CURRICULUM VITAE – DR. RAVI SANKAR

❑ PERSONAL DATA

Address:	Department of Electrical Engineering University of South Florida 4202 E. Fowler Ave. Tampa, Florida 33620-5350
Telephone:	(813) 974-4769
Fax:	(813) 974-5250
Email:	sankar@eng.usf.edu or r.sankar@ieee.org
Web:	http://icons.eng.usf.edu/ & http://www.eng.usf.edu/~sankar

❑ EDUCATION

- *Ph.D. (Electrical Engineering)*, The Pennsylvania State University, Pennsylvania, 1985.
- *M.Eng. (Electrical Engineering)*, Concordia University, Montreal, Canada, 1980.
- *B.E. (Honors)(Electronics and Communication Eng.)*, University of Madras, India, 1978.

❑ PROFESSIONAL EXPERIENCE

- **University of South Florida**, Department of Electrical Engineering, Tampa, Florida.
  Professor and Director of *Interdisciplinary Communications, Networking, and Signal Processing (iCONS)* research group, August 1998 - Present;
  Director, *Interdisciplinary Center of Excellence in Telemedicine (ICE-T)*, 2004-Present
  Supervisor, *Communications and Signal Processing Track (graduate program)*, August 1998 – Present
  Faculty Member of the USF Biomedical Engineering Program

- **Shinshu University, Japan** and **University of Melbourne, Australia**
  Invited Research Fellow, March 2000 to June 2000.

- **Rome Laboratory**, Rome, New York.
  Research Associate, Summer 1997.

- **University of South Florida**, Department of Electrical Engineering, Tampa, Florida.
  Associate Professor with tenure, August 1991 - July 1998.

- **Motorola**, Applied Research Lab, Boynton Beach, Florida.
  Visiting Research Engineer, Summer 1991.

- **Concordia University**, College of Engineering and Computer Science, Montreal, Canada.
  Visiting Research Faculty, July 1990 - August 1990.

- **University of South Florida**, Department of Electrical Engineering, Tampa, Florida.
  Assistant Professor, May 1985 - July 1991.

- **The Pennsylvania State University**, Department of Electrical Engineering, Pennsylvania.
  Research Assistant, August 1981 - April 1985.

- **Drexel University**, Department of Electrical Engineering, Philadelphia, Pennsylvania.
  Graduate Assistant, May 1980 - August 1981.

- **Concordia University**, Department of Electrical Engineering, Montreal, Canada.
  Graduate Research Assistant, January 1979 - April 1980.

❑ RESEARCH/TEACHING INTERESTS

Communication/Computer Networks
Wireless Communication Networks
Speech Processing and Recognition
Signal Processing and its Applications
Telecommunications, Telemedicine
Applications of Neural Networks, Fuzzy Logic, and Intelligent Systems
Simulation and Modeling

❑ HONORS AND AWARDS

- **Associate Editor**, *IEEE Communications Surveys and Tutorials (*Signal Processing Area), 2003-.

- **Honorary Editorial Board Member**, *Cancer Informatics*, Libertas Academia, 2005-.

- **Guest Associate Editor**, *IEEE Trans. on Information Technology and Biomedicine (T-ITB),* 2002-03.

- Recipient, **Theodore and Venette Askounes-Ashford Distinguished Scholar Award**, USF, 2007.

- **Keynote Speaker** at the Fourth IASTED International Conference on Communications. Internet, and Information Technology (CIIT 2006), St. Thomas, US Virgin Islands, Nov. 29 –Dec. 1, 2006.
  Title: UWB Coexistence ("Live and Let Live") with Wi-Fi: Technology and its Challenges.

- *Mentor* for the **NSF-IGERT Ph.D. Program** (2003-) and the **Alfred P. Sloan Foundation's Minority Ph.D. Program** (The National Action Council for Minorities in Engineering – NACME) in the Electrical Engineering and Biomedical Engineering Programs (2005-), USF.

- *Inaugural Honoree* of the **Gold Circle Society**, USF President's Council, 2005.

- Recipient (Principal Investigator), *USF Interdisciplinary Research Development Grant* (multi-year funding) to establish an Interdisciplinary Center of Excellence in Telemedicine, May 2004.

- Recipient, USF Center for Teaching Enhancement Award to attend "*An Intensive Workshop on Blackboard: Improving Teaching and Learning through Web-Enhanced or Web-Delivered Courses*", August 2002.

- Recipient, **Invitation Research Fellow**, *Japanese Society for Promotion of Science (JSPS)*, Mar-Apr 2000; conducted collaborative research on wireless communications at Shinshu University, Japan.

- Nominated by the *National Science Foundation (NSF)* for the Invitation Research Fellowship Award by the Japanese Society for Promotion of Science (JSPS), 1999-2000.

- Recipient, USF Center for Teaching Enhancement Award to attend "*An Intensive Workshop on WebCT: Improving Teaching and Learning through Web-Enhanced or Web-Delivered Courses*", May 4-8, 1998.

- Selected as a **Research Associate for the Air Force Office of Scientific Research (AFOSR) summer**

research program, *Rome Laboratory*, Rome, NY, 1997.

- Recipient, **Outstanding Contributions in Research** award (for the *best paper published in a technical journal*), Southeastern Section ASEE, April 1997.

- Recipient, **IEEE Florida Council Outstanding Engineering Educator** award, 1996.

- Recipient, Recognition and Appreciation Award for Fifteen Years of Continuous Service to University of South Florida, 2001.

- Recipient, Recognition and Appreciation Award for Ten Years of Continuous Service to University of South Florida, 1996.

- Recipient, Recognition and Appreciation Award for Five Years of Continuous Service to University of South Florida, 1991.

- Recipient, Texas Instruments University Program Grant, 1988-89.

- Recipient, NEC Telecommunications Faculty Grant to attend National and Eastern Communications Forum, 1986-87, 1989, 1994.

- "Who's Who" Listings
  - Marquis "*Who's Who in America*", 60th Edition, 2006 and 61st Edition, 2007.
  - AcademicKeys "*Who's Who in Engineering Education (WWEE)*", 2002.
  - Marquis "*Who's Who in Science and Engineering*", 3rd Edition.
  - Marquis "*Who's Who in the World*", 12th Edition.
  - Marquis "*Who's Who in the South and Southwest*", 22nd- 23rd Editions.
  - American Biographical Institute "*5000 personalities of the World*", 2nd Edition, 1989.
  - International Biographical Centre "*Men of Achievement*", 14th Edition, 1990.

- Recipient, "Outstanding Young Men of America", 1987.

- Third Prize, IEEE International Student Project Contest, Madras, India, 1978.

- Honors list, Bachelor of Engineering, University of Madras, India 1978.

❑ HONARARY AND PROFESSIONAL MEMBERSHIPS

- *Senior Member*, The Institute of Electrical and Electronics Engineers (***IEEE***), (S'77, M'85, SM'93)

- *Member,* IEEE Professional Societies:
  Communications, Signal Processing, Computer, Circuits and System, and Engineering in Medicine and Biology

- *Member*, Association for Computing Machinery (***ACM***), (since 1996).

- *Member*, American Society for Engineering Education (***ASEE***), (since 1997).

- *Registered Professional Engineer*, State of Florida, (since 1990).

- *Member*, Order of the Engineer, (since 1989).

- *External Reviewer*, The University of Melbourne, Australia, 1995.
  Steven Christopher Terrill, Channel Assignment in Cellular Mobile Communication Systems Using Neural Networks, M.S. Thesis, (major professors: Drs. Everitt and Palaniswami).

- *External Reviewer*, The University of West Indies, Mona Campus, Jamaica, 1996-2000.
  Rudolph Brissett, Unequal Error Protection Using Convolutional Codes, M. Phil. (Physics) Thesis, (major professor: Dr. Sodha).

- *External Reviewer*, The University of Melbourne, Australia, 1999-2000.
  Dushy Tissainayagam, Dynamic Channel Assignment in Cellular Systems: Neural Networks Approaches and Analysis, Ph.D. Dissertation, (major professors: Drs. Everitt and Palaniswami).

❑ RESEARCH/STUDENT SUPERVISION

- Directed **TWO (2) Post-Doctoral research, SIX (6) Ph.D. dissertations**, **THIRTY-EIGHT (38) M.S. Theses (28)** and **Projects (10),** and **THIRTEEN (13) Senior Design and REU Student Projects** to completion.

A. Post-Doctoral Research / Visiting Research Scholars

- *Dr. Suili Feng*, South China University of Technology, Guangzhou, China
  Dynamic Bandwidth Allocation of VBR traffic in High-Speed Networks, August 1998 – August 1999.

- *Dr. Jungsik Lee*, Kunsan National University, Republic of South Korea
  Computational Intelligence in Communications and Signal Processing, August 2004 – January 2006.

B. Ph.D. Dissertations

- *Dr. Ahmed F. Abu-Hajar*, Wavelet-Based Region of Interest Coding for Medical Imaging, November 2002.
- *Dr. Ehsan O. Sheybani*, ATMTN: A High-Speed Telemammography Network Architecture, May 2002.
- *Dr. Girish V.S.R. Chiruvolu*, Efficient Transportation of VBR Video Traffic in ATM Networks, Computer Science and Engineering, April 1998, (co-major professor: N. Ranganathan)
- *Dr. George Edwards*, Advanced Handoff Algorithms for Microcellular Communication using Fuzzy Techniques, September 1996.
- *Dr. Kalyan R. Kidambi*, Bandwidth Allocation Using QoS Mapping and a Renegotiation Scheme for Integrated Services MAN-ATM Networks, May 1996.
- *Dr. Yang-Yuan Yang*, Performance Modeling and Automatic Reconfiguration Methodology for Fiber Distributed Data Interface (FDDI) Network, June 1993.

C. M.S. Theses

- *Preetha Prabhakaran,* Performance of Mobile Ad hoc Networks in Realistic Mobility and Fading Environments, March 2005
- *Nikhil Kajale,* UWB and WLAN Coexistence: A Comparison of Interference Reduction Techniques, Feb 2005.
- *Ning Yang*, Congestion-Aware Cross Layer Design for Wireless Ad Hoc Networks, July 2004.
- *Ying Zhang*, Prostate Boundary Detection in Transrectal Ultrasound Images, July 2004, (co-major professor: W. Qian).
- *David A. Doheny***,** Real Time Digital Signal Processing Adaptive Filters for Correlated Noise Reduction in

Ring Laser Gyro Inertial Systems, April 2004.

