

CURRICULUM VITAE

Xuemin Chen

College of Science, Engineering and Technology

Department of Engineering

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EDUCATION

- | | | |
|-------|---------|---|
| Ph.D. | 10/1991 | Electrical Engineering
Nanjing University of Science and Technology
Nanjing, China
09/1988 – 10/1991 |
| M.S. | 01/1988 | Electrical Engineering
Nanjing University of Science and Technology
Nanjing, China
09/1985 – 01/1988 |
| B.S. | 07/1985 | Electrical Engineering
Nanjing University of Science and Technology
Nanjing, China
09/1981 – 07/1985 |

PROFESSIONAL EMPLOYMENT

Associate Professor, September 1, 2012 – present

Department of Engineering Technology, Texas Southern University

Graduate Faculty, September 1, 2007 – present

Graduate School, Texas Southern University

Coordinator of Computer Engineering Technology, September 1, 2007 – present

Department of Engineering Technology, Texas Southern University

Co-Coordinator of Computer Engineering Technology, Sept. 1, 2006 – Aug. 31, 2007

Department of Engineering Technology, Texas Southern University

Assistant Professor, September 1, 2006 – August 31, 2012

Department of Engineering Technology, Texas Southern University

Research Assistant Professor, 2002 – August 31, 2006

Department of Electrical and Computer Engineering, University of Houston

Post Doctoral Research Associate, 1998 - 2002

Department of Electrical and Computer Engineering, University of Houston

Visiting Scholar, 1997 - 1998

Department of Electrical and Computer Engineering, University of Houston

Director, 1995 - 1997

Teaching and Research Unit for Automatic Control Science and Engineering, Nanjing University of Science and Technology

Associate Professor, 1993 - 1998

Department of Automatic Control, Nanjing University of Science and Technology

Lecturer, 1991 - 1993

Department of Automatic Control, Nanjing University of Science and Technology

Chief Engineer (part time), 1991 - 1997

ZhiXin Automation Co., Nanjing, P. R. China

MEMBERSHIP

Member, International Society of Automation (ISA), since 2012

Senior Member, Institute of Electrical and Electronic Engineer (IEEE), since 2008

Member, American Society for Engineering Education (ASEE), since 2008

Member, Institute of Electrical and Electronic Engineer (IEEE), since 1999

FELLOWSHIP

NSF Research Opportunity Award (ROA) Recipient, Bandwidth Adaptation for Cooperative Active Sensing in Wireless Structure Health Monitoring, hosted by University of Houston, June – August, 2009.

AWARDS

- Best conference paper award, 11th IEEE International Conference on Networking, Sensing and Control (IEEE ICNSC 2014), Miami, FL.
- Faculty Award for Mentoring Undergraduate Research/Creative Activities, Texas Southern University, 2012.
- Distinguished Undergraduate Advising Award, College of Science and Technology, Texas Southern University, 2011
- Dean's Leadership Award for Research Committee, College of Science and Technology, Texas Southern University, 2011
- Top Research Innovations and Findings, Texas Department of Transportation, 2004
- Jiangsu High Education Committee Award for High Education Equipment Development, Second prize, P. R. China, 1998
- National Education Committee Award for Contributions to Advanced Science and Technology, Second prize, P. R. China, 1997

- Distinguished Faculty Award, Nanjing University of Science & Technology, P. R. China, 1996
- Youth Academic leader Award, Nanjing University of Science & Technology, P. R. China 1995, 1996

TEACHING INTERESTS

Java, C++, assembly, data communication, computer network, DC circuit, artificial intelligence, operating systems, and senior project design

RESEARCH INTERESTS

Wireless sensor networks, virtual and remote laboratory, cyber-learning, secure data communication, networked control system

FUNDED RESEARCH PROJECTS

AT TEXAS SOUTHERN UNIVERITY

1. Principal Investigator, "Hands-on Experiment via Internet - To Develop a Unified Remote Laboratory Framework for Cross Nation Engineering Education," Qatar National Research Fund (QNRF), 4th cycle of the national Priorities Research Program (NPRP), Award No. 4-892-2-335. Collaboration with University of Houston (Leading PI, Dr. Gangbing Song) and Texas A&M University at Qatar (Co-LPI, Dr. Hamid Parsaei), \$153,761 out of \$966,647, 1/15/2012 – 11/15/2015.
2. Investigator, "Center for Research on Complex Networks," NSF CREST, Award No. HRD-1137732, \$4.88M, 9/1/2011- 8/31/2016.
3. Principal Investigator, "Collaborative Research: Developing Virtual and Remote Undergraduate Laboratory for Engineering Technology," NSF CCLI Type 1, Award No. DUE-0942778. Collaboration with Prairie View A&M University, \$100,000 out of a total of \$200,000, 1/1/2010-12/31/2012.
4. Principal Investigator, "Collaborative Research: Develop Next Generation Unified Framework for Remote Laboratory Experiments," NSF IEECI, Award No. EEC-0935008. Collaboration with University of Houston, \$49,970 out of a total of \$199,328, 9/1/2009-8/31/2012.
5. Co-Principal Investigator, "Targeted Infusion Grant: Development of Virtual and Remote Laboratory for Engineering Technology Undergraduate Students," NSF HBCU-UP, Award No. HRD-0928921. PI: Dr. David Olowokere, Other Co-PIs: Dr. Shahyar Darayan and Dr. Lawrence Kehinde. \$149,941, 9/1/2009-5/31/2012.
6. Principal Investigator, "A New Secure Communication Scheme Based on Adaptive Observers for Delayed Uncertain Neural Networks", Texas Southern University Seed Grant, \$10,000, 2007-2008.

AT UNIVERITY OF HOUSTON (PART OF FUNDED RESEARCH PROJECTS)

1. Co-Principal Investigator, "Nanotechnology synthesize study", Texas Department of Transportation, \$111,000, 2005-2006.
2. Co-Principal Investigator, "The evaluation of a system for measuring seal coat quality", \$100,000, Texas Department of Transportation, 2005-2006.

3. Co-Principal Investigator, "Feasibility study of non contact high speed elastic property measurement of pavements", Texas Department of Transportation, \$150,000, 2004-2005.
4. Co-Principal Investigator, "Evaluation of innovative sensors and techniques for measuring traffic loads", \$60,000, Texas Department of Transportation, 2004-2005.
5. Co-Principal Investigator, "Investigation of FCC compliant GPR systems", Texas Department of Transportation, \$111,000, 2003-2004.
6. Co-Principal Investigator, "Non-contact skid system", Texas Department of Transportation, \$30,000, 2003-2004.
7. Co-Principal Investigator, "Laser texture measurement device", Texas Department of Transportation, \$50,000, 2003-2004.
8. Co-Principal Investigator, "Pilot implementation of concrete thickness measurement GPR", Texas Department of Transportation, \$130,000, 2002-2004.

