Brian S. Nutter, PhD, PE

Department of Electrical and Computer Engineering
Texas Tech University, Lubbock, Texas, 79409
brian.nutter@ttu.edu (806) 742-3533 X273

EDUCATION:

Texas Tech University. PhD Electrical Engineering. GPA 3.95. December, 1990.
3-D Modeling and Classification in Automated Target Recognition.

Texas Tech University. BS Electrical Engineering. GPA 3.80. May, 1987.

EXPERIENCE:

Texas Tech University. Lubbock, TX. August, 2002 – Present.
Associate Professor of Electrical and Computer Engineering.
Associate Chair for Undergraduate Studies, ECE Dept.
Co-director, Computer Vision and Image Analysis Lab.
Research Interests: Medical image processing and modelling. Image and video compression. Damage assessment from hyperspectral imagery. Stereo X-ray imaging. OFDM and LTE.

ESI. El Segundo, CA. November, 2001 – July, 2002.
Contract Engineer.
Designed and developed: Automated satellite test equipment - Boeing Satellite Systems.
Responsibilities: Resolved design and implementation issues of hardware, software and FPGA code involved in testing of military and commercial satellite boards by custom ATE. Analyzing and debugging of schematics, C programs, VHDL code and PCB layouts.

WillowBrook Technologies. Van Nuys, CA. March, 1998 - November, 2001.
Vice President, Engineering.
Designed and developed: 8-port VoIP distributed computer telephony system with real-time interpreted script language. DSP algorithms including DTMF, CID, call progress analysis and echo cancellation. Real-time algorithms including dual LAN UPD / IP stack and embedded device drivers. PCBs for power supply, telephony interface and DSP / CPU motherboard.
Responsibilities: System architect. Interface specifications. Management of technical department and contractors. Scheduling. C coding under AMX, QNX, Windows and Code Composer. ORCAD and ACCEL schematic capture and layout. Initial boot of Elan SC410 and TMS320C6211. Cross-compile and remote debug.

Soligen. Northridge, CA. June, 1992 - March, 1998.
Chief Program Mgr. Production Mgr. Software / Electronics Mgr. Senior Engr.
Designed and developed: Rapid prototyping system. 2-D and 3-D geometrical modeling algorithms. Motion control algorithms. Imaging system. Job tracking. Cabling and power distribution. PCBs for sensors and actuators.
Responsibilities: System architect. Analysis of metal castings, molds and tooling. Management of manufacturing and technical departments. Interface specifications. Scheduling. Budgeting. C coding under DOS and Windows. ORCAD schematic capture. Substantial customer interaction. Project management.

3-D Systems. Valencia, CA. February, 1990 - May, 1992.
Senior Electronics / Software Engineer.
Designed and developed: DSP PCB. Laser system motion control algorithms. 2-D and 3-D geometrical modeling algorithms.
Responsibilities: System architect. C coding under DOS and Unix. ORCAD schematic capture. Solid modeling.

PEER-REVIEWED TECHNICAL PUBLICATIONS:

61. Sunanda Mitra, Enrique Corona, Jason Hill, and Brian Nutter**, "**An information theoretic clustering approach to automated medical image segmentation**,"** Proceedings of SPIE Conference on Medical Imaging (accepted for 2013).

60. Enrique Corona, Jason Hill, Jingqi Ao, Brian Nutter, and Sunanda Mitra, "A Novel Unsupervised Learning Model for Automated Detection of Precancerous Abnormalities in Uterine Cervix with Unified Analysis of Cervical Cells and Digital Uterine Cervix Images", Invited Paper, Proceedings of IEEE Healthcare Innovations Conference (accepted for 2012).

59. Elliot Briggs, Tanja Karp, Brian Nutter, and Dan McLane, "A System Architecture for Real-time Multi-Path MIMO Fading Channel Emulation, "Proceedings of European Wireless Innovation Forum (2012).

58. Jingqi Ao, Sunanda Mitra, Rodney Long, Brian Nutter, Sameer Antani, "A Hybrid Watershed Method for Cell Image Segmentation", Proceedings of IEEE Southwest Symposium on Image Analysis and Interpretation (2012).

57. Zheng Liu, Brian Nutter, Sunanda Mitra, "Compressive Sampling in Fast Wavelet-Encoded MRI", Proceedings of IEEE Southwest Symposium on Image Analysis and Interpretation (2012).

56. Lin Cong, Brian Nutter, Daan Liang, "Estimation of Oil Thickness and Aging from Hyperspectral Signature", Proceedings of IEEE Southwest Symposium on Image Analysis and Interpretation (2012).

55. Linning Ye, Jiangling Guo, Brian Nutter, and Sunanda Mitra, "Efficient video coding based on backward coding of wavelet trees," Optical Engineering, Vol. 51 (2012).

54. Liu Zheng, Sunanda Mitra, and Brian Nutter, "Quality assessment of fast wavelet-encoded MRI utilizing compressed sensing," Proceedings of SPIE Conference on Medical Imaging (2012).

53. Elliot Briggs, Chunmei Kang, Amit Mane, Brian Nutter, and Dan McLane, "Sample Clock Offset Detection and Correction in the LTE Downlink Receiver," Springer Journal of Signal Processing Systems, DOI 10.1007/s11265-011-0643-5, pp. 1-9 (2011).

52. Linning Ye, Jiangling Guo, Brian Nutter, and Sunanda Mitra, "Low-memory-usage image coding with line-based wavelet transform," Optical Engineering, Vol. 50, No. 2 (2011).

51. Elliot Briggs, Brian Nutter, and Dan McLane, "A Real-Time Multi-Path Fading Channel Emulator Developed for LTE Testing," Proceedings of Wireless Innovation Forum (2011).

50. Elliot Briggs, Chunmei Kang, Amit Mane, Dan McLane, and Brian Nutter, "Sample clock offset correction in the LTE downlink receiver," Proceedings of Wireless Innovation Forum (2011).

49. Jingqi Ao, Sunanda Mitra, and Brian Nutter, "A robust independent component analysis (ICA) model for functional magnetic resonance imaging (fMRI) data," Proceedings of SPIE Conference on Medical Imaging (2011).

48. Zheng Liu, Brian Nutter, Jingqi Ao, and Sunanda Mitra, "Wavelet Encoded MR Image Reconstruction with Compressed Sensing," Proceedings of SPIE Conference on Medical Imaging (2011).

47. Enrique Corona, Brian Nutter, and Sunanda Mitra, "Optimized Data-Driven Order Selection Method for Gaussian Mixtures", Proceedings of IEEE Southwest Symposium on Image Analysis and Interpretation, pp. 73 - 76 (2010).

46. Cong Lin, Brian Nutter, and Daan Liang, "'Grid Pattern Based Residential Area Detection from Hyperion Data", Proceedings of IEEE Southwest Symposium on Image Analysis and Interpretation, pp. 105 - 108 (2010).

45. Matthew Wilhelm, Brian Nutter, Rodney Long, and Sameer Antani, "Automated Detection of Human Papillomavirus: Via Analysis of Linear Array Images", Proceedings of IEEE Southwest Symposium on Image Analysis and Interpretation, pp. 205 - 208 (2010).

44. Kwaku Akrofi, Ranadip Pal, Mary Baker, Brian Nutter, and Randy Schiffer, "Classification of Alzheimer's Disease and Mild Cognitive Impairment by Pattern Recognition of EEG Power and Coherence", Proceedings of IEEE Conference on Acoustics, Speech, and Signal Processing (2010).

43. Enrique Corona, Brian Nutter, and Sunanda Mitra, "A Robust Model Order Estimation and Segmentation Technique for Classification of Biopsies in Breast Cancer," Proceedings of SPIE Conference on Medical Imaging Vol. 7623 (2010).

42. Bian Li, Kalyana Vasanta, Michael O'Boyle, Mary Baker, Brian Nutter, and Sunanda Mitra, "fMRI activation patterns in an analytic reasoning task: consistency with EEG source localization," Proceedings of SPIE Conference on Medical Imaging Vol. 7626 (2010).

41. Yeshwanth Srinivasan, Enrique Corona, Brian Nutter, Sunanda Mitra, and Sonal Bhattacharya, "A Unified Model Based Image Analysis Framework for Automated Detection of Precancerous Lesions in Digitized Uterine Cervix Images," IEEE Journal of Selected Topics in Signal Processing, special issue on Digital Image Processing Techniques for Oncology, Vol. 3, No. 1, pp. 101-111 (2009).

40. Matthew Wilhelm, Brian Nutter, Rodney Long and Sameer Antani, "Linear Array Image Analysis For Automated Detection of Human Papillomavirus," Proceedings of IEEE Conference on Computer-Based Medical Systems, pp. 1 - 6 (2009).

39. John Lusk and Brian Nutter, "Automated 3-D Reconstruction of Stereo Fundus Images via Camera Calibration and Image Rectification," Proceedings of IEEE Conference on Computer-Based Medical Systems, pp. 1 - 7 (2009).

38. Jiangling Guo, Bryan Hughes, Sunanda Mitra, and Brian Nutter, "Ultra High Resolution Image Coding and ROI Viewing using Line-Based Backward Coding of Wavelet Trees (L-BCWT)," Proceedings of IEEE Picture Coding Symposium, pp. 1-4 (2009).

37. Aftab Farooqi, Richard Gale, Sudakhar Reddy, Brian Nutter, and Christopher Monico, "Markov Source Based Test Length Optimized SCAN-BIST Architecture," Proceedings of International Symposium on Quality of Electronic Design, pp. 708-713 (2009).

36. Bryan Hughes, Brian Nutter, Per Andersen, and Dan Cooke, "A Prototype Embedded Microprocessor Interconnect for Distributed and Parallel Computing," Journal of Systemics, Cybernetics and Informatics, Vol. 6, No. 4, pp. 1-6 (2008).

35. Enrique Corona, Brian Nutter, and Sunanda Mitra, "Non-parametric Estimation of Mixture Model Order," Proceedings of IEEE Southwest Symposium on Image Analysis and Interpretation, pp. 145 - 148 (2008).

34. Enrique Corona, Brian Nutter, Sunanda Mitra, Jiangling Guo, and Tanja Karp, "Efficient Random Access High Resolution Region of Interest (ROI) Image Retrieval using Backward Coding of Wavelet Trees," Proceedings of SPIE Conference on Medical Imaging Vol. 6914 (2008).

33. Bryan Hughes, Brian Nutter, Per Anderson, and Daniel Cooke, "A Toolkit for Distributed and Parallel Computing in Embedded Systems," Proceedings of International Conference on Embedded Systems & Applications, pp. 153 – 159 (2008).

32. Enrique Corona, Jiangling Guo, Sunanda Mitra, Brian Nutter, and Tanja Karp, "Random Access Region of Interest in Backward Coding of Wavelet Trees", Proceedings of IEEE Information Theory Workshop, pp. 656-661 (2007).