- *Jayanti Patel*, Adaptive Digital Predistortion Linearizer for Power Amplifier in Military UHF Satellite, March 2004.
- *Goran Ivkovic*, An Algorithm for Image Quality Assessment, July 2003.
- *Hongshun Su*, Knowledge-Based Nodule Detection System on Helical CT Images: Preliminary Study, July 2003, (co-major professor: W. Qian).
- *Sylwester Sobolewski*, A Simple Frequency Domain-Based Perceptual Image Quality Assessment for SPIHT and JPEG2000 Image Compression, April 2003.
- *Xiaoshan Song*, Standardization for Image Characteristics in Telemammography, October 2002, (co-major professor: W. Qian)
- *An T. Le*, Implementation of VBR Speech Codec for Adaptive VOIP Applications, August 2002.
- *Lin Zhang*, A New FP Reduction Method for MCCs Detection in Digital Mammography, April 2001, (co-major professor: W. Qian)
- *Nilesh R. Savkoor*, A Combined Prediction System for Handoffs in Multi-Tier Wireless Networks, November 1998.
- *Sameer Azad*, A Priority-Based Channel Borrowing Algorithm for Third-Generation Cellular Networks, November 1998.
- *Netoo S. Sethi*, Evaluation of Noise Reduction Techniques and RBF Neural Network for Robust Speech Recognition in Mobile Applications, December 1996.
- *King T. Ma*, Congestion Controls for ABR Services in ATM Networks, November 1996.
- *Shrenik P. Patravali*, Robust Speech Recognition Using Neural Networks, August 1995.
- *Venugopal Mannem*, Traffic Control in ATM Networks, December 1994.
- *Terry L. Rusch*, Implementation and Design of a Portable Pulse Oximeter Using Spectral Analysis, November 1994.
- *Vikram Kapoor*, An Adaptive Prediction Based Handoff Algorithm and its Simulation for Microcellular CDMA, November 1993.
- *Ranvir Singh*, Performance Management of Packet-Switched Networks, July 1992.
- *Wen Li*, Voice and Data Integrated Service Token Ring Network, December 1991.
- *V.K. Sundaresan*, Software and Hardware Solutions for Dynamic Time Warping Algorithm, December 1991.
- *Michael E. Thompson*, PC-Based Isolated Word Recognition System, July 1990.
- *Yung-Yuan Yang*, Modelling and Performance Analysis of Fiber Distributed Data Interface (FDDI), July 1989.
- *Roberto F. Lorenzoni*, Software Implementation of an LPC Based Isolated Word Recognition System, July 1989.
- *George Edwards*, Modelling and Performance Analysis of Token Ring Network, November 1988.
- *Jamie D. Natour*, Automatic Detection and Classification of Epileptiform Transients in EEG, April 1988.

D. M.S. Projects

- *John Norstrom*, DSP Course Curriculum Development, April 2006.
- *Tanmoy Islam*, Speech and Speaker Recognition as Human ID, August 2004.
- *Rakesh Nathwani*, Comparison of Different Routing Protocols over Ad Hoc Networks, December 2003.
- *Subir A. Wagle*, Space-Time Block Coding for MIMO Systems, November 2003.
- *Ashokkumar Jayakumar*, Simulation and Analysis of IS-95 CDMA System and CDMA2000 Using SystemView and Matlab, April 2003.
- *Laiq Azam*, Web-Based Course Module for Digital Speech Signal Processing, July 2002.
- *Yue Shen*, Comparison of Fuzzy Image Segmentation Algorithms for Lung Nodule Detection, May 2002,
- (co-major professor: W. Qian)
- *Fady R. Isshak*, Orthogonal Frequency Division Multiplexing for Broadband Wireless Applications, November 2001.

- *Hao Ruan*, Applying Neural Network to Robust Keyword Spotting in Speech Recognition Application, April 1995.
- *Gautam Kaushik*, Generic Implementation of Internetworking Functional Tester, Computer Science and Engineering, September 1994.

E. B.S. Senior Design and REU Student Projects

- Supervised **TEN (10) Capstone Design Projects**

  K. Graham, A Synthesized Flight Navigation Control System for an Unmanned Aerial Vehicle Using DSP, December 2005.
  E. Boritzki, Design and Simulation of Spread-Spectrum Systems, December 2001.
  P. Murphy and R. Fritz, Design and Implementation of a Collision Avoidance System, December 1995.
  J. Arias and J. Campanella, EVIC-A Remote Traffic Preemption System for the Tampa Bay Area, December 1994.
  J. Davis, AM Broadcast Band Superheterodyne Receiver, July 1993.
  K. Singletary, Five Band Equalizer, April 1993.
  A. Christ, AM/FM Detection using TMS32010 Microprocessor, April 1993.
  M. Hannon, Voice and Data Token Ring, December 1990.
  U. Baror, Reservation CSMA/CD, December 1990.
  T. Landry, Token Ring LAN Experiments, July 1988.

- Supervised **THREE (3) REU Student Projects**

  F. Larco, Biometric Technology Study, Jan-Dec 2005.
  M. Matbouly, Technology Evaluation for Vehicle Multi-Occupant Detection and Counting, Jan-Jun 2005.
  C. Baylis II, Software-Defined Radio, Summer 2002.

F. Current Supervision

- Currently supervising **ONE (1)** Post-Doctoral researcher, **TEN (10) Ph.D.** students, **TWO (2) M.S.** students, and **ONE (1) REU** student.

  Post-Doctorate: Dr. Inho Ra, Kunsan National University, Korea
  "Development of an Intelligent Middleware based on QoS Awareness for Building Smart Space in Wireless Sensor Networks", Feb 2007.
  Ph.D.: Tanmoy Islam, Nicholas Sapankevych, Kelvin Rojas (*IGERT Fellow*; Co-Major Professor: N. Ranganathan), Kun Li (Co-Major Professor: Wei Qian), Ying Zhang (Co-Major Professor: Wei Qian), An Le, Eduardo Gomez (*Sloan Fellow)*, Bill Phillips, David Seebran, Antenah Addisu (*IGERT Fellow*; Major Professor: John R. Dietz), and Yongxue Yu
  M.S. Thesis: Srikanth Mangayyagari, Yangyang Xu
  M.S. Project: None
  REU Project: None

- Approved *Mentor* for the **NSF-IGERT Ph.D. Program** and the **Alfred P. Sloan Foundation's Minority Ph.D. Program** (The National Action Council for Minorities in Engineering – NACME) in the Electrical Engineering and Biomedical Engineering Programs, USF.

G. Others

- *Ph.D. Students (Supervised* but not graduated/*Inactive Status):* Lin Dong (1992-93); Srihari Varada (1993-99); Kul B. Ohri (1994-1996); Lesly Civil (1994-96); Shu Tao (1999); Avishek Acharya (2002);

Byong-yong Lee (2003-04);

- *M.S. Students (Supervised* but not graduated/*Inactive Status):* Devarajan Ramawamy (1993-96); Devsibhai Piprotter (1993-94); R. Chiu (1994-95); Suresh Nagarajan (1996-98); Saujanya Pangrekar (1997-98); Joseph Long (1998); Michael Duich (1997-98); Prashant Datar (2000); Sachin Andhare (2000-02); Ravikanth Ummaneni (2001-03); Sachin Chitre (2003); Vivek Madhwaraj (2003-04); Vineet Krishnani (2003-04); Kaushik Narayanan (2001- 04)

- Member of the supervisory committee for **FOURTEEN (14) Ph.D.** Dissertations and more than **TWENTY FIVE (25) M.S.** Theses and Projects

❑ PUBLICATIONS

A. Books and Book Chapters

7. J. Lee and R. Sankar, Theoretical Derivation of Minimum Mean Square Error of RBF based Equalizer, L. Jiao *et al*. (Eds.): ICNC 2006, Part I, Advances in Natural Computation: *Lecture Notes in Computer Science (LNCS 4221)*, Springer-Verlag, Vol. 4221, pp. 293-302, 2006.

6. DSP/FPGA Laboratory Manual (with J. Norstrom), University of South Florida, 2005.

5. Mobility Management and Routing in Wireless Ad Hoc Networks, Contributed to *Handbook on Mobile Computing*, M. Ilyas and I. Mahgoub (Editors), CRC Press, 2005.

4. Contributed to biomedical variables section: Blood Chemistry (with T. Rusch), in *The Measurement, Instrumentation and Sensors Handbook*, J. G. Webster (Editor), CRC Press, 1998.

3. Short-Term Prediction of Traffic for Improved ATM QoS (with G. Chiruvolu and K. Christensen), in *The 6th International Workshop on Network and Operating Systems Support for Digital Audio and Video (NOSSDAV 96)*, Springer-Verlag, 1996.

2. Robust Speech Recognition by Noise Immunization Using Neural Network (with S. Patravali), in *Intelligent Engineering Systems Through Artificial Neural Networks*, Vol. 3, C. H. Dagli (Editor), ASME Press, 1993.

1. *Token Ring Local Area Network Laboratory Manual* (25 pages), University of South Florida, 1990.

B. Refereed Journal Papers

25. Y. Zhang, R. Sankar, and W. Qian, Boundary Delineation in Transrectal Ultrasound Image for Prostate Cancer, *Computers in Biology and Medicine*, February 2007, (accepted for publication).

24. W. Qian, D. Song, M. Lei, X. Sun, R. Sankar, and E. Eikman, Computer Aided Mass Detection based on Ipsilateral Multi-view Mammograms, *Acad. Radiology*, January 2007, (accepted for publication).

23. J. Lee and R. Sankar, Theoretical Derivation of Minimum Mean Square Error of RBF based Equalizer, *Signal Processing*: An International J. Publication of EURASIP, December 2006, (accepted for publication).

22. H. Vajaria, T. Islam, P. Mohanty, S. Sarkar, R. Sankar, and R. Kasturi, Evaluation and Analysis of a Face and Voice Outdoor Multi-biometric System, *Pattern Recognition Letters*, May 2006 (Second Revision in Review).