PUBLICATIONS AND PRESENTATIONS

PAPERS IN PEER REVIEWED JOURNALS

1. N. Wang, X. Chen, G. Song, and H. Parsaei, "An Experiment Scheduler and Federated Authentication Solution for Remote Laboratory Access," *International Journal of Online Engineering*, Vol. 11, No. 3, 20-26, 2015.
2. N. Wang, J. Weng, X. Chen, G. Song, and H. Parsaei, "Development of a Remote Shape Memory Alloy Experiment for Engineering Education," *Engineering Education Letters*, Vol. 2015:2, 1-20, 2015.
3. N. Wang, X. Chen, G. Song, and H. Parsaei, "Using Node-HTTP-Proxy for Remote Experiment Data Transmission Traversing Firewall," *International Journal of Online Engineering*, Vol. 11, No. 2, 60-67, 2015.
4. N. Wang, X. Chen, G. Song, and H. Parsaei, "A Novel Real-time Video Transmission Approach for Remote Laboratory Development," *International Journal of Online Engineering*, Vol. 11, No. 1, 4-9, 2015.
5. H. Dong, Z. Wang, X. Chen and H. Gao, "A Review on Analysis and Synthesis of Nonlinear Stochastic Systems with Randomly Occurring Incomplete Information," *Mathematical Problems in Engineering*, Volume 2012, Article ID 416358, 15 pages, doi:10.1155/2012/416358.
6. D. Li, J. Zhou, J. Wang, X. Chen and Y. Pan, "Opinion Impact Model and Opinion Measurement Algorithm for Ad Hoc Social Network," *Advanced Science Letters*, Vol. 10, No 1, 690-692, 2012.
7. L. Ma, Z. Wang, X. Chen, Z. Guo, "Sliding Mode Control for Nonlinear Networked Systems with Stochastic Communication Delays," *Journal of Control Theory and Application*, Vol. 8, No. 1, 34-39, 2010.
8. J. SH.-H. Tsai, Y.-Y. Lee, P. Cofie, L.-S. Shieh and X. M. Chen, "Active fault tolerant control using state-space self-tuning control approach", *International Journal of Systems Science*, Vol. 37, No. 11, 785-797, 2006.
9. X. He, R. Liu, X. Chen, and J. Li, "Simulation of a Multi-Frequency Continuous-Wave Reconstruction Technique for Subsurface Conductivity and Dielectric-

- Constant Profile,” *Subsurface Sensing Technologies and Applications*, Vol. 5, No. 3, pp. 99-120, 2004.
10. J. Lin, R. Liu, J. Li and X. Chen, “Measurement of Concrete Highway Rough Surface parameters by an X-Band Scatterometer,” *IEEE Trans. On Geoscience and remote sensing*, Vol. 42, No. 6, pp. 1188-1196, 2004.
 11. Q. Zhang, X. Chen, X. Jiang, and R. Liu, “A Multi-Frequency Electromagnetic Image System,” *Computer-Aided Civil and Infrastructure Engineering*, Vol. 18, pp. 113-120, 2003.
 12. C. Liu, J. Li, X. Gan, H. Xing, and X. Chen, “A new model for estimating the thickness and permittivity of subsurface layers from GPR data,” *IEE Proceedings on Radar Sonar and Navigation*, Vol. 149, pp. 315-319, Dec. 2002.
 13. Z. Wang, G. Tang, and X. Chen, “Robust controller design for uncertain linear systems with circular pole constraints,” *Int. J. Control*, Vol.65, No.6, 1045-1054, 1996.
 14. X. Chen, Z. Wang, G. Xu, Z. Guo and Z. Feng, “Eigenstructure assignment in state covariance control,” *Systems & Control Letters*, Vol.26, 157-162, 1995.
 15. Z. Wang, X. Chen and Z. Guo, “Controller design for continuous systems with variance and circular pole constraints,” *Int. J. Systems Science*, Vol.26, No.5, 1249-1256, 1995.
 16. Z. Wang, and X. Chen, “Constrained variance design with pole assignment,” *Chinese Journal of Automation*, (ISSN 1044-064X, the English Translated Edition of *Acta Automatica Sinica* and published in U.S.A. by Allerton Press, Inc.), Vol.7, No.3, 221-229, 1995.
 17. Z. Wang, and X. Chen, “Constrained variance design with pole assignment,” *Acta Automatica Sinica*, (ISSN 0254-4156), Vol.21, No.3, 303-311, 1995.

BOOK CHAPTERS

1. L. Kehinde, X. Chen, K. Ayodele and O. Akinwale, "Developing Remote Labs for Challenged Educational Environments", chapter 22 in *Internet Accessible Remote Laboratories: Scalable E-Learning Tools for Engineering and Science Disciplines*, IGI Global, Edited by Abul K. M. Azad, Michael E. Auer and V. Judson Harward, pp 432 – 452, 2011.
2. R. Liu, L. Zhou and X. Chen, “Wireless sensors for structural monitoring,” chapter in *Strong Motion Instrumentation for Civil Engineering Structures (NATO Science Series E)*, Kluwer Academic Publishers, Netherlands, 2001.

PAPERS IN PEER REVIEWED CONFERENCE PROCEEDINGS

1. N. Wang, M. Ho, Q. Lan, X. Chen, G. Song, and H. Parsaei, “Develop a Remote Laboratory at TAMUQ Based on a Novel Unified Framework,” in Proceedings of 122nd ASEE Annual Conference and Exposition, Seattle, WA, June 14 – 17, 2015.
2. Y. Liu, X. Wu and X. Chen, “A Scheme for Key Distribution in Wireless Sensor Network Based on Hierarchical Identity-Based Encryption,” in Proceedings of IEEE International Conference on Networking, Sensing and Control (ICNSC 2015), pp. 539-543, Taipei, Taiwan, April 9 – 12, 2015.

3. N. Wang, X. Chen, G. Song, and H. Parsaei, "Develop a Scheduler and Federated Authentication for Remote Laboratory Access," in Proceedings of 12th International Conference on Remote Engineering and Virtual Instrumentation (REV 2015), pp. 211-216, Bangkok, Thailand, Feb. 25 – 28, 2015.
4. N. Wang, X. Chen, M. Ho, G. Song, and H. Parsaei, "A Novel Solution For Addressing Network Firewall Issues In Remote Laboratory Development," Qatar Foundation Annual Research Conference Proceedings: Vol. 1, ITPP0036., DOI: 10.5339/qfarc.2014.ITPP0036, Published online: 13 Nov 2014.
5. N. Wang, J. Weng, M. Ho, X. Chen, G. Song, and H. Parsaei, "Development of a Remote SMA Experiment – A Case Study," Qatar Foundation Annual Research Conference Proceedings: Vol. 1, ITPP0944. DOI: 10.5339/qfarc.2014.ITPP0944, Published online: 13 Nov 2014.
6. N. Wang, J. Weng, X. Chen, G. Song, and H. Parsaei, "Development of a Remote SMA Experiment – A Case Study," Engineering Leaders Conference on Engineering Education, Doha, Qatar, Nov. 9 – 11, 2014.
7. N. Wang, X. Chen, G. Song, and H. Parsaei, "Remote Experiment Development Using an Improved Unified Framework," in *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2014*, pp. 1848-1855, New Orleans, LA, Oct. 27 – 30, 2014.
8. C. Wang, X. Chen and W. Li, "Energy Efficient Distributed Kalman Filter for Wireless Sensor Networks," IEEE International Conference on Networking, Sensing and Control (ICNSC 2014), pp. 161-166, Miami, FL, April 6 - 9, 2014.
9. X. Chen, N. Wang, G. Song, and H. Parsaei, "A Novel Real-Time Experiment Control Command and Data Transmission Solution for Remote Laboratory Development," Book of Abstracts, pp. 215-216, Online EDUCA Berlin 2013, December 4 - 6, 2013, Berlin, Germany.
10. C. Wang, X. Chen and W. Li, "Aggregator Modeling with Multiple Active/Sleep Modes for Wireless Sensor Networks," IEEE 78th Vehicular Technology Conference, Las Vegas, NV, Sept. 2-5, 2013.
11. X. Xiong, X. Chen and A. Ning, "Competitive Decision Algorithm for the Rooted Delay-constrained Minimum Spanning Tree," International Conference on Artificial Intelligence and Software Engineering, Nanjing, China, August 24 – 25, 2013.
12. C. Wang, X. Chen, W. Li, "Aggregator Modeling with Multiple Active/Sleep Modes for Wireless Sensor Networks," IEEE International Conference on Sensing, Communication, and Networking (SECON), Poster and Demonstration Sessions of IEEE SECON 2013, New Orleans, LA. June 25, 2013.
13. S. Darayan, D. Olowokere, X. Chen, "Assessment and Curriculum Modification in Electronics Engineering Technology Program" Proceedings of the Spring 2013 Mid-Atlantic Section Conference of the American Society of Engineering Education, New York City College of Technology, Brooklyn, New York, April 2013.
14. X. Chen, C. Wang, and W. Li, "On the Design of Optimal Active/Sleep Scheme for Aggregator Node in Wireless Sensor Networks," Proceedings of IEEE International Conference on Networking, Sensing and Control (ICNSC 2013), Paris, France, April 10 – 12, 2013.