31. Bryan Hughes, Dan Cooke, and Brian Nutter, "A New, Multi-Faceted Approach to Parallel Computing," Proceedings of Cybernetics and Information Technologies, Systems and Applications, Vol. III, pp. 139-144 (2007).

30. Linning Ye, Jiangling Guo, Brian Nutter, and Sunanda Mitra, "Memory-Efficient Image Codec Using Line-based Backward Coding of Wavelet Trees," Proceedings of IEEE Conference on Data Compression, pp. 213-222 (2007).

29. Yeshwanth Srinivasan, Shuyu Yang, Brian Nutter, Sunanda Mitra, Benny Phillips, and Rodney Long, "Challenges in automated detection of cervical intraepithelial neoplasia," Proceedings of SPIE Conference on Medical Imaging, Vol. 6514 (2007).

28. Linning Ye, Jiangling Guo, Sunanda Mitra, and Brian Nutter, "A fast and efficient algorithm for volumetric medical data compression and retrieval," Proceedings of SPIE Conference on Medical Imaging, Vol. 6512 (2007).

27. Jiangling Guo, Sunanda Mitra, Brian Nutter, and Tanja Karp, "Backward Coding of Wavelet Trees with Fine-grained Bitrate Control," Journal of Computers, Vol. 1, No. 4, pp. 1-7 (2006).

26. Jose Jeronimo, Rodney Long, Leif Neve, Daron Ferris, Kenneth Noller, Mark Spitzer, Sunanda Mitra, Jiangling Guo, Brian Nutter, Phil Castle, Rolando Herrero, Ana Rodriguez, and Mark Schiffman, "Preparing Digitized Cervigrams for Colposcopy Research and Education: Determination of Optimal Resolution and Compression Parameters," Journal of Lower Genital Tract Disease, Vol. 10, No. 1, pp. 39-44 (2006).

25. Daron Ferris, Sunanda Mitra, and Brian Nutter, "Digitized Cervical Images: Problems, Solutions, and Potential Medical Impact," Journal of Lower Genital Tract Disease, Vol. 10, No. 1, pp. 10-15 (2006).

24. Yeshwanth Srinivasan, Fei Gao, Bhakti Tulpule, Shuyu Yang, Sunanda Mitra, and Brian Nutter, "Segmentation and Classification of Cervix Lesions by Pattern and Texture Analysis," The International Journal of Intelligent Systems Technologies and Applications, Vol. 1, Nos. 3/4, pp. 234 - 246 (2006).

23. Archie Sharma, Enrique Corona, Sunanda Mitra, and Brian Nutter, "Early Detection of Glaucoma Using Fully Automated Disparity Analysis of the Optic Nerve Head (ONH) from Stereo Fundus Images," Proceedings of SPIE Conference on Medical Imaging, Vol. 6144, pp. 0H-1 - 10 (2006).

22. Jiangling Guo, Sunanda Mitra, Brian Nutter, and Tanja Karp, "A Fast and Low Complexity Image Codec Based on Backward Coding of Wavelet Trees," Proceedings of IEEE Conference on Data Compression, pp. 292-301 (2006).

21. Jiangling Guo, Sunanda Mitra, Brian Nutter, and Tanja Karp, "An Efficient Image Codec Based on Backward Coding of Wavelet Trees," Proceedings of IEEE Southwest Symposium on Image Analysis and Interpretation, pp. 233–237 (2006).

20. Jiangling Guo, Sunanda Mitra, Brian Nutter, and Tanja Karp, "A Fast and Resolution-Progressive Image Codec based on Backward Coding of Wavelet Trees (BCWT)," Proceedings of BioMedical Engineering Society #1402 (2005).

19. Bhakti Tulpule, Shuyu Yang, Yeshwanth Srinivasan, Sunanda Mitra, and Brian Nutter, "Segmentation and Classification of Cervix Lesions by Pattern and Texture Analysis," Proceedings of IEEE Conference on Fuzzy Systems, pp. 173-176 (2005).

18. Yeshwanth Srinivasan, Dana Hernes, Bhakti Tulpule, Shuyu Yang, Jiangling Guo, Sunanda Mitra, Sriraja Yagneswaran, Brian Nutter, Jose Jeronimo, Benny Phillips, Rodney Long, and Daron Ferris, "A Probabilistic Approach to Segmentation and Classification of Neoplasia in Uterine Cervix Images Using Color and Geometric Features," Proceedings of SPIE Conference on Medical Imaging, Vol. 5747, pp. 995-1003 (2005).

17. Yeshwanth Srinivasan, Brian Nutter, Sunanda Mitra, Benny Phillips, and Daron Ferris, "Secure Transmission of Medical Records using High Capacity Steganography," Proceedings of IEEE Conference on Computer-Based Medical Systems, pp. 122-127 (2004).

16. Philip King, Sunanda Mitra and Brian Nutter, "An Automated, Segmentation-Based, Rigid Registration System for Cervigram™ Images Utilizing Simple Clustering and Active Contour Techniques," Proceedings of IEEE Conference on Computer-Based Medical Systems, pp. 292-297 (2004).

15. Jiangling Guo, Prateek Shrivastava, Kayla Kepley, Shuyu Yang, Sunanda Mitra and Brian Nutter, "Bit-rate Allocation Control and Quality Improvement for Color Channels in HMVQ Image Compression," Proceedings of IEEE Conference on Computer-Based Medical Systems, pp. 110-115 (2004).

14. Shuyu Yang, Jiangling Guo, Philip King, Y. Sriraja, Sunanda Mitra, Brian Nutter, Daron Ferris, Mark Schiffman, Jose Jeronimo, and Rodney Long, "A Multispectral Digital Cervigram Analyzer in the Wavelet Domain for Early Detection of Cervical Cancer," Proceedings of SPIE Medical Imaging, Vol. 5370, pp. 1833-1844 (2004).

13. Shuyu Yang, Sunanda Mitra, Enrique Corona, Brian Nutter, and DJ Lee, "Multi-level Wavelet Feature Statistics for Efficient Retrieval, Transmission, and Display of Medical Images by Hybrid Encoding," EURASIP Journal on Applied Signal Processing, Vol. 2003, pp. 449-460 (2003).

12. Shuyu Yang, Philip King, Enrique Corona, Mark Wilson, Kaan Aydin, Sunanda Mitra, Peter Soliz, Brian Nutter, Young Kwon, "Feature Extraction and Segmentation in Medical Images by Statistical Optimization and Point Operation Approaches," SPIE Proceedings on Medical Imaging 2003: Image Processing, Vol. 5032, pp. 1676-1684 (2003).

11. Shuyu Yang, Jiangling Guo, Sunanda Mitra, Brian Nutter, Daron Ferris, and Rodney Long, "A Wavelet-based Multi-spectral Codec for Efficient Detection of Cervical Neoplasia from Encoded Cervical Images," Proceedings of IEEE Conference on Computer-Based Medical Systems, pp. 68 – 73 (2003).

10. Roopesh Kumar, Sunanda Mitra, Tanja Karp, and Brian Nutter, "Adaptive Wavelet Filter Design for Optimized Image Source Encoding," Proceedings of IEEE Information Technology: Coding and Computing, pp. 478 – 482 (2003).

9. Scott Newton, Brian Nutter, and Sunanda Mitra, "Statistical and Neural Network Classifiers in Model-Based 3-D Object Recognition," SPIE Proceedings on Intelligent Robots and Computer Vision IX: Neural, Biological, and 3D Methods, Vol. 1382, pp. 209 – 218 (1991).

8. Sunanda Mitra, Song Lim, DJ Lee, and Brian Nutter, "Depth Estimation From Disparity of Stereo Images," SPIE Proceedings on Applied Digital Image Processing XIII, Vol. 1329 (1990).

7. Brian Nutter, Sunanda Mitra, and Michael Parten, "Three-Dimensional Object Identification from 2-D Projections," SPIE Proceedings on Automated Inspection and High Speed Vision Architectures III, Vol. 1197 (1989).

6. Brian Nutter, and Sunanda Mitra, "3-D Object Identification," Proceedings of Electronic Imaging East, pp. 1101 - 1106 (1989).

5. Brian Nutter, and Sunanda Mitra, "Fast Implementation of a Laplacian of Gaussian Edge Detector," SPIE Proceedings on Applied Digital Image Processing XII, Vol. 1153 (1989).

4. Sunanda Mitra, and Brian Nutter, "3-D Target Recognition of Infrared Images," Proceedings of Electronic Imaging West, pp. 1044 - 1049 (1989).

3. Sunanda Mitra, Brian Nutter, and Tom Krile, "Early Detection of Nerve Fiber Layer Loss by Automated Fundus Image Subtraction," Applied Optics, Vol. 27, pp. 1107 - 1112 (1988).

2. Brian Nutter, and Sunanda Mitra, "A Segmentation Technique for Image Analysis," Proceedings of Electronic Imaging East, pp. 939 - 944 (1988).

1. Brian Nutter, Sunanda Mitra, and Tom Krile, "Image Registration Algorithm for a PC-Based System," SPIE Proceedings on Applied Digital Image Processing X, Vol. 829, pp. 214 - 221 (1987).

PATENT:

1. Elliot Briggs, Dan McLane, Chunmei. Kang, Amit Mane, Brian Nutter, "A High Performance OFDM Receiver," Pending (April 2011).

NON-PEER-REVIEWED TECHNICAL PUBLICATIONS:

12. Daan Liang, Brian Nutter, Cong Lin, Kishor Mehta, "Detection of Residential Regions Using Hyperspectral Imagery," Invited Paper, Proceedings of 2011 NSF Engineering Research and Innovation Conference (2011).

11. Sunanda Mitra, Michael O'Boyle, Enrique Corona, Bian Li, Farhana Afrin, Brian Nutter, Mary Baker, Ranadip Pal, Bijoy Ghosh, and Tanja Karp, "Generating Structure-Function Correlation by ICA-based Mapping of Activation Patterns on co-registered fMRI and FA-DTI", Invited Paper, Proceedings of 42nd Annual Asilomar Conference on Signals, Systems, and Computers, pp.1393-1396 (2008).

10. Brian Nutter and Sunanda Mitra, "Secure Medical Image Retrieval over the Internet," Invited Paper, Proceedings of IEEE Conference on Multimedia and Expo, pp. 691–694 (2007).

9. Yeshwanth Srinivasan and Brian Nutter, "Computers in Medical Records," John Webster, Ed., Book Chapter in Encyclopedia of Medical Devices and Instrumentation, Vol. 4, John Wiley & Sons, pp. 351 - 360 (2006).