21. H. Su, R. Sankar, and W. Qian, A Knowledge-Based Lung Nodule Detection System for Helical CT Images, *International Journal of Computational Intelligence and Applications (IJCIA),* 2006, (In Print).

20. W. Qian, R. Sankar, X. Song, X. Sun and R. Clark, Standardization for Image Characteristics in Telemammography Using Genetic and Nonlinear Algorithms, *Computers in Biology and Medicine*, Vol. 35, No. 3, pp. 183-196, April 2005.

19. M. Agrawal, K. Chari, and R. Sankar, Demystifying Wireless Technologies: Navigating Through the Wireless Technology Maze, *Communications of the Association for Information Systems (CAIS) Journal*, Vol. 12, pp. 166-182, 2003.

18. E. Sheybani and R. Sankar, ATMTN: A Telemammography Network Architecture, *IEEE Trans. on Biomedical Engineering*, Vol. 49, No. 12, pp. 1438-1443, December 2002.

17. L. Zhang, W. Qian, and R. Sankar, Advances in Micro-calcification Clusters Detection in Mammography, *Computers in Biology and Medicine*, Vol. 32, No. 6, pp. 515-528, November 2002.

16. S. Feng, W. Ye, R. Sankar, and F. Ke, A Novel Packet Scheduling Algorithm without Timestamp, *Journal of China Institute of Communications*, Vol. 23, No. 7, pp. 26-32, July 2002.

15. G. Edwards and R. Sankar, A Model for Analyzing Handoff in Cellular Communication Systems, *International Journal of Parallel and Distributed Systems and Networks*, Vol. 5, No. 1, pp. 1-6, 2002.

14. G. Chiruvolu, R. Sankar, and N. Ranganathan, VBR Video Traffic Management using a Predictor-based Architecture, *Computer Communications*, Vol. 23, pp. 62-70, 2000.

13. G. Edwards, A. Kandel, and R. Sankar, Fuzzy Control for Microcellular Handoff, *International Journal of Fuzzy Sets and Systems*, Vol. 110, No. 3, pp. 67-76, December 1999.

12. G. Chiruvolu, R. Sankar, and N. Ranganathan, Adaptive VBR Video Traffic Management for Higher Utilization of ATM Networks, *ACM/SIGCOMM Computer Communication Review*, Vol. 28, No. 3, pp. 27-40, July 1998.

11. G. Edwards and R. Sankar, Microcellular Handoff Using Fuzzy Techniques, *Wireless Networks*, Vol. 4, No. 5, pp. 401-409, 1998.

10. K. Kidambi, R. Sankar, and J. Ottensmeyer, A QoS Mapping Scheme and a Model for MAN-ATM Inter(net)working, *Computer Communications* , Vol. 19, No. 3, pp. 276-286, March 1996.

9. T. Rusch, R. Sankar, and J. Scharf, Signal Processing Methods for Pulse Oximetry, *Computers in Biology and Medicine*, Vol. 26, No. 2, pp. 143-159, March 1996.

8. R. Singh and R. Sankar, Performance Trending for Management of Packet-Switched Networks, *International Journal of Network Management*, Vol. 4, No. 2, pp. 69-78, June 1994.

7. Y. Y. Yang and R. Sankar, An Automatic Failure Isolation and Reconfiguration Methodology for Dual-Ring Networks, *IEEE Network*, Vol. 7, No.5, pp. 44-53, September 1993.

6. J. Natour and R. Sankar, Automatic Computer Analysis of Transients in EEG, *Computers in Biology and Medicine*, Vol. 22, No. 6, pp. 407-422, November 1992.

5. G. Edwards, P. Roth, and R. Sankar, CSIM Simulation of a Token Ring LAN, *Trans. of the Society for Computer Simulation*, Vol. 9, No.1, pp. 39-58, March 1992.

4. G. Edwards and R. Sankar, Modeling and Simulation of Networks using CSIM, *SIMULATION*, Vol. 58, No.2, pp. 131-136, February 1992.

3. R. Sankar, Speaker-Independent Discrete Utterance Recognition using Structural Feature Extraction, accepted for publication in *Speech Technology*, 1986, (paper withdrawn due to patent rights infringement).

2. S. D. Morgera and R. Sankar, Digital Signal Processing for Precision Wide Swath Bathymetry, *IEEE Journal of Oceanic Engineering*, Vol. OE-9, No. 2 pp. 73-84, April 1984, (invited paper).

1. R. Sankar and S. D. Morgera, Mathematical Modeling and Simulation of a Backscattered Signal for a Precision Ocean Bottom Mapping System, *International Journal of Modeling and Simulation*, Vol. 4, No. 3, pp.92-95, 1984.

C. Conference Papers (***Full-paper Refereed***)

76. T. Islam, S. Mangayyagari, and R. Sankar, Enhanced Speaker Recognition Based on Score Level Fusion of AHS and HMMM, *IEEE SoutheastCon,* Richmond, VA, March 2007, pp. 14-19.

75. N. Schettini and R. Sankar, Selected Applications of LPLE in Speech Processing, *IEEE SoutheastCon,* Richmond, VA, March 2007, pp. 524-527.

74. S. Mangayyagari, and R. Sankar, Pitch Conversion Based on Pitch Mark Mapping, *IEEE SoutheastCon,* Richmond, VA, March 2007, pp. 8-13.

73. J. Lee and R. Sankar, Theoretical Derivation of Minimum Mean Square Error of RBF based Equalizer, *Second International Conf. on Natural Computation (ICNC'06)* and the *Third International Conf. on Fuzzy Systems and Knowledge Discovery (FSKD'06)*, Xi'an, China, September 2006. *(8.7% acceptance rate)*

72. H. Vajaria, T. Islam, P. Mohanty, S. Sarkar, R. Sankar, and R. Kasturi, Audio Segmentation and Speaker Localization in Meeting Videos, The *18th IEEE International Conf. on Pattern Recognition (ICPR)*, Hong Kong, August 20-24, 2006, Vol. 2, pp. 1150-1153. (*15.3% acceptance rate; received the best student paper award*)

71. P. Prabhakaran and R. Sankar, Energy Performance of Mobile Ad hoc Networks with Realistic Mobility Models, *Wireless Ad Hoc and Sensor Networks Symposium at the IEEE International Wireless Communications and Mobile Computing Conference (IWCMC)*, Vancouver, Canada July 2006. (accepted)

70. P. Prabhakaran and R. Sankar, Impact of Realistic Mobility Models on Wireless Networks Performance, 2nd *IEEE International Conference on Wireless and Mobile Computing, Networking and Communications* (*WiMob*), Montreal, Canada June 2006, pp. 329-334. *(50% acceptance rate)*

69. H. Vajaria, T. Islam, P. Mohanty, R. Kasturi, S. Sarkar, and R. Sankar, An Outdoor Biometric System: Evaluation of Normalization and Fusion Schemes for Face and Voice, *SPIE Defense and Security Symposium*, Orlando, FL, April 2006, Vol. 6202.

68. N. Yang and R. Sankar, Effects of Cross-Layer Processing on Wireless Ad Hoc Network Performance, *IEEE International Conference on Wireless and Mobile Computing, Networking and Communications* (*WiMob*), Montreal, Canada, August 2005, Vol. 3, pp. 284-290.

67. N. Kajale and R. Sankar, A Comparative Analysis of Interference Mitigation Techniques for Ultra Wideband and WLAN Co-Existence, *IEEE International Conference on Wireless and Mobile Computing, Networking and Communications* (*WiMob*), Montreal, Canada, August 2005, Vol. 1, pp. 36-43.

66. N. Yang, R. Sankar, and J. Lee, Improving Ad Hoc Network Performance Using Cross Layer Information Processing, *IEEE International Conf. on Communications (ICC),* Seoul, Korea, May 2005, Vol. 4, pp. 2764-2768. *(32.8% acceptance rate)*

65. Y. Zhang, W. Qian, and R. Sankar, Prostate Boundary Detection in Transrectal Ultrasound Images, *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP),* Philadelphia, PA, May 2005, Vol. V, pp. 617-620. *(51.2% acceptance rate)*

64. G. Ivkovic and R. Sankar, An Algorithm for Image Quality Assessment, *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP),* Montreal, Canada, May 2004, Vol. III, pp. 713-716. *(51.9% acceptance rate)*

63. H. Su, W. Qian, R. Sankar, and X. Sun, A New Knowledge-Based Lung Nodule Detection System, *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP),* Montreal, Canada, May 2004, Vol. V, pp. 445-448. *(51.9% acceptance rate)*

62. Abu-Hajar and R. Sankar, Region of Interest Coding Using Partial-SPIHT, *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP),* Montreal, Canada, May 2004, Vol. III, pp. 657-660. *(51.9% acceptance rate)*

61. E. Sheybani, R. Sankar, and W. Qian, Unique Clinic to Lab Connectivity for Telemammography, *IEEE International Conference on Information Technology*, Las Vegas, NV, April 2004.

60. A. K. Parameswaran and R. Sankar, Mobile IP Throughput Studies on a Wireless LAN, *IEEE Southeastcon,* Greensboro, NC, March 2004.

59. E. Sheybani, R. Sankar, and W. Qian, Integrated ATM Network and DSP Algorithms for Telemammography, *IASTED International Conference on Biomedical Engineering (BioMED)*, Innsbruck, Austria, February 2004.

58. S. Sobolewski, A. Abu-Hajar, and R. Sankar, Frequency Domain-based Image Quality Assessment Algorithm for JPEG 2000 Compressed Images, *IASTED International Conference on Biomedical Engineering (BioMED)*, Salzburg, Austria, June 2003, pp. 99-104.

57. Intelligent Network Management Using Fuzzy Control, *IASTED International Conference on Neural Networks and Computational Intelligence (NCI)*, Cancun, Mexico, May 19-21, 2003 (accepted)

56. Abu-Hajar and R. Sankar, Enhanced Partial-SPIHT for Lossless and Lossy Image Compression, *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP),* Hong Kong, April 2003, Vol. III, pp. 253-256.