15. X. Chen, D. Osakue, N. Wang, H. Parsaei, and G. Song, "Development of Remote Experiment under Unified Remote Laboratory Framework," Proceedings of the World Congress on Engineering Education 2013, H.R. Parsaei and K.S. Warraich, eds., Doha, Qatar. <http://dx.doi.org/10.5339/qproc.2014.wcee2013.7>, January 7 - 9, 2013.
16. D. Osakue, X. Chen, C. Wang, and O. Ahmed, "Develop a Cross Browser Compatible DSP Remote Laboratory with Zero Plug-in Installation," in Proceedings of ASEE Annual Conference and Exposition, San Antonio, Texas, June 10 - 13, 2012.
17. B. Cao, G. Song, X. Chen and D. Osakue, "Platform Independent Interface for Remote Laboratory Experiments," in Proceedings of ASEE Annual Conference and Exposition, San Antonio, Texas, June 10 - 13, 2012.
18. D. Osakue, X. Chen, O. Ahmed, S. Darayan, and D. Olowokere, "Virtual and Remote Laboratory Framework Development for Engineering Technology Education – A Case Study," ASCE Earth and Space 2012, pp. 1211-1217, Pasadena, California, April 15-18, 2012.
19. S. Darayan, X. Chen, and D. Olowokere, "Developing New Courses in the Engineering Technology Curriculum Based on the Program Outcome Result," ASCE Earth and Space 2012, pp. 1110-1117, Pasadena, California, April 15-18, 2012.
20. C. Olmi, X. Chen, and G. Song, "A Framework for Developing Scalable Remote Experiment Laboratory," Association for the Advancement of Computing in Education (AACE) 16th Annual E-Learn Conference, In Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2011 (E-Learn 2011), pp. 2045-2050, Honolulu, Hawaii, October 18-21, 2011.
21. J. Guo, J. Fang and X. Chen, "Survey on Secure Data Aggregation for Wireless Sensor Networks," in Proceedings of IEEE International Conference on Service Operations and Logistics, and Informatics, pp 138 – 143, Beijing, China, July 10-12, 2011.
22. X. Chen, L. Kehinde, Y. Zhang, S. Darayan, D. Olowokere, and D. Osakue, "Using Virtual and Remote Laboratory to Enhance Engineering Technology Education", in Proceedings of ASEE Annual Conference and Exposition, Vancouver, BC, Canada, June 26 - 29, 2011.
23. C. Olmi, B. Cao, X. Chen and G. Song, "A Unified Framework for Remote Laboratory Experiments", in Proceedings of ASEE Annual Conference and Exposition, Vancouver, BC, Canada, June 26 - 29, 2011.
24. Y. Zhang, L. Li and X. Chen "Virtual and Remote Functionality Development for Undergraduate Laboratory", in Proceedings of ASEE Annual Conference and Exposition, Vancouver, BC, Canada, June 26 - 29, 2011.
25. Y. Zhang, X. Chen, and L. Kehinde, "Developing Digital/Analog Telecommunication Laboratory", in Proceedings of ASEE Annual Conference and Exposition, Vancouver, BC, Canada, June 26 - 29, 2011.
26. X. Chen, C. Olmi, and G. Song, "A Remote Bridge Experiment with Vibration Control," in Proceedings of International Symposium on Life-Cycle Performance of Bridges and Structures, pp. 844-849, Changsha, China, June 27 - 29, 2010.

27. X. Chen, Y. Zhang, L. Kehinde, and D. Olowokere, "Developing Virtual and Remote Undergraduate Laboratory for Engineering Technology," in Proceedings of ASEE Annual Conference & Exposition, Louisville, KY, June, 2010.
28. X. Chen, G. Song and Y. Zhang, "Virtual and Remote Laboratory Development: A Review," in Proceedings of Earth and Space 2010, pp. 3843-3852, Honolulu, HI, March, 2010.
29. J. Chen, P. Li, X. Chen and G. Song, "Force Tracking Control of a Testing Device I: System Modeling and Identification," in Proceedings of Earth and Space 2010, pp. 3753-3763, Honolulu, HI, March, 2010.
30. J. Chen, P. Li, X. Chen and G. Song, "Force Tracking Control of a Testing Device II: Controller Implementation," in Proceedings of Earth and Space 2010, pp. 3764-3774, Honolulu, HI, March, 2010.
31. S. Darayan, D. Olowokere, and X. Chen, "Utilizing Program Outcomes in the Modification of Engineering Technology Curriculum," in Proceedings of Earth and Space 2010, pp. 3833-3842, Honolulu, HI, March, 2010.
32. X. Chen, L. Jiang, S. Darayan, L. Kehinde and D. Olowokere, "Technologies for Development of Virtual and Remote Laboratories – A Case Study," in Proceedings of ASEE Annual Conference & Exposition, Austin, TX, June, 2009.
33. O. Akinwale, L. O. Kehinde, A. M. Jubril, K. Ayodele, O. P. Jonah, X. Chen, D. Olowokere, "A LabVIEW Based On-Line Robotic Arm Students' Laboratory," in Proceedings of ASEE Annual Conference & Exposition, Austin, TX, June, 2009.
34. X. Chen, D. Olowokere and G. Thomas, "Teaching Java – Object First with BlueJ", in Proceedings of ASEE Annual Conference & Exposition, Pittsburgh, PA, June, 2008.
35. X. Chen, L. Guo, J. Yu, J. Li and R. Liu, , "Evaluating Innovative Sensors and Techniques for Measuring Traffic Loads", in Proceedings of IEEE International Conference on Networking, Sensing and Control, Sanya, China, April, 2008.
36. C. R. Liu, L. Guo, J. Li, and X. Chen, "Weigh-in-Motion (WIM) Sensor Based on EM Resonant Measurements," in Proceedings of IEEE Antennas and Propagation Society International Symposium, Honolulu, Hawaii, June, 2007.
37. X. Chen, and Z. Wang, "An Observer-Based Chaotic Synchronization Scheme for Time-Delay Secure Communication Systems", Proceedings of IEEE International Conference on Networking, Sensing and Control, London, UK, April, 2007.
38. Y. Tang, L. Guo, J. Li, X. Chen, and R. Liu, "FDTD Simulation in Calculating Thickness of Subsurface Layer with GPR," in Proceedings of IEEE International Conference on Networking, Sensing and Control, Ft. Lauderdale, April , 2006.
39. J. Li, R. Liu, X. Chen, H. Xing, and Y. Wang, "A 3-D Real-Time Road Edge Detection System for Automated Smart Car Control," in Proceedings of IEEE International Conference on Networking, Sensing and Control, Ft. Lauderdale, April , 2006.
40. J. Chen, X. Chen, J. Li and R. Liu, "Development of the RF Soil Moisture Sensors," Smart Structures and Materials, in Proceedings of SPIE, San Diego, February, 2006.
41. Y. Chen, X. Chen, W. Sun, A. Ekbote and R. Liu, "Methodology and Device in Measuring Thickness of Thermoplastic Tape in Real Time," Smart Structures and Materials, in Proceedings of SPIE, San Diego, February , 2006.