8. Jiangling Guo, Sunanda Mitra, Tanja Karp, and Brian Nutter, "A Resolution- and Rate- Scalable Image Subband Coding Scheme with Backward Coding of Wavelet Trees," Invited Paper, Proceedings of IEEE Asia Pacific Conference on Circuits and Systems, pp. 443-446 (2006).

7. Linning Ye, Jiangling Guo, Tanja Karp, Sunanda Mitra, and Brian Nutter, "Three-Dimensional Subband Coding of Video with 3-D BCWT," Invited Paper, Proceedings of 40th Annual Asilomar Conference on Signals, Systems, and Computers, pp. 401-405 (2006).

6. Yeshwanth Srinivasan, Brian Nutter, Sunanda Mitra, Benny Phillips, and Eric Sinzinger, "Classification of Cervix Lesions Using Filter Bank Based Texture Models," Invited Paper, Proceedings of IEEE Conference on Computer-Based Medical Systems, pp. 832-837 (2006).

5. Billy Kao and Brian Nutter, "Application of Maximum Entropy-Based Image Resizing to Biomedical Imaging," Invited Paper, Proceedings of IEEE Conference on Computer-Based Medical Systems, pp. 813-819 (2006).

4. Daron Ferris, Sunanda Mitra, Mark Schiffman, Jose Jeronimo, Shuyu Yang, Brian Nutter, and Rodney Long, "Analysis of Digitized Cervigram™ Images for Early Detection of Cervical Cancer," Invited Keynote Paper at the Image Processing Symposium of the SPIE Medical Imaging Symposia (2004).

3. Jiangling Guo, Shuyu Yang, Philip King, Sunanda Mitra, and Brian Nutter, "Automated Feature Retrieval for Cervical Cancer Pathology by Optimal Color Transformation and Joint Entropy Measure," Invited Paper, Proceedings of SCI, Vol. XII, pp. 149-154 (2004).

2. Yeshwanth Srinivasan, Brian Nutter, Shuyu Yang, and Sunanda Mitra, "The Effect of Modified BPCS Steganography on Content Based Image Retrieval by Metric Histogram," Invited Paper, Proceedings of SCI, Vol. XII, pp. 161-166 (2004).

1. Sunanda Mitra, Shuyu Yang, Roopesh Kumar, and Brian Nutter, "An Optimized Hybrid Vector Quantization for Efficient Source Encoding," Invited Paper, Proceedings of IEEE Midwest Symposium on Circuits and Systems, Vol. 2, No.180, pp. 478-482 (2002).

EDITED BOOKS:

3. Brian Nutter, D. J. Lee, and Mykola Pechenizkiy, Eds, Proceedings of 22nd IEEE Symposium on Computer-Based Medical Systems, 2009.

2. D. J. Lee, Brian Nutter, James Archibald, Sameer Antani, and Sunanda Mitra, Eds., Proceedings of 19th IEEE Symposium on Computer-Based Medical Systems, 2006.

1. Rodney Long, Sameer Antani, D. J. Lee, Brian Nutter, and Mark Zhang, Eds., Proceedings of 17th IEEE Symposium on Computer-Based Medical Systems, 2004.

PEDAGOGICAL PUBLICATIONS:

6. Mary Baker and Brian Nutter, "Work in progress - Establishing and Maintaining Successful Community College Partnerships," Proceedings of IEEE Frontiers in Education, pp. W1A-1 - W1A-2 (2009).

5. Brian Nutter, Mary Baker, and Richard Gale, "Building and Maintaining Successful Community College Relationships: Lessons Learned at Texas Tech University," Proceedings of TETC Best Practices, pp. 29 – 31 (2009).

4. Mary Baker and Brian Nutter, "Development of a Freshman and Pre-freshman Research and Design Program in Electrical Engineering," Proceedings of American Society for Engineering Education (2008).

3. Mary Baker, Tanja Karp, Brian Nutter, and Mohammad Saed, "The Development of a Project-Oriented Freshman Course in Electrical and Computer Engineering," Proceedings of the American Society for Engineering Education – Gulf Southwest Section (2007).

2. Brian Nutter and Tanja Karp, "Developing a Course on Digital Signal Processing Applications," Proceedings of the American Society for Engineering Education – Gulf Southwest Section, #75, pp. 1-8 (2006).

1. Brian Nutter, Tanja Karp, and Sunanda Mitra, "Use of the Texas Instruments DSP Starter Kit (DSK) in Electrical Engineering Education," Proceedings of the American Society for Engineering Education – Gulf Southwest Section, #51, pp. 1-7 (2004).

TECHNICAL POSTERS:

17. Derek Faust, Lin Cong, Daan Liang, Brian Nutter, Stephen B. Cox, and Philip N. Smith, "Applications of Using Hyperspectral Data for Oil Spill Monitoring and Assessment", Proceedings of SETAC North America, November 2011.

16. Daan Liang, Brian Nutter, Stephen B. Cox, and Philip N. Smith, "Evaluation of the utility of hyperspectral data for oil spill monitoring and assessment", Proceedings of Gulf Oil Spill SETAC, April 2011.

15. Elliot Briggs, Brian Nutter, and Tanja Karp, "Channel Modeling and Estimation in OFDM Systems", TTU Graduate Student Research Poster Competition, March 2011.

14. Bian Li, Kalyana Vasanta, Michael O'Boyle, Mary Baker, Brian Nutter, and Sunanda Mitra, "fMRI Activation Patterns in an Analytic Reasoning Task: Consistency with EEG Source Localization," TTU Graduate Student Research Poster Competition, March 2010.

13. Jiangling Guo, Bryan Hughes, Brian Nutter, and Sunanda Mitra, "Ultra High Resolution Image Coding And ROI Viewing Using Line-Based Backward Coding Of Wavelet Trees (L-BCWT)," Picture Coding Symposium, May 2009.

12. Ashish Ahuja, Brian Nutter, Richard Gale, Matt Beach, Greg Romas, Terry Jesper, "An Enhanced and Efficient approach to perform Temperature Characterization for Packaged Integrated Circuits using On-chip Electrostatic Discharge Protection Diodes," TTU Graduate Student Research Poster Competition, April 2009.

11. Brandon Moretz and Brian Nutter, "Flow Volume and Flow Measurement System," Red Raider Mini-Symposium on Mathematical Modeling of Novel Materials and Devices, Lubbock, TX, Nov 2006.

10. Jonathan Fong, John Shefchik, and Brian Nutter, "Digital Guitar Effects," S907, TI Developer Conference, Dallas, TX, Feb. 2006.

9. Billy Kao and Brian Nutter, "Image Resizing with Maximum Entropy Algorithm," Red Raider Mini-Symposium on Geometry, Statistics and Image Analysis, Lubbock, TX, Nov. 2005.

8. Fei Gao, Dana Hernes, Yeshwanth Srinivasan, Shuyu Yang, Sunanda Mitra, Brian Nutter, and Benny Phillips, "Noninvasive Segmentation of Biomarkers in Cervical Cancer from Cervix Images," BioMedical Engineering Society #195 (2005), Baltimore MD, Sept. 2005.

7. Jiangling Guo, Shuyu Yang, Y. Sriraja, Philip King, Kayla Kepley, Prateek Srivastava, Sunanda Mitra, Brian Nutter, Rodney Long, "Optimization in Source Encoding for Color Images," NSF Awardees Conference, Baltimore, MD, Oct. 2003.

6. Roopesh Kumar, Sunanda Mitra, Tanja Karp and Brian Nutter, "Adaptive Wavelet Filter Design for Optimized Image Source Encoding," AFRL Information Institute Workshop, Rome NY, June 2003.

5. Chris Caceres and Brian Nutter, "Telecom Interface Card," TxTEC Conference, Arlington, TX, Jan. 2003.

4. Ryan Casey, Tanja Karp, and Brian Nutter, "Fixed Point Realization of Biorthogonal Cosine Modulated Filter Banks," TxTEC Conference, Arlington, TX, Jan. 2003.

3. Shuyu Yang, Philip King, Mark Wilson, Sunanda Mitra, Brian Nutter, and Peter Soliz, "Advanced Statistical and Connectivity Analysis for Automated and Precise Evaluation of Retinopathies," NMBBA Conference, Albuquerque, NM, Jan. 2003.

2. Sunanda Mitra, Brian Nutter, Kalim Taquee, Tom Krile, and Ray Brown, "Computer Simulated Characterization of Glaucomatous Fundus," Suppl. Invest. Opthal. Vis. Sc., Vol. 29, p. 354 (1988). ARVO, Sarasota, FL, June 1988.

1. Sunanda Mitra, Steve Whiteside, Brian Nutter, Tom Krile, and Ray Brown, "Fundus Image Analysis in Glaucoma in a PC-Based System," Suppl. Invest. Opthal. Vis. Sc., Vol. 28, p. 187 (1987). ARVO, Sarasota, FL, June 1987.

TECHNICAL PRESENTATIONS:

9. Roopesh Kumar and Brian Nutter, "A Least Squares Framework for Robust Image Registration," AMS Conference, Lubbock, TX, Apr. 2005.

8. L. Sampath, Arn Womble, Brian Nutter and Kishor Mehta, "Analysis and Statistical Characterization of Windstorm Damage using Aerial Images," AMS Conference, Lubbock, TX, Apr. 2005.

7. Brian Nutter, Shuyu Yang, Sunanda Mitra, and Tanja Karp, "High Resolution Image Restoration with Self-Extracted Filtering," Invited Presentation, sprp329.pdf, TI Developer Conference, Houston, TX, Feb. 2005.

6. Yeshwanth Srinivasan and Brian Nutter, “Securing Medical Records Using Steganography,” Texas Systems Day, Houston, TX, Nov 2004.

5. Brian Nutter, “Satellites for Communications,” IEEE Panhandle Section Continuing Education, Amarillo, TX, Oct. 2004.

4. Roopesh Kumar, Aydin Kaan, Brian Nutter, Tanja Karp, and Sunanda Mitra, “Wavelet Domain Video Analysis,” Texas Systems Day, University Park, TX, Nov 2003.

3. Brian Nutter, "Processing of Simultaneous Interactive Scripts on a Distributed Peer-To-Peer Telephony Network," Texas Systems Day, Lubbock, TX, Oct. 2001.

