

JIE GONG
Assistant Professor
Department of Civil and Environmental Engineering
Rutgers, the State University of New Jersey, Piscataway, NJ 08854
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EDUCATION

Doctor of Philosophy, the University of Texas at Austin **December 2009**

Major: Civil Engineering

Dissertation Title: An Object Recognition, Tracking, and Contextual Reasoning based Video Interpretation Methodology for Rapid Productivity Analysis of Construction Operations

Master of Science, Texas Tech University **August 2005**

Major: Civil Engineering

Report Title: Non-Destructive Evaluation of Installed Soil Nails

Bachelor of Science, Shanghai Jiao Tong University **June 1999**

Major: Civil Engineering

APPOINTMENTS

Tenure-Track Assistant Professor **08/2012 - Present**

Department of Civil and Environmental Engineering, Rutgers, the State University of New Jersey

Tenure-Track Assistant Professor **01/2010- -7/2012**

Department of Construction, Southern Illinois University Edwardsville

Research Assistant & Teaching Assistant **09/2005-12/2009**

The University of Texas at Austin

Research Assistant **09/2002-08/2005**

Texas Tech University

NDT Technical Intern **06/2004- 08/2004**

Olson Engineering, Inc. Denver, CO

Geotechnical Engineer **01/1999-07/2002**

Shanghai Tunnel Engineering and Rail Transit Design and Research Institute

HONORS AND AWARDS

- ASCE educator of the year, 2015, American Society of Civil Engineering, Central Jersey Branch.
- Travel Grant for North America-East Asia NSF Workshop on Big Data Analytics for Infrastructure and Building Sustainability and Resilience (IBSR) Research, 2014
- A. Walter Tyson Assistant Professorship Award, Rutgers, 2014
- 2013 Outstanding Reviewer for ASCE Journal of Computing in Civil Engineering
- Distinguish Engineering Award, New Jersey Alliance for Action, 2013
- Travel Grant for NSF Workshop on Sciences behind Sustainability Quantification for Building

- and Infrastructure Design, Engineering and Construction (S2QBIDEC), 2012
- 2010 Best Paper Award of ASCE Journal of Computing in Civil Engineering, 2011
- 2011 Outstanding Teaching Award at Southern Illinois University Edwardsville
- Contributor to 2007 FIATECH Celebration of Engineering & Technology Innovation (CETI) Award - Intelligent and Automated Construction Job Site Category. The Sandow Steam Electric Station Unit 5 RFID Trial. This field trial was part of the CII RT240 Leveraging Technology to Improve Construction Productivity research study.
- Richard and Shirley Tucker Endowed Scholarship in Construction Engineering and Project Management, in recognition of academic excellence, totaling \$1,000, The University of Texas at Austin (2007 – 2008)
- The Chancellor’s Fellowship, for achievements in research and coursework, totaling \$9,000, Texas Tech University (2002- 2005)
- 2001 Shanghai Science and Technology Award in recognition of research achievements at the national level in developing Finite Element Analysis procedures for analyzing large scale and complex underground constructions
- 2001 Second Grade Shanghai Municipal Engineering Administration Bureau Award
- 2000 Shanghai Science and Technology Award in recognition of research achievements at the national level in developing innovative bracing systems for super-deep excavations
- 2000 First Grade Shanghai Municipal Engineering Administration Bureau Award

PUBLICATIONS RECORD

*Underline indicates a Rutgers student, * indicates a student that I directly advised.*

Peer-Reviewed Articles in Scholarly Journals

Peer-reviewed journal Articles (published)

1. Zhou, Z.*, **Gong, J.**, Roda, A., & Farrag, K. (2016). Multiresolution Change Analysis Framework for Post-disaster Assessment of Natural Gas Pipeline Risk. Transportation Research Record: Journal of the Transportation Research Board, (2595), 29-39.
2. Hu, X.*, Liu, B.*, Wu, Z. Y., & **Gong, J.** (2016). Analysis of Dominant Factors Associated with Hurricane Damages to Residential Structures Using the Rough Set Theory. Natural Hazards Review, 04016005.
3. Zhou, Z.*, **Gong, J.**, and Guo, M* (2015) “Image-based 3D Reconstruction for Post-Hurricane Residential Building Damage Assessment” ASCE Journal of Computing in Civil Engineering. 10.1061/(ASCE) CP.1943-5487.0000480,04015015.
4. Jalayer, M., **Gong, J.**, Zhou, H., and Grinter, M. (2015) “Evaluation of Remote Sensing Technologies for Collecting Roadside Feature Data to Support Highway Safety Manual Implementation” Journal of Transportation Safety and Security, Vol. 7(4), pp. 345-357.
5. Hatzikyriakou, A., Lin, N., **Gong, J.**, Xian, Si., Hu, X.*, and Kennedy, A. (2015) “Component-based vulnerability analysis of storm surge damage to residential structures from Hurricane Sandy using manual and LiDAR surveys” ASCE Journal of Natural Hazards Review, 10.1061/(ASCE) NH. 1527-6996.000025.
6. Liu, B.*, Huo, T., Meng, J., **Gong, J.**, Shen, Q., and Sun, T. (2015). "Identification of Key Contractor Characteristic Factors That Affect Project Success under Different Project Delivery Systems: Empirical Analysis Based on a Group of Data from China." J. Manage. Eng. , 10.1061/(ASCE)ME.1943-5479.0000388 , 05015003.
7. **Gong, J.**, Yu, Y.*, Krishnamoorthy, R.*, and Roda, A. (2015) “Real-Time Tracking of Concrete Vibration Effort for Intelligent Concrete Consolidation” International Journal of Automation in Construction, Vol. 54, pp. 12-24.
8. Liu, B.*, Huo, T., Liao, P., **Gong, J.**, and Xue, B. (2015) “A Group Decision-Making Aggregation Model for Contractor Selection in Large Scale Construction Projects Based on Two-Stage Partial Least Squares (PLS) Path Modeling” Journal of Group Decision and Negotiation, Vol. 24, Issue 5, pp. 855-883.

