchi, J. Shibayama, O. Saito, O. Uchiyama and H. Nakano, "Improved finite-difference beam-propagation method based on the generalized Douglas scheme and its application to semivectorial analysis," in *Journal of Lightwave Technology*, vol. 14, no. 10, pp. 2401-2406, Oct 1996.
13. H. Nakano, Y. Sato, H. Mimaki and J. Yamauchi, "An Inverted FL Antenna for Dual-Frequency Operation," in *IEEE Transactions on Antennas and Propagation*, vol. 53, no. 8, pp. 2417-2421, Aug. 2005.
14. J. Yamauchi, M. Sekiguchi, O. Uchiyama, J. Shibayama and H. Nakano, "Modified finite-difference formula for the analysis of semivectorial modes in step-index optical waveguides," in *IEEE Photonics Technology Letters*, vol. 9, no. 7, pp. 961-963, July 1997.

15. J. Shibayama, M. Muraki, R. Takahashi, J. Yamauchi and H. Nakano, "Performance evaluation of several implicit FDTD methods for optical waveguide analyses," in *Journal of Lightwave Technology*, vol. 24, no. 6, pp. 2465-2472, June 2006.
16. J. Yamauchi, G. Takahashi and H. Nakano, "Full-vectorial beam-propagation method based on the McKee-Mitchell scheme with improved finite-difference formulas," in *Journal of Lightwave Technology*, vol. 16, no. 12, pp. 2458-2464, Dec 1998.
17. H. Nakano, H. Iwaoka, K. Morishita and J. Yamauchi, "A Wideband Low-Profile Antenna Composed of a Conducting Body of Revolution and a Shorted Parasitic Ring," in *IEEE Transactions on Antennas and Propagation*, vol. 56, no. 4, pp. 1187-1192, April 2008.
18. H. Nakano, K. Hitosugi, N. Tatsuzawa, D. Togashi, H. Mimaki and J. Yamauchi, "Effects on the radiation characteristics of using a corrugated reflector with a helical antenna and an electromagnetic band-gap reflector with a spiral antenna," in *IEEE Transactions on Antennas and Propagation*, vol. 53, no. 1, pp. 191-199, Jan. 2005.
19. H. Nakano, Y. Samada and J. Yamauchi, "Axial mode helical antennas," in *IEEE Transactions on Antennas and Propagation*, vol. 34, no. 9, pp. 1143-1148, Sep 1986.
20. P. Deo, A. Mehta, D. Mirshekar-Syahkal, P. J. Massey and H. Nakano, "Thickness Reduction and Performance Enhancement of Steerable Square Loop Antenna Using Hybrid High Impedance Surface," in *IEEE Transactions on Antennas and Propagation*, vol. 58, no. 5, pp. 1477-1485, May 2010.
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22. H. Nakano, T. Kawano, Y. Kozono and J. Yamauchi, "A fast MoM calculation technique using sinusoidal basis and testing functions for a wire on a dielectric substrate and its application to meander loop and grid array antennas," in *IEEE Transactions on Antennas and Propagation*, vol. 53, no. 10, pp. 3300-3307, Oct. 2005.
23. J. Shibayama, R. Ando, A. Nomura, J. Yamauchi and H. Nakano, "Simple Trapezoidal Recursive Convolution Technique for the Frequency-Dependent FDTD Analysis of a Drude-Lorentz Model," in *IEEE Photonics Technology Letters*, vol. 21, no. 2, pp. 100-102, Jan.15, 2009.
24. H. Nakano, T. Igarashi, H. Oyanagi, Y. Iitsuka and J. Yamauchi, "Unbalanced-Mode Spiral Antenna Backed by an Extremely Shallow Cavity," in *IEEE Transactions on Antennas and Propagation*, vol. 57, no. 6, pp. 1625-1633, June 2009.
25. A. Mehta, D. Mirshekar-Syahkal and H. Nakano, "Beam adaptive single arm rectangular spiral antenna with switches," in *IEE Proceedings - Microwaves, Antennas and Propagation*, vol. 153, no. 1, pp. 13-18, 6 Feb. 2006.

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2. H. Nakano, H. Mimnaki, J. Yamauchi and K. Hirose, "A low profile Archimedean spiral antenna," *Proceedings of IEEE Antennas and Propagation Society International Symposium*, Ann Arbor, MI, USA, 1993, pp. 450-453 vol.1.

3. H. Nakano and J. Yamauchi, "A theoretical investigation of the two-wire round spiral antenna - Archimedian type," 1979 Antennas and Propagation Society International Symposium, Seattle, WA, USA, 1979, pp. 387-390.
4. H. Nakano, S. Shimada, J. Amauchi and M. Miyata, "A circularly polarized patch antenna enclosed by a folded conducting wall," 2003 IEEE Topical Conference on Wireless Communication Technology, 2003, pp. 134-135.
5. H. Nakano, H. Osada, H. Mimaki, Y. Iitsuka and J. Yamauchi, "A Modified Grid Array Antenna Radiating a Circularly Polarized Wave," 2007 International Symposium on Microwave, Antenna, Propagation and EMC Technologies for Wireless Communications, Hangzhou, 2007, pp. 527-530.
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7. H. Nakano, "A meander spiral antenna," IEEE Antennas and Propagation Society Symposium, 2004., 2004, pp. 2243-2246 Vol.3.
8. H. Nakano, R. Satake and J. Yamauchi, "Horizontally polarized, omnidirectional antenna with a single feed," 2010 IEEE International Conference on Wireless Information Technology and Systems, Honolulu, HI, 2010, pp. 1-4.
9. H. Nakano and T. Kawano, "Grid array antennas," IEEE Antennas and Propagation Society International Symposium 1997. Digest, Montreal, Quebec, Canada, 1997, pp. 236-239 vol.1.
10. K. Hirose, K. Kawai and H. Nakano, "An array antenna composed of outer-fed curl elements," IEEE Antennas and Propagation Society International Symposium. 1998 Digest. Antennas: Gateways to the Global Network. Held in conjunction with: USNC/URSI National Radio Science Meeting (Cat. No.98CH36, Atlanta, GA, USA, 1998, pp. 1162-1165 vol.2.
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16. H. Nakano, T. Kawano and J. Yamauchi, "A cross-mesh array antenna," 2001 Eleventh International Conference on Antennas and Propagation, (IEE Conf. Publ. No. 480), Manchester, 2001, pp. 327-330 vol.1.