42. W. Sun, X. Chen, Y. Chen, A. Ekbote and R. Liu, "Auto-synchronized Laser Scanning Range Sensor for Thermoplastic Pavement Marking Material Thickness Measurement," *Smart Structures and Materials*, in Proceedings of SPIE, San Diego, February, 2006.
43. H. Xing, J. Li, X. Chen, C. Liu, Brian Michalk, Carl Bertrand, Ed Oshinski, German Claros, and Hua Chen, "Simulation, modeling and application of ground penetrating radar in pavement dielectric constant and thickness measurement," *Smart Structures and Materials*, in Proceedings of SPIE, San Diego, February, 2006.
44. H. Xing, R. Liu, J. Li, X. Chen, "New Method for Pavement Dielectric Constant Measurement Using Ground-Penetrating Radar," *TRB Annual Meeting*, Washington DC, January 2006.
45. L. Guo, X. Chen, J. Yu, Y. Tang, and R. Liu, "Pavement Deflection Vehicle Weighing Method with Embedded Piezoelectric Sensor, *Smart Structures and Materials*," in Proceedings of SPIE, San Diego, Vol. 5758, May 2005, pp471-478.
46. X. Chen, J. Li, R. Liang, Y. Sun and R. Liu, "Microstrip transmission line for soil moisture measurement," *Sensors for Harsh Environments*, in Proceedings of SPIE, Philadelphia, Vol. 5590, pp84-91 October, 2004.
47. L. Guo, Y. Tang, J. Yu, J. Li, X. Chen, and R. Liu, "Weigh-in-Motion System Design with Piezoelectric Sensor," in Proceedings of Engineering, Construction, and Operations in Challenging Environments: Earth & Space 2004, *Houston*, pp. 540-545, 2004.
48. H. Xing, J. Li, X. Chen and R. Liu, "GPR Reflection Position Identification by STFT," Tenth International Conference on Ground Penetrating Radar, Delft, The Netherlands, 21-24 June, 2004.
49. J. Li, H. Xing, X. Chen and R. Liu, "Extracting Rebar's Reflection from Measured GPR Data," Tenth International Conference on Ground Penetrating Radar, Delft, The Netherlands, 21-24 June, 2004.
50. Y. Rao, X. Jiang, X. Chen and R. Liu, "Development of a High-Speed Texture Measurement System," *Smart Systems for Bridges, Structures, and Highways*, in Proceedings of SPIE, San Diego, Vol. 4696, pp284-292, March 2002.
51. M. Wu, X. Chen and R. Liu, "Highway Crack Monitoring System," *Smart Systems for Bridges, Structures, and Highways*, in Proceedings of SPIE, San Diego, Vol. 4696, pp293-299, March 2002.
52. R. Liu, J. Li, X. Gan, H. Xing, and X. Chen, "Pavement thickness measurement using FM-CW radar," in Proceedings of Subsurface Sensing Technologies and Applications II, SPIE's 46th Annual Meeting Exhibition & Education Program, San Diego, USA, 2001.
53. Q. Zhang, X. Chen, X. Jiang, and R. Liu, "A Multi-frequency EM Image System," in Proceedings of Subsurface Sensing Technologies and Applications II, SPIE's 45th Annual Meeting Exhibition & Education Program, San Diego, USA, 2000.
54. R. Liu, L. Zhou, X. Chen, "Wireless sensors for structural monitoring," *NATO Advanced Research Workshop on Strong Motion Instrumentation for Civil Engineering Structures*, Istanbul, Turkey, 1999.

PROJECT REPORTS

1. Qatar National Research Fund (QNRF) Award No. 4-892-2-335, Period 5 report, Approved.
2. Qatar National Research Fund (QNRF) Award No. 4-892-2-335, Period 4 report, Approved.
3. Qatar National Research Fund (QNRF) Award No. 4-892-2-335, Period 3 report, Approved.
4. Qatar National Research Fund (QNRF) Award No. 4-892-2-335, Period 2 report, Approved.
5. Qatar National Research Fund (QNRF) Award No. 4-892-2-335, Period 1 report, Approved.
6. NSF IEECI project final report, November 30, 2012, Approved.
7. NSF HBCU-UP final project report, August 31, 2012, Approved.
8. NSF CCLI project annual report, December 31, 2011, Approved.
9. NSF HBCU-UP project annual report, August 31, 2011, Approved.
10. NSF IEECI project annual report, August 31, 2011, Approved.
11. NSF CCLI project annual report, December 30, 2010, Approved.
12. NSF HBCU-UP project annual report, August 31, 2010, Approved.
13. NSF IEECI project annual report, August 30, 2010, Approved.
14. TSU seed grant, Career and Curriculum Development with the Support of Seed Grant. December 19, 2007, Approved.

TECHINICAL REPORTS

1. R. Liu, J. Li, X. Chen, A. Ekbote, H. Xing, and Y. Wang, "Investigation of a new generation of FCC compliant NDT devices for pavement layer information collection," Texas Department of Transportation, Technical Report FHWA/TX-05/0-4820, Feb, 2006.
2. A. Ekbote, J. Li, X. Chen, and R. Liu, "Feasibility study of non-contact, high speed elastic property measurement of pavements," Texas Department of Transportation, Technical Report FHWA/TX-05/0-4827, Dec. 2005.
3. R. Liu, X. Chen, J. Li, L. Guo, and J. Yu, "Evaluate innovative sensors and techniques for measuring traffic loads," Texas Department of Transportation, Technical Report TxDOT 0-4509, Oct. 2005.
4. R. Liu, X. Chen, J. Li, H. Xing, R. Liang, "A nondestructive device for measuring the thickness of concrete pavement," Texas Department of Transportation, Technical Report FHWA/TX-05/0-4414-2, Oct. 2005.
5. R. Liu, J. Li, X. Chen, and H. Xing, "GPR System User Guide and Trouble Shooting Guide," Texas Department of Transportation, Technical Report FHWA/TX-06/5-4414-01-1, Oct. 2004.
6. Y. Chen, W. Sun, A. Ekbote, X. Chen, J. Li, and R. Liu, "Refinement of a non-contact method to determine the thickness and uniformity of application for thermoplastic pavement marking material," Texas Department of Transportation, Technical Report FHWA/TX-04/0-4882-1, Oct. 2004.

7. R. Liu, Y. Chen, X. Chen, J. Li, W. Sun and H. Xing, "Implementation of laser device for highway speed macro-texture measurement," Texas Department of Transportation, Technical Report 5-3969-1, Oct. 2004.
8. R. Liu, X. Chen, J. Li, H. Xing, J. Chen, A. Ekbote, and B. Wen, "Remote Monitoring Moisture Content in Test Pavement in Waco and Bryan Districts," Texas Department of Transportation, Technical Report FHWA/TX-05/0-4415-2, Aug. 2004.
9. R. Liu, X. Chen, J. Li, H. Xing, J. Chen, A. Ekbote, and B. Wen, "Develop of soil moisture sensor for measuring moisture content in pavement subgrade," Texas Department of Transportation, Technical Report TxDOT 0-4415, Aug. 2004.
10. R. Liu, J. Li, X. Chen, H. Xing, and R. Liang, "A Nondestructive Device for Measuring the Thickness of Concrete Pavement," Federal Highway Administration, Technical Report FHWA/TX-04/0-4414-2, April 2002.
11. R. Liu, X. Chen and M. Wu, "Automatic crack monitoring system," Texas Department of Transportation, Technical Report TxDOT 7-3997, Oct. 2001.
12. R. Liu, X. Gan and X. Chen, "Feasibility study on nondestructive testing to measure PCC pavement thickness," Texas Department of Transportation, Technical Report 0-1828, May 2001.
13. R. Liu, X. Chen, X. Gan, J. Li, Y. Rao, H. Xing and R. Liang, "Investigation of short range sensing devices for use in non-destructive pavement evaluation," Texas Department of Transportation, Technical Report TxDOT 7-3969-1, 2000.
14. R. Liu, X. Chen, R. He, W. Ma and H. Wu, "Establishment of reliable methodologies to determine in-situ moisture content of base, and subgrade soils," Texas Department of Transportation, Technical Report TxDOT P7-3935, July 1998.

