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University of California.
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EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY, Atlanta, Georgia, USA

Doctor of Philosophy in Electrical Engineering, June 1999.

Thesis advisor: Schlumberger Chair Professor Joy Laskar

Master of Science in Electrical Engineering, December 1997.

Bachelor of Electrical Engineering (Highest Honors), June 1995.

EXPERIENCE

- 2004 – Present *Associate Professor* in Electrical and Computer Engineering
UNIVERSITY OF CALIFORNIA, DAVIS
Conduct research in RF/microwave/millimeter-wave frequency module design, RF IC design, and RF sensors.
- 2004-Present *Consultant*, Signal Integrity and Microwave Design
- 2002 – 2004 *Assistant Professor* in Electrical and Computer Engineering
UNIVERSITY OF CALIFORNIA, DAVIS
- 1999 – 2001 *Assistant Professor* in Electrical and Computer Engineering
CLEMSON UNIVERSITY
- 1997 – 1999 *Co-founder/Senior Member of Technical Staff*
RF SOLUTIONS, LLC (acquired by Anadigics in 2003)
Designed MMIC power amplifiers, a metal lam duplexer, and IC chip sets for W-CDMA wireless local loop systems at 3.4 GHz.
- 1995 – 1999 *Graduate Research Assistant* in Microwave Applications Group
GEORGIA INSTITUTE OF TECHNOLOGY
- 06/96 – 10/96 *Summer Intern*
HP COLORADO SPRING TECHNOLOGY CENTER
Designed and characterized thin film passive structures and MCMs

REFERRED JOURNALS

- J1 M. J. Chen, A. Pham, N. A. Evers, C. Kapusta, J. Iannotti, W. Kornrumpf, J. Maciel, N. Karabudak, "Multilayer organic multi-chip module implementing hybrid microelectromechanical systems," under review in *IEEE Transactions on Microwave Theory and Techniques*, June 2007.
- J2 C. Lu and A. Pham, "A multi-band CMOS phased array transmitter subsystem module," under review in *IEEE Microwave and Wireless Components Letters*, June 2007.
- J3 C. Lu, A. Pham, M. Shaw, and C. Saint, "Development of two-dimensional linearization in CMOS distributed power amplifiers," to appear in *IEEE Transactions on Microwave Theory and Techniques*, November 2007.
- J4 J. Cao, R.G.Broeke, N.K.Fontaine, C. Ji, Y. Du, N. Chubun, K. Aihara, A. Pham, F. Olsson, S. Lourdudoss, and S.J.B. Yoo, "Implementation of chip-scale InP O-CDMA encoder in a 60 Gb/s SPECTS O-CDMA testbed," accepted for publication in *IEEE Photonic Technology Letters*, April 2007.
- J5 R. G. Broeke, J. Cao, C. Ji, Sang-Woo Seo, Y. Du, N. K. Fontaine, Jong-Hwa Baek, John Yan, F. M. Soares, F. Olsson, S. Lourdudoss, A. V. Pham, M. Shearn, A. Scherer, S. J. B. Yoo, "Optical-CDMA in InP," accepted for publication in *IEEE Journal of Selected Topics in Quantum Electronics*, Sept. 2006.
- J6 A. C. Chen, M. J. Chen and A. Pham, "Development of an RF ultra-wide band balun in multi-layer liquid crystal polymer flex," to appear in *IEEE Transactions on Advanced Packaging*, May 2007.
- J7 S. J. B. Yoo, J. P. Heritage, V. Hernandez, R. Scott, W. Cong, N. Fontaine, R. Broeke, J. Cao, S.-W. Seo, J.-H. Baek, F. Soares, Y. Du, C. Yang, W. Jiang, K. Aihara, Z. Ding, B. Kolner, A.-V Pham, S. Lin, F. Olsson, Y. Sun, S. Lourdudoss, K.Y. Liou, S.N.G. Chu, R. Hamm, B. Patel, W.S. Hobson, J. R. Lothian, S. Vatanapradit, L. Gruezeke, W. T. Tsang, M. Shearn, and A. Scherer "Spectral phase encoded time spread (SPECTS) optical code division multiplex access technology for next generation communication networks," invited in *OSA Journal of Optical Networks*, April 2007.
- J8 A. Keerti and A.-V Pham, "RF characterization of SiGe HBT power amplifiers under load mismatch," *IEEE Transactions on Microwave Theory and Techniques*, Vol. 55, Issue 2, pp. 207–214, February 2007.
- J9 J. Cao, R. G. Broeke, N. K. Fontaine, C. Ji, Y. Du, N. Chubun, K. Aihara, A.-V. Pham, F. Olsson, S. Lourdudoss, S. J. B. Yoo, "Demonstration of spectral phase O-CDMA encoding and decoding in monolithically integrated arrayed-waveguide-grating-based encoder," *IEEE Photonics Technology Letters*, Vol. 18, Issue 24, pp. 2602-2604, Dec. 15, 2006.
- J10 M. Mcgrath and A. Pham, "Carbon nanotube based microwave resonator gas sensors," *International Journal of High Speed Electronics and Systems*, vol. 16, no. 4, pp. 913-935, December 2006. (Invited)
- J11 M. J. Chen, A. Pham, N. A. Evers, C. Kapusta, J. Iannotti, W. Kornrumpf, J. Maciel, N. Karabudak, "Design and Development of a package using LCP for RF/Microwave MEMS switches," *IEEE Transaction on Microwave Theory and Techniques*, Vol. 54, Issue 11, pp.4009-4015, Nov. 2006.