2. Brian Nutter, Microprocessor-Based Image Registration, IEEE Student Paper Contest, Ruston, LA, Feb. 1987.

1. Brian Nutter, Microprocessor-Based Image Registration, IEEE Student Paper Contest, Lubbock, TX, Jan. 1987.

PUBLISHED PHOTOGRAPHS:

1. Brian Nutter, "*Lost and Found*", Stateline Observer, Morenci, MI, Aug 21, 2010, p. 16.

PUBLISHED FICTION:

3. Brian Nutter, “*To Die Like a Roman*”, Nightscapes No. 13 (May 2000). http://www.epberglund.com/RGttCM/nightscapes/NS13/ns13.htm

2. Brian Nutter, “*The Corporal's Curse*”, Cthulhu Cultus No. 15 (1999).

1. Brian Nutter, “*The Corporal's Curse*”, Nightscapes No. 9 (September 1998). http://www.epberglund.com/RGttCM/nightscapes/NS09/ns9fic1.htm

GRADUATE ADVISING COMPLETED AS CHAIR OR CO-CHAIR:

1. Yeshwanth Srinivisan, PhD EE, May 2007
2. Linning Ye, PhD EE, May 2007 (co-chair)
3. Jason Wilde, PhD EE, August 2009
4. Bryan Hughes, PhD EE, May 2010
5. Zhanpeng Feng, PhD EE, May 2012
6. Enrique Corona, PhD EE, Aug 2012
7. Elliot Briggs, PhD EE, December 2012

1. Sandhya Borra, MSEE, December 2003
2. Yeshwanth Srinivisan, MSEE, December 2003
3. Kedar Bhate, MSEE, May 2004
4. Bhanu Korremula, MSEE, May 2004
5. Prashanth Nellore, MSEE, May 2004
6. Parag Pandit, MSCS, May 2004 (co-chair)
7. Amit Mane, MSEE, August 2004
8. Hari Nayer, MSEE, August 2004
9. Zhanpeng Feng, MSEE, December 2004
10. L V Sampath, MSEE, December 2004
11. Chris Caceres, MSEE, May 2005
12. Shruthi Venugopal, MSEE, December 2005
13. Billy Kao, MSEE, December 2005
14. Chad Larsh, MSEE, May 2006
15. John Lusk, MSEE, August 2007 (co-chair)
16. Kankan Wang, MSEE, August 2007
17. John Carroll, MSEE, August 2007
18. Catalina Herrera, MSEE, December 2007
19. Brad Lambert, MSEE, December 2008
20. Chunyan He, MSEE, August 2008 (co-chair)
21. Farhana Afrin, MSEE, August 2008 (co-chair)
22. Brandon Moretz, MSEE, August 2008
23. Chase Henslee, MSEE, August 2008
24. Daniel King, MSEE, December 2008 (co-chair)
25. Geeta Sharma, MSEE, December 2008 (co-chair)
26. Rohini Kesavan, MSEE, December 2008 (co-chair)
27. Mitalee Bhaid, MSEE, December 2008 (co-chair)
28. Jonathan Reich, MSEE, December 2008
29. Kanika Verma, MSEE, December 2008 (co-chair)
30. Ashish Ahuja, MSEE, May 2009
31. Lloyd Plum, MSEE, May 2009
32. David Tiprigan, MSEE, August 2009 (co-chair)
33. Bryant Heath, MSEE, August 2009 (co-chair)
34. Cameron Cook, MSEE, December 2009 (co-chair)
35. Elliot Briggs, MSEE, December 2009
36. Brian Heasley, MSEE, December 2010
37. Cong Lin, MSEE, December 2010
38. Akshay Chavan, MSEE, December 2010
39. Matt Wilhelm, MSEE, May 2011
40. Xian Li, MSEE, May 2011
41. Pavan Pakala, MSEE, August 2011
42. Aric Wax, MSEE, December 2011
43. Kushal Kapse, MS BioE, Aug 2012 (co-chair)
44. Arun Shamanna Lakshmi, MSEE, May 2012 (co-chair)
45. Milind Tile, MSEE, August 2012
46. Kushal Kapse, MS BioEngineering, August 2012 (co-chair)

GRADUATE ADVISING IN PROGRESS AS CHAIR:

1. Jingqi Ao, PhD EE (co-chair)
2. Mark Haustein, PhD EE, Aug 2013
3. Bian Li, PhD EE
4. Cong Lin, PhD Wind Engineering
5. Bharath Lohray, PhD EE

GRADUATE COMMITTEES COMPLETED:

1. Chun-Hsien Su, PhD EE, May 2004
2. Sriraja Yegnasawaran, PhD EE, December 2005
3. Arn Womble, PhD CivE, December 2005
4. Jiangling Guo, PhD EE, December 2005
5. Andrew Patterson, PhD EE, May 2006
6. Ryan Casey, PhD EE, May 2006
7. Xiaolai He, PhD EE, May 2006
8. Raymond Holsapple, PhD Math, August 2006
9. Chintan Trehan, PhD EE, May 2007
10. Aftab Farooqi, PhD EE, August 2008
11. Kwaku Akrofi, PhD EE, December 2008
12. Dallas Webster, PhD EE, December 2010
13. Sonal Bhattacharya, PhD EE, December 2011 (Graduate School rep)
14. John Walter, PhD EE, August 2012 (Graduate School rep)
15. Travis Vollmer, PhD EE, August 2012

1. Roopesh Kumar, MSEE, December 2002
2. Linning Ye, MSEE, December 2003
3. Jie Zhao, MSEE, May 2004
4. Sunil Pai, MSCS, May 2004
5. Philip King, MSEE, December 2004
6. Bhakthi Tulpule, MSEE, December 2004
7. Prateek Shrivastava, MSEE, December 2004
8. Yin Jie, MSEE, May 2005
9. Scott McClure, MSEE, August 2005
10. Jason Wilde, MSEE, December 2005
11. Bharat Koti, MSEE, December 2005
12. Fei Gao, MSEE, December 2005
13. Chad Turner, MSEE, December 2005
14. Archie Sharma, MSEE, May 2006
15. Jeff Moravec, MSEE, May 2006
16. Cole Noppenberg, MSEE, May 2006
17. Glen Seiler, MSEE, August 2006
18. Deepali Chugh, MSEE, December 2006
19. JD Chapparro, MSEE, December 2006
20. Lacey Peterson, MSEE, December 2006
21. Arthur Nesty, MSEE, December 2006
22. Matt Roberts, MSEE, May 2007
23. Robert Golden, MSEE, May 2007
24. Chitali Oak, MSEE, May 2007
25. Poorvaja Kamalapuri. MSEE, May 2007
26. Jeanette Linn, MSEE, August 2007
27. Lavanya Periasamy, MSEE, December 2007
28. Malathi Dokku, MSEE, December 2007
29. Vivek Shankarasubrahmanyam, MSEE, Dec 2007
30. Su Zhang, MSEE, December 2007
31. Mark Sapp, MSEE, December 2007

32. Miguel Hinojosa, MSEE, December 2007
33. Daniel Benjamin, MSEE, May 2008
34. Roland Son, MSEE, August 2008
35. Martin Djaernes, MSEE, August 2008
36. Julien Bataillard, MSEE, August 2008
37. Daniel Gomez, MSEE, December 2008
38. Xiaojing Ren, MSEE, December 2009
39. Darren Rollman, MSEE, December 2009
40. Jingqi Ao, MSEE, August 2010
41. Sandeep Mallela, MSEE, December 2010
42. Scott Block, MSEE, December 2010
43. Spandana Kongara, MSEE, December 2010
44. Catherine Chesnutt, MSEE, May 2012
45. Nima Jaafari, MSEE, August 2012
46. Matt Riley, MSEE, December 2012

GRADUATE COMMITTEES IN PROGRESS:

UNDERGRADUATE ADVISING:

1. Lab I. Digital Oscilloscope, Fall 2002
2. Lab I. Robot Car, Fall 2002
3. Lab IV. Wind Sensor, Jon Brinkley, Fall 2002
4. Lab IV. Telephone Line Card, Chris Caceres, Fall 2002
5. Lab V. HomePNA Concentrator, Jon Pierce, Fall 2002
6. Lab IV. Wind Sensor, Justin Smiley & Chris Caswell, Spring 2003
7. Lab V. Telephone Line Card, Chris Caceres, Spring 2003
8. Lab V. Christmas Tree Display, Phillip Crowell, Spring 2003
9. Lab IV. Chaos Demonstration, David Faulk, Fall 2003
10. Lab IV. Restaurant ID, Tom Nichols and Michael Hasting, Fall 2003
11. Lab V. Chaos Demonstration, David Faulk, Spring 2004
12. Lab IV. Restaurant ID, Bosah Chakuaga, Spring 2004
13. Lab V. GPS Mapping, Bosah Chakuaga, Spring 2004
14. Lab V. Klotron Mobile Resource, Brian Crowell, Fall 2004
15. Lab IV, USB Controller, James Crawford and Chris Biehl, Fall 2004
16. Lab IV, Guitar Amp, Mark Smotherman and James Gregory, Fall 2004
17. Lab IV, Effects Amplifier, Bryan Hill and Jonathon Fong, Fall 2004
18. Lab I, Band Pass Amplifier, Fall 2004
19. Lab I, GPS Car, Fall 2004
20. Lab V, Effects Amp, Jonathon Fong and John Shefchik, Spring 2005
21. Lab IV, Firewire Optical Bridge, John Carroll and Roberto Mascorro, Spring 2005
22. Lab V, Maximum Entropy GIS Images, Chad Larsh, Spring 2005
23. Lab V, Keyfinder, Josh McNabb, Spring 2005
24. Lab V, USB Controller, Chris Beihl, Spring 2005
25. Lab III, Microcontroller Communication Link, Spring 2005
26. Lab III, Remote System Integration, Spring 2005
27. Lab V, Keyfinder, Robert Golden, Summer 2005
28. Lab V, 1394 Multiplexer, John Carroll, Summer 2005
29. Lab I, Wein Bridge Oscillator, Fall 2005
30. Lab I, GPS Car, Fall 2005
31. Lab III, Transceiver, Fall 2005
32. Lab V, Network Tester, Bryan Hughes, Fall 2005
33. REU, Distributed Peer to Peer with .NET, Daniel King, Summer 2005
34. REU, FITS File Compression, Bryan Heasley, Summer 2005
35. Lab IV, USB Controller, Scott Legler, Spring 2006
36. Lab IV, Digital Effects Amplifier, Sean Huck, Spring 2006
37. Lab V, UAV Simulator, Daniel King and Jason Slay, Summer 2006
38. REU, Xilinx Board, Caleb Peterson, Summer 2006
39. REU, National Instruments Board, Eric Beutlich, Summer 2006
40. REU, Slit Lamp Repair, Stephen Vickers, Summer 2006
41. Lab IV, Cervical Image Analysis, Kara Weber, Fall 2006
42. Lab V, Syringe Measurement, Brandon Moretz, Fall 2006
43. Lab IV, UAV Image Analysis, Bryant Heath, Fall 2006
44. Lab V, UAV Image Analysis, Bryant Heath, Spring 2007
45. Lab IV, Digital Effects Amplifier, Micheal Bird, Spring 2007
46. Lab IV, PLUS Forms, Chris Cunningham and Andrew Cruz, Spring 2007
47. REU, Hyperspectral Satellite Imaging, Jacob Smalts, Summer 2007
48. REU, Distributed Peer to Peer with .NET, Jared Casey, Summer 2007
49. Lab IV, Network Tester, Cory Bartels, Summer 2007
50. Lab IV, iButton, Chase Henslee, Summer 2007
51. Lab IV, VLCT Tester board, Jonathan Reich, Summer 2007
52. TWD, Bicycle Modifications, Aaron Adcock, Alex Rivera, Matt Kornely, Kelly Blanton, Summer 2007
53. Lab V, PLUS Forms, Wes Ruff, Fall 2007
54. Lab V, GPS tracking, Caleb Peterson, Fall 2007
55. Lab IV, Image Segmentation, Eric Beutlich, Fall 2007
56. Lab V, Aquifer Measurement, Chris Cunningham, Fall 2007