55. A. Abu-Hajar and R. Sankar, Lossless Compression for X-ray Mammogram Images, *IS&T/SPIE 15th Annual Symposium on Electronic Imaging (Image Processing: Algorithms and Systems II)*, Santa Clara, CA, January 2003.

54. A. Abu-Hajar and R. Sankar, Integer-to-Integer Wavelet Transform for Region of Interest Image Coding, *Joint 10th Digital Signal Processing and 2nd Signal Processing Education Workshops*, Atlanta, GA, September 2002.

53. K. Narayanan and R. Sankar, Adaptive Handoff Management Based on Game Theory, *The 27th Annual IEEE Conference on Local Computer Networks (LCN),* Tampa, FL, November 2002, accepted.

52. E. Sheybani and R. Sankar, Integrated Network Architecture and Signal Processing for Telemammography, *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP),* Orlando, FL, May 2002, Vol. IV, pp. 3848-3851. *(56.9% acceptance rate)*

51. A. Abu-Hajar and R. Sankar, Wavelet Based Lossless Image Compression Using Partial SPIHT and Bit Plane Based Arithmetic Coding, *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP),* Orlando, FL, May 2002, Vol. IV, pp. 3497-3500. *(56.9% acceptance rate)*

50. L. Zhang, W. Qian, R. Sankar et al., A New False Positive Reduction Method for MCCs Detection in Digital Mammography, *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP),* Salt Lake City, UT, May 2001. *(50.9% acceptance rate)*

49. S. Feng and R. Sankar, Dynamic Bandwidth Allocation Scheme for Stationary VBR Video Traffic Based on Linear Prediction, *IEEE Global Telecommunications Conference (Globecom)*, Rio de Janeiro, Brazil, December 1999, pp. 1478-1482. *(40.8% acceptance rate)*

48. S. Feng and R. Sankar, Limitation of and Improvement to Linear Prediction and Smoothing-based Bandwidth Allocation for VBR Video Traffic, *IEEE Global Telecommunications Conference (Globecom)*, Rio de Janeiro, Brazil, December 1999, pp. 209-213. *(40.8% acceptance rate)*

47. S. Azad and R. Sankar, Performance Evaluation of Channel Allocation Algorithms under Uniform and Non-Uniform Traffic Conditions, *IEEE 50th International Vehicular Technology Conference (VTC - Fall),* Amsterdam, The Netherlands, September 1999, Vol.2, pp. 1263-1267. *(68.2% acceptance rate)*

46. R. Sankar and N. Sethi, Noisy Speech Recognition System for Car Cellular Phones, *IEEE 50th International Vehicular Technology Conference (VTC - Fall),* Amsterdam, The Netherlands, September 1999, Vol. 4, pp. 2218-2224. *(68.2% acceptance rate)*

45. N. Savkoor and R. Sankar, A Combined Prediction System for Handoffs in Overlaid Wireless Networks, *IEEE International Conf. on Communications (ICC),* Vancouver, Canada, June 1999, Vol. 2, pp. 760-764. *(44.1% acceptance rate)*

44. S. Azad and R. Sankar, Comparison of Channel Assignment Strategies in Cellular Systems, *IEEE Southeastcon,* Lexington, KY, March 1999, pp. 299-304.

43. N. Savkoor and R. Sankar, Microcellular Handoff Control Using Robust Prediction Techniques, *IEEE Southeastcon,* Lexington, KY, March 1999, pp. 337-339.

42. G. Chiruvolu, R. Sankar, and N. Ranganathan, An Adaptive Scheme for Better Utilization with QoS Constraints for VBR Video Traffic in ATM Networks, *Third IEEE Symposium on Computers and*

Communications (ISCC), Athens, Greece, June 1998, pp. 3-7.

41. G. Chiruvolu, T. Das, R. Sankar, and N. Ranganathan, A Scene-based Generalized Markov Chain Model for VBR Video, *IEEE International Conf. on Communications (ICC),* Atlanta, GA, June 1998, Vol. 1, pp. 554-558. *(64% acceptance rate)*

40. N. Savkoor, R. Sankar, and S. Azad, Handoff Performance Issues in PCS Networks, *IEEE Southeastcon,* Orlando, FL, April 1998, pp. 236-239.

39. S. Azad, R. Sankar, and G. Chiruvolu, Resource Allocation for Handoff in Wireless ATM Networks, *IEEE Southeastcon,* Orlando, FL, April 1998, pp. 240-243.

38. G. Chiruvolu, R. Sankar, and N. Ranganathan, Issue and Approaches Towards VBR Video Traffic Management in ATM Networks, *IEEE Southeastcon,* Orlando, FL, April 1998, pp. 306-310.

37. S. Nagarajan and R. Sankar, Efficient Implementation of Linear Predictive Coding Algorithms, *IEEE Southeastcon,* Orlando, FL, April 1998, pp. 69-72.

36. E. Sheybani and R. Sankar, Multiresolution Decomposition Techniques for Robust Signal Processing, *IEEE Southeastcon,* Orlando, FL, April 1998, pp. 20-23.

35. G. Edwards and R. Sankar, A Predictive Fuzzy Algorithm for High Performance Microcellular Handoff, *IEEE Global Telecommunications Conference (Globecom)*, Phoenix, AZ, November 1997, Vol. 2, pp. 987-990.

34. K. Ma, R. Sankar, and K. Christensen, A New Explicit Rate-Based Congestion Control Scheme for ABR Services, *22nd IEEE Annual Conference on Local Computer Networks,* Minneapolis, MN, October 1997, pp. 195-201.

33. G. Chiruvolu and R. Sankar, An Approach Towards Resource Management and Transportation of VBR Video Traffic, *IEEE International Conf. on Communications (ICC),* Montreal, Canada, June 1997, pp. 550-554. *(56.2% acceptance rate)*

32. R. Sankar and L. Civil, Intelligent Traffic Monitoring System Using Wireless Cellular Communications, *IEEE Southeastcon,* Blacksburg, VA, April 1997, pp. 210-214.

31. N. Sethi and R. Sankar, Robust Speech Recognition Techniques Using a Radial Basis Function Neural Network for Mobile Applications, *IEEE Southeastcon,* Blacksburg, VA, April 1997, pp. 87-91.

30. R. Sankar and L. Civil, Traffic Monitoring and Congestion Prediction Using Handoffs in Wireless Cellular Communications, *IEEE 47th Annual International Vehicular Technology Conference (VTC),* Phoenix, AZ, May 1997, pp. 520-524. *(54.9% acceptance rate)*

29. S. Varada, R. Sankar, and Y. Yang, ATM to the Desktop in an Existing LAN Environment, *The First NDSU Workshop on ATM Networking*, Fargo, ND, August 1996, pp. 86-100.

28. G. Edwards and R. Sankar, Fuzzy Control for Microcellular Corner Effect, *Fifth IEEE International Conference on Fuzzy Systems (FUZZ-IEEE),* New Orleans, LA, September 1996, Vol. 3, pp. 1912-1916.

27. G. Chiruvolu, K. Christensen, and R. Sankar, Short-Term Prediction of Traffic for Improved ATM QoS, *The 6th International Workshop on Network and Operating Systems Support for Digital Audio*

and Video (NOSSDAV), Zushi, Japan, April 1996, pp. 31-34, (proceedings published by Springer-Verlag).

26. H. Ruan and R. Sankar, Applying Neural Network to Robust Keyword Spotting in Speech Recognition Application, *International Conference on Neural Networks (ICNN)*, Perth, Australia, November 1995, pp. 2882-2886.

25. K. Kidambi, R. Sankar, and H. Kaur, A Dynamic Bandwidth Allocation Rule for connection-oriented DQDB-ATM and Integrated Services Support, *IEEE Global Telecommunications Conference (Globecom),* Singapore, November 1995, pp. 383-387.

24. G. Edwards and R. Sankar, Handoff using Fuzzy Logic, *IEEE Global Telecommunications Conference (Globecom)*, Singapore, November 1995, Vol. 1, pp. 524-528.

23. K. Kidambi, R. Sankar, and J. Ottensmeyer, Internetworking MANs to ATM for Broadband Services Support, *20th IEEE Annual Conference on Local Computer Networks,* Minneapolis, MN, October 1995, pp. 102-111.

22. G. Edwards and R. Sankar, Fuzzy Control for Microcellular Handoff, *The JAMCON Communications Conference*, Jamaica, August 1995, pp. 68-73.

21. K. Kidambi and R. Sankar, MAN-ATM Internetworking and Integrated Services Support, *IEEE Southeastcon*, Raleigh, NC, March 1995, pp. 1-5.

20. V. Mannem and R. Sankar, Improved Dual Leaky Bucket Policing Algorithm for ATM Networks, *IEEE Southeastcon*, Raleigh, NC, March 1995, pp. 6-11.

19. S. Varada and R. Sankar, Bandwidth Allocation for Connectionless Traffic in ATM Networks, *IEEE Southeastcon*, Raleigh, NC, March 1995, pp. 128-132.

18. V. Kapoor, G. Edwards, and R. Sankar, Handoff Criteria for Personal Communication Networks, *IEEE International Conf. on Communications (ICC)*, New Orleans, LA, May 1994, Vol. 3, pp. 1297-1301.

17. R. Sankar and S. Patravali, Noise Immunization Using Neural Net for Speech Recognition, *IEEE International Conf. on Acoustics, Speech and Signal Processing (ICASSP)*, Adelaide, Australia, April 1994, Vol. II, pp. 685-688.

16. G. Edwards and R. Sankar, A New Handoff Algorithm Using Fuzzy Logic, *IEEE Southeastcon*, Miami, FL, April 1994, pp. 89-92.

15. R Singh and R. Sankar, Performance Trending for Management of High-Speed Packet-Switched Networks, *IEEE Global Telecommunications Conference (Globecom)*, Houston, Texas, December 1993, Vol. 3, pp. 1777-1781.

14. R. Sankar and S. Patravali, Robust Speech Recognition by Noise Immunization Using Neural Network, *Artificial Neural Networks in Engineering (ANNIE)*, St. Louis, MO, November 1993.

13. Y. Y. Yang and R. Sankar, Analysis of Maximum Throughput for FDDI Network with Combined Synchronous and Asynchronous Traffic, *Second International Conf. on Computer Communications and Networks (IC^3N),* San Diego, CA, June 1993, pp. 33-37.