- J12 Chao Lu, A. Pham, and Darrell Livezey, "On the feasibility of CMOS multi-band phase shifters for multiple-antenna transmitters," *IEEE Microwave and Wireless Components Letters*, Vol. 16, pp. 255 - 257, Issue 5, May 2006.
- J13 A. Keerti, J. Xiang, and A. Pham, "High power linearized RF phase shifter using anti-series diodes," *IEEE Microwave and Wireless Components Letters*, Vol. 16, Issue 4, pp. 200 - 202, April 2006.
- J14 C. Lu, A. Pham, and Darrell Livezey, "Development of multi-band phase shifters in 180 nm RF CMOS technology with active loss compensation," *IEEE Transactions on Microwave Theory and Tech.*, Vol. 54, Issue 1, pp. 40 – 45, Jan. 2006.
- J15 A. C. Chen, A. Pham, and R. E. Leoni, III, "Development of low-loss, broadband planar baluns using multilayered organic thin-films," *IEEE Transactions on Microwave Theory and Techniques*, Vol. 53, Issue 11, pp. 3648-3655, Nov. 2005.
- J16 S. Chopra, K. McGuire, N. Gothard, A. M. Rao, and A. Pham, "Selective gas detection using a carbon nanotube sensor," *Applied Physics Letters*, vol. 38, no. 11, pp. 2280 - 2282, September 2003.
- J17 A. Keerti and A. Pham, "SiGe power devices for 802.11a wireless LAN applications at 5 GHz," *IEE Electronics Letters*, vol. 39, no. 16, pp. 1218-1220, August 2003.
- J18 S. Chopra, K. McGuire, N. Gothard, A.M. Rao, and A. Pham, "Selective gas detection using a carbon nanotube sensor," *Applied Physics Letters*, vol. 38, no. 11, September 2003.
- J19 S. Manohar, A. Pham, J. Brown, R. Borges, and K. Linthicum, "Microwave GaN-based power transistors on large-scale silicon wafers," *International Journal of High Speed Electronics and Systems*, vol. 13, no. 1, pp. 265-275, 2003 (*Invited*)
- J20 S. Manohar, A. Pham, and N. Evers "Direct determination of the bias-dependent series parasitic elements in SiC MESFETs," *IEEE Transactions on Microwave Theory and Techniques*, vol. 51, pp. 597-600, Feb. 2003.
- J21 D. Newlin, A. Pham, and J. Harriss, "Development of low loss organic-micromachined interconnects on silicon at microwave frequencies," *IEEE Transactions on Components and Packaging Technologies*, vol. 25, pp. 506-510, September 2002.
- J22 S. Chopra, A. Pham, J. Gaillard, A. Parker, and A. M. Rao, "Carbon-nanotube-based resonant-circuit sensor for ammonia," *Applied Physics Letters*, vol. 80, no. 24, p. 4632, June 2002.
- J23 R. Ramachandran and A. Pham, "Development of RF/Microwave on-chip inductors using an organic micromachining process," *IEEE Transactions on Advanced Packaging*, vol. 25, pp. 244-247, May 2002.
- J24 A. Pham, V. Krishnamurthy, D. Bates, W. Marcinkewicz, B. Schmanski, P. Piacente, and L. Sprinceanu, "Development of integral passive components for multilayer organic MCMs at millimeter wave frequencies," *IEEE Transaction on Advanced Packaging*, vol. 25, pp. 98-101, Feb. 2002.
- J25 A. Pham, R. Ramachandran, J. Laskar, V. Krishnamurthy, D. Bates, W. Marcinkewicz, B. Schmanski, P. Piacente, and L. Sprinceanu, "Development of a millimeter wave system on a package utilizing an MCM process," *IEEE Transactions on Microwave Theory and Techniques*, pp. 1747-1749, Oct. 2001.