9. Farzan, F.*, Jafari, M., **Gong, J.**, Farzan, F., and Stryker, A. (2015) "A Multi-Scale Adaptive Model of Residential Energy Demand" *Journal of Applied Energy*, Vol. 150, pp. 258-273.
10. Farzan, F.*, Farzan, F., Jarfari, M., and **Gong, J.** (2015) "Integration of Demand Dynamics and Investment Decisions on Distributed Energy Resources" *IEEE Transactions on Smart Grid*, Vol (99).
11. Farzan, F.*, Vaghefi, S. A., Mahani, K., Jafari, M., **Gong, J.** (2015) "Operational Planning for Multi-building Portfolio in an Uncertain Energy Market" *Energy and Buildings*, Vol. 103, pp. 271-283.
12. **Gong, J.** and Maher, A. (2014) "Mobile LiDAR-based Approaches for Assessing Hurricane Damages and Visualizing Resiliency Rebuilding Needs" *Journal of Transportation Research Board*, No. 2459, pp. 119-126.
13. Jalayer, M., Zhou, H., **Gong, J.**, and Grinter, M. (2014) "A Comprehensive Assessment of Highway Inventory Data Collection Methods for Supporting Highway Safety Manual Implementation" *Journal of Transportation Research Forum*, Vol. 53, No. 2, pp. 73-92.
14. Williams, T. and **Gong, J.** (2014) "Predicting Construction Cost Overruns Using Text Mining, Numerical data and Ensemble Classifiers" *International Journal of Automation in Construction*, Vol. 43, 23-29.
15. Rafibakhsh, N.*, Lee, H. F., **Gong, J.**, Ko, H. S., and Mohammadi, A. (2013) "Applying Fuzzy Logic for Optimal Placement of XBOX Kinect Sensors for Industrial Applications" *Advanced Materials Research*, Vo. 628 (2013), pp 433-439.
16. Rafibakhsh, N.*, Lee, H. F., and **Gong, J.** (2013) "Optimally Placing Multiple Kinect Sensors for Workplace Monitoring" *Research Notes in Information Science*, Volume 14, pp. 729-735, 2013.
17. **Gong, J.**, Caldas, C. H., and Gordon C. (2011) "Learning and Classifying Actions of Construction Workers and Equipment Using Bag-of-Video-Feature-Words and Bayesian Network Models" *Journal of Advanced Engineering Informatics*, 25(4), 771-782.
18. **Gong, J.**, Borcherdig, J. D., and Caldas, C. H. (2011) "Effectiveness of Craft Time Utilization in Construction Projects" *Journal of Construction Management and Economics*, 29(7), 2011.
19. **Gong, J.** and Caldas, C. H. (2011) "An Object Recognition, Tracking, and Contextual Reasoning based Video Interpretation Method for Rapid Productivity Analysis of Construction Operations" *International Journal of Automation in Construction*, 20(8), 1211-1226.
20. **Gong, J.** and Caldas, C. H. (2010) "A Computer Vision Based Video Interpretation Method for Automated Productivity Analysis of Construction Operations." *ASCE Journal of Computing in Civil Engineering* 24 (3), 252-263.
21. Grau, D., Caldas, C. H., Haas, C. T., Goodrum, P. M., and **Gong, J.** (2009) "Assessing The Impact of Automated Materials Tracking Technologies On Construction Craft Productivity." *International Journal of Automation in Construction*. 18(7), 903-911.
22. **Gong, J.** and Caldas, C. H. (2008). "Data Processing for Real-Time Construction Site Spatial Modeling." *International Journal of Automation in Construction*, 17 (5), 526-535.
23. Chi, S., Caldas, C. H., and **Gong, J.** (2008) "A Crash Avoidance Framework for Heavy Equipment Control Systems Using 3D Imaging Sensors." *Electronic Journal of Information Technology in Construction*, 13, 118-133.
24. **Gong, J.**, Jayawickrama, P. W., and Tinkey, Y. (2006). "Nondestructive Evaluation of Installed Soil Nails." *Journal of the Transportation Research Record*, Vol. (1976), 104-113.

Peer-Reviewed Journal Articles (2nd Review)

25. Wang, Z.*, Hu, H., and **Gong, J.** "Framework for Modeling Operational Uncertainty to Optimize Offsite Production Scheduling of Precast Components: submitted to *International Journal of Automation in Construction*.

Peer-Reviewed Journal Articles (1st Review)

26. Farzan, F.*, **Gong, J.**, and Williams, T. P. "A Framework and Data Mining Models for Rapid Analysis of Social Media Data to Improve Transit Operations" submitted to *KSCE Journal of Civil Engineering*.

27. Zhou, Z.* and **Gong, J.** “Automated Residential Building Detection from Airborne LiDAR Data with Deep Neural Networks” submitted to International Journal of Photogrammetry and Remote Sensing.
28. Zhou, Z.* and **Gong, J.** “Automated Analysis of Mobile LiDAR Data for Component-Level Damage Assessment of Building Structures during Large Coastal Storm Events” submitted to Journal of Computer-Aided Civil and Infrastructure Engineering.
29. Zhou, Z.* and **Gong, J.** “Multi-Level Post-Hurricane Damage Assessment of Residential Buildings using Multi-Temporal Airborne LiDAR Data” submitted to International Journal of Automation in Construction.
30. Hu, X.* and **Gong, J.** “Modeling Uncertainty in Information Loss in LiDAR-Derived Digital Elevation Models” submitted to International Journal of Digital Earth.