POSTERS

1. N. Wang, M. Bao, X. Chen and W. Li, "Developing a Remote Energy Efficient Wireless Sensor Network Laboratory," Emerging Researchers National (ERN) Conference in Science, Technology, Engineering and Mathematics (STEM), Washington D.C., February 20 - 22, 2014.
2. C. Wang, X. Chen and W. Li, "Aggregator Modeling with Multiple Active/Sleep Modes for Wireless Sensor Networks," Emerging Researchers National (ERN) Conference in Science, Technology, Engineering and Mathematics (STEM), Washington D.C., February 28 - March 2, 2013.
3. X. Chen, "Collaborative Research: Developing Virtual and Remote Undergraduate Laboratory for Engineering," Transforming Undergraduate Education in Science, Technology, Engineering and Mathematics (TUES) program PI conference, Washington D.C., January 23-25, 2013.
4. D. Osakue, X. Chen, C. Wang, and O. Ahmed, "Virtual and Remote Laboratory Development – Cross Browser DSP Remote Laboratory with Zero Plug-in Installation, ASEE Annual Conference and Exposition, San Antonio, Texas, June 10 - 13, 2012.
5. X. Chen, D. Osakue, O. Ahmed, C. Wang, Y. Zhang, S. Darayan, and D. Olowokere, "Virtual and Remote Laboratory Development at Texas Southern University," Research week, Texas Southern University, April 2, 2012.

6. X. Chen, L. Kehinde, Y. Zhang, S. Darayan, D. Olowokere, D. Osakue, "Using Virtual and Remote Laboratory to Enhance Engineering Technology Education," ASEE Annual Conference and Exposition, Vancouver, BC, Canada, June 26 - 29, 2011.
7. X. Chen, S. Darayan, D. Olowokere and L. Kehinde, "Development of Virtual and Remote Laboratory for Engineering Technology Education," TSU Research Week 2011, April 5, 2011.
8. C. Omli, B. Cao, W. Han, X. Chen, L. Sun and G. Song, "Collaborative Research: Develop Next Generation Unified Framework for Remote Laboratory Experiments." NSF IEECI Awardees Conference 2011, Reston, Virginia, March 13 - 15, 2011.
9. X. Chen, "Enhancing Engineering Technology Education through Virtual and Remote Experiments", NSF CCLI-TUES Conference 2011, Washington, DC, January 26 - 28, 2011.
10. X. Chen, L. Kehinde, D. Olowokere, D. Osakue and Y. Zhang, "Developing Virtual and Remote Undergraduate Laboratory for Engineering Technology," Louisville, Kentucky, June 20 - 23, 2010.
11. D. Olowokere, X. Chen, S. Darayan and L. Kehinde, "Development of Virtual and Remote Laboratory for Engineering Technology Undergraduate Students," NSF Joint Annual Meeting, Washington, DC, June 6-9, 2010.
12. G. Song, X. Chen, L. Sun, S. Gajic, C. Omli, and Y. Yu, "Develop Next Generation Unified Framework for Remote Laboratory Experiments," NSF Engineering Education Awardees Conference 2010, Reston, Virginia, Jan. 31 - Feb. 2, 2010.

INVITED PRESENTATIONS AND SHORT LECTURE

1. Invited Seminar, "Development of an Innovative Microwave Weigh-in-Motion Sensor," Dalian University of Technology, Dalian, China, October 12, 2014.
2. Invited Seminar, "Development of an Innovative Microwave Weigh-in-Motion Sensor," Shanghai Second Polytechnic University, Shanghai, China, October 15, 2014.
3. Invited Seminar, "A Unified Framework for Remote Laboratory Development," Shanghai Second Polytechnic University, Shanghai, China, October 15, 2014.
4. Invited Seminar, "Development of an Innovative Microwave Weigh-in-Motion Sensor," Shanghai Second Polytechnic University, Shanghai, China, May 22, 2014.
5. Invited Seminar, "Development of Virtual and Remote Laboratory," Shanghai Second Polytechnic University, Shanghai, China, October 15, 2014.
6. Invited Seminar, "On the Design of Optimal Active/Sleep Scheme for Aggregator Node with Multiple Energy Saving Mode in Wireless Sensor Networks," invited seminar, Donghua University, Shanghai, China, May 16, 2013.
7. Invited Seminar, "Data Aggregator Analysis for Energy Efficient Wireless Sensor Networks," Shanghai Second Polytechnic University, Shanghai, China, May 15, 2013.
8. Invited Workshop, "Internet Enabled Remote Experimentation," Doha, Qatar, January 7, 2013.

9. Invited Seminar, “Energy Efficient Distributed Kalman Filter for Wireless Sensor Networks,” Shanghai Second Polytechnic University, Shanghai, China, June 13, 2012.
10. Invited Seminar, “Development of Virtual and Remote Laboratory,” Taizhou Institute of Science and Technology, Taizhou, China, June 11, 2012.
11. Invited Seminar, “Development of Virtual and Remote Laboratory for Engineering Education,” Monmouth University, New Jersey, May 18, 2012.
12. Short Lecture, “Secure Data Aggregation in Wireless Sensor Networks,” Nanjing University of Science and Technology, Nanjing, China, June 7 - 8, 2011.
13. Invited Seminar, “Development and Evaluation of Virtual and Remote Experiments,” Department of Engineering Technology, Prairie View A&M University, May 19, 2011.
14. Invited Seminar. “Secure Data aggregation for Wireless Sensor Networks,” Department of Engineering Technology, Prairie View A&M University, May 19, 2011.
15. Invited Seminar, “Development of an Innovative Weigh-in-Motion Sensor,” Department of Mechanical Engineering, University of Houston, Houston, TX, April 14, 2011.
16. Invited Seminar, “Wireless Sensor Networks in Intelligent Transportation Systems – An Overview,” Intelligent Transportation Society of America Student Chapter at Texas Southern University, Houston, TX, October 28, 2010.
17. Invited Seminar, “Adaptive Rate Wireless Sensor Network and Its Applications,” Nanjing University of Science and Technology, Nanjing, China, June 21, 2010.
18. Invited Seminar, “Adaptive Rate Wireless Sensor Network for Structural Health Monitoring,” Donghua University, Shanghai, China, June 10, 2010.
19. Invited Seminar, “Development of Virtual and Remote Laboratory (VR-Lab),” NSF HBCU-UP project workshop, Prairie View A&M University, August 20, 2009.
20. Invited Seminar, “Unsupervised Learning for Structural Health Monitoring via Wireless Sensor Network,” University of Houston, August, 2009.
21. Invited Seminar, “Moisture and Weigh-in-Motion Sensors,” Wuzhou University, China, April 2008.

PRESENTATIONS AT CONFERENCE AND WORKSHOP

1. X. Chen, “Energy Efficient Distributed Kalman Filter for Wireless Sensor Networks,” 11th IEEE International Conference on Networking, Sensing and Control (IEEE ICNSC 2014), Miami, FL., April 8, 2014.
2. X. Chen, “Aggregator Modeling with Multiple Active/Sleep Modes for Wireless Sensor Networks,” IEEE 78th Vehicular Technology Conference, Las Vegas, NV, Sept. 3, 2013.
3. X. Chen, “Development of Remote Experiment under Unified Remote Laboratory Framework,” World Congress on Engineering Education 2013, Doha, Qatar, January 8, 2013.
4. X. Chen, “Virtual and Remote Laboratory Framework Development for Engineering Technology Education – A Case Study,” ASCE Earth and Space 2012, Pasadena, California, April 16, 2012.