- J26 A. Pham, A. Sutono, J. Laskar, V. Krishnamurthy, D. Lester, E. Balch, and J. Rose, "Development of microwave multilayer plastic-based multichip modules," *IEEE Transactions on Advanced Packaging*, pp. 37-40, Feb. 2001.
- J27 A. Sutono, A. Pham, J. Laskar, and W. R. Smith, "RF/microwave characterization of multilayer ceramic-based MCM technology" *IEEE Transactions on Advanced Packaging*, pp. 326-331, August 1999.
- J28 A. Pham, J. Laskar, V. Krishnamurthy, H. Cole, and T. Sitnik-Nieters, "Ultra low loss millimeter wave multichip module interconnects," *IEEE Transactions on Component Packaging Manufacturing Technologies*, vol. 21, pp. 302-308, August 1998.
- J29 C. Chun, A. Pham, B. Hutchison, and J. Laskar "Development of microwave package models utilizing on-wafer measurement techniques," *IEEE Transactions Microwave Theory Techniques*, pp.1948-1954, October 1997.

JOURNALS IN PREPARATION

- D1 K. Aihara and A. Pham, "Development of thin-film liquid crystal polymer surface mount packages for Ka-band applications," to be submitted to *IEEE Transactions on Microwave Theory and Techniques*, September 2007.
- D2 C. Chao and A. Pham, "Development of a CMOS transmitter amplifier for full-band ultra-wide band applications," to be submitted to *IEEE Transactions on Microwave Theory and Techniques*, September 2007.
- D3 K. Aihara, A. Pham, and J. Roman, "Development of LCP-molded packages for microwave applications," to be submitted to *IEEE Transactions on Advanced Packaging*, September 2007.
- D4 A. Keerti and A. Pham, "Development of dynamically adaptive phase tuning power amplifiers," to be submitted to *IEEE Transactions on Microwave Theory and Techniques*, September 2007.
- D5 C. Law, M. Mcgrath, and A. Pham, "5.8-GHz Passive RFID using Inverted-F Antenna and Strain Gauge Sensor for Rotary Monitoring Applications," to be submitted to *IEEE Sensors Journal*, September 2007.
- D6 M. McGrath and A. Pham, "Microwave Vertically Aligned Carbon Nanotube Array Sensors for Ammonia Detection," to be submitted to *IEEE Microwave and Wireless Components Letters*, September 2007.
- D7 M. McGrath and A. Pham, "A Wireless sensing system with carbon nanotube resonator sensors," to be submitted to *IEEE Sensors Journal*, September 2007.

REFERRED CONFERENCE PROCEEDINGS

- C1 M. Chen, N. Evers, C. Kapusta, J. Iannotti, W. Kornrumpf, A. Pham, J. Maciel, and N. Karabuda, "Reliability of a hermetic LCP package for RF MEMS switches," in *Proceedings of GOMAC*, Orlando, FL, September 2007, pp. 427-430.
- C2 J. Iannotti, C. Kapusta, W. Taft, A. Jacomb-Hood, M. Chen, and A. Pham, "Wideband passive amplitude compensated true time delay (TTD) module for active phased arrays," in *Proceeding of GOMAC*, Orlando, FL, September 2007, pp. 199-202.

- C3 A. Pham, "Development of LCP surface mount packages for Ka-band applications," in *Proceedings of GOMAC*, Orlando, FL, September 2007, pp. 415-418.
- C4 A. Chen, A. Pham, and R. Leoni, "6-18 GHz push-pull power amplifier with wideband even-order distortion cancellation in LCP module," in *IEEE International Microwave Symposium*, Honolulu, HI, June 2007, pp. 1079-1082.
- C5 K. Aihara, A. Pham, and J. Roman, "Development of molded liquid crystal polymer surface mount packages for Ku and Ka-band applications," in *Proceedings of International Conference and Exhibition on Device*, pp. 1-3, March 2006.
- C6 J. Cao, R.G. Broeke, N. Fontaine, W. Cong, C. Ji, Y. Du, N. Chubun, K. Aihara, A. Pham, S. J.B.Yoo, F. Olsson, S. Lourdudoss, and P.L. Stephan, "Error-free spectral encoding and decoding operation of InP O-CDMA encoder," in *Proceedings of Optical Fiber Communications Conference*, Anaheim, CA, June 2006, pp. 163-166.
- C7 C. Lu, A. Pham, M. Shaw, and C. Saint, "A fully integrated broadband power amplifier with two-dimensional Linearization," in *Proceedings of 36th European Microwave Conference*, Manchester, UK, Sep. 2006, pp. 407-410.
- C8 Chao Lu, Anh-Vu Pham, and Michael Shaw "A CMOS power amplifier for full-band UWB transmitters," in *Proceeding of IEEE Radio Frequency Integrated Circuits (RFIC) Symposium*, San Francisco, CA, June 2006, pp. 397 - 400.
- C9 M. J. Chen, A. Pham, N. A. Evers, C. Kapusta, J. Iannotti, W. Kornrumpf, J. Maciel, N. Karabudak, "Development of multilayer organic modules for hermetic packaging of RF MEMS circuits," in *IEEE International Microwave Symposium(IMS)*, San Francisco, CA, June 2006, pp. 271 – 274.
- C10 K. Aihara and A. Pham "Development of thin-film liquid crystal polymer surface mount packages for Ka-band applications," in *IEEE International Microwave Symposium (IMS)*, San Francisco, CA, June 2006, pp 956 – 959. **(Student finalist paper; Student K. Aihara and Advisor: A. Pham).**
- C11 C. Lu, A. Pham, and D. Livezey, "On the linearity of CMOS multi-band phase shifters," in *6th topical meeting on Silicon Monolithic Integrated Circuits in RF Systems Digest*, San Diego, CA, January 2006, pp. 290 - 293.
- C12 M. McGrath and A. Pham, "Microwave vertically aligned carbon nanotube array sensors for ammonia detection," in *IEEE Sensors*, Irvine, CA, Nov. 2006, pp. 837-841.
- C13 K. Aihara, A.C. Chen, A. Pham, and J.W. Roman, "Development of molded liquid crystal polymer surface mount packages for millimeter wave applications," in *14th IEEE Electrical Performance of Electronic Packaging Digest*, Austin, TX, Oct. 2005, pp. 167 – 170.
- C14 C. Lu, A. Pham, and D. Livezey, " A Novel Multi-band Phase Shifter with Loss Compensation in 180 nm RF CMOS Technology," in *IEEE International Midwest Symposium on Circuits and Systems Digest*, Cincinnati, OH, Aug. 2005, pp. 806-809.
- C15 M. Chen, N. Evers, C. Kapusta, J. Iannotti, A. Pham, W. Kornrumpf, J. Maciel, N. Karabudak, "Development of a hermetically sealed enclosure for MEMS in chip-on-flex modules using liquid crystal polymer (LCP)," in *ASME Interpack*, San Francisco, CA, July 2005.
- C16 A. Keerti, and A. Pham, "Dynamic output phase to adaptively improve the linearity of the power amplifier under antenna mismatch," in *IEEE Radio Frequency Integrated Circuits*

- (*RFIC*) *Digest*, Long Beach, CA, June 2005, pp. 675 - 678.
- C17 A. C. Chen, A. Pham, and R. E. Leoni, "Development of a low-loss multilayered broadband balun using twin-thickness thin film", in *IEEE International Microwave Symposium (IMS) Digest*, Long Beach, CA, June 2005, pp. 1243-1246.
- C18 A.C. Chen, M. Chen, A. Pham, "Development of microwave ultra-wide band balun using liquid crystal polymer flex," in *Proceedings of 55th IEEE Electronic Components and Technology*, Orlando, FL, June 2005, pp. 783-787.
- C19 Mark P. McGrath, Ridah N. Sabouni, and A. Pham, "Development of nano-based resonator gas sensors for wireless sensing systems," in *Proceedings of SPIE Nanosensing Materials and Devices*, Philadelphia, PA, October 2004, pp. 62-72.
- C20 A. Pham, "Remote wireless carbon nanotube sensors," in *IEEE Topical Conference on Wireless Communication Technology Digest*, Honolulu, HI, October 2003, pp. 233-236. (Invited)
- C21 Z. Wei and A. Pham, "Liquid crystal polymer (LCP) for microwave/millimeter wave multi-layer packaging," *IEEE International Microwave Symposium (IMS) Digest*, Philadelphia, PA, June 2003, pp. 2273-2276.
- C22 K. Aihara, J. Xiang, S. Chopra, A. Pham, and A. M. Rao, "GHz carbon nanotube resonator bio-sensors," *IEEE Nanotechnologies Conference*, San Francisco, August 2003, pp. 12-14.
- C23 A. Pham, "Educational modules on RF MEMS and microsystems," in *IEEE ECTC Conference*, New Orleans, May 2003, pp. 495-497.
- C24 A. Pham, "Remote wireless carbon nanotube sensors," to be presented at *NSF Workshop at the IEEE Topical Conference on Wireless Communication Technology*, October 2003, pp. 233-236 (Invited).
- C25 Z. Wei and A. Pham, "Liquid crystal polymer (LCP) for microwave/millimeter wave multi-layer packaging," *IEEE International Microwave Symposium (IMS) Digest*, Philadelphia, PA, June 2003, pp. 2273-2276.
- C26 K. Aihara, J. Xiang, S. Chopra, A. Pham, and A. M. Rao, "GHz carbon nanotube resonator bio-sensors," *IEEE Nanotechnologies Conference*, San Francisco, August 2003.
- C27 A. Pham, "Educational modules on RF MEMS and microsystems," *IEEE CPMT Conference*, New Orleans, May 2003, pp. 495-497.
- C28 A. Venkateshan, A. Pham, and J. Harriss, "Development of an organic micromachined isolation scheme for wafer-level packaging," *IEEE EPEP*, Monterey, CA, Oct. 2002, pp. 111-114.
- C29 R. Ramachandran and A. Pham, "Development of an organic wafer-level packaging platform for highly integrated RF transceivers," in *IEEE International Microwave Symposium (IMS) Digest*, Seattle, WA, June 2002, pp. 1401-1404.
- C30 S. Thumaty, A. Pham, and H. van Wyk, "Development of a low-IF receiver and a fixed wireless utility network," *IEEE International Microwave Symposium Digest*, Seattle, WA, June 2002, pp. 449-452.
- C31 S. Chopra, A. Pham, J. Gaillard, A. M. Rao, "Nano-based Resonant Circuit Gas Sensors," in *American Physics Society Meeting*, Indianapolis, IN, March 2002.
- C32 A. Pham, "Educational Project: Development of a seminar course on RF MEMs and RF