Books and Editorials

Book Chapters and Editorials:

1. *Invited.* Gong, J., Hu, X.*, Parashar, M. Data Analytics Applications for Smart Cities Subchapter “Advancing Smart and Resilient Cities with Big Spatial Disaster Data: Challenges, Progresses, and Opportunities” (in preparation)
2. Chong, W., Gong, J., Chang, J., and Siddiqui, M. K. (2012) “Editorial: ICSDEC 2012: Developing the Frontier of Sustainable Design, Engineering, and Construction for the Proceeding of the 2012 International Conference on Sustainable Design, Engineering, and Construction”
3. **Gong, J.**, Siddiqui, M., Caldas, C. H., and O’Brien W. J. (2011) “Editorial: The Special Issue of 26th International Symposium of Construction Automation and Robotics” International Journal of Automation in Construction, 20 (6), 661-663.
4. **Gong, J.**, Siddiqui, M., Caldas, C. H., and O’Brien W. J. (2011) “The Special Issue of 26th International Symposium of Construction Automation and Robotics” International Journal of Automation in Construction.
5. Caldas, C. H., O’Brien, W. J., Chi, S., **Gong, J.**, and Luo, X. (2009). “Proceedings of the 26th Annual International Symposium on Automation and Robotics in Construction”

Peer-Reviewed Articles Published in International Conferences

Peer-Reviewed Conference Papers in Proceedings (published)

1. **Gong, J.**, Feeley, C., Tang, H., Olmschenk, G., Nair, V., Yu, Y.*, Zhou, Z.*, Yamamoto, K., Zhu, Z. (2017) “Building Smart and Accessible Transportation Hubs with Internet of Things, Big Data Analytics, and Affective Computing” 2017 International Conference on Sustainable Infrastructure, New York, October 26-28.
2. **Gong, J.**, Feeley, C., Tang, H., Olmschenk, G., Nair, V., Yu, Y.*, Zhou, Z.*, Yamamoto, K., Zhu, Z. (2017) “Building Smart Transportation Hubs with Internet of Things to Improve Services to People with Disabilities” 2017 International Workshop of Computing in Civil Engineering, Seattle, June 25-June 27, 2017.
3. **Gong, J.**, Feeley, C., Tang, H., Olmschenk, G., Nair, V., Yu, Y.*, Zhou, Z.*, Yamamoto, K., Zhu, Z. (2017) “Building Smart Transportation Hubs with Internet of Things to Improve Services to People with Special Needs” *Transportation Research Board (TRB) 96th Annual Meeting*, January 8–12, 2017.
4. Zhou, Z.*, **Gong, J.**, Roda, A., and Farrag, K. (2016). “A Multi-Resolution Change Analysis Framework for Post-Disaster Natural Gas Pipeline Risk Assessment” 2016 Transportation Research Board, Washington D.C., USA.
5. Farrag, K. and **Gong, J.** (2016). “Risk Analysis of Natural Gas Distribution Lines Subjected to Natural Forces” 2016 Transportation Research Board, Washington D.C., USA.
6. Ardestani, S., Jin, P., Volkmann, O., **Gong, J.**, Zhou, Z.*, and Feeley, C. (2016) “3D Accident Site Reconstruction using Unmanned Aerial “Vehicle” 2016 Transportation Research Board, Washington D.C., USA.