5. X. Chen, "A Framework for Developing Scalable Remote Experiment Laboratory," Association for the Advancement of Computing in Education (AACE) 16th Annual E-Learn Conference, World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2011 (E-Learn 2011), Honolulu, Hawaii, October 20, 2011.
6. X. Chen, "Virtual and Remote Laboratory (VR-Lab) Overview," NSF VR-Lab Project Faculty Workshop, Texas Southern University, August 15, 2011.
7. X. Chen, "Development and Evaluation of Virtual and Remote Experiments," NSF VR-Lab Project Faculty Workshop, Texas Southern University, August 16, 2011.
8. X. Chen, "A Remote Bridge Experiment with Vibration Control," in Proceedings of International Symposium on Life-Cycle Performance of Bridges and Structures, Changsha, China, June 28, 2010.
9. X. Chen, "How to Develop Remote Experiment - A Quick Start," NSF sponsored workshop for Improve Undergraduate Engineering Teaching Using Emerging Technology, ASCE Earth and Space 2010 conference, Honolulu, March 14, 2010.
10. X. Chen, "How to Conduct Evaluation for Educational Projects Involving Emerging Technology," NSF sponsored workshop for Improve Undergraduate Engineering Teaching Using Emerging Technology, ASCE Earth and Space 2010 conference, Honolulu, March 14, 2010.
11. X. Chen, G. Song and Y. Zhang, "Virtual and Remote Laboratory Development: A Review," ASCE Earth and Space 2010 Conference, Honolulu, March, 2010.
12. X. Chen, "Technologies for Development of Virtual and Remote Laboratory," ASEE Annual Conference & Exposition 2009.
13. X. Chen, "Weigh-in-Motion Sensors," International Conference on Networking, Sensing and Control (ICNSC), Sanya, China, April, 2008.
14. X. Chen, "Teaching Java with BlueJ – Objective First," ASEE Annual Conference & Exposition, Pittsburgh, PA, June, 2008.
15. X. Chen, "Development of Virtual and Remotely Accessible Laboratory (VR-Lab)," TSU Research Week 2008, Texas Southern University, April, 2008.

TEACHING AT TEXAS SOUTHERN UNIVERSITY

UNDERGRADUATE LEVEL

FALL 2015 (6 CREDITS)

1. Java Programming (CMET 470), 3 credits
2. Operating System (CMET 331), 3 credits

SPRING 2015 (9 CREDITS)

3. Operating System (CMET 331), 3 credits
4. Advanced Structured Programming with C++ (ELET 422) Session 1, 3 credits
5. Advanced Structured Programming with C++ (ELET 422) Session 2, 3 credits

FALL 2014 (6 CREDITS)

6. Java Programming (CMET 470), 3 credits
7. Operating System (CMET 331), 3 credits

SPRING 2014 (9 CREDITS)

8. Introduction to Structured Programming C++ (ELET 130), 3 credits
9. Advanced Structured Programming with C++ (ELET 422) Session 1, 3 credits

10. Advanced Structured Programming with C++ (ELET 422) Session 2, 3 credits
FALL 2013 (6 CREDITS)

11. Java Programming (CMET 470), 3 credits

12. Operating System (CMET 331), 3 credits

SPRING 2013 (9 CREDITS)

13. Operating System (CMET 331), 3 credits

14. Advanced Structured Programming with C++ (ELET 422) Session 1, 3 credits

15. Advanced Structured Programming with C++ (ELET 422) Session 2, 3 credits

FALL 2012 (6 CREDITS)

16. Direct Current Circuits (ELET133), 3 credits

17. Operating System (CMET 331), 3 credits

SPRING 2012 (6 CREDITS)

18. Direct Current Circuits (ELET133), 3 credits

19. Advanced Structured Programming with C++ (ELET 422), 3 credits

FALL 2011 (9 CREDITS)

1. Java Programming (CMET 470), 3 credits

2. Direct Current Circuits (ELET133), 3 credits

3. Artificial Intelligence (CMET 438), 3 credit

SPRING 2011 (10.5 CREDITS)

1. Advanced Structured Programming with C++ (ELET 422), 3 credits

2. Direct Current Circuits (ELET133), 3 credits

3. Direct Current Circuits Lab (ELET 111), 1.5 credit

4. Senior Project II (CMET 432), 3 credits

FALL 2010 (8.5 CREDITS)

1. Java Programming (CMET 470), 3 credits

2. Operating System (CMET 331), 3 credits

3. Senior Project I (CMET 412), 1 credit

4. Direct Current Circuits Lab (ELET 111), 1.5 credit

SPRING 2010 (9 CREDITS)

1. Advanced Structured Programming with C++ (ELET 422), 3 credits

2. Alternating Current Circuits (ELET133), 3 credits

3. Senior Project II (CMET 432), 3 credits

FALL 2009 (8.5 CREDITS)

1. Java Programming (CMET 470), 3 credits

2. Operating System (CMET 331), 3 credits

3. Senior Project I (CMET 412), 1 credit

4. Direct Current Circuits Lab (ELET 111), 1.5 credit

SPRING 2009 (9 CREDITS)

1. Advanced Structured Programming with C++ (ELET 422), 3 credits

2. Operating System (CMET 331), 3 credits

3. Senior Project II (CMET 432), 3 credits

FALL 2008 (9 CREDITS)

1. Java Programming (CMET 470), 3 credits

2. Operating System (CMET 331), 3 credits

3. Application Microprocessor Software Lab (CMET 416), 1.5 credits

4. Senior Project I (CMET 412), 1.5 credit

SPRING 2008 (10.5 CREDITS)

1. Advanced Microcomputer Network (CMET 435), 3 credits
2. Application Microprocessor Software (CMET 436), 3 credits
3. Advanced Structured Programming with C++ (ELET 422), 3 credits
4. Advanced Microcomputer Network Lab (CMET 415), 1.5 credit

FALL 2007 (12 CREDITS)

1. Java Programming (CMET 470), 3 credits
2. Operating System (CMET 331), 3 credits
3. Microprocessor Software Applications (ELET 353), 3 credits
4. Direct Current Circuits Lab Section 1 (ELET 111), 1.5 credit
5. Direct Current Circuits Lab Section 3 (ELET 111), 1.5 credit

SPRING 2007 (12 CREDITS)

1. Advanced Structured Programming with C++ (ELET 422), 3 credits
2. Advanced Microcomputer Network (CMET 435), 3 credits
3. Advanced Microcomputer Network Lab (CMET 415), 1.5 credit
4. Application Microprocessor Software (CMET 436), 3 credits
5. Application Microprocessor Software Lab (CMET 416), 1.5 credit

FALL 2006 (10.5 CREDITS)

1. Introduction to Structured Programming C++ (ELET 130), 3 credits
2. Operating System (CMET 331), 3 credits
3. Data Communication Methods (CMET 437), 3 credits
4. Data Communication Methods Lab (CMET 417), 1.5 credit

TEACHING AT NANJING UNIVERSITY OF SCIENCE AND TECHNOLOGY
GRADUATE LEVEL (1991-1997)

1. Digital Signal Processing
2. Digital Control Systems
3. Linear Control System
4. Optimal Control Systems

UNDERGRADUATE LEVEL 1991-1997

1. C Programming
2. Microprocessor Systems
3. Introduction to Computer Architecture and Design
4. Circuit Analysis
5. Process Control
6. Programmable Logic Controllers and Applications
7. Automatic Control Systems
8. State-Space Control Systems
9. Control System Component Design

OTHER CONTRIBUTIONS TO THE AREA OF TEACHING

ADVISED AND SUPPORTED UNDERGRADUATE STUDENTS AT TSU

1. Daniel Osakue, and Osman Ahmed, Virtual and Remote Lab Development, Supported by NSF grant, fall semester, 2011.

2. Daniel Osakue, Virtual and Remote Lab Development, Supported by NSF grant, August, 2011.
3. Daniel Osakue, Develop a Remote DSP Laboratory for STEM Education, Supported by TSU Undergraduate Research Program (URP), June 1 – August 5, 2011.
4. Daniel Osakue, and Osman Ahmed, Virtual and Remote Lab Development, Supported by NSF grant, spring semester, 2011.
5. Daniel Osakue, Elvino Taylor, and Mohammed AlmohadAli, Virtual and Remote Lab Development, Supported by NSF grant, summer semester, 2010.
6. Daniel Osakue, Virtual and Remote Lab Development, Supported by NSF grant, spring semester, 2010.
7. Stephanie Agina, Data Communication Lab Development with Matlab, Supported by TSU seed grant, spring semester, 2007.