12. W. Li and R. Sankar, Real-Time Voice and Data Integration in Token Ring LAN, *IEEE Southeastcon*,

Charlotte, NC, April 1993, pp. 404-407.

11. V. K. Sundaresan, S. Nichani, N. Ranganathan, and R. Sankar, A VLSI Hardware Accelerator for Dynamic Time Warping, *11th IAPR International Conf. on Pattern Recognition*, The Hague, The Netherlands, August/September 1992, Vol. IV, pp. 27-30.

10. R. Sankar and Y. Y. Yang, An Automatic Failure Isolation and Reconfiguration Methodology for Fiber Distributed Data Interface (FDDI), *IEEE International Conf. on Communications (ICC)*, Chicago, IL, June 1992, Vol. 1, pp. 186-190.

9. R. Sankar and S. Varada, Dynamic Protocol for Token Ring Network with Unbalanced Load, *IEEE Southeastcon*, Birmingham, AL, April 1992, pp. 10-13.

8. Y. Y. Yang and R. Sankar, Maximizing FDDI network performance by parameter tuning, *IEEE Infocom*, Miami, FL, April 1991, Vol. 3, pp. 1431-1439.

7. R. Sankar, Implementation of an Experimental Speaker-Independent Discrete Utterance Recognition System, *IEEE International Conf. on Signal Processing*, Beijing, China, October 1990, pp.445-448.

6. R. Sankar and J. Murphy, Experiences in Local Networking USF, *15th IEEE Annual Conf. on Local Computer Networks*, Minneapolis, MN, October 1990, pp. 137-142.

5. R. Sankar and Y. Yang, Performance Analysis of FDDI, *14th IEEE Annual Conf. on Local Computer Networks*, Minneapolis, MN, October 1989, pp. 328-332.

4. R. Sankar and M. Pleckas, Design and Implementation of a Local Network: A Feasibility Study, *13th IEEE Annual Conf. on Local Computer Networks*, Minneapolis, MN, October 1988, pp. 439-443.

3. R. Sankar, Improvements in Image Enhancement Using Fuzzy Set, *North American Fuzzy Information Processing Society (NAFIPS)*, New Orleans, LA, June 1986, pp. 502-515.

2. L. M. Roytman, L. D. Coraor and R. Sankar, Structural Signal Representation and Its Use in Speaker-Independent Recognition, *IEEE International conf. on Systems, Man and Cybernetics*, Bombay, India, January 1984, pp.574-576.

1. R. Sankar and S. D. Morgera, Mathematical Modeling and Simulation of a Backscattered Signal for a Precision Ocean Bottom Mapping System, *IASTED International Symposium on Applied Modeling and Simulation (AMS '82)*, Paris, France, July 1982.

D. Other Conference Papers (***Abstract Refereed and Invited Papers***)

23. R. Sankar, H. Arslan, H. Celebi, and Y. Zhang, "Integrated DSP/FPGA Laboratory for Software-Defined Radio," *10th Symposium on 21st Century Teaching Technologies*, Tampa, FL, March 2005.

22. S. Sobolewski, A. Abu-Hajar, and R. Sankar, Quality Assessment for JPEG 2000 Compressed Images, *7th World Multiconference on Systemics, Cybernetics and Informatics (SCI)*, Orlando, FL, July 2003, pp. 235-240.

21. Y. Shen, R. Sankar, W. Qian, X. Sun, and D. Song, Comparative Evaluation of Fuzzy Image Segmentation Algorithms for Lung Nodule Detection, *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP),* Hong Kong, April 2003.

20. X. Sun, W. Qian, R. Sankar, and R. Clark, System Oriented Optimization of Computer-Aided Detection (CAD) for Mass Detection on Digital Mammogram, *U.S. Army Medical Research and Material Command,* April 2002.

19. X. Song, W. Qian, and R. Sankar, Standardization for Image Characteristics in Telemammography, *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP),* Orlando, FL, May 2002, Vol. IV, pp. 4194.

18. E. Sheybani and R. Sankar, ATMTN: DICOM and IP over ATM for Teleradiology, *IEEE International Symposium on Telecommunications (IST)*, Tehran, Iran, September 2001.

17. E. Sheybani and R. Sankar, Novel Clinic-to-Lab Connectivity Architecture for Telemammography, *SPIE's International Symposium on Medical Imaging 2001,* San Diego, CA, February 2001, pp. 4323-4324.

16. W. Qian, E. Sheybani, R. Sankar et al., Adaptive CAD Modules for Telemammography, *Fifth International Workshop on Digital Mammography (IWDM)*, Toronto, Canada, June 2000.

15. R. Sankar and Y. Kinoshita, An Intelligent Mobility Management for Next-Generation Wireless Networks, *The 4th World Multiconference on Systemics, Cybernetics and Informatics (SCI)*, Orlando, FL, July 2000, (Invited Summary).

14. R. Sankar and S. Azad, Architectures and Mobility Management for Wireless ATM Networks, *The 3rd World Multiconference on Systemics, Cybernetics and Informatics (SCI)*, Orlando, FL, July-August 1999, (Invited Paper).

13. R. Sankar and D. Doheny, Adaptive Noise Cancellation Algorithms for Aerospace Applications Using Ring Laser Gyro, *1st Annual Partners in Education and Research Conference*, Cocoa Beach, FL, October 1998.

12. T. Rusch, J. Scharf, and R. Sankar, Alternate Pulse Oximetry Algorithms for SpO_2 Computation, *16th Annual International Conf. of the IEEE Engineering in Medicine and Biology Society*, Baltimore, MD, November 1994, Vol. 2, pp. 848-849.

11. S. Varada and R. Sankar, Hardware Strategies for End Point Detection, *IEEE Southcon*, Ft. Lauderdale, FL, March 1995, pp. 163-167, (also accepted for *the Fifth International Conference on Signal Processing Applications & Technology - ICSPAT,* Dallas, TX, October 1994).

10. R. Sankar and N. Demir, Spectral Estimation and Sinusoidal Noise Cancellation using Structural Signal Processing, *IEEE Southeastcon*, Williamsburg, VA, April 1991, pp. 218-220.

9. P. Roth and R. Sankar, Token-Ring Network - A Comparative Simulation Study, *21st Pittsburgh Modeling and Simulation Conference*, Pittsburgh, PA, May 1990, pp. 827-832.

8. R. Sankar and G. Edwards, Effect of Service Schemes and Buffer Size on Token Ring Network Performance, *ISMM International Symposium, MICRO*, Montreal, Canada, May 1990.

7. R. Sankar and J. Goldstein, Computer-Aided Diagnosis of Epileptiform Transients in EEG, *21st IEEE Southeastern Symposium on System Theory*, Tallahassee, FL, March 1989, pp. 404-409.

6. R. Sankar and G. Edwards, Simulation Modeling of a Token Ring Local Area Network, *ISMM International Conf. Mini and Microcomputers*, Miami Beach, FL, December 1988, pp. 290-293.

5. R. Sankar, A Pitch Extraction Algorithm for Voice Recognition Applications, *20th Southeastern Symposium on System Theory*, Charlotte, NC, March 1988, pp. 384-387.

4. R. Sankar, Experimental Evaluation of Structural Features for a Speaker-Independent Voice Recognition System, *20th Southeastern Symposium on System Theory*, Charlotte, NC, March 1988, pp. 378-382.

3. R. Sankar, Parameter Estimation using Structural Signal Representation, *IEEE Southeastcon*, Tampa, FL, April 1987, pp. 606-608.

2. R. Sankar and J. Goldstein, Signal Processing and Pattern Recognition Approach to Transient Detection and Classification of EEG for the Diagnosis of Epilepsy, *IEEE Southeastcon*, Tampa, FL, April 1987, pp. 405-408.

1. R. Sankar, Parameter Estimation Approach to Carrier/clock Synchronization, *25th Midwest Symposium on Circuits and Systems*, Houghton, MI, August 1982, (abstract).

E. Journal and Conference Papers (*submitted and in review*)

3. M. Lei, D. Song, Y. Yao, R. Sankar, and W. Qian, Shape Similarity and Rotation Invariant Enhancements Using Fourier Descriptors in Digital Mammography, *Medical Physics*, October 2006.

2. G. Ivkovic and R. Sankar, An Adaptive Image Quality Assessment Algorithm, *IEEE Transactions on Broadcasting*, October 2006.

1. K. Rojas, R. Sankar, and N. Ranganathan, Survey: Skin Feature Characterization and Associated Medical Instrumentation, *Biomedical Signal Processing and Control*, Elsevier Publication, September 2006.

F. Technical Reports

33. R. Sankar, W. Qian, and J. –H. Lee, Interdisciplinary Center of Excellence in Telemedicine (ICE-T) – E-Mammography, (Final Report), University of South Florida Research Council, December 2006, (15 pages).

32. R. Sankar, Y. Zhang, and S. Mangayyagari, Artificial Neural Network (ANN) Single-Layer Perceptron (SLP) Training Algorithms, (Final Report), Raytheon, Inc., September 2006, (54 pages).

31. R. Sankar, Y. Zhang, and S. Mangayyagari, Artificial Neural Network (ANN) Single-Layer Perceptron (SLP) Training Algorithms, (Interim Report 2), Raytheon, Inc., August 2006, (41 pages).

30. R. Sankar, Y. Zhang, and S. Mangayyagari, Artificial Neural Network (ANN) Single-Layer Perceptron (SLP) Training Algorithms, (Interim Report 1), Raytheon, Inc., July 2006, (7 pages).

29. D. Morel, R. Sankar, T. Weller, and D. Killenger, Vehicle Multi-Occupant Detection and Counting, (Final Report), STS International, Inc., July 2005.

28. R. Sankar, H. Arslan, H. Celebi and Y. Zhang, DSP/FPGA Laboratory for Software Defined Radio, (Final Report), University of South Florida, May 2005.

27. R. Sankar, W. Qian, and J. –H. Lee, ICE-T (E-mammography), (Interim Report), University of South

Florida Research Council, April 2005, (5 pages).

26. R. Kasturi, S. Sarkar, R. Sankar, H. Vajaria, P. Mohanty, and T. Islam, Biometric Technology Study (Interim Report - Phase II), STS International, Inc., January 2005, (42 pages).

25. R. Kasturi, S. Sarkar, R. Sankar, H. Vajaria, P. Mohanty, and T. Islam, Biometric Technology Study (Final Report - Phase I), STS International, Inc., May 2004, (100 pages).

24. R. Kasturi, S. Sarkar, R. Sankar, H. Vajaria, P. Mohanty, and T. Islam, Biometric Technology Study (Executive Summary), STS International, Inc., April 2004, (17 pages).

23. R. Kasturi, S. Sarkar, R. Sankar, H. Vajaria, P. Mohanty, and T. Islam, Biometric Technology Study (Interim Report 4), STS International, Inc., January 2004, (23 pages).

22. R. Kasturi, S. Sarkar, R. Sankar, H. Vajaria, P. Mohanty, and T. Islam, Biometric Technology Study (Interim Report 3), STS International, Inc., December 2003, (74 pages).

21. R. Kasturi, S. Sarkar, R. Sankar, H. Vajaria, P. Mohanty, and T. Islam, Biometric Technology Study (Interim Report 2), STS International, Inc., November 2003, (16 pages).

20. R. Kasturi, S. Sarkar, R. Sankar, H. Vajaria, P. Mohanty, and T. Islam, Biometric Technology Study (Interim Report 1), STS International, Inc., October 2003, (35 pages).

19. D. Doheny and R. Sankar, ASIC Implementation of Adaptive Noise Cancellation in Space Based RLG Systems, (Final Report), Honeywell, Inc. and Florida High Tech Corridor Initiative External Matching Grant Program, USF, June 2003, (116 pages).

18. D. Doheny and R. Sankar, ASIC Implementation of Adaptive Noise Cancellation in Space Based RLG Systems, (Interim Report), Honeywell, Inc. and Florida High Tech Corridor Initiative External Matching Grant Program, USF, June 2002.

17. D. Doheny and R. Sankar, Implementation of Adaptive Noise Cancellation Algorithms for Aerospace Applications Using Ring Laser Gyro, (Final Report), FSGC/NASA, December 2000, (29 pages).

16. D. Doheny and R. Sankar, Implementation of Adaptive Noise Cancellation Algorithms for Aerospace Applications Using Ring Laser Gyro, (Interim Report), FSGC/NASA, November 1999, (9 pages).

15. D. Doheny and R. Sankar, Adaptive Noise Cancellation Algorithms for Aerospace Applications Using Ring Laser Gyro, (Final Report), FSGC/NASA, November 1999, (108 pages).

14. D. Doheny and R. Sankar, Adaptive Noise Cancellation Algorithms for Aerospace Applications Using Ring Laser Gyro, (Interim Report), FSGC/NASA, October 1998, (6 pages).

13. R. Sankar, A Study of Integrated and Intelligent Network Management, Air Force Office of Scientific Research (AFOSR) and Rome Laboratory, August 1997, (13 pages).

12. R. Sankar and L. Civil, Traffic Monitoring and Congestion Management using Wireless Cellular Communications Technology, USF Research Council, June 1996, (80 pages).

11. T. L. Rusch, R. Sankar, and J. E. Scharf, The Development of a Portable Pulse Oximeter for the Detection of Critical Hypoxemic Events in Non-surgical Patients, Group Technologies Corp., December 1994.

10. R. Sankar, ASR-ANN Research Project Report, (Final Report), Motorola, August 1991.

9. R. Sankar and Y. Y. Yang, Fault Tolerant and High Performance FDDI Network for Space Station Application, (Final Report), The Florida High Technology and Industry Council, February 1991, (61 pages).

8. R. Sankar and Y. Y. Yang, Fault Tolerant and High Performance FDDI Network for Space Station Application, (Quarterly Reports), The Florida High Technology and Industry Council, May/Aug/Nov. 1990, (15 pages).

7. V.K. Jain, R. Sankar, M. Thompson, and S. Skrzypkowiak, Isolated Digit Recognition, (Final Report), Precision Software Inc., July 1990, (108 pages).

6. V.K. Jain, R. Sankar, M. Thompson and S. Skrzypkowiak, AIsolated Digit Recognition, (Preliminary Report), Precision Software Inc., October 1989, (50 pages).

5. R Sankar, Token Ring Local Area Network-Laboratory Manual, Texas Instruments, July 1989, (18 pages).

4. R. Sankar, Token-Ring LAN: Simulation and Experimental Analysis, University of South Florida, July 1989, (27 pages).

3. R. Sankar, Studies in Automatic Design of Systolic Structure, Internal Technical Report for Wafer Scale Integration (Task-V) under DARPA Microelectronics research project, Dec. 1988, (38 pages).

2. R. Sankar, Token-Ring LAN: A Simulation and Performance Study, University of South Florida, May 1988 (72 pages).

1. R. Sankar and L. M. Roytman, Speaker-Independent Discrete Utterance Recognition Using Feature Extraction based on Structural Signal Representation, Applied Research Laboratory, The Pennsylvania State University, May 1985.

G. Other Publications

4. Local and Metropolitan Area Networks, Course Lecture Notes (200 pages), University of South Florida, 1993.

3. Speaker-Independent Discrete Utterance Recognition Using Feature Extraction based on Structural Signal Representation, Ph.D. Dissertation (research funded by the Office of Naval Research/Naval Sea Systems Command), The Pennsylvania State University, April 1985.

2. Signal Processing for Precision Wideswath Ocean Bottom Bathymetry, M.Eng. Thesis (research funded by the Natural Science and Engineering Research Council of Canada), Concordia University, April 1980.

1. Digital Speedometer, B.E. Design Project, University of Madras, May 1978.

❑ RESEARCH GRANTS/CONTRACTS

41. Artificial Neural Network (ANN) Single Layer Perceptron (SLP) Training Algorithms, Optimal Data Distribution and Routing Algorithms, *Raytheon, Inc.,* $27,000, 2006-2007, (Principal Investigator).

40. Multimodal Biometrics Technology Study (Phase II), *Florida (I4 Corridor) High Tech External Matching Grant Program* (Industrial Sponsor: *STS International, Inc.*), $200,000, 2005-2006, (Co-Principal Investigator with PI: Dr. R. Kasturi and Co-PI: Dr. S. Sarkar).

39. The Alfred P. Sloan Foundation's Minority Ph.D. Program, The National Action Council for Minorities in Engineering (NACME), Fellowship: $36,000, plus expenses, 2005-, (Mentor in the Electrical Engineering and Biomedical Engineering Program with PI: Dr. S, Bhansali)

38. Faculty International Travel Grant, *USF Research Council*, $1,740, 2005.

37. DSP/FPGA Lab Equipment Donation, *Xilinx* ($42,105) and *Texas Instruments* ($1,995), 2005, (PI).

36. Vehicle Multi-Occupant Detection and Counting Capability, *STS International, Inc.*, $59,259, 2005, (Co-Principal Investigator with PI: Dr. D. Morel and Co-PI's: Dr. T. Weller and Dr. D. Killinger).

35. Interdisciplinary Center of Excellence – Telemedicine (ICE-T), *USF Interdisciplinary Research Development Grant*, $50,000, 2004-2006, (Principal Investigator with Co-PI's: Dr. W. Qian and Dr. J. Lee)

34. QualNet Network Simulator, Scalable Network Technologies, 2004-, (Principal Investigator)

33. An Interdisciplinary Applications of DSP – A Laboratory Course, Innovative Teaching Grants Program, *Center for 21st Century Teaching Excellence*, USF, $10,000, 2004-2005, (Principal Investigator with Co-PI: Dr. H. Arslan).

32. VISS, ASC, and CAMS Research (Task II: Multimodal Biometrics Technology Study), *STS International, Inc.*, (Funding Source: U.S. Army), $1,031,518 (Task II: $518,960), 2003-2005, (Co-Principal Investigator with PI: Dr. R. Kasturi and Co-PI: Dr. S. Sarkar).

31. Sensory Knowledge-based Interface Science (SKINS), *NSF-IGERT Program*, $3,018,000 (2 graduate student fellowships: $120,000, plus tuition waivers and expenses), 2003-2008, (Co-Investigator/Mentor with PI: Dr. S. Bhansali and several Co-PI's).

30. An Intensive Workshop on Blackboard: Improving Teaching and Learning Through Web-Enhanced or Web-Delivered Courses, *USF Center for Teaching Enhancement Award*, $1,500, August 2002.

29. ASIC Implementation of Real-Time Adaptive Noise Cancellation in Space-based RLG Systems, *Florida (I4 Corridor) High Tech External Matching Grant Program* (Industrial Sponsor: *Honeywell, Inc.*), $16,500, 2001-2002, (Principal Investigator).

28. Implementation of Adaptive Noise Cancellation Algorithms for Applications Using Ring Laser Gyro, Academic IR&D project, *Honeywell*, $10,000 (with $23,000 in-kind support), 2001-2002, (Principal Investigator).

27. SystemView – Communication Systems Modeling/Simulation/Design software donation, *Elanix*, $75,798, 2001-, (Principal Investigator).

27. Implementation of adaptive noise cancellation algorithms for applications using Ring Laser Gyro, Academic IR&D project, *Honeywell*, $10,000, 2000-2002, (Principal Investigator).

26. Faculty International Travel Grant, *USF Research Council*, $1,500, 2000.

25. Intelligent Mobility Management for Next Generation Wireless Systems, Japanese Society for Promotion of Science (JSPS); Invited Research Fellowship (nominated by NSF) to conduct research in Japan, 2000, (Principal Investigator).

24. Implementation of Adaptive Noise Cancellation Algorithms for Aerospace Applications Using Ring Laser Gyro, *NASA - Florida Space Grant Consortium* (with $25,000 matching from Honeywell), $46,783, 1999-2000, (Principal Investigator).

23. Bioengineering Institute: Pilot Interdisciplinary Center, *USF*, $80,000, 1999-2001, (Co-Investigator).

22. Faculty International Travel Grant, *USF Research Council*, $1,500, 1999.

21. An Intensive Workshop on WebCT: Improving Teaching and Learning Through Web-Enhanced or Web-Delivered Courses, *USF Center for Teaching Enhancement Award*, $1,500, May 1998.

20. Adaptive Noise Cancellation Algorithms for Aerospace Applications Using Ring Laser Gyro, *NASA / Florida Space Grant Consortium* (Industrial Sponsor: *Honeywell, Inc.*), $38,955, 1998-99, (Principal Investigator).

19. Gigabit ATM Network Testbed, *National Science Foundation (NSF) / Washington University at St. Louis*, Equipment and Training Support Grant, $150,000 (estimate), 1998-2002, (Principal Investigator).

18. Advanced Signal Processing for Improved Non-Invasive Blood Pressure Measurement, *Johnson & Johnson Corp.*, $13,906, 1997-98, (Principal Investigator).

19. Efficient Algorithms for Multimedia Compression, *Harris Corp.*, $14,283, 1997-98, (Principal Investigator).

16. Skin Blood Flow, *USF/TDC Phase II* grant subcontract, $4,000, 1997, (Co-Principal Investigator with PI: Dr. J. Scharf).

15. Traffic Monitoring and Congestion Management using Wireless Cellular Communications Technology, *USF Research Council Award*, $7,127.50, 1995, (Principal Investigator).

14. Faculty International Travel Grant, *USF Research Council*, $1,000, 1994.

13. The Development of a Portable Pulse Oximeter for the Detection of Critical Hypoxemic Events in Non-surgical Patients, *Group Technologies*, $32,309, 1993, (Co- Principal Investigator with PI: Dr. J. Scharf).

12. Professional Services/ASR-ANN Project, *Motorola*, $20,038, 1991, (Principal Investigator).

11. Faculty International Travel Grant, *USF Research Council*, $1,000, 1990.

10. Fault Tolerant and High Performance FDDI Network for Space Station Application, *Florida High Technology and Industry Council*, $36,640, 1990, (Principal Investigator).

9. Performance and Reliability Issues in FDDI, *AT&T*, $12,500, 1989-90, (Principal Investigator).

8. Isolated Digit Recognition System, *Precision Software Inc.*, $41,656, 1989-90, (Co- Principal

Investigator with PI: Dr. V. Jain).

7. Wafer Scale Integration, *DARPA Microelectronics Research Grant*, Task-V (Applications, Architecture, Design, and Test) participant, 1988-89, (Co-Investigator).

6. Token Ring LAN Laboratory Development, *Texas Instruments Univ. Program Grant*, $10,092, 1988-89, (Principal Investigator).

5. Token Ring LAN: Simulation and Experimental Analysis, *USF EIES/Research Initiation Grant*, $4,000, 1988-89, (Principal Investigator).

4. High Speed Interconnection of Local and Wide Area Communication Networks, *The Florida High Technology and Industry Council*, $20,000, 1988, (Co- Principal Investigator with PI: Dr. M. Ilyas)

3. Design and VLSI Implementation of a Synchronous Packet Data Formatter, *USF Center for Microelectronics Design and Test*, $8,425, 1987-88, (Principal Investigator).

2. Performance Study of a Token-Ring LAN, *USF EIES/Engineering Initiation Grant*, $3,910, 1987, (Principal Investigator).

1. An Expert System Approach to VLSI Design and Test, *USF Center for Microelectronics Design and Test*, $18,000, 1987, (Co-Principal Investigator).

❑ SCHOLARSHIPS

3. "Speaker-Independent Discrete Utterance Recognition Using Feature Extraction based on Structural Signal Representation", *Office of Naval Research/Naval Sea Systems Command*, Grant (NAVSEA): N00024-79-C-6043, (1982-1985).

2. "Sensitivity Comparison of Output Feedback Pole-Placement Controller Design Algorithms", *The Applied Research Laboratory*, The Pennsylvania State University, E/F Research Program, (1981-1982).

1. "Digital Signal Processing for Precision Wide Swath Bathymetry", *Natural Sciences and Engineering Research Council of Canada*, Grant A0-912 and FCAC grant EQ-350, (1978-1980).

❑ INVITED LECTURES AND TECHNICAL SEMINARS

(Conference presentations totaling more than ***fifty*** are excluded)

- UWB Coexistence ("Live and Let Live") with Wi-Fi: Technology and its Challenges. Keynote Speech, the Fourth IASTED International Conference on Communications. Internet, and Information Technology (CIIT 2006), St. Thomas, US Virgin Islands, November 29, 2006.

- Cutting Edge Research in Wireless Communication Networking and Signal Processing: Biometric Technology Research and Improving Ad Hoc Network Performance Using Cross Layer Processing, Kunsan National University, Gunsan, South Korea, May 20, 2005.

- State-of-the-Art Research in Wireless Networking and Signal Processing Technologies, Bannari Amman Institute of Technology, Sathyamangalam, India, July 18, 2005.

- Mobile and Wireless Networks, Wireless Seminar Series, University of South Florida, Oct 2001.

- Evolution of and Recent Advances in Wireless Communication Networks, Wireless Seminar Series, University of South Florida, Jan and Feb 2001.

- Networking Research Activities at USF and Issues in Wireless Cellular Network Architectures and Mobility Management, Shinshu University, Nagano, Japan, April 2000.

- Keynote Speaker, Entrepreneur Workshop, Bannari Amman Institute of Technology, Sathyamangalam, India, July 2000.

- Future Technologies and Professional Development, Kumaraguru College of Technology, Coimbatore, India, July 2000.

- Architectures and Mobility Management for Wireless ATM Networks, Special session on *"Wireless and Mobile Computing"* at the *3rd World Multi Conf. on Systemics, Cybernetics, and Informatics (SCI)*, Orlando, FL, July 1999.

- High Speed Communication Networking using FDDI, Manipal Institute of Technology, Manipal and Karnataka Regional Engineering College, Suratkal, India, August 1993.

- Speech Recognition Algorithms and Applications for PCS Applications, Motorola, Plantation, Florida, July 1991.

- Research Activities in LANs and WANs, Third Annual Engineering Research Seminar, University of South Florida, Tampa, Feb. 1988.

- Speaker-Independent Word Recognition, IEEE ASSP Meeting (Florida West Coast Section), Tampa, Nov. 1985.

- Introduction to Automatic Speech Recognition Research, Graduate Seminar, University of South Florida, Tampa, Nov. 1985.

- Mathematical Modeling of a Backscattered Signal for a Ocean Bottom Mapping System, Graduate Seminar, Drexel University, Philadelphia, 1981.

❑ TEACHING EXPERIENCE

A. Undergraduate Courses Taught

1. Introduction to Communication Systems [#]
2. Communication Engineering
3. Linear Systems Analysis
4. Introduction to Electrical Systems I
5. Electronics I
6. Logic Design
7. Digital Signal Processing I [# $]
8. DSP/FPGA Laboratory for Software-Defined Radio [# $]

B. Graduate Courses Taught

1. Digital Signal Processing I [# $]
2. Digital Signal Processing II [#]
3 Digital Signal Processing III

4. Speech Signal Processing [#]
5. Local and Metropolitan Area Networks [# $]
6. Telecommunications I [#]
7. Special Topics in Networking (Broadband Telecommunications) [#]
8. Digital Medical Imaging [#]
9. Communication Systems
10. Wireless Network Architectures and Protocols [#]
11. DSP/FPGA Laboratory for Software-Defined Radio [# $]

[#] - Courses coordinated and/or developed by Prof. Sankar
[$] - Courses offered at dual levels (undergraduate and graduate)

C. Teaching Grants:

- An Interdisciplinary Applications of DSP – A Laboratory Course, Innovative Teaching Grants program, USF Center for 21st Century Teaching Excellence, $10,000, 5/04-4/05, PI. (Co-PI: H. Arslan).
  - Established an undergraduate/graduate laboratory for multidisciplinary applications of DSP (M-DSP) program that involves:
    - Design and development of a new integrated DSP/FPGA based lab for software-defined radio and sensor communications, so that students can acquire hands-on experience in design techniques in a real-time test-bed environment.
    - Develop an innovative framework for DSP with different platforms: DSP, FPGA, and hybrid DSP/FPGA that are alternative to traditional DSP or FPGA based architectures to demonstrate the signal processing concepts and applications in wireless communications, sensor networking and biomedical applications.

- **Hardware and Software Donations and/or Discounts**
  Texas Instruments, TMS380C6713 DSK Kits (4) and software
  Xilinx, ML310 Virtex-II Pro FPGA Boards (2), Virtex-II Pro FPGA boards (5), and Integrated Software Environment (ISE 8.1i)
  Lyrtech, SignalWave DSP/FPGA Hybrid board (1) and sofware
  Mathworks, Matlab/Simullink software (toolboxes and blocksets) – 10-seat classroom license (Univ. discount)

- DSP/FPGA Lab Equipment Donation, *Xilinx* ($36,035) and *Texas Instruments* ($1,995), 2005, (PI).
  Summer and Fall 2004 were spent in the course curriculum development, acquisition of lab equipments (hardware/software) from industries (purchase and donation); Setting up the lab and developing lab exercises.

- *Qualnet*, Real-time Network Simulation Software, Scalable Network Technologies, Single-seat license (Unix and Windows versions - renewed), 2004-05, (Faculty Sponsor), Software used in Wireless Networks course and in research.

- *SystemView*, Communications and Signal Processing Modeling, Simulation and Design software, Donation includes two 25-seat floating network licenses and one single seat license (renewed), *Elanix, Inc.*, 2001-2004, $75,798, (Principal Investigator), Software used in Digital Communication Systems course and in research projects.

D. Teaching Publications/Presentations:

- Integrated DSP/FPGA Lab for Software Defined Radio (with H. Arslan, H. Celebi, and Y. Zhang), Symposium on 21st Century Teaching Technologies, USF, March 2, 2005.

- DSP/FPGA Laboratory Manual (with J. Norstrom), University of South Florida, 2005

❑ PROFESSIONAL SERVICE ACTIVITIES

- Local Arrangements Co-Chair, *25th IEEE Annual Conf. on Local Computer Networks*, Tampa, FL, Oct. 2000.

- Technical Program Chair, *IEEE Southeastcon*, Tampa, Florida, April 11-14, 1996.