57. Lab IV, GPS Surveying, Stephen Hilbert, Mark Krause, Spring 2008
58. Lab V, Power Prioritizer, Russell Miller, Spring 2008
59. TWD, Bicycle Modifications, Summer 2008
60. TWD, Siren Detection, Summer 2008
61. TWD, RFID Safe Zone, Summer 2008
62. Lab IV, GPS Surveying, Daniel Suttle, Summer 2008
63. Lab IV, Motor Vibration Sensor, Joe Carter, Summer 2008
64. Lab IV, 3-Phase Load, Sam Chanjaplammootil, Summer 2008
65. Lab IV, 3-Phase Regulator, Dustin Graham, Summer 2008
66. Lab V, USB DLL, Greg Nichols, Summer 2008
67. Lab II, V12 Evaluation, Summer 2008
68. Lab III, RF Transceiver, Summer 2008
69. Lab IV, Speech and Hearing Assistance, Karim Dibba, Fall 2008
70. Lab IV, Assisted-learning Guitar, Travis Horn and Lee Porter, Fall 2008
71. Lab IV, FPGA Signal Generator, Kyle Romero, Fall 2008
72. Lab IV, Angiogram Sequences, Colby Sites, Fall 2008
73. Lab IV, Electrophoresis Images, Matt Wilhelm, Fall 2008
74. Lab V, Motor Vibration Sensor, Daniel Suttle, Fall 2008
75. Lab V, Speech and Hearing Assistance, Daniel Jackson, Fall 2008
76. Lab V, Assisted-learning Guitar, Travis Horn, Spring 2009
77. Lab V, Angiogram Sequences, Colby Sites, Spring 2009
78. Lab V, Electrophoresis Images, Matt Wilhelm, Spring 2009
79. Lab IV, Speech and Hearing Assistance, Michael Jaco, Spring 2009
80. Lab V, Speech and Hearing Assistance, Ronjan Mathur, Michael Jaco, Summer 2009
81. Lab V, PDA Software Interface, Eric Beutlich, Fall 2009
82. Lab IV, UV Lamp Controller, Brian Steiner, Spring 2010
83. Lab V, NES Simulator, Tim Logan and Valentin Baca, Spring 2010
84. Lab V, UV Lamp Controller, Brian Steiner, Fall 2010
85. Lab V, Superresolution Imaging, Valentin Baca, Fall 2010
86. Lab IV, Biometric reader, Daniel Chamness, Fall 2010
87. Lab IV, Lighted Skateboard, Amir Gadid Fall 2010
88. Lab IV, Eric Levy and Jarrett Kral, Self-tuning Guitar, Fall 2010
89. Lab IV, Lighted Skateboard, Jeff Navarre, Spring 2011
90. Lab IV, Laser Tag, Andrew Stone, Spring 2011
91. Lab IV, Water scavenger, Ryan McClelland, Summer 2011
92. Lab V, Solar Irrigation, Thomas Raveney, Summer 2011
93. Lab IV, Gameboy Emulator, Casey Smith and Lucas Longan, Summer 2011
94. Lab IV, Xbox Translator, Richard Solarski, Alan Aragon, Fall 2011
95. Lab IV, Wireless Chessboard, Eren Cuneydi, Fall 2011
96. Lab V, Nintendo De-emulator, Daniel Chamness, Fall 2011
97. Lab IV, Card to Speech Reader, David Hawronski, Fall 2011
98. Lab V, Card to Speech Reader, David Hawronski, Spring 2012
99. Lab IV, Wireless Chessboard, Eren Cuneydi, Spring 2012
100. Lab IV, Audio Effects Helmet, Chris Funk and Ryan Speer, Spring 2012
101. Lab IV, DA-AD-IO, Brian Scott and Anthony Astwood, Spring 2012

EXTERNALLY FUNDED PROJECTS:

Total award amount credited by ORS to PI: $1,239,522

An Innovative Approach to Cybersecurity Education Professional Enhancement in a Virtual SmartGrid
Sponsor: National Science Foundation
Date: 9/1/12 – 9/30/14 Amount: $299,966 ($29,997)
Investigator: Joe Urban (PI). Susan Urban (Co-PI), Vittal Rao (Co-PI), Jordan Berg (Co-PI), Brian Nutter (Co-PI), et al.

FPGA Implementation of BCWT
Sponsor: Chirp
Date: 6/1/11 – 5/31/12 Amount: $74,709 ($67,238)
Investigator: Brian Nutter (PI), Sunanda Mitra (Co-PI)

High-fidelity medical image compression software library for Windows and Mac OS X
Sponsor: National Library of Medicine at National Institutes of Health
Date: 9/1/2011 – 8/31/2012 Amount: $40,000 ($20,000)
Investigators: Brian Nutter (PI), Sunanda Mitra (Co-PI)

Channel Modeling
Sponsor: Innovative Integration
Date: 9/1/11 – 8/31/12 Amount: $77,352 ($77,352)
Investigator: Brian Nutter (PI)

IED Access Portable 3-D Imaging
Sponsor: Office of Naval Research/SWRI
Date: 5/17/2011 – 9/16/2011 Amount: $55,000 ($27,500)
Investigators: Sunanda Mitra (PI), Brian Nutter (Co-PI)

Scholarships in Semiconductor Device Engineering
Sponsor: National Science Foundation
Date: 6/15/2011 – 5/31/2015 Amount: $599,971 ($59,997)
Investigators: Tim Dallas (PI), Brian Nutter (Co-PI), Richard Gale (Co-PI), Tanja Karp (Co-PI), Donald Lie (Co-PI), Stephen Bayne (Co-PI), Changzi Li (Co-PI), Ron Cox (Co-PI)

LTE Modeling and Implementation
Sponsor: Innovative Integration
Date 9/1/10 – 8/31/11 Amount: $73,125 ($73,125)
Investigator: Brian Nutter (PI)

MRI RAPID: Acquisition of a Field Spectroscopy Environmental Analysis System for Gulf Oil Spill Research
Sponsor: National Science Foundation
Date: 9/15/2010 – 2/28/2012 Amount: $102,909 ($20,582)
Investigators: Daan Liang (PI), Brian Nutter (Co-PI), Kishor Mehta (Co-PI), Steven Cox (Co-PI), Phil Smith (Co-PI)

Low Voltage I/O Modeling
Sponsor: Innovative Integration
Date 1/1/10 – 11/30/10 Amount: $6,446 ($6,446)
Investigator: Brian Nutter (PI)

Retrieval Annotation and Storage of BCWT-Coded Images
Sponsor: National Library of Medicine at National Institutes of Health
Date: 9/1/2010 – 8/31/2011 Amount: $50,000 ($25,000)
Investigators: Brian Nutter (PI), Sunanda Mitra (Co-PI)

Efficient Burst OFDM
Sponsor: Innovative Integration
Date 1/1/10 – 8/31/10 Amount: $27,719 ($27,719)
Investigator: Brian Nutter (PI)

Women's Summer Mathematics Academy
Sponsor: Texas Workforce Commission
Date 1/1/09 – 8/31/09 Amount: $42,106 ($13,895)
Investigators: Tanja Karp (PI), Brian Nutter (Co-PI), Mary Baker (Co-PI)

Building Engineers in West Texas
Sponsor: Texas Workforce Commission
Date 1/1/09 – 8/31/10 Amount: $241,450 ($82,093)
Investigators: Brian Nutter (PI), Mary Baker (Co-PI), Ranadip Pal (Co-PI)

Web Browser Viewing and Annotation of High-resolution Medical Images and HPV Linear Array Image Signal Extraction
Sponsor: National Library of Medicine at National Institutes of Health
Date: 9/1/2009 – 8/31/2010 Amount: $63,000 ($31,500)
Investigators: Brian Nutter (PI), Sunanda Mitra (Co-PI)

Integrated Advanced Compression and Noise Floor Estimation for Biomedical Images
Sponsor: National Library of Medicine at National Institutes of Health
Date: 9/1/2008 – 8/31/2009 Amount: $62,500 ($31,250)
Investigators: Brian Nutter (PI), Sunanda Mitra (Co-PI)

Pedicle Screw Geometry Modeling
Sponsor: Leucadia 6, LLC
Date: 9/1/2008 – 5/31/2009 Amount: $22,180
Investigators: Brian Nutter (PI)

Cable Tray Interference Measurements
Sponsor: Enduro
Date: 9/1/2008 – 5/31/2009 Amount: $11,950
Investigators: Brian Nutter (PI)

Hyperspectral Imagery: A New Frontier for Windstorm Damage Assessment
Sponsor: National Science Foundation
Date: 9/1/2008 – 8/31/2011 Amount: $150,415 ($60,166)
Investigators: Daan Liang (PI), Brian Nutter (Co-PI), Kishor Mehta (Co-PI)

RET SUPPLEMENT: Hyperspectral Imagery: A New Frontier for Windstorm Damage Assessment
Sponsor: National Science Foundation
Date: 9/1/2008 – 2/28/2013 Amount: $10,000 ($8,000)
Investigators: Daan Liang (PI), Brian Nutter (Co-PI), Mary Baker (Co-PI)

Outreach to Community College and Economically Disadvantaged High School Students
Sponsor: Texas Workforce Commission
Date 1/1/08 – 8/31/09 Amount: $240,311 ($108,140)
Investigators: Brian Nutter (PI), Mary Baker (Co-PI), Richard Gale (Co-PI)

Automated Content-based Image Retrieval and Display for High Resolution Medical Images
Sponsor: National Library of Medicine at National Institutes of Health
Date: 9/1/2007 – 8/31/2008 Amount: $99,900 ($49,950)
Investigators: Sunanda Mitra (PI), Brian Nutter (Co-PI)

Curricular Development, Multidisciplinary Internship, and Undergraduate Peer-Mentors for West Texas Students