- Microsystems," in *IEEE Electronic Components and Technology Conference Digest*, San Diego, CA, May 2002, pp. 1401-1404.
- C33 S. Chopra, A. Pham, J. Gillard, and A. M. Rao, "Development of RF carbon nanotube resonant circuit sensors for gas remote sensing applications," in *IEEE International Microwave Symposium Digest*, Seattle, WA, June 2002, pp. 639-642. (**Student finalist paper; Student S. Chopra and Advisor: A. Pham**).
- C34 S. Manohar, A. Pham, N. Evers, "Empirical large signal model for SiC MESFETs," in *IEEE ARFTG Digest*, Seattle, WA, June 2002.
- C35 S. Manohar, A. Narayanan, A. Keerti, A. Pham, R. Borges, and K. Linthicum, "Characteristics of microwave power GaN HEMTs on large-scale Si wafers," in *IEEE International Microwave Symposium Digest*, Seattle, WA, June 2002, pp. 1401-1404.
- C36 R. Ramachandran, D. Newlin and A. Pham, "Development of RF/Microwave on-chip inductors using an organic micromachining process," in *IEEE EPEP Digest*, Cambridge, MA, Oct. 2001, pp. 97-100.
- C37 N. Chomnawang, Sangwon Park, Kabseog Kim, J-B. Lee, and A. Pham, "On-chip RF MEMS components for high frequency applications," in *Texas MEMS III Conference*, Richardson, TX, June 2001.
- C38 D. Newlin, A. Pham, J. Harriss, and J. B. Lee, "Development of low loss organic micromachined interconnects on Silicon at microwave frequencies," in *IEEE RAWCON Digest*, Boston, MA, August 2001, pp. 181-183.
- C39 D. Newlin, A. Pham, J. Harriss, and J. B. Lee, "Development of organic-micromachined interconnects on Si substrates at microwave frequencies," in *34th International Symposium on Microelectronics Digest*, Baltimore, MD, October 2001, pp. 44-47.
- C40 A. Pham, J. Laskar, V. Krishnamurthy, D. Bates, W. Marcinkewicz, B. Schmanski, P. Piacente, and L. Sprinceanu, "Development of a millimeter wave system-on-a-package utilizing MCM integration," in *IEEE EPEP Digest*, Tempe AZ, October 2000, pp. 277-280.
- C41 S. Manohar, A. Pham, V. Krishnamurthy, D. Bates, W. Marcinkewicz, B. Schmanski, P. Piacente, and L. Sprinceanu "Development of microwave/millimeter wave integral passives for multi-layer organic MCMs," in *IEEE IMS-Digest*, Boston MA, June 2000, pp. 1879-1882.
- C42 J. E. Harriss, L. W. Pearson, X. Wang, C. H. Barron, and A. Pham, "Membrane-supported Ka-band resonator employing organic micromachined packaging," in *IEEE IMS-Digest*, vol. 2, Boston MA, June 2000, pp. 1225-1228.
- C43 A. Pham, A. Sutono, J. Laskar, V. Krishnamurthy, D. Lester, E. Balch, and J. Rose, "Development of vertical interconnects for mixed substrate technology," in *IEEE 54th ARFTG Conference Digest*, Atlanta GA, December 1999, pp. 132-136.
- C44 A. Sutono, A. Pham, J. Laskar, and W. R. Smith, "Development of three dimensional ceramic-based MCM inductors for hybrid RF/Microwave applications," in *IEEE RFIC Conference Digest*, Baltimore, MD, June 1999, pp. 175-178.
- C45 J. Laskar, A Sutono, A Pham, D. Staiculescu, H. Liang, D. Cresci, "Development of board level electrical models for vertical Interconnects and embedded components at microwave frequencies," in *26th General Assembly of the International Union of Radio Science*, Toronto, Canada, August 1999. (invited paper)

- C46 A. Sutono, A. Pham, J. Laskar, and W. R. Smith, "Investigation of multi-layer ceramic based MCM technologies," in *7th IEEE Electrical Performance of Electronic Packaging Digest*, West Point, NY, October 1998, pp. 83-86.
- C47 A. Pham, A. Mathis, J. Laskar, A. F. Peterson, and L. Hayden, "Membrane probe technology for non-destructive thin-film material characterization," in *IEEE MTT-S Digest*, Denver, CO, June 1998, pp. 957-960.
- C48 A. Pham, A. Sutono, J. Laskar, V. Krishnamurthy, H.S. Cole, and T. Sitnik-Nieters, "Development of millimeter wave multi-layer organic based MCM technology," in *IEEE MTT-S Digest*, Denver, CO, June 1998, pp. 1103-6.
- C49 D. Staiculescu, A. Pham, J. Laskar, S. Consolazio, S. Moghe, and J. Mondal, "Analysis and performance of BGA interconnects for RF packaging," in *IEEE RFIC Digest*, Denver, CO, June 1998, pp. 131-4.
- C50 J. Laskar, N. Jokerst, M. Brooke, M. Harris, C. Chun, A. Pham, H. Liang, D. Staiculescu, and A. Sutono, "Review of RF packaging at Georgia Tech's PRC," in *4th International Symposium on Advanced Packaging Materials Processes*, Braselton, GA, March 1998, pp. 139-150.
- C51 A. Pham, J. Laskar, V. Krishnamurthy, H. Cole, and T. Sitnik-Nieters, "Ultra low loss millimeter wave MCM interconnects," in *6th IEEE EPEP Digest*, Napa, CA, Oct. 1997, pp. 213-216.
- C52 A. Pham, J. Laskar, S. Basu, and J. Pence, "Comparison of coplanar microprobes for on-wafer measurement at millimeter wave frequencies," in *IEEE MTT-S Digest*, Denver, CO, June 1997, pp. 1659-1662.
- C53 A. Pham, C. Chun, J. Laskar, and B. Hutchison, "Surface mount microwave package characterization technique," in *IEEE MTT-S Digest*, Denver, CO, June 1997, pp. 995-998.
- C54 P. Chahal, A. Haridass, A. Pham, R. Tummala, M. Allen, J. Laskar, and M. Swaminathan, "Integration of thin film passive circuits using high/low dielectric constant," in *47th IEEE ECTC*, May 1997, pp. 739-744.
- C55 A. Pham, J. Laskar, G. Zhou, and B. Hutchison, "Development of a surface mountable plastic package characterization technique," in *5th IEEE EPEP Digest*, San Jose, CA, October 1996, pp. 147-149.
- C56 A. Pham, J. Laskar, and J. Schappacher, "Development of on-wafer microstrip characterization techniques," in *47th IEEE ARFTG Conference Digest*, San Francisco, CA, June 1996, pp. 85-94.

BOOK

J. Laskar, M. Tentzeris, S. Chakraborty, and A. Pham, *Advanced Mixed Signal Communication Systems*, manuscript submitted to John Wiley & Sons, Inc. August 2007.