- Vice-Chair, *IEEE Signal Processing Society Chapter,* IEEE Florida West Coast Section, 1995-1996.

- Co-Guest Editor, Special Issue of **SIMULATION** magazine on *Simulation of Communication-Computer Networks*, vol. 58, no.2, Feb. 1992.

- Member, IEEE Technical Committees on Computer Communications (TCCC), Personal Communications (TCPC) and Ad Hoc and Sensor Networks (AHSNTC) of the IEEE Communications Society.

- Member, IEEE Technical Committee on Simulation of the IEEE Computer Society and Pattern Analysis and Machine Intelligence.

- Reviewer, *IEEE Project 802.x* (LANs and MANs) draft proposals to establish standards.

- Participant in the standards committee X3T9 meetings in establishing ISO/ANSI/IEEE standards for FDDI network (a high speed fiber optic local area network operating at 100 Mb/s).

- Reviewer for Textbooks:
  - *Data Communications: Principles and Problems*, G. J. Moshos, West Educational Publishing Company, 1989.
  - *Local and Metropolitan Area Networks*, Fifth Edition, W. Stallings, Prentice-Hall, 1995.
  - *Simulation of Computer Systems and Networks: A Process-Oriented Approach*, Book Proposal by B. Sinclair, Cambridge University Press, 1998.
  - *An Introduction to Communication Systems*, Book Proposal by P. Chakrabarti, World Scientific Publishing Co., 2001.
  - *Wireless Communications*, Book Proposal by A. Goldsmith, Prentice-Hall, 2001-02.
  - *Digital Signal Processing: Signals, Systems, and Filters,* A. Antoniou, McGraw-Hill, 2002.
  - *Wireless Communications and Networks*, 2nd Edition, W. Stallings, Prentice-Hall, 2005.
  - *Computational Intelligence in Biomedical Engineering,* Book Proposal by Begg and Palaniswami, CRC Press, 2004.

- Reviewer of Proposals
  - International Science and Technology Center (ISTC) programs of the U.S. Department of State, "*Development of Biomedical Signal Processing Methods, Algorithms, and Software for Diagnostics of Cardiovascular and Speech Production Organ Diseases*" submitted to the U.S. Civilian Research and Development Foundation (CRDF), August 2001.
  - National Science Foundation (NSF) – Panel Reviewer to SBIR programs, September 2002.
  - University of Missouri, "*Detection of Skin Cancer Using Electrical Impedance*", Research Board Proposal, April 2004.
  - NSF Review Panel (ECS/ENG), Unsolicited Proposals on Wireless topics, Program Director: Paul Werbos; May 2004.
  - NSF Review Panel (ECS/ENG) on Sensor Networks, Program Director: Vittal Rao, June 2004.

- Editorial Board
  Guest Editor, *IEEE Transactions on Information Technology in Biomedicine (TITB),* 2002 - 03.
  Signal Processing Area Editor, *IEEE Communications Surveys and Tutorials* 2003 -.
  Honorary Editorial Board Member, *Cancer Informatics*, Libertas Academia, Mar 2005 -

- Referee for several journals and conferences including:
  IEEE Transactions on Networking (TON)
  IEEE Transactions on Information Technology in Biomedicine (TITB)
  IEEE Transactions on Image Processing
  IEEE Transactions on Broadcasting
  IEEE Transactions on Computers
  IEEE Transactions on Parallel and Distributed Systems
  IEEE Journal on Selected Areas in Communications (JSAC)
  IEEE Communications Letters
  IEEE Communications Surveys and Tutorials
  ACM/Baltzer Wireless Networks Journal
  International Journal of Modeling and Simulation
  IEE Proceedings
  IEE Electronics Letters
  IEEE Infocom 2004
  IASTED Biomed 2003
  26th IEEE Annual Conference on Local Computer Networks (LCN), 2001
  25th IEEE Annual Conference on Local Computer Networks (LCN), 2000
  IEEE Wireless Communications and Networking Conference (WCNC), 2000
  IEEE International Conference on Communications (ICC), 2000
  24th IEEE Annual Conference on Local Computer Networks (LCN), 1999
  IEEE International Conference on Communications (ICC), 1999
  23rd IEEE Annual Conference on Local Computer Networks (LCN), 1998
  IEEE International Conference on Communications (ICC), 1998
  IEEE International Conference on Communications (ICC), 1997
  22nd IEEE Annual Conference on Local Computer Networks (LCN), 1997
  IEEE Southeastcon, 1996
  IEEE Globecom, 1995
  IEEE International Conference on Communications (ICC), 1994
  IEEE Southeastcon, 1994
  Artificial Neural Networks in Engineering (ANNIE), 1993
  IEEE Globecom, 1988
  IEEE Southeastcon, 1987

- Session Organizer/Chair/Member of Program Committee for several conferences including:
  IEEE Southeastcon, Tampa, FL, April 1987. (Program Committee Member and Session Chair)
  IEEE 20th Southeastern Symp. on System Theory, Charlotte, NC, March 1988. (Session Chair)
  IEEE Southeastcon, Miami, FL, April 1994. (Session Chair)
  IEEE International Conf. on Communications (ICC), New Orleans, LA, April 1994. (Session Chair)
  IEEE Southeastcon, Raleigh, NC, March 1995. (Session Chair)
  22nd IEEE Annual Conf. on Local Computer Networks (LCN), Minneapolis, MN, Oct. 1997.
  (Program Committee Member)
  IEEE Globecom, Phoenix, AZ, November 1997. (Session Chair)
  IEEE Southeastcon, Orlando, FL, April 1998. (Session Chair)
  IEEE International Conf. on Communications (ICC), Atlanta, GA, June 1998. (Session Chair)
  23rd IEEE Annual Conf. on Local Computer Networks (LCN), Boston, MA, Oct. 1998. (Program

Committee Member)
24th IEEE Annual Conf. on Local Computer Networks (LCN), Boston, MA, Oct. 1999. (Program Committee Member)
IEEE Globecom, Rio de Janeiro, Brazil, Dec. 1999. (Session Chair)
25th IEEE Annual Conf. on Local Computer Networks (LCN), Tampa, FL, Oct. 2000. (Program Committee Member and Session Chair)

IEEE Wireless Communications and Networking Conference (WCNC), Chicago, IL, Sep. 2000. (Session Chair)
The 4th World Multi Conf. on SCI (Systemics, Cybernetics, and Informatics), Orlando, FL, Jun. 2000. ((Program Committee Member, Session Organizer and Chair)
The 3rd International Symposium on Wireless Personal Multimedia Communications (WPMC), Bangkok, Thailand, Nov. 2000. (International Program Committee Member)
25th IEEE Annual Conf. on Local Computer Networks (LCN), Tampa, FL, Oct. 2000. (Program Committee Member and Session Chair)
26th IEEE Annual Conf. on Local Computer Networks (LCN), Tampa, FL, Oct. 2001. (Program Committee Member and Session Chair)
IEEE Wireless Communications and Networking Conf. (WCNC), New Orleans, LA, Mar. 2003. (Session Chair)
IEEE Wireless Communications and Networking Conf. (WCNC), Atlanta, GA, Mar. 2004. (Session Chair)
IEEE International Conference on Communications (ICC), Seoul, Korea, May 2005. (Session Chair)
Broadmed: First IEEE/CreateNet International Workshop on Telemedicine over Broadband and Wireless Networks, Boston, MA, October 2005. http://www.broadmed.org/. (Technical Program Committee Member)
International Pervasive Healthcare Conference, Salzburg, Austria, March 2006, (http://www.pervasivehealth.org). (Program Committee Member)
IASTED International Conference on Telehealth (Telehealth 2006), Banff, Canada, July 03- 05, 2006. http://www.iasted.org/. (International Program Committee Member)
The Sixth Annual Mediterranean Ad Hoc Networking Workshop (Med-Hoc-Net 2007), Corfu, Greece, June 13-15, 2007, (http://www.ionio.gr/~okon/medhocnet07/). (Technical Program Committee Member)

- Judge, Student Paper Contest, IEEE Southeastcon '87, Tampa, Florida, April 1987.
- Judge, Senior Design Project Poster Presentation, University of South Florida, Tampa, 2000-.

❑ SERVICE IN UNIVERSITY ADMINISTRATION

- Director, Interdisciplinary Communications, Networking and Signal Processing – *ICONS* research group (earlier known as High-Speed Communication Networking Research and Signal Processing Applications research groups).
  - Maintain research laboratory facilities and lead a team of group members in conducting diverse research projects. See http://icons.eng.usf.edu for detailed information.

- Director, Interdisciplinary Center of Excellence in Telemedicine (*ICE-T*), USF designated and funded Interdisciplinary Research Center, (2004-Present)

- Supervisor, Communications and Signal Processing Track, Electrical Engineering Dept., (1998-Present).
  - Responsibilities include the maintenance of the curriculum, course scheduling, and student advising in this area of specialization; Advised and graduated more than 200 students over the

past ten years.

- University Sabbatical Committee, College of Engineering Representative (1992-95).
- College of Engineering Faculty Governance Committee, Member (1998-2001).
- College of Engineering Computing Committee, Department Representative (1998-Present).
- Department Faculty Governance Committee, Chair (1998-2001); Member (2001-Present).
- Department Chair Search Committee, Member (2002-03).
- Department Faculty Search Committee, Member (2005-06).
- Department Wireless Systems Faculty Search Committee, Co-Chair (1999-2002).
- Department Undergraduate Curriculum Committee, Member (1993-97).
- Department Undergraduate Student Advising Committee, Member (1993-1999).
- Department Undergraduate Area Curriculum Committee: Communications, Chair (1998-Present); Member (1987-97).
- Department Advisory Committee on Graduate Program, Member (2001-Present).
- Department Graduate Program Advisory Subcommittee: Communications and Signal Processing, Chair (1998-Present); Member (1985-97).
- Department Advisory Committee: Faculty and Staff Awards, Chair (1995-Present).
- Department Advisory Committee: Industrial Fellowship, Member (1998-2003).
- Department Computer Committee, Member (1987-1997).
- Department Advisory Committee: VLSI Research Tools, Chair (1987-89).

Last revised on 1/07