Sponsor: Texas Higher Education Coordinating Board – TWD06
Date 8/1/06 – 8/31/08 Amount: $284,957 + $19,200 ($96,885 + $6528)
Investigators: Brian Nutter (PI), Mary Baker (Co-PI), Mohammad Saed (Co-PI)

Extended Functionality for TTC Codec, Standardized Client/Server and Uterine Cervix CBIR

Sponsor: National Library of Medicine at National Institutes of Health
Date: 9/1/2006 – 8/31/2007 Amount: $99,900 ($39,960)
Investigators: Sunanda Mitra (PI), Brian Nutter (Co-PI), Jiangling Guo (Co-PI), Shuyu Yang (Co-PI)

Multicarrier CDMA

Sponsor: General Dynamics
Date: 3/17/2006 – 4/30/2007 Amount: $32,738 ($16,369)
Investigators: Tanja Karp (PI), Brian Nutter (Co-PI)

Super Resolution Flourescein Angiography Retinal Imager

Sponsor: Kestrel Corp
Date: 1/2/2006 – 9/1/2006 Amount: $2,000 ($1,000)
Investigators: Sunanda Mitra (PI), Brian Nutter (Co-PI)

2D Biomedical Hyperspectral Imager

Sponsor: Kestrel Corp
Date: 1/2/2006 – 9/1/2006 Amount: $2,000 ($1,000)
Investigators: Sunanda Mitra (PI), Brian Nutter (Co-PI)

Depth from Stereo Disparity, Phase II SBIR

Sponsor: National Institutes of Health, Subaward through Kestrel Corp
Date: 5/1/2005 – 8/31/2006 Amount: $71,284 ($42,036)
Investigators: Sunanda Mitra (PI), Brian Nutter (Co-PI), Shuyu Yang (Co-PI)

A Novel Backward Coding of Wavelet Transform for Scalable and Fast Compression for Multiple Image Classes and Non-invasive, Semi-automated Identification of Cervical Neoplasia/Dysplasia from Compressed Cervicographic Images

Sponsor: National Library of Medicine at National Institutes of Health
Date: 9/1/2005 – 8/31/2006 Amount: $89,000 ($26,700)
Investigators: Sunanda Mitra (PI), Brian Nutter (Co-PI), Tanja Karp (Co-PI), Shuyu Yang (Co-PI)

Hybrid Vector Scalar Quantization (HVSQ) Compression for Multiple Image Classes

Sponsor: National Library of Medicine at National Institutes of Health
Date: 9/1/2004 – 8/31/2005 Amount: $99,900 ($34,965)
Investigators: Sunanda Mitra (PI), Brian Nutter (Co-PI), Tanja Karp (Co-PI), Shuyu Yang (Co-PI)

A Wavelet-Based Multi-Chromatic Digital Archive for Early Detection of Cervical Cancer

Sponsor: Texas Higher Education Coordinating Board – ATP03
Date: 1/1/2004 – 12/31/2006 Amount: $160,000 ($80,000)
Investigators: Sunanda Mitra (PI), Brian Nutter (Co-PI)

A Wavelet-Based Multi-Spectral Codec for Digitized Cervigram Images

Sponsor: National Library of Medicine at National Institutes of Health
Date: 9/1/2003 – 8/31/2004 Amount: $80,000 ($40,000)
Investigators: Sunanda Mitra (PI), Brian Nutter (Co-PI)

INTERNALLY FUNDED PROJECTS:

Total internal award amount: $536,328

Modeling of the Human Brain through Synergistic Neuroimaging
Sponsor: TTU VPR Grant
Date: 9/1/2008 - 8/31/2010 Amount: $480,928
Investigators: Brian Nutter (PI), Michael O'Boyle (Co-PI), Sunanda Mitra (Co-PI), Mary Baker (Co-PI), Ranadip Pal (Co-PI)

Hyper-spectral Image Analysis
Sponsor: TTU COE College of Engineering Equipment Grant
Date: 7/10/2007 Amount: $4,000
Investigators: Daan Liang (PI), Kishor Mehta (Co-PI), Brian Nutter (Co-PI)

Hybrid Vector Scalar Quantization (HVSQ) Compression for Multiple Image Classes
Sponsor: TTU matching
Date: 9/1/2004 – 8/31/2005 Amount: $20,000
Investigators: Sunanda Mitra (PI), Brian Nutter (Co-PI), Tanja Karp (Co-PI), Shuyu Yang (Co-PI)

Image Resizing for Cartographic Display
Sponsor: TTU Office of Research Services Interdisciplinary Research Incentive
Date: 1/1/2005 – 8/31/2005 Amount: $10,900
Investigators: Brian Nutter (PI), Tanja Karp (Co-PI), Kevin Mulligan (Co-PI), Lucia Barbato (Co-PI)

Applied Digital Signal Processors Graduate Course Development
Sponsor: Texas Instruments through AESE
Date: 9/1/2004 – 8/31/2005 Amount: $10,000
Investigators: Tanja Karp (PI), Brian Nutter (Co-PI)

Research Incentive Award
Sponsor: TTU College of Engineering
Date: 2005 Amount: $500
Investigator: Brian Nutter (PI)

Compression of Cartographic Maps
Sponsor: TTU Department of Electrical and Computer Engineering
Date: 2/1/2005 – 8/31/2005 Amount: $5,000
Investigators: Brian Nutter (PI), Tanja Karp (Co-PI)

Compression of Cartographic Maps
Sponsor: TTU College of Engineering
Date: 2/1/2005 – 8/31/2005 Amount: $5,000
Investigators: Brian Nutter (PI), Tanja Karp (Co-PI)

COURSE DEVELOPMENT:

Embedded Systems - I introduced an embedded systems course that developed hands-on appreciation for data streaming and real-time systems. The course developed a 3-band audio equalizer using TI DSK6713 DSP boards. The assignments in the course steadily built upon previous project assignments as students developed additional features, controlling the CODECs, streaming data, using the DSPBIOS RTOS, reading DIP switches, applying DMA and interrupts, and applying filtering. The project was implemented jointly with students from Dr. Karp's DSP class, where my students built the real-time data handling, and her students developed appropriate filtering methods. This course is being introduced to the regular course rotation for both graduate and undergraduate students.

Remote Sensing of Windstorm Damage – Dr. Daan Liang and I jointly developed a course that explored methods for applying image processing methods to the analysis of windstorm damage. I introduced a variety of methods using color, shape, and texture to develop metrics to assess scenes that contained both damaged and undamaged structures. Dr. Liang explained the mechanisms by which wind causes damage to structures. The class had a mix of Civil Engineering and Electrical Engineering students, which made both instructors work hard to keep the students engaged. This course was developed as part of the broader impact for an NSF proposal.

Digital Signal Processing Applications – Dr. Tanja Karp and I jointly developed a course that explored methods for applying digital signal processing methods. I introduced a variety of hardware-specific tools and techniques that are necessary for effective DSP implementation, including configuration and application of serial ports (MCBSP), direct memory access (EDMA), real-time buffering techniques, and interrupts. Dr. Karp and I have co-authored two educational conference proceedings on this course and the use of a TI DSP starter kit in electrical engineering education, and we have attended a “Professor Workshop” in Albuquerque on the use of Xilinx devices and tools for signal processing. The knowledge base developed through these activities strengthened our course offering. This course was developed in support of the PSPE program.

Modern Communication Circuits – This course was never taught at the graduate level until I began to do so. In this course, I have attempted to bring together elements from Communications, Electronics, and Optics into topics that provide students insight into broader issues in developing products. I have developed homework problems that reflect real applications of the sort that I encountered through my career.

Individual Studies – I have mentored a number of students in individual studies at both the graduate and undergraduate level. They have explored MEMS variable capacitors, jitter measurement, data analysis techniques, bandgap designs, GUI development, embedded systems, optical correlators, image restoration, multimedia, echo cancellation, software modeling, board design, and FPGA applications. Many of these projects have produced excellent results.

TEACHING EVALUATIONS:

Spring 2012 (4.59 – 12 of 31)
Fall 2011 (4.79 – 4 of 29)
Spring 2011 (4.61 - 7 of 28)
Fall 2010 (4.26 - 17 of 27)
Spring 2010 (4.31 - 15 of 29)
Fall 2009 (4.67 – 6 of 29)
Spring 2009 (4.46 – 10 of 28)
Fall 2008 (4.76 – 4 of 26)
Spring 2008 (4.50 – 10 of 24)
Fall 2007 (4.55 – 10 of 26)
Spring 2007 (4.50 – 10 of 24)
Fall 2006 (4.70 – 2 of 25)
Spring 2006 (4.82 – 1 of 23)
Fall 2005 (4.67 – 2 of 21)
Spring 2005 (4.60 – 4 of 22)
Fall 2004 (4.360 – 7 of 21)
Spring 2004 (4.452 – 6 of 22)
Fall 2003 (4.326 – 9 of 21)
Spring 2003 (4.150 – 11 of 20)
Fall 2002 (4.158 – 14 of 23)

TEACHING AND GRADUATE STUDENT ADVISING WORKLOAD:

Fall 2012

EE 4325	Telecom Networks	[]
EE 5325	Telecom Networks	[]
EE 5331	Individual Studies	[]
EE 6000	Master's Thesis	[]
EE 8000	Doctor's Dissertation	[]

Summer 2012

ECE 3311	Electronics 1	[18]
ECE 5331	Individual Studies	[]
ECE 6000	Master's Thesis	[]
ECE 8000	Doctor's Dissertation	[]

Spring 2012

ECE 4375	Microprocessor Architecture	[16]
ECE 5331	Individual Studies	[2]
ECE 5375	Microprocessor Architecture	[22]
ECE 6000	Master's Thesis	[4]
ECE 8000	Doctor's Dissertation	[7]

Fall 2011

ECE 4332	Embedded Systems	[11]
ECE 5331	Individual Studies	[2]
ECE 5332	Embedded Systems	[16]
ECE 6000	Master's Thesis	[4]
ECE 8000	Doctor's Dissertation	[6]

Summer 2011

ECE 5331	Individual Studies	[7]
ECE 5332	Remote Sensing of Windstorm Damage (co-taught with Dr. Daan Liang)	[6]
ECE 6000	Master's Thesis	[2]
ECE 8000	Doctor's Dissertation	[2]

Spring 2011

ECE 4375	Microprocessor Architecture	[4]
ECE 5331	Individual Studies	[3]
ECE 5375	Microprocessor Architecture	[20]
ECE 6000	Master's Thesis	[6]
ECE 7000	Research	[1]
ECE 8000	Doctor's Dissertation	[4]

Fall 2010

ECE 3362	Microcontrollers	[53]
ECE 3362	Microcontrollers	[33]
ECE 3331	Project Lab I	[22]
ECE 3331	Project Lab I	[20]
ECE 4331	Individual Studies	[1]
ECE 5331	Individual Studies	[2]
ECE 6000	Master's Thesis	[8]
ECE 8000	Doctor's Dissertation	[4]