SELECTED PRESENTATIONS

1. "A platform for developing highly integrated transceivers," IEEE International Microwave Symposium Workshop, Seattle, WA, June 2002.
2. "Packaging for radio frequency components and sub-systems," IEEE GaAs IC Conference Panel, Monterey, CA, Oct. 2002.
3. "Microwave/millimeter wave multi-layer organic system-on-a-package," DARPA Workshop on 3-D Micro Electromagnetic RF Systems, Dulles, VA, March 2003.
4. "Microwave and millimeter wave polymer based packaging," IEEE International Microwave Symposium Workshop, Philadelphia, PA, June 2003.
5. "RF and millimeter wave multi-layer LCP modules and MEMS packaging," IEEE International Microwave Symposium Workshop, Long Beach, CA, June 2005.
6. "Compact and high density hermetic modules for microwave and millimeter wave applications," IEEE International Microwave Symposium Workshop, San Francisco, CA, June 2006.
7. "Channel modeling for 10 GB Ethernet over copper technologies," IEEE International Microwave Symposium Workshop, San Francisco, CA, June 2006.
8. "Development of millimeter wave surface mount packages," IEEE International Microwave Symposium Workshop, Honolulu, HI, June 2007.

AWARD AND HONORS

- National Science Foundation CAREER Award (2001-2006)
- IEEE International Microwave Symposium Student Paper Finalist, Student: S. Chopra and Advisor: A. Pham (2002)
- Clemson University Board of Trustees Award for Faculty Excellence (2002)
- IEEE Senior Member (2003)
- Chair of the IEEE Microwave Theory and Techniques Society Technical Committee on Microwave and Millimeter Wave Packaging MTT-12 (2003-2006)
- IEEE International Microwave Symposium Student Paper Finalist, Student: K. Aihara and Advisor: A. Pham (2006)
- Vice Chair of International Microwave Symposium Technical Program Committee on Power Amplifier Devices and Integrated Circuits (2006-present)

SPONSORED RESEARCH (~\$13M)

PROFESSIONAL SERVICES

- Senior member of IEEE, 2004-present
- Vice Chair of the Technical Program Committee on Power Amplifier Devices and Integrated Circuits, IEEE International Microwave Symposium, 2006-present

- Member of Steering Committee (Student Activities), IEEE International Microwave Symposium, 2006
- Chair of the Technical Coordinating Committee (TC) MTT-12 on Microwave and Millimeter Wave Packaging, IEEE Microwave Theory and Techniques Society, 2003-2006
- Vice-Chair of the Technical Coordinating Committee (TC) MTT-12 on Microwave and Millimeter Wave Packaging, IEEE Microwave Theory and Techniques Society, 2000-2003
- Member of the Technical Program Committee on Power Amplifier Devices and Integrated Circuits, IEEE International Microwave Symposium, 2001-2006
- Member of the Program Committee, IEEE Nanotechnologies Conference, 2003-2004
- Co-organized and chaired IEEE IMS Workshops on microwave and millimeter wave packaging in 2000, 2002, 2003, 2004, 2005, and 2007.
- Judge of student competition paper, IEEE International Microwave Symposium, Philadelphia, PA, 2003 and 2007.
- Reviewer for NASA EPSCore Review Panel, National Science Foundation Panel, 2002, 2004, 2007, IEEE Transactions on Microwave Theory and Techniques, IEEE Transactions on Advanced Packaging, and IEEE Microwave and Wireless Components Letters

WORKSHOPS AND PANELS ORGANIZED

- W1 A. Pham (with G. Ponchak, L. B. P. Katehi, and M. Harriss) “Millimeter-Wave Packaging: Industry Practices and Emerging Technology,” IEEE International Microwave Symposium Workshop, Boston MA, June 2000.
- W2 A. Pham (with J. Laskar), “One Chip Radio,” IEEE International Microwave Symposium Panel, Phoenix AZ, June 2001.
- W3 A. Pham “Highly Integrated Packaging Techniques for Microwave and Millimeter-wave Packaging for Broadband Applications,” IEEE International Microwave Symposium Workshop, Seattle, WA, June 2002.
- W4 A. Pham (with A. Lindner, M. Harriss, and K. Varian), “Microwave/Millimeter Wave Materials and BGA,” IEEE International Microwave Symposium Workshop, Philadelphia PA, June 2003
- W5 A. Pham (with R. Jackson, and J. Laskar), “Integrated and active antennas,” IEEE International Microwave Symposium Workshop, Philadelphia PA, June 2003.
- W6 A. Pham (with George Ponchak and Joy Laskar), “Liquid Crystal Polymers for Microwave and Millimeter Wave Packaging,” IEEE International Microwave Symposium Workshop Long Beach, CA, June 2005.
- W7 A. Pham (Joy Laskar), “Emerging Packaging Technology and Applications at Millimeter Wave Frequencies,” IEEE International Microwave Symposium Workshop, Honolulu, HI June 2007

UNIVERSITY SERVICES

- Graduate Study Committee, 2002-present
- Preliminary Examination Committee, 2002-present

- ECE Chair Advisory Committee, 2003-2005
- ECE Faculty Search Committee, 2003-2005
- Industrial Affiliates Committee, 2002-2005 and 2006-2007
- College of Engineering Research and Library Committee, 2005-2006
- Graduate Study Executive Committee, 2005-2007 (appointed by ECE faculty votes)

TEACHING EXPERIENCE

UNIVERSITY OF CALIFORNIA, DAVIS

- EEC130A Electromagnetics I (Fall 2002, 2003, 2004, and 2005, Winter 2003, 2005, and 2006)
- EEC130B Electromagnetics II (Winter 2004)
- EEC133 Electromagnetic Radiation and Antenna Analysis (Fall 2007)
- EEC222 RF IC (Spring 2002, 2003, 2004, 2005, and 2006)
- EEC289 High Speed Signal Integrity (Spring 2007)

CLEMSON UNIVERSITY

- ECE380 Electromagnetics (Spring 2000, Spring 2001, and Spring 2002)
- ECE436/636 Microwave Circuits (Fall 1999, Fall 2000, and Fall 2001)
- ECE493/693 RF/Wireless Engineering Lab (Spring 2001 and Spring 2002)

THESIS COMMITTEE CHAIR

Ph.D. Students from the University of California at Davis

Arvind Keerti, Doctor of Philosophy (October 2006)

Thesis: Adaptive phase tuning to improve the linearity of power amplifiers under load mismatches

Affiliation After Graduation: Senior RF IC Designer, Qualcomm

Chao Lu, Doctor of Philosophy (October 2006)

Thesis: Development of Multi-band Phased Array Transmitters in CMOS Technology

Affiliation After Graduation: RF IC Designer, Phillips

Andy Chen, Doctor of Philosophy (September 2007)

Thesis: Development of Microwave Wide Bandwidth Push-Pull Power Amplifiers

Morgan Chen, Doctor of Philosophy (November 2007)

Thesis: Development of Wafer-Scale Hermetic Packages for MEMS

M.S. Students from the University of California at Davis

Arvind Keerti, Master of Science (October 2004)

Thesis: SiGe HBT power amplifiers for WLAN applications

Affiliation After Graduation: UC Davis Ph.D. student

John Yan, Master of Science (June 2007)

Thesis: Development of High-Speed Optoelectronic Modulators

Affiliation After Graduation: CISCO

M.S. Students from Clemson University

Siddharth Manohar, Master of Science (June 2002)

Thesis: An empirical large signal model for silicon carbide MESFETs

Affiliation After Graduation: Astra Microelectronics

Sudhir Thumaty, Master of Science (June 2002)

Thesis: Development of a low-IF receiver for a fixed wireless utility network

Affiliation After Graduation: Schlumberger

Ramachandran Ramakrishnan, Master of Science (June 2002),

Thesis: Development of RF/Microwave On-chip Inductors Using an Organic Micromachining Process

Affiliation After Graduation: India

Daniel Newlin, Master of Science (June 2002)

Thesis: Design and development of a low-loss micromachined coplanar waveguide transmission line

Affiliation After Graduation: SPAWAR

Aarthi Venkateshan, Master of Science (June 2003)

Thesis: Development of Micromachined Isolation Structures for Integrated Antennas

Affiliation After Graduation: Clemson University

Saurabh Chopra, Master of Science (June 2003)

Thesis: Carbon Nanotubes Bared Resonant Circuit Sensors for PPM Level Gas Detection.

Affiliation After Graduation: Clemson University

Visiting Researcher/Post-Doctoral Student

Katsumi Takata, Nippon Steel Chemical

Dr. Sang-Woo Seo (co-advisor with Prof. S.J.B Yoo)

CURRENT Ph.D. STUDENTS

Kunia Aihara (expect Ph.D. in June 2008), Chi Law (expected Ph.D. in June 2009), Mark McGrath (expect Ph.D. in June 2009), Yiren Wang (expect Ph.D. in June 2010), Alex Stameroff, and Hai Ta

CURRENT M.S. STUDENTS

Cheng Chen (expect M.S. in June 2008) , Zhaonian Zhang (expect M.S. in June 2008), and Mehmet Onsiper (expect M.S. in June 2008)

UNDEGRADUATE STUDENTS ADVISED

Dan Newlin (2000), Mimi Nguyen (2000), Summer Fowler (2001), Morgan Chen (2002), Kunia Aihara (2003), Junyang Xiang (2003), Mary Wu (2003), Ridah Sabouni (2004), Travis Kleeburg (2005), Hai Pham (2006), Christopher Aldritt (2006), and Mario LeMarche (2006).