7. **Gong, J., Yu, Y.***, Williams, T., and Roda, A. (2015). "Real-Time 3D Concrete Vibration Effort Tracking and Visualization with Ultra-Wide Band Technologies" 2015 Transportation Research Board, Washington D.C., USA.
8. Jalayer, M., Zhou, H., **Gong, J.**, and Grinter, M. (2015) "A Comprehensive Assessment of Highway Inventory Data Collection Methods for Implementing Highway Safety Manual" 2015 Transportation Research Board, Washington D.C., USA.
9. **Gong, J.** (2014) "A Remote Sensing-based Approach for Assessing and Visualizing Post-Sandy Damage and Resiliency Rebuilding Needs" Proceedings of 2014 Construction Research Congress, Atlantic, Georgia.
10. Leite, F., Bogen, C., and **Gong, J.** (2013) Grand Challenges in Information Modeling for the Architecture, Engineering, Construction, and Facility Management Industries. Computing in Civil Engineering (2013): pp. 427-434.
11. **Gong, J.** (2013) "Mobile LiDAR Data Collection and Analysis for Post-Sandy Disaster Recovery" 2013 International Workshop of Computing in Civil Engineering, Los Angeles, CA.
12. **Gong, J.** and Lin, N. (2013) "Post-Sandy Damage and Vulnerability Assessment with 3D Geospatial Sensing Methods" 11th International Conference on Structural Safety & Reliability, New York City.
13. Jalayer, M., **Gong, J.**, Zhou, H., and Grinter, M. (2013). "Evaluation of Remote Sensing Technologies for Collecting Roadside Feature Data to Support Highway Safety Manual Implementation." 92nd Annual Meeting of the Transportation Research Board, Washington D.C.
14. **Gong, J.** and Azambuja, M. (2012) "Visualizing Construction Supply Chains with Google Cloud Computing Tools" ICSDEC 2012: pp. 671-678.
15. **Gong, J.**, Zhou, H., Gordon, C., and Jalayer, M. (2012) "Mobile Terrestrial Laser Scanning for Highway Inventory Data Collection: A Review." 2012 International Workshop of Computing in Civil Engineering, Clearwater, FL.
16. Azambuja, M., Alves, T., Leite, F., and **Gong, J.** (2012) "Leveraging building information models to support supply chain decisions in construction projects" Proceedings of 2012 Construction Research Congress, Purdue, Indiana.
17. Rafibakhsh, N., **Gong, J.**, Siddiqui, M. K., Gordon, C., and Lee, H. F. (2012) "Analysis of XBOX Kinect Sensor Data for Use on Construction Sites" 2012 Construction Research Congress, Purdue.
18. **Gong, J.** and Caldas, C. H. (2011) "Learning and Classifying Motions of Construction Workers and Equipment Using Bag-of-Video Feature Words and Bayesian Learning Methods" 2011 International Workshop for Computing in Civil Engineering, Miami.
19. **Gong, J.**, Gordon C., and Azambuja M. (2011) "A Collective Analysis of the Impact of Heat on Construction Labor Productivity" 2011 International Conference on Sustainable Design and Construction, Kansas City, Kansas.
20. **Gong, J.** and Lee, H. F. (2011) "Lessons Learned in Building Information Modeling Applications" 2011 International Symposium on Automation and Robotics in Construction, Seoul, Korean.
21. **Gong, J.** and Caldas, C. H. (2010). "A Computer Vision and Reasoning based Video Interpretation System for Rapid Productivity Analysis of Construction Operations" 2010 ICCCBCE, Nottingham, UK.
22. **Gong, J.**, Borcharding, J. D., and Caldas, C. H. (2010). "Assessment of Direct Work Utilization in the U.S. Construction Industry (1972-2008)" Construction Research Congress 2010, Calgary.
23. Grau, D., Caldas, C. H., Haas, C. T., Goodrum, P. M., and **Gong, J.** (2009). "Leveraging Materials Tracking Technologies to Improve Industrial Project Performance." CIB 26th International Conference of Managing IT in Construction, Istanbul, Turkey.
24. **Gong, J.** and Caldas, C. H. (2009). "An Intelligent Video Computing Method for Automated Productivity Analysis of Cyclic Construction Operations." Proceedings of the 2009 ASCE International Workshop on Computing in Civil Engineering, Austin, TX.
25. Grau, D., Caldas, C. H., Haas, C. T., Goodrum, P. M., and **Gong, J.** (2009). "Impact of Fast Automated Tracking of Construction Components on Labor Productivity." Proceedings of the 26th Annual International Symposium on Automation and Robotics in Construction, Austin, Texas.

26. **Gong, J.** and Caldas, C. H. (2007) "Processing Of High Frequency Local Area Laser Scans For Construction Site Resource Management." Proceedings of the 2007 ASCE International Workshop on Computing in Civil Engineering, Pittsburgh, PA, pp. 665-672.
27. Caldas, C. H., Chi, S., Teizer, J., and **Gong, J.** (2006) "Intelligent Computing and Sensing for Active Safety on Construction Sites" Proceeding of the 13th Workshop of the European Group for Intelligent Computing in Engineering and Architecture, Ascona, Switzerland, pp. 101-108.
28. **Gong, J.**, Jayawickrama, P. W., and Tinkey, Y. (2005). "Nondestructive Evaluation of Installed Soil Nails." 2005 Transportation Research Board, Washington D.C., USA.

Research Reports

1. **Gong, J.** and Mengyang Guo* (2016) "Development of An Online Platform for Streamlining Highway LiDAR Data Collection, Sharing, and Processing" U.S. Department of Transportation University Transportation Center Report, CAIT-UTC-057.
2. **Gong, J.**, Parashar, M., Hu, X.*, and Zhou, Z.* (2016) "Cloud-based Federation and Fusion of Distributed Geospatial Data Sources for Supporting Hurricane Response: Requirements, Challenges, and Opportunities" U.S. Department of Transportation University Transportation Center Report, CAIT-UTC-047.
3. **Gong, J.**, Heaslip, K., McNeil, S., Farzan, F.*, and Brink, S. (2016) "Big Data: Opportunities and Challenges in Asset Management" U.S. Department of Transportation University Transportation Center Report, CAIT-UTC-030.
4. **Gong, J.**, Yu, Y.*, and Roda, A. (2014) "3D Laser Scanning for Quality Control and Assurance in Bridge Deck Construction" U.S. Department of Transportation University Transportation Center Report, CAIT-UTC-026.
5. **Gong, J.**, Krishnamoorthy, R.*, Roda, A. (2014) "Development of a Real-Time Vibrator Tracking System for Intelligent Concrete Consolidation" U.S. Department of Transportation University Transportation Center Report, CAIT-UTC-027.
6. Andrews, C., **Gong, J.**, Gedi, M. (2016) "Cost-Effective Detection of Multi-Family Housing-Related Health and Safety Standards" Final Report to U.S. Department of Housing and Urban Development.
7. **Gong, J.** (2016) "Mobile Hybrid LiDAR & Infrared Sensing for Natural Gas Pipeline Monitoring" A Final Report to U.S. Department of Transportation, CRS&SI Program.
8. **Gong, J.** (2009) "An Object Recognition, Tracking, and Contextual Reasoning Based Video Interpretation Methodology for Rapid Productivity Analysis of Construction Operations" Ph.D. Dissertation, The University of Texas at Austin, Austin, Texas.
9. Haas, C. T., Goodrum, P. M., Caldas, C. H., Grau, D., and **Gong, J.** (2008). "Leveraging Technology to Improve Construction Productivity." CII Research Report 240-11, December, 2008.
10. Jayawickrama, P. W., Tinkey, Y., **Gong, J.**, and Turner, J.(2007). "Non-Destructive Evaluation of Installed Soil Nails." TxDOT Research Report 0-4484-1, October, 2007.
11. Li, Q., Ni, Q., and **Gong, J.** (2001). "Design and Research of the large-scale Post-process Program for ALGOR FEAS." Research Report, Shanghai Research Evaluation Committee, 2001.
12. Adamson, W. G., Boyd, W. R., Butry, D., Caldas, C. H., Christan, D. D., Foley, C., Freeman, M. J., Galhardo, L., Goodrum, P. M., **Gong, J.**, Gouett, M. C., Granger, R., Haas, C. T., Hinkle, W., Hoff, G. C., Hopkins, S. D., James, T. M., MacNeel, D., Matteson, J., Murray, P., Priest, J., Saidi, K. S., Shan, Y., Smith, M. R., Stofega, G. M., Tomlinson, R., Toon, S., Zhang, D. "Construction Industry Institute Implementation Resource 252-2a, Guide to Activity Analysis", Construction Industry Institute, 07/2010. (non-refereed)
13. Haas, C. T., Nassir, H., Razavi, S., Young, D., Goodrum, P. M., Yeizer, J., Zhai, D., Himm, D., Caldas, C. H., Grau, D., and **Gong, J.** "Construction Industry Institute Implementation Resource RR240-11, Leveraging Technology to Improve Construction Productivity, Volume I: Historical Data Analysis" Construction Industry Institute, 09/2010. (non-refereed)
14. Haas, C. T., Nassir, H., Razavi, S., Young, D., Goodrum, P. M., Yeizer, J., Zhai, D., Himm, D., Caldas, C. H., Grau, D., and **Gong, J.** "Construction Industry Institute Implementation Resource RR240-13,

