

## LAWRENCE CARIN

### Education

**Ph. D.** in Electrical Engineering, August 1989  
University of Maryland  
College Park, MD

**M.S.E.E.**, December 1986  
University of Maryland, College Park

**B.S.E.E.**, May 1985  
University of Maryland, College Park

### Employment

**William H. Younger Professor of Engineering**, 7/1/03 –  
Duke University

**Co-Founder and Director of Technology**, 5/1/05 –  
Signal Innovations Group, Inc.  
Durham, NC

**Professor**, 1/1/01 – 6/30/03  
Department of Electrical Engineering  
Duke University  
Durham, N.C.

**Associate Professor**, 8/1/95 – 12/31/00  
Department of Electrical Engineering  
Duke University

**Associate Professor**, 9/1/94-7/31/95  
Department of Electrical Engineering  
Polytechnic University  
Brooklyn, N.Y.

**Assistant Professor**, 9/1/89-8/31/94  
Department of Electrical Engineering  
Polytechnic University

## Honors

William H. Younger Distinguished Professor of Engineering (2003)  
IEEE Fellow (2001)  
Research Award, Duke University School of Engineering (2002)  
Nominated for Duke University Alumni Distinguished Undergraduate Teaching Award (2001-2002)  
Member, White House Advisory Panel on the Future of Landmine Research (2002)  
2000 Applied High-Power Electromagnetics Paper of the Year (conferred by SUMMA Foundation)  
DoD SERDP Cleanup Project of the Year (2000 and 2005)  
National Science Foundation Research Initiation Award (1992)  
Invited Guest Editor, *IEEE Trans. Geoscience Remote Sensing*, June 2001 (on subsurface sensing)  
Invited Guest Editor, *Radio Science*, 2003 (on landmine sensing)  
Associate Editor, *IEEE Trans. Antennas and Propagation*  
Leader, Multidisciplinary University Research Initiative (MURI) on landmine sensing, 1996-2001  
Leader, DARPA MURI on multi-modality inverse scattering, 2002-2007  
Full Member, URSI Commission B  
Tau Beta Pi and Eta Kappa Nu

## REFEREED PUBLICATIONS

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- [2] L. Carin and K. J. Webb, "Characteristic impedance of multi-level, multiconductor hybrid mode microstrip" *IEEE Trans. on Magnetics.*, vol. 25, pp. 2947-2949, July 1989.
- [3] L. Carin and K. J. Webb, "An equivalent circuit model for terminated hybrid-mode multiconductor transmission lines," *IEEE Trans. Microwave Theory Tech.*, vol. MTT-37, pp. 1784-1793, Nov. 1989.
- [3] L. Carin and K. J. Webb, "Pulse propagation on multi-layered circuit level interconnects," *J. of E. M. Waves and Appl.*, vol. 4, pp. 229-245, Mar. 1990.
- [4] G. W. Slade, L. Carin, Q. Xu, S. E. Borchardt and K. J. Webb, "A study of fin-line leaky-wave antennas," *IEEE Trans. Antennas and Prop.*, vol. AP-38, pp. 411-413, Mar. 1990.
- [5] L. Carin and K. J. Webb, "Isolation effects in single and dual plane VLSI interconnects" *IEEE Trans. Microwave Theory Tech.*, vol. MTT-38, Apr. 1990.
- [6] L. Carin, "Efficient analysis of high-frequency two-dimensional effects in multiconductor printed interconnects" *IEEE Trans. Microwave Theory Tech.*, Jan. 1992.
- [7] L. Carin and N. K. Das, "Leaky-waves on broadside-coupled microstrip," *IEEE Trans.*

*Microwave Theory Tech.*, Jan. 1992.

[8] L. Carin and L. B. Felsen, "Design-oriented parametrization of truncated periodic gratings," *IEEE Microwave and Guided Wave Letts.*, vol. 2, pp. 367-369, Sept. 1992.

[9] L. Carin and L. B. Felsen, "Efficient numerical-analytic analysis of ultra-wideband plane wave scattering from a collection of strips," *Int. J. Num. Model.*, vol. 6, pp. 3-17, Jan. 1993.

[10] L. Carin and K. Agi, "Ultra-wideband transient scattering measurements using optoelectronically switched antennas," *IEEE Microwave Theory Tech.*, vol. 41, pp. 250-254, Feb. 1993.

[11] D. Kralj and L. Carin, "Short-pulse scattering measurements from dielectric spheres using optoelectronically switched antennas," *Appl. Phys. Lett.*, vol. 62, pp. 1301-1303, Mar. 15, 1993.

[12] L. Carin and L. B. Felsen, "Time-harmonic and transient scattering by finite periodic flat strip arrays: Hybrid (Ray)-(Floquet Mode)-(MOM) algorithm and its GTD interpretation," *IEEE Trans. Antennas Propagat.*, vol. 41, pp. 412-421, April 1993.

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[14] L. Carin, K. Agi, K. M. Leung, B. A. Garetz, "Characterization of layered dielectrics with short electromagnetic pulses," *IEEE J. Quantum Elect.*, pp. 2141-2144, July 1993.

[15] L. Carin, D. R. Kralj, M. R. Melloch, and J. M. Woodall, "Characterization of planar antennas fabricated on GaAs epilayers containing As cluster for picosecond short-pulse applications," *IEEE Microwave and Guided Wave Letts.*, Sept. 1993.

[16] L.B. Felsen and L. Carin, "Wave-oriented processing of scattering data," *Elect. Letters*, vol. 29, pp. 1930-1932, Oct. 28, 1993

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transmission," *IEEE Trans. Microwave Theory Tech.*, vol. 42, pp. 553-557, April 1994.

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