Summer 2010

ECE 5331	Individual Studies	[2]
ECE 6000	Master's Thesis	[4]

ECE 8000	Doctor's Dissertation	[3]

Spring 2010

EE 3311	Electronics I	[33]
EE 4331	Individual Studies	[1]
EE 5331	Individual Studies	[3]
EE 6000	Master's Thesis	[7]
EE 8000	Doctor's Dissertation	[7]

Fall 2009

EE 4325	Telecom Networks	[9]
EE 4375	Microprocessor Architecture	[3]
EE 5325	Telecom Networks	[19]
EE 5375	Microprocessor Architecture	[17]
EE 5331	Individual Studies	[5]
EE 6000	Master's Thesis	[8]
EE 8000	Doctor's Dissertation	[5]

Summer 2009

EE 5331	Individual Studies	[3]
EE 8000	Doctor's Dissertation	[4]

Spring 2009

EE 5331	Individual Studies	[3]
EE 5332	Embedded Systems	[31]
EE 6000	Master's Thesis	[6]
EE 8000	Doctor's Dissertation	[5]

Fall 2008

EE 3331	Project Lab I	[19]
EE 4333	Project Lab IV	[6]
EE 4334	Project Lab V	[2]
EE 4375	Microprocessor Architecture	[7]
EE 5375	Microprocessor Architecture	[23]
EE 5331	Individual Studies	[6]
EE 6000	Master's Thesis	[6]
EE 8000	Doctor's Dissertation	[4]

Summer 2008

EE 6000	Master's Thesis	[7]
EE 5331	Individual Studies	[3]
EE 8000	Doctor's Dissertation	[5]

Spring 2008

EE 5376	Systems Modeling and Simulation	[20]
EE 3332	Project Lab II	[20]
EE 3334	Computer Engineering Project Lab	[2]
EE 6000	Master's Thesis	[7]
EE 8000	Doctor's Dissertation	[3]
EE 5331	Individual Studies	[4]

Fall 2007

EE 3332	Project Lab II	[15]
EE 3334	Computer Engineering Project Lab	[3]
EE 4375	Microprocessor Architecture	[13]
EE 5375	Microprocessor Architecture	[22]
EE 5331	Individual Studies	[5]
EE 6000	Master's Thesis	[9]

EE 8000	Doctor's Dissertation	[4]

Summer 2007

EE 3312	Electronics II	[4]
EE 5331	Individual Studies	[4]
EE 6000	Master's Thesis	[9]
EE 8000	Doctor's Dissertation	[3]

Spring 2007

EE 4323	Modern Communication Circuits	[9]
EE 5323	Modern Communication Circuits	[5]
EE 3333	Project Lab III	[14]
EE 6000	Master's Thesis	[6]
EE 8000	Doctor's Dissertation	[3]

Fall 2006

EE 4375	Microprocessor Architecture	[6]
EE 5375	Microprocessor Architecture	[10]
EE 3332	Project Lab II	[12]
EE 3334	Computer Engineering Project Lab	[5]
EE 4331	Special Projects	[1]
EE 5331	Individual Studies	[1]
EE 6000	Master's Thesis	[6]
EE 8000	Doctor's Dissertation	[6]

Summer 2006

EE 3362	Digital Design – Microcontrollers	[8]
EE 5331	Individual Studies	[1]
EE 6000	Master's Thesis	[1]
EE 8000	Doctor's Dissertation	[4]

Spring 2006

EE 3333	Project Lab III	[24]
EE 5331	Individual Studies	[1]
EE 6000	Master's Thesis	[9]
EE 8000	Doctor's Dissertation	[4]

Fall 2005

EE 3362	Digital Design – Microcontrollers	[22]
EE 5332	DSP Applications (co-taught with Dr. Tanja Karp)	[10]
EE 5331	Individual Studies	[1]
EE 6000	Master's Thesis	[5]
EE 8000	Doctor's Dissertation	[6]

Summer 2005

EE 6000	Master's Thesis	[4]
EE 8000	Doctor's Dissertation	[4]

Spring 2005

EE 3312	Electronics II	[41]
EE 4323	Modern Communication Circuits	[11]
EE 5323	Modern Communication Circuits	[12]
EE 5331	Individual Studies	[2]
EE 6000	Master's Thesis	[3]
EE 8000	Doctor's Dissertation	[5]

Fall 2004

EE 3362H	Digital Design – Microcontrollers	[7]
EE 3362	Digital Design – Microcontrollers	[27]
EE 4325	Telecom Networks	[14]
EE 5325	Telecom Networks	[5]
EE 5331	Individual Studies	[2]
EE 6000	Master's Thesis	[9]
EE 8000	Doctor's Dissertation	[2]

Summer 2004

EE 3333	Project Lab III	[17]
EE 4333	Project Lab IV	[17]
EE 4334	Project Lab V	[11]
EE 5331	Individual Studies	[1]
EE 6000	Master's Thesis	[10]
EE 8000	Doctor's Dissertation	[3]

Spring 2004

EE 3311	Electronics I	[42]
EE 3332	Project Lab II	[19]
EE 6000	Master's Thesis	[11]
EE 8000	Doctor's Dissertation	[2]

Fall 2003

EE 3332	Project Lab II	[29]
EE 3362	Digital Design – Microcontrollers	[30]
EE 6000	Master's Thesis	[13]

Summer 2003

EE 5331	Individual Studies	[4]
EE 6000	Master's Thesis	[9]

Spring 2003

EE 3333	Project Lab III	[22]
EE 3334	Computer Engineering Project Lab	[2]
EE 4323	Modern Communication Circuits	[7]
EE 5331	Modern Communication Circuits	[14]
EE 5331	Individual Studies	[1]
EE 6000	Master's Thesis	[10]

Fall 2002

EE 4325	Telecom Networks	[4]
EE 5325	Telecom Networks	[30]

COURSE COMMENTS:

Spring 2012
ECE 4325 / 5325

This was a valuable learning experience as I knew it would be taking it with. That is why I chose to take this. I just had very little previous knowledge of Verilog and that hurt me. For other undergrads who take this I think a little more time spent on Verilog coding would help tremendously especially with the RISC. Thanks for everything Dr. Nutter

Good course for comp engineers. Helps for embedded systems programmers too.

Great course, would recommend it to anyone interested in computers.

Made me want to learn even more!

Dr. Nutter was one of the best teachers I met.

Good class

I think the RISC Architecture project was necessary, helped in understanding the design of a system.

Fall 2011
ECE 4332 / 5332

Overall the class was an extremely valuable, challenging learning experience.

Dr. Nutter demonstrated an impressive working knowledge of the subject.

I had a good learning experience with this course. Dr. Nutter gave additional time to submit assignments which was encouraging to try out new things.

Fall 2010
ECE 3331

Just when you think you know how circuits work … here comes Project Lab. This has been the single most beneficial class I have ever taken.

An intense amount of work, but at the same time a valuable learning experience. Dr. Nutter was extremely helpful and outgoing.

ECE 3362

The quasi-labs were helpful for learning the material, good hands on experience. Dr. Nutter was helpful in explaining material. The only downside was the high student-teacher ratio until most of the kids dropped.

The book was useless for this class as the instructor taught us straight from the datasheets and manuals. I feel like this experience has given me enough confidence to apply the material out of a class room setting.

This course was a little fast at the beginning. It was very useful having you pop in and out of the computer lab for help. When he sent out the review it gave a clear image of what we needed for the exam. Good professor, knows a lot about the material but sometimes it seems that the things he says in class are things we haven't heard of.

The course seemed hard at the start of the semester but with more time spent studying it got a little easier. The tests were hard though.

I think the homework was a heavy workload that didn't get enough attention when it came to final grading. 10% for all the work we put in wasn't sufficient enough. I also believe if you went into more depth about what each command does rather than us seeing it would be better. Overall it was a great + valuable learning experience

Dr. Nutter made sure we got homework that would make us understand the course material in depth.

Spring 2010
EE 3311

Tough course but very much worth the work. Dr. Nutter is a tough guy to please but we walk away with much more knowledge than the other sections.

Maybe spend more time doing examples of biasing transistors. I felt lost somewhat after MOSFETS. Otherwise, great teacher. Look forward to Project Lab IV with you.

Fall 2009
EE 4325 / 5325

Dr. Nutter is an awesome teacher.

Don't change a thing. Make sure to get your bifocals for the next class.

Great class.

Great class, learned a lot. Thank you!

Dr. Nutter is a great professor.

EE 4375 / 7375

Learned a lot, good class

Excellent course to stimulate your thinking and a challenging course.

Spring 2009

EE 5332

Amazing class - Learned a lot. Wish there was some material to go through other than the lecture. Dr. Nutter should be taking more classes.

The projects and assignments in this class were appropriate graduate level work. All of the lectures were relevant and interesting. The industry experience based material was of great value.

Awesome teacher!

Really liked inter-class project. I think it simulated the way how projects are done in industry.

Wonderful subject

This is a very useful course and I learned a lot in this course. Dr. Nutter is a good professor and very nice.

Fall 2008

EE 4375 / 5375

Good problem solving assignments that promote depth of knowledge and critical thinking.

Good coverage of syllabus. Would like to take more courses of this prof.

Most lively class I have taken this semester.

EE 4333 / 4334

Dr. Nutter is an awesome professor. I learned a lot during this lab.

EE 3331

Exceptional professor. Stimulates learning. Enjoyed the class.

Nutter is always available.

Spring 2008

EE 5376

I strongly recommend.

Great professor

EE 3332/3334

Dr. Nutter's the best teacher in the ECE.

Very valuable learning experience. Tough course, but learning experience is indescribable.

Dr. Nutter is awesome. Very knowledgeable and helpful.

Dr. Nutter is awesome!

Dr. Nutter should do all project labs.

Dr. Nutter made lab worth my time and effort. I learned a lot of ways to utilize previous knowledge gained in classes in the applications I was involved in. A great lab!

The stress of this class is balanced by the excellent counseling from Dr. Nutter. His advice and knowledge is incredible. I also thank him for his great humor.

Fall 2007

EE 4375/5375

The best teacher I have had.

Enjoyed the class and learned a lot.

If you don't like Dr. Nutter, you are … dumb.

Very good instructor.

Great course. Excellent professor.

Very good course, full of interesting and useful information.

EE 3332

I enjoyed this course.

Tasty!

Woot

Nutter is an EXCELLENT professor for project lab. I have learned more through in-class discussion than I have in most of my theory classes.

My project was mostly finished when we got it. The learning process came directly from Dr. Nutter. He was excellent for our lab. Thanks to him I have learned a lot!