Leveraging Technology to Improve Construction Productivity, Volume III: Technology Field Trials” Construction Industry Institute, 09/2010. (non-refereed)

15. Jayawickrama, P. W., Tinkey, Y., **Gong, J.**, and Turner, J.(2007). “Non-Destructive Evaluation of Installed Soil Nails.” TxDOT Research Report 0-4484-1, October, 2007.
16. Li, Q., Ni, Q., and **Gong, J.** (2001). “Design and Research of the large-scale Post-process Program for ALGOR FEAS.” Research Report, Shanghai Research Evaluation Committee, 2001.

INVITED PRESENTATION AND SEMINARS

1. Gong, J. (2017) “Building Smart Transportation Hubs with Internet of Things to Improve Services to People with Disabilities” 2017 International Workshop of Computing in Civil Engineering, Seattle, June 25- June 27, 2017.
2. Gong, J. & Feeley, C. (2017) “Building Smart Transportation Hubs with Internet of Things to Improve Services to People with Special Needs” *Transportation Research Board (TRB) 96th Annual Meeting*, January 8–12, 2017.
3. Gong, J. (2017) “Advancing the Resilience of Coastal Communities with Big Visual Disaster Data: Challenges, Progresses, and Opportunities” Invited talk at the Department of Civil and Environmental Engineering, Temple University
4. Gong, J. (2017) “Building Smart, Resilient, and Accessible Cities with Big Geospatial Data” Invited Talk at the 2017 Rutgers Discovery Informatics Institute Open House.
5. Gong, J. (2017) “Building Smart, Resilient, and Accessible Cities with Big Geospatial Data” Invited Talk at the 2017 Rutgers Discovery Informatics Institute Open House.
6. Gong, J. and Zhu, Z. (2017) “Building Smart Transportation Hubs with Internet of Things to Improve Services to People with Disabilities” GCTC Supercluster Conference in Washington D.C., February, 2017.
7. Gong, J. and Feeley, C. (2016) “Building Smart Transportation Hubs with Internet of Things to Improve Services to People with Disabilities” GCTC Smart Cities Conference in Austin, Texas, June, 2016.
8. Gong, J. and Zhu, Z. (2016) “Building Smart Transportation Hubs with Internet of Things to Improve Services to People with Disabilities” GCTC Conference at NIST, April, 2017.
9. Gong, J. (2016) “Building Resilient Cities with Big 3D Data” Invited Talk in Visions for Future Forum in Bentley Year in Infrastructure Annual Conference.
10. Gong, J. (2015) “Improving Coastal Infrastructure Resilience with Big 3D Geospatial Data” National Science Foundation CCNY PRISM Lecture Series.
11. Gong, J. (2015) “Improving Coastal Infrastructure Resilience with Big 3D Geospatial Data: Opportunities and Challenges” Invited Talk in Visions for Future Forum in Bentley Year in Infrastructure Annual Conference.
12. Gong, J. (2015) “Mobile Hybrid Lidar & Infrared Sensing for Natural Gas Pipeline Monitoring” Invited Talk to Society of Gas Operators.
13. Gong, J. (2015) “Mobile Hybrid Lidar & Infrared Sensing for Natural Gas Pipeline Monitoring” CRS&SI Remote Sensing Workshop I at Oklahoma City.
14. Gong, J. (2015). “Multi-Source Remote Sensing Data Fusion for Large-Scale Spatial Mapping and Modeling of Transportation Infrastructure Systems” 17th NJDOT Research Showcase.
15. Gong, J. (2014) “Improving Coastal Infrastructure Resilience with Big 3D Disaster Data: Challenges and Opportunities” North America-East Asia Workshop on Big Data Analytics for Infrastructure and Building Sustainability and Resilience (IBSR) Research, Beijing, China.
16. Gong, J. (2014) “Improving Coastal Infrastructure Resilience with Big 3D Disaster Data: Challenges and Opportunities” NSF Hurricane Sandy Workshop, Rutgers, 2014.
17. Gong, J. (2014) “Geospatial Big Data for Transportation Infrastructure Management during Normal and Extreme Events” UTC - Big Data for Transportation Infrastructure Management Workshop, Center for Advanced Infrastructure and Transportation, 2014.