ADVISED UNDERGRADUATE STUDENT POSTERS

1. Daniel Osakue, and Osman Ahmed, “Virtual and Remote Laboratory Framework Development for Advancing Engineering Technology Education and other STEM Fields,” Society for Advancement of Chicanos and Native Americans in Science (SACNAS), San Jose, California, October 27-30, 2011. Advisor: X. Chen.
2. Daniel Osakue, and Osman Ahmed, “Virtual and Remote Laboratory Development for Engineering Technology Education and Beyond”, Texas Undergraduate Research Day at the Capitol, Austin, TX, February 14, 2011. Advisor: X. Chen.
3. Andre Seals and Daniel Osakue, “ASCE 2010 International Undergraduate Student Vibration Control Competition,” College of Science and Technology fall open house, October 28, 2010. Advisor: X. Chen.
4. Osman Ahmed and Daniel Osakue, “Development of Remote Laboratory for Data Communication Experiments”, College of Science and Technology fall open house, October 28, 2010. Advisor: X. Chen.

SUPPORTED UNDERGRADUATE STUDENT TRAVELS

1. Daniel Osakue, and Osman Ahmed, 2011 SACNAS National Conference, Supported by NSF grant, San Jose, California, October 27-30, 2011.
2. Andre Seals, and Daniel Osakue, Vibration Control Student Competition, Earth and Space 2010, Supported by NSF grant, March, 2010.

ACHIEVEMENTS OF CMET STUDENTS

1. Daniel Osakue, Travel Scholarship, 2011 SACNAS National Conference, San Jose, California, October 27-30, 2011. Advisor: X. Chen.
2. Daniel Osakue, A+ Certificate, September, 2011.
3. Daniel Osakue, TSU 2011 Undergraduate Research Program (URP) presentation, First place award, August, 2011. Advisor: X. Chen.
4. Daniel Osakue, and Osman Ahmed, Represented TSU to attend Texas Undergraduate Research Day at the Capitol, Austin, TX, February 14, 2011. Advisor: X. Chen.

5. Andre Seals and Daniel Osakue, Vibration Control Student Competition, Third place award, Earth and Space 2010, Advisor: X. Chen, March, 2010. Advisor: X. Chen.
6. Elvino Taylor, Microsoft Scholarship winner, Computer Engineering Technology student, 2008. Advisor: X. Chen.
7. Elvino Taylor, The National Society of Collegiate Scholars, Computer Engineering Technology student, 2008. Advisor: X. Chen.

GRADUATE CONTRIBUTIONS

ACHIEVEMENTS OF GRADUATE STUDENT

1. Ning Wang, PhD student, University of Houston, fall 2014.
2. Ning Wang, College of Science and Technology Distinguished Graduate Student Award, Texas Southern University, 2014.
3. Chenyu Wang, PhD student, University of Houston, fall 2013.
4. Chenyu Wang, College of Science and Technology Distinguished Graduate Student Award, Texas Southern University, 2013.
5. Chenyu Wang, the first place poster award of Computer Sciences and Information Systems and Computer Engineering at the 2013 Emerging Researchers National (ERN) Conference.

GRADUATE THESIS AND DISSERTATION CO-ADVISOR AT TSU AND UH

1. Qianlong Lan, Development of Remote Laboratory, Master Thesis, Texas Southern University, Supported by Qatar NPRP project and NSF CREST project, start from fall of 2014.
2. Ning Wang, Design and Implementation of the Advanced Technology for Remote Laboratory Development, Master Thesis, Texas Southern University, Supported by Qatar NPRP project and NSF CREST project, 09/2012 – 08/2014.
3. Chengyu Wang, Research topic: Data Aggregator Analysis and Distributed Kalman Filter for Energy Efficient Wireless Sensor Networks, Master Thesis, Texas Southern University, Supported by NSF CREST project, 09/2011 – 05/2013.
4. Bo Cao, Research topic: Develop Next Generation Unified Framework for Remote Laboratory Experiments, Supported by NSF IEECI project, Master Thesis, University of Houston, 01/2010 – present.
5. Ifeanyi C. Onuigbo, Developing a GIS and Remote Sensing Based Roads Monitoring and Maintenance System for Minna and Environs, Ph.D. Dissertation, Texas Southern University, 2010.
6. Bosko Gajic, PZT based embedded systems for teaching engineering concepts and wireless structural health monitoring of wind turbine blades, Master Thesis, Department of Mechanical Engineering, University of Houston, 2009.

GRADUATE SCHOOL REPRESENTATIVE ON THE THESIS COMMITTEES AT TSU

1. Ming Bao, Impact of N-Policy on Quality of Service for Energy Efficient Wireless Sensor Networks, Master Thesis, Department of Computer Science, 2014.

2. Marcia Robin-Stoute, Best Management Practices of Selected Transportation Agencies in Stormwater Drainage: A Case Study of Innovation in Four Cities, Master Thesis, Department of Transportation Studies, 2014.
3. Guanqi Liu, Use of Directional Median Opening on Urban Median-Divided Roadways, Master Thesis, Department of Transportation Studies, 2014.
4. Ying Li, Identify Suitable Treatments for Bicycle Crossings at Freeway Interchanges, Master Thesis, Department of Transportation Studies, 2012.
5. Yang He, Characterization of Real-World VSP Distributions for Emission Analysis, Master Thesis, Department of Transportation Studies, 2012.
6. Zhao Zhang, Modeling, Analysis and Optimization of Energy Efficient Wireless Sensor Network, Master Thesis, Department of Computer Science, 2012.
7. Polina Korzhova, Examining Driver's Understanding of Congestion Pricing Signs through Simulator Test, Master Thesis, Department of Transportation Studies, 2012.
8. Ohunene B. Abogunde, Modulation of Escherichia Coli Transcript Levels Following Exposure to Space and Apace-Like Environments, Master Thesis, Department of Biology, 2010.
9. Hongxi Yu, Guidelines for Selecting Left-Turn signal Control Mode, Master Thesis, Department of Transportation Studies, 2009.
10. Bin Wang, Development of Pedestrian Safety Based Warrants for Protected/Permissive Left-Turn Control, Master Thesis, Department of Transportation Studies, 2009.
11. Adedotun Adebawale, Evaluation of Volatile Organic Compounds in Crude Coconut, Peanut, Olive, and Petroleum Oils and Toxic Organic Contaminations in the Oluyoro Stream of Nigeria, Ph.D. Dissertation, Department of Chemistry, 2008.
12. Rong Zhang, Advance Guide Sign Placement Considering Drivers' Workloads and Driving Behaviors, Master Thesis, Department of Transportation Studies, 2008.
13. Chenyan Guo, Development of Guidelines on Multiple Left-turn Lanes Installation, Master Thesis, Department of Transportation Studies, 2008.
14. Xiaoyue Liu, Non-conventional Approach to Geolocation Data Compression for Aviation Target, Master Thesis, Department of Transportation Studies, 2007.
15. Hui Wang, Symbol Sign Design for Major Traffic Generators at Freeway, Interchanges, Master Thesis, Department of Transportation Studies, 2007.
16. Lijin Ma, Synthesize the Eligibility Criteria for Texas Major Traffic Generator Using Fuzzy Logic Algorithm, Master Thesis, Department of Transportation Studies, 2007.
17. Lei Guo, Safety Impacts Analysis of Left-turn Signal Phasing Treatments, Master Thesis, Department of Transportation Studies, 2007.

PRIOR SUPERVISED OR ADVISED GRADUATE STUDENTS AT UH AND AT NJUST

1. Lianhe Guo, Study of Weigh-In-Motion Sensors, Ph.D. Dissertation, Department of Electrical and Computer Engineering, University of Houston, 2005.