Spring 2007

EE 4323/5323

Great!

This course was an extremely valuable learning experience. This has been one, if not the, most interesting and valuable classes I have taken in college.

EE 3333

Instructor was great. Learned more through him than in several other classes.

Fall 2006

EE 4375/5375

Great professor! Very enthusiastic about teaching! Very knowledgeable! Very approachable inside and outside of class!

Great professor.

Spring 2006

EE 3333

I like being graded on the questions I ask others rather than my presentation.

Great teacher and exhibits knowledge of the subject well.

The way you ran lab was great. Asked great questions that got us thinking. Always there to help and great overall teacher. Would take him again any day.

Had fun, good course.

More feedback is needed on a weekly basis. 3 grades don't tell me what needs to be improved.

Best professor in the department (Yes I know this is anonymous).

Fall 2005

EE 3362

Dr. Nutter is very dedicated and always available to help students. The method he has students turn in projects has been a very good experience.

Very good teacher.

Liked the professor very much.

He moves really fast so come prepared to learn. He is always around to help with homework problems.

Great job on teaching us. Hard professor, but one of the best

Spring 2005

EE 3312

A lot of knowledge contained within Dr. Nutter.

Good class, goes by fast though.

Good teacher. Tenure!!! Always available for help + covered Lab 3 material.

Cares about students and always available.

The class was enjoyable and useful. Dr. Nutter taught both text book information and realistic application of concepts.

This class was well worth taking.

EE 4323/5323

Great class.

It was a good course.

Overall a good class.

Fall 2004

EE 3362H

I really enjoyed the hands on grading.

EE 3362

Great Prof. Really knows what he's talking about. I really enjoyed coming to class (except for the 8:00 thing).

Good teacher. Tests were long for the time period.

Wish I could have him as Project Lab I instructor. Fun class. Learned TONs.

The tests can be a little long.

EE 4325/5325

Thoroughly enjoyed Dr. Nutter's course!

A good teacher, a good class.

Great course and fun instructor. I found that I spent a lot of time looking for additional resources for homework and lecture material.

Spring 2004

EE 3311

First test caught me off guard. Tests can be a bit hard some times. I find I understand the material after I've seen it made, but I have a hard time creating the circuits.

Excellent teacher, gave homework that stimulated learning and presented real world applications.

EE 3332

Dr. Nutter is wicked smart.

Very knowledgeable on all topics in course. Comments and notes were very useful to course material.

Great guy, great teacher.

Fall 2003

EE 3332

Great job! By far my favorite class this semester.

Great class.

Some students felt Dr. Nutter targeted them unfairly for hard or embarrassing questions.

Class was fun but yet still serious / professional. It made presenting in front of your peers easier.

EE 3362

I liked this class a lot. Something I can use right away.

Interesting, involved some thinking, but it was worth it. Relevant homework.

Spring 2003

EE 3333

Dr. Nutter was very approachable and knowledgeable.

EE 4323/5331/5323

Great class! Should be in the catalog permanently.

Great job! I learned a lot. Thanks.

HW problems are useful real world problems, but sometimes could put an extra one every week to represent the text better to help out with the test.

EE 5331

If [this] course in the field of FPGA design is included in the regular courses, it would be great for students interested in digital systems design.

Fall 2002

EE 4325/5325

Very Innovative Instructor.

Next time you teach this, you might want to require or copy the second text used. Statistics are usually hard to grasp just from lectures.

Overall a great course. I enjoyed the fast pace of the course, but felt that a balance could be made between the speed through which basic TCP/IP & network info was taught and the time spent on queueing theory. I also think that homework assignments reinforcing queueing theory would help.

Dr. Nutter is one of the few professors who will stop and answer questions when you stop by his office. He was always willing to help. The class tempo was a little quick. More time should be spent on the topics.

ADDITIONAL COMMENTS:

" *Strengths*
Dr. Nutter has been one of the best EE teachers I have had. I admit that during the first weeks of class he came off as pretentious but as the class went on he showed himself to be a good professor. He expects a lot from his students as well he should considering he is an engineer. But unlike many teachers he takes time to explain things that the class does not understand even if it does not pertain to the class. On more than one occasion he gave small side lectures about circuit elements as it pertained to microcontrollers to help us better understand the material. His lecture style is fast paced and at times mind numbingly boring. To suceed in EE 3362 you must work on the homework. His assignments are relevant and challenging. Expect to find yourself in the EE computer lab for hours trying to solve the homework. But in the end it pays off. His tests are always open note and book. Actually everything you have can be used as reference when taking a test and that includes homework and sample code. His tests stick to the material and are not that difficult if you do the homework and know how to use the data sheets. Also, Dr. Nutter was always around in case you needed help on the homework or on any aspect of the class. If fact I had the notion that he never goes home considering whenever I needed a question answered he was always around. It was a pleasure to have him for this class and I hope in the future I can have him for others." - *12/18/2003*

" *Strengths*
Dr. Nutter is a great Prof. He challenges you as a student with the homework projects that he assigns but he is always willing to help you do them and explain things to you if you don't understand. His tests were open everything so if you have your book, notes, and printed code from class then its easy to do good in the course
Drawbacks
Classes can get boring at time going over code." - *03/10/2004*

" *Strengths*
Awesome! Awesome! Awesome! Awesome! I had this guy for micro and loved it. You MUST do the homework, however. That was the only way I survived. The homework covers all the material you need for the class and Nutter will walk you through it. I fell asleep in every single class and because I did the homework, with Nutter helping out nearly every time, I will pass. The tests are hard, but not impossible. Expect to work hard, but it will be fun." - *12/13/2004*

Strengths
Knowledge beyond the scope of the text. A very enthusiastic professor and hence an interesting and active class. Good at explanations-goes to the basics. A class under him gives more than just an A-it gives you a good knowledge about the subject.
Drawbacks
Intimidating. You will be packed with assignments. Known for being tough at grading-well I personally dont agree with it.

SCHOLARSHIPS AND HONORS:

National Merit Scholarship (1983)
Ella McFadden Scholarship (1983-1987)
HKN (1986)
Tau Beta Pi (1986)
TI Fellowship (1988)
NSF Fellowship (1988-1990).
Graduate Student of the Year (1989)
Honors Convocation (2004, 2005, 2006, 2008)
Honors Convocation Reader (2005, 2008)
IEEE Student Branch Faculty Member of the Year (2005, 2008, 2010, 2012)
Abell-Hanger Teaching Award (2005)
Scholarship Donor Breakfast Speaker (2005)
IEEE Senior Member (2007)
TTU President's Excellence in Teaching Award (2008)
TTU Teaching Academy (2010)

STUDENT ORGANIZATIONS and OUTREACH:

I am the faculty sponsor for Eta Kappa Nu, the Electrical Engineering Honor Society. I have provided lectures for a number of student organizations, including IEEE, AWEE, Eta Kappa Nu, Tau Beta Pi, and Pi Tau Sigma. I have also provided volunteer assistance for outreach programs Shake Hands with Your Future, Outward Bound, TexPrep, Texas BEST, and BRIDGE.

PROFESSIONAL SOCIETY SERVICE:

Finance Chair, IEEE CBMS (2003)
Session Chair, Software Systems in Med. and Computer-Aided Sys., IEEE CBMS (2003)
Session Chair, Decision Support Systems, IEEE CBMS (2003)
Session Chair, Biomedical Image Analysis, IEEE CBMS (2003)
Technical Co-Chair, IEEE CBMS (2004)
Session Chair, Telemedicine, IEEE CBMS (2004)
General Co-Chair, IEEE CBMS (2006)
Finance Chair, IEEE CBMS (2006)
Section Vice Chair, IEEE South Plains Section (2007)
Section Chair, IEEE South Plains Section (2008)
Program Committee, IEEE SSIAI (2008, 2010)
Program Committee, R5 –Lubbock (2009)
General Co-chair, Green Tech Conference (2009)
General Chair, IEEE CBMS (2009)

PUBLICATION REVIEW:

Journal of Electronic Imaging (2003, 2008)
IEEE CBMS (2004, 2006, 2008, 2010, 2011)
Machine Vision and Applications Journal (2005, 2006, 2007, 2008)
IEEE CIBCB (2006)
CITSA (2007)
International Journal of Wavelets, Multiresolution and Information Processing (2007)
IEEE LISSA (2007)
IEEE SSIAI (2007, 2010, 2012)
Journal of Multimedia (2008)
IEEE Transactions and Computational Biology and Bioinformatics (2008, 2009)
Image and Vision Computing (2008)
Digital Signal Processing Manuscript (2009)

IEEE ICISA Manuscript (2010)
Journal of Information Fusion (2011)
Journal of Wind Engineering and Industrial Aerodynamics (2011)

OUTREACH:

SHWYF Lecture on Electrical Engineering Careers (2003)
West Texas BEST Referee (2002), (2004 -2010)
Texas BEST Volunteer (2003 Texas A&M), (2004 SMU), (2006 TTU), (2007 TTU)
Outward Bound Volunteer (2003 - 2004)
BRIDGE Volunteer (2002 Judging), (2003 Research Tour), (2004 Judging)
TexPREP Lectures on Electrical Engineering Careers (2005)
SIGT Lecture on LEGO Robotics (2007)
GEAR Judge (2008)
SWE Panel Discussion on Grad School (2009)

DEPARTMENTAL COMMITTEES:

Graduate Comm. (2002 – 2003)
Communications and Controls Comm. (2002 – 2007)
Digital Systems and Laboratories Sub. (2002 – 2007)
Scholarship Comm. (2002 – 2003), (2003 – 2007 chair)
Communications and Controls Sub. (2003 – 2007)
Undergraduate Comm. (2002 – 2003, 2005 - 2007)
Undergraduate Recruitment Comm. (2002 – 2007)
Teaching Assistant Comm. (2004 – 2007 chair)
Undergraduate Probation Sub. (2005 – 2007)
Undergraduate Studies Comm. (2008 chair)
CMPE Curriculum Comm. (2008)
Faculty Search Comm. (2008)
Teaching Assistant and Scholarship Comm. (2008 chair)
ABET Comm (2008)
Digital Systems and Laboratories Sub. (2008 chair)

UNIVERSITY SERVICE:

GPSGA Poster Judging (2003, 2006)
Honors College Poster Judging (2005, 2006)
Grade Appeal (2004), (2004 chair)
HKN Lecture on EE Careers (2003, 2006)
AWEE Lecture on EE careers (2005, 2006)
Pi Tau Sigma FE Review (2005, 2006)
COE Undergraduate Committee (2005 – 2006)
EE Plus Lectures (2005, 2006)
ME Search Committee Outside Rep (2005 - 2006)
Pre-proposal Review for TTU ORS (2006)
COE Academic Program Committee (2007 - 2011)