18. Gong, J. (2014) "Geospatial Big Data for Transportation Infrastructure Management during Normal and Extreme Events" UTC - Big Data for Transportation Infrastructure Management Workshop, Center for Advanced Infrastructure and Transportation, 2014.
19. Gong, J. (2014) "Big Data and Informatics for Urban Resilience and Sustainability" NSF- RCN: Sustainable Cities – Use Information about Buildings to Improve Cities.
20. Gong, J. (2014) "Improving Coastal Infrastructure Resilience with Big 3D Disaster Data: Challenges and Opportunities" Bentley Research Workshop, Exton, PA.
21. Gong, J. (2014) "Improving Coastal Infrastructure Resilience with Big 3D Disaster Data: Challenges and Opportunities" Bentley Research Workshop, Exton, PA.
22. Gong, J. (2014) "A Mobile LiDAR Response to Hurricane Sandy" 2014 SPAR Conference, Springs, Co.
23. Gong, J. (2013) "Post-Sandy Damage and Vulnerability Assessment with 3D Geospatial Sensing Methods" 11th International Conference on Structural Safety & Reliability, New York City.
24. Gong, J. (2013) "Post-Sandy Damage and Flood Resilience Analysis with 3D Geospatial Sensing Methods" Invited Presentation at New York Interagency Engineering Council - New York Interagency Engineering Council
25. Gong, J. (2013) "Mobile LiDAR Data Collection and Analysis for Post-Sandy Disaster Recovery" 2013 International Workshop of Computing in Civil Engineering, Los Angeles, CA.
26. Gong, J. (2013) "Improve Coastal Community Resilience with Remote Sensing Technologies" 15th Annual NJDOT Research Showcase.
27. Gong, J. (2013) "Visualizing Hurricane Damage and Flooding Vulnerability to Improve Coastal Community Resilience – A Post-Sandy Mobile LiDAR Study" Invited Presentation at the NJCGA Quarterly Meeting.
28. Gong, J. (2013) "Use of 3D Imaging Methods for Asset Management, Disaster Response, and Disaster Recovery - A Post-Sandy Study" NYC DDC Monthly Talk.
29. Gong, J. (2013) "A Mobile LiDAR Response to Hurricane Sandy" DHS LiDAR 2018 Workshop.
30. Gong, J. (2013) "Improve Coastal Community Resilience through Hurricane Damage and Inundation Threat Visualization" Invited Presentation at Rutgers Engineering Society Quarterly Meeting.
31. Gong, J. (2013) "High-Resolution Geospatial Sensing to Support Disaster Response and Recovery – A Post-Sandy Study" State of Good Repair Summit, Center for Advanced Infrastructure and Transportation.
32. Gong, J. (2012) "Towards Automated Construction Productivity Measurement" Invited Lecture, Department of Civil and Environmental Engineering, University of Michigan.
33. Gong, J. (2012) "Use of Cloud-based Platforms for Construction Supply Chain Management" 2012 International Conference on Sustainable Design, Engineering and Construction, Dallas, 2012.
34. Gong, J. (2011) "Learning and Classifying Motions of Construction Workers and Equipment Using Bag-of-Video Feature Words and Bayesian Learning Methods" 2011 International Workshop for Computing in Civil Engineering, Miami.
35. Gong, J. (2011) "Improving Underground Electrical Utility Investigation, Localization, and Identification during Electrical Construction" 2011 Electric International Council Meeting, Chicago.
36. Gong, J. and Chris Gordon (2010) "Integrating Building Information Modeling with Sensing, Geographical, and Geological Systems: Opportunities and Challenges" Dec. 6, 2010, Institute of Natural Resource Sustainability, the University of Illinois at Urbana-Champaign.
37. Gong, J. (2010). "Assessment of Direct Work Utilization in the U.S. Construction Industry (1972-2008)" Construction Research Congress 2010, Calgary.
38. Gong, J. (2009). "An Intelligent Video Computing Method for Automated Productivity Analysis of Cyclic Construction Operations." 2009 ASCE International Workshop on Computing in Civil Engineering, Austin, TX, June 24-27, 2009.
39. Gong, J. "Intelligent Video Computing for Productivity Analysis of Construction Operations." Building Construction Department, Virginia Tech, March 30, 2009, Blacksburg, Virginia.

40. Gong, J. “Intelligent Video Computing for Productivity Analysis of Construction Operations.” Department of Civil and Environmental Engineering, University of Michigan, March 23, 2009, Ann Arbor, Michigan.