2. Yijie Sun, A High-Resolution Sequential Sampling Ground Penetrating Radar System, Ph.D. Dissertation, Department of Electrical and Computer Engineering, University of Houston, 2005.
3. Yuanhang Chen, Integrated Laser 2-D Surface Imaging System for Thickness Measurement of Thermoplastic Pavement Marking Materials, Ph.D. Dissertation, Department of Electrical and Computer Engineering, University of Houston, 2005.
4. Aditya Ekbote, Measurement of Elastic Properties of Asphalt Pavement Using Ground Penetrating Radar, Master Thesis, Department of Electrical and Computer Engineering, University of Houston, 2005.
5. Jingheng Cheng, Soil Moisture Sensors, Master Thesis, Department of Electrical and Computer Engineering, University of Houston, 2005.
6. Jingyan Yu, An Application of a Fiber Optic Sensor in Weigh-in-Motion Systems, Master Thesis, Department of Electrical and Computer Engineering, University of Houston, 2004.
7. Jingyu Liu, Measurement of retro-reflectivity of highway markings, Master Thesis, Department of Electrical and Computer Engineering, University of Houston, 2004.
8. Huixhun Xing, Measurement of pavement thickness using a ground penetrating radar, Master Thesis, Department of Electrical and Computer Engineering, University of Houston, 2002.
9. Renyue Liang, Development of a laser triangulation distance measurement device and its application to borehole roughness detection, Master Thesis, Department of Electrical and Computer Engineering, University of Houston, 2002.
10. Jiangtao Lin, Detection of rough surface parameters by an X-Band scatterometer, Ph.D. Dissertation, Department of Electrical and Computer Engineering, University of Houston, 2001.
11. Min Wu, Design and implementation of Highway Crack Monitoring System, Master Thesis, Department of Electrical and Computer Engineering, University of Houston, 2001.
12. Lanlin Zhou, Structure monitoring system, Master Thesis, Department of Electrical and Computer Engineering, University of Houston, 1999.
13. Yong Rao, A high speed highway macro/micro texture measurement system, Master Thesis, Department of Electrical and Computer Engineering, University of Houston, 1999.
14. Qing Zhang, A multi-frequency EM sensor, Master Thesis, Department of Electrical and Computer Engineering, University of Houston, 1999.
15. Wei Ma, Time Domain Reflectometry (TDR) for Soil Moisture Measurement, Master Thesis, Department of Electrical and Computer Engineering, University of Houston, 1997.
16. Xiangmin He, Continuous Wave Conductivity and Dielectric-constant Image Reconstruction, Master Thesis, Department of Electrical and Computer Engineering, University of Houston, 1997.
17. Qian Zhang, Pulse GPR System Design and Implementation, Master Thesis, Department of Electrical and Computer Engineering, University of Houston, 1997.

18. Ming He, A manhole detector system, Master Thesis, Department of Electrical and Computer Engineering, University of Houston, 1997.
19. Zhangrun Luo, Implementation of Computer-Controlled Processing Control System, Master Thesis, Department of Automatic Control, Nanjing University of Science & Technology, 1997.
20. Hongbing Ming, Implementation and Simulation of Computer-Controlled Processing Control System, Master Thesis, Department of Automatic Control, Nanjing University of Science & Technology, 1997.
21. Juntao Zhang, Image Feature Detection and Pattern Recognition, Master Thesis, Department of Automatic Control, Nanjing University of Science & Technology, 1996.

SERVICE

AT TEXAS SOUTHERN UNIVERSITY

- Member, Research Committee of College of Science and Technology, 2006 – present.
- Member, Website Committee of College of Science and Technology, 2006 – present.
- Webmaster, Department of Engineering Technology (<http://engineeringtech.tsu.edu/>), 2008 – present.
- Advisor, Chinese Students and Scholars' Association at TSU, 2009 – present.
- Advisor, Intelligent Transportation Society of America Student Chapter at Texas Southern University, 2010 – present.

EDITOR

- Editor, Systems Science & Control Engineering: An Open Access Journal, ISSN 2164-2583, 2013 – present.

NSF PANELIST

- Engineering Education Research proposal review panel on Innovation in Engineering Education, Curriculum and Infrastructure (IEECI), March, 2010.

DOE PROPOSAL REVIEWER

- Workforce Training for the Electric Power, 2010.
- Smart Grid Investment Grant Program (SGIG), 2009.

CONFERENCE PROGRAM CHAIRED

- Program Chair, IEEE International Conference on Networking, Sensing and Control 2016.
- Program Co-Chair, IEEE International Conference on Networking, Sensing and Control 2015.
- Special Session Chair, IEEE International Conference on Networking, Sensing and Control 2014.
- Symposium Co-Chair, ASCE Earth and Space 2012.
- Symposium Co-Chair, ASCE Earth and Space 2010.
- Student Activity Chair, IEEE International Conference on Networking, Sensing and Control 2010.

Program Co-Chair, IEEE International Conference on Networking, Sensing and Control 2008.

CONFERENCE SESSION CHAIRED

Session of Subsurface Sensing and Imaging, IEEE International Conference on Networking, Sensing and Control 2006.

CONFERENCE PROGRAM COMMITTEE

IEEE International Conference on Networking, Sensing and Control 2014
IEEE International Conference on Service Operations, Logistics and Informatics 2012
IEEE International Conference on Computer Science and Automation Engineering 2012
ASCE Earth and Space 2012
IEEE International Conference on Service Operations, Logistics and Informatics 2011
ASCE Earth and Space 2010
IEEE International Conference on Networking, Sensing and Control 2010
IEEE International Conference on Service Operations, Logistics and Informatics 2009
IEEE International Conference on Networking, Sensing and Control 2009
IEEE International Conference on Networking, Sensing and Control 2008
IEEE International Conference on Networking, Sensing and Control 2007
IEEE International Conference on Networking, Sensing and Control 2006

UNIVERSITY REPRESENTATIVE

ASEE Campus Representative, 2008 – present.

REVIEWER SINCE JOINING TSU

Book:

- Nonlinear Stochastic Systems with Network-Induced Phenomena: Recursive Filtering and Sliding Mode Design, Springer, 2013.
- Variance-Constrained Multi-Objective Stochastic Control and Filtering, John Wiley & Sons Ltd., 2013.
- Filtering, Control and Fault Detection with Randomly Occurring Incomplete Information, John Wiley & Sons Ltd., 2012.
- Objects First with Java - A Practical Introduction using BlueJ, Fourth Edition, Prentice Hall / Pearson Education, 2010.

Journals:

- IEEE Transactions on Systems, Man, and Cybernetics--Part C: Applications and Reviews
- IEEE/ACM Transactions on Computational Biology and Bioinformatics
- Sensors
- IEEE Transactions on Education
- Signal Processing
- International Journal of Control
- International Journal of General Systems
- International Journal of System Science
- International Journal of Computer Mathematics

- International Journal of Neural Systems
- International Journal of Distributed Sensor Networks
- International Journal of Adaptive Control and Signal Processing
- International Journal of Online Engineering
- International Journal of Sensor Networks
- Journal of Nonlinear Analysis
- EURASIP Journal on Wireless Communications and Networking
- European Transactions on Telecommunications
- Physics Letters A
- Circuit, System and Signal Processing
- Computers in Biology and Medicine

Conferences:

- IEEE International Conference on Networking, Sensing and Control 2014
- The 26th Chinese Control and Decision Conference 2014
- The 25th Chinese Control and Decision Conference 2013
- International Conference on Information System and Engineering Management 2013 (ICISEM 2013)
- IEEE International Conference on Computer Science and Automation Engineering 2012
- ASCE Earth and Space 2012
- IEEE International Conference on Communications 2011
- IEEE International Conference on Service Operations, Logistics and Informatics 2011
- Wireless Telecommunications Symposium 2011
- IEEE International Conference on Networking, Sensing and Control 2010
- ASCE Earth and Space, 2010
- IEEE International Conference on Service Operations, Logistics and Informatics 2009
- IEEE International Conference on Networking, Sensing and Control 2009
- IEEE International Conference on Networking, Sensing and Control 2008
- IEEE International Conference on Networking, Sensing and Control 2007
- The 4th International Conference on Cybernetics and Information Technologies, Systems and Applications (CITSA 2007)
- IEEE International Conference on Networking, Sensing and Control 2006