IN THE NEWS

1. “\$4 million DIBBS grant awarded” News in Rutgers School of Arts and Sciences. <https://www.cs.rutgers.edu/news/4-million-dibbs-grant-awarded>
2. “Interview with Grace Agnew about NSF grant-supported Virtual Data Collaboratory” Rutgers Library News: <https://www.libraries.rutgers.edu/news/interview-grace-agnew-about-nsf-grant-supported-virtual-data-collaboratory>
3. “NSF Funds RU Coastal Climate Risk and Resilience Initiative” Rutgers School of Engineering News: <http://soe.rutgers.edu/story/nsf-funds-ru-coastal-climate-risk-and-resilience-initiative>
4. “Menendez, Booker Announce \$3M for Rutgers Research on Coastal Climate Change Risk, Resilience” Bob Menendez Press Release: <https://www.menendez.senate.gov/news-and-events/press/menendez-booker-announce-3m-for-rutgers-research-on-coastal-climate-change-risk-resilience>
5. “Bentley Institute and Rutgers University Collaborate on Hurricane Sandy Research” Yahoo! Finance: <https://finance.yahoo.com/news/bentley-institute-rutgers-university-collaborate-140600084.html>
6. “In free ASCE paper, explore how homes can be made more resilient from hurricanes” ASCE Smart Brief – July 7, 2016.
7. “After the storm: Recovering, rebuilding, reflecting” Center for Advanced Infrastructure and Transportation Newsletter Issue 12, May 2013.
8. “Sandy: One year later” Center for Advanced Infrastructure and Transportation Newsletter Issue 13, October 2013.
9. “A new use for LiDAR: Rebar QC” Center for Advanced Infrastructure and Transportation Newsletter Issue 15, June 2014.
10. “Looking for weak links” Center for Advanced Infrastructure and Transportation Newsletter Issue 17, February 2016.
11. “Sandy’s Aftermath: 3D images map out a recovery plan for shore” Front page in Star-Ledger: http://www.nj.com/news/index.ssf/2013/01/rutgers_project_views_sandy_de.html
12. “Sandy’s Aftermath” NJ.com slideshow
13. “Superstorm Sandy LiDAR Damage Assessment to Change Disaster Recovery” U.S. Department of Transportation, Research and Innovative Technology Administration, UTC Spotlight: http://www.rita.dot.gov/utc/sites/rita.dot.gov.utc/files/utc_spotlights/pdf/spotlight_0213.pdf
14. “Putting New Jersey On Road To Post-Sandy Recovery With 3-D Mapping: School Of Engineering’s Jie Gong Uses 3-D Imagery To Assess Damage And Plot Recovery Efforts” Rutgers SOE Newsletter: <http://www.soe.rutgers.edu/school-engineering-news>
15. “3D Imaging Helps Officials Analyze Hurricane Sandy Damage” PBS Video: <http://www.njtvonline.org/njtoday/video/3d-imaging-helps-officials-analyze-hurricane-sandy-damage/>

SESSIONS AND WORKSHOPS ORGANIZED/CHAIR

1. Workshop chair, Mini-Workshop on Remote Sensing Technologies for Post-Disaster Risk Assessment of Natural Gas Pipeline Systems, 2016.
2. Workshop Chair, UTC Big Data for Transportation Infrastructure Management Workshop, 2014
3. Workshop co-Chair, DHS Center for Excellence LiDAR 2018 Workshop, 2013
4. Conference Co-Chair for the 2012 International Conference on Sustainable Design, Engineering, and Construction, 2012

GRANTS AND CONTRACTS

Investigators	Agency /Sponsor	Title	Grant Period	Grant Total
PI at Rutgers, subcontract through City University of New York	NSF	SCC-Planning: Towards Smart and Accessible Transportation Hub – Research Capacity Building and Community Engagement	09/01/17-08/31/18	\$24,961
PI	Microsoft	Accelerate Disaster Recovery with Big Visual Disaster Data and Cloud Computing	06/01/17-05/30/18	\$5,000
PI	Bentley Systems	Deep Learning of Very Large 3D City Data for City Management Applications	07/01/16-06/30/19	\$75,000
PI with Herrick, S., Feeley, C.	Rutgers Big Data Initiative	Building Smart and Accessible Transportation Hubs with Internet of Things, Big Data Analytics, and Affective Computing	07/01/17-06/30/18	\$40,000
PI	USDOT UTC through CAIT	Development of An Online Platform for Streamlining Highway LiDAR Data Collection, Sharing, and Processing	07/01/15 – 06/31/16	\$63,692
PI with Williams, T., Farrag, K., Basily, B.	USDOT RITA-CRS&SI	Mobile Hybrid LiDAR & Infrared Sensing for Natural Gas Pipeline Monitoring	1/15/14 – 06/30/16	\$377,630
PI with Roda, A.	NJBPU	DOT PHMSA 2014 One-call grant	08/15/14 – 03/31/15	\$43,852
PI	Bentley Systems Inc.	Post-Sandy Damage Assessment with Bentley Modeling and Analysis Tools		\$50,000
PI	USDOT UTC through CAIT	3D Laser Scanning for Quality Control and Assurance in Bridge Deck Construction	04/01/13 – 10/31/13	\$35,000
PI with Williams, T. and Tobin, B.	NJDOT	Impact of Utility Relocation Delays on Project Delivery	09/01/2013 – 06/30/2014	\$225,000
PI with McNeil, S. and Heaslip, K.	USDOT UTC through CAIT	Big Data: Opportunities and Challenges in Asset Management	06/01/13 – 05/31/14	\$75,000
PI	USDOT UTC through CAIT	Development of A Real-Time Vibrator Tracking System for Intelligent Concrete Consolidation	04/01/13 – 10/31/13	\$25,000
PI with Parashar, M.	USDOT UTC through CAIT	Cloud-based Federation and Fusion of Distributed Geospatial Data Sources for Supporting Hurricane Response	01/01/14 – 12/31/14	\$30,000
PI	USDOT UTC through CAIT	Post-Sandy Mobile LiDAR-based Damage Data Collection	11/15/12 – 06/30/13	\$35,000

PI	The Midwest Masonry Research Foundation	Development of Building Information Models and Model Creation Tools for Masonry Materials	09/01/11 – 08/01/13	\$18,064
PI	SIUE Internal Grant	Seed Grants for Transitional and Exploratory Projects: Intelligent Production Process Visualization and Analysis for Improving Lean Construction Implementation	01/01/12 – 12/31/12	\$18,000
PI	SIUE Internal Grant	Development of an Energy Simulation Model for the New SIUE Science Building	01/01/11 – 05/31/11	\$1,000
PI	SIUE Internal Grant	Thermal Imaging Analysis for Electrical Construction Quality Control	01/01/11 – 05/31/11	\$1,000
Co-PI with Kopper, R. (PI), Andrews, C., Jordan, R. & Auemuller, L.	NSF	NRT: Coastal Climate Risk & Resilience	09/01/16- 08/31/21	\$2,999,055
Senior Personnel with Parashar, M. (PI)	NSF	CIF21 DIBBs: EI: Virtual Data Collaboratory: A Regional Cyberinfrastructure for Collaborative Data Intensive Science	09/01/16- 08/31/20	\$4,000,000
Senior Personnel with Maher, A. (PI)	FHWA	The U.S. Long-Term Bridge Performance (LTBP) Program	02/01/16- 09/30/17	\$3,000,000
Senior Personnel with Szary, P. (PI)	NJDOT	2016 New Jersey Bridge Resource Program	01/01/16- 12/31/16	\$1,000,000
Co-PI with Mayer, H. (PI) and Rovito, J.	FEMA	FEMA Rebuilding with Greater Resiliency Project	09/01/15- 04/30/17	\$194,000
Co-PI with Jin, J. (PI)	Digital China Corporation	Urban Mobility Demand and Congestion Forecasting based on Emerging Mobile Location and Social Network Data	09/01/16 – 12/31/17	\$100,000
Co-PI with Jin, J. (PI), Feeley C.	NJDOT	Connected Vehicle Research	01/01/16- 12/31/16	\$199,480
Co-PI with Roberts, F. (PI), Berkis, K., Williams, T., & Jin, J.	DHS & PANYNJ	Crowd Management and LiDAR to Assist with Crowd Management and PABT Redesign	01/01/15 – 05/15/16	\$481,509

Co-PI with Maher, A. (PI), Takrshima, J.	NJDOT	Utilization of Pneumatic Flow Tube Mixing Technique (PFTM) for Processing and Stabilization of Contaminated Soft Sediments in the NY/NJ Harbor	01/01/15 – 12/31/16	\$4,000,000
Co-PI with Andrews, C. (PI), Mainelis, G.	USHUD	Cost-Effective Detection of Multi-Family Housing-Related Health and Safety Hazards	11/01/13 – 06/30/16	\$687,000
Co-PI with Gordon, C. (PI)	NSF	MRI: Acquisition of a 3D Laser Scanner to Support Multi-Disciplinary Research in Data-Driven Management of Cultural, Physical, and Biological Resources	09/01/11 – 08/31/13	\$100,000
Co-PI with Guo, Q. (PI) & Mayer, H.	NJDEP	Alternatives for Flooding Risk Reduction for Vulnerable Coastal Populations at Elizabeth, Linden, and Rahway	07/01/13 – 02/28/14	\$100,000
Co-PI with Zhou, H. (PI), Hu, S., and Grinter, M.	Illinois DOT	Investigation of Methods and Approaches for Collecting and Recording Highway Inventory Data	09/01/11 – 05/31/13	\$215,000
Co-PI with Man, Q. (PI)	Chinese National Science Foundation	Theory and method of collaborative construction based on BIM in ubiquitous Computing Environment	09/12 – 08/15	\$40,000
Senior Personnel with Siddiqui, M. (PI) & O'Brien, W. (Co-PI)	The Long-Term Comprehensive National Plan for Science, Technology and Innovation General Secretariat, Kingdom of Saudi Arabia	Towards an Intelligent Jobsite – Use of Advanced Sensing Technologies on Construction Jobsites and Industrial Facilities	01/2012-12/2012	\$117,000

RECONNAISSANCE EFFORTS

- 2016 Yurba Buena Island Tunnel Condition Assessment, Infrared and lidar assessment of tunnel lining condition
- 2015 Dallas Tornado Impact Assessment, damage data collection and analysis
- 2014 NJ Ewing gas explosion forensic support, accident site documentation and analysis
- 2012 Hurricane Sandy damage assessment, damage data collection and analysis

PROFESSIONAL MEMBERSHIPS

- Member of Board of Directors, New Jersey Common Ground Alliance
- Associate member, American Society of Civil Engineering, USA, 2010 – Present
- Co-Team leader of NIST Global City Teams Challenge (GCTC) action cluster “Smart Transportation Hub”.
- Member of the Building Information Modeling committee of the Associate General Contractor (AGC) - St. Louis

- Member of the Advisory Committee for the 2012 Building Information Modeling Exposition in St. Louis
- Member of the Advisory Committee for the 2011 Building Information Modeling Exposition in St. Louis
- Member of Sigma Lambda Chi, the International Honor Society for Constructors Upsilon-2 Chapter
- Member, Construction Research Council (CRC) – American Society of Civil Engineers (ASCE).
- Member of ASCE Visualization, Information Modeling, and Simulation (VIMS) Committee (2011 – present)
- Member of ASCE TCCIT Education Committee – American Society of Civil Engineers (2011 – present)

PROFESSIONAL ACTIVITIES

Journal Editor:

- Guest-Editor for a Special Issue in Journal of Automation in Construction (01/2010 – June/2011)

Committees:

- Member of Technical Committee, International Workshop on Computing in Civil Engineering, 2017
- Subject matter expert for 2016 National Earth Observation Assessment
- Member of Technical Program and Leadership Committee, 2015 International Conference on Sustainable Design, Engineering and Construction. 10-13 May, 2015 Chicago, USA.
- Member of the Organizing Committee, North America-East Asia Workshop on Big Data Analytics for Infrastructure and Building Sustainability and Resilience (IBSR) Research
- Member, 2013 CUTC National Student Awards Review Committee
- Panelist, 2013 NJDOT research showcase conference
- Member of Technical Committee, 2013 ASCE International Workshop on Computing in Civil Engineering
- Member of ASCE VIMS Subcommittee for Best Paper Award – 2012 ASCE TCCIT Computing in Civil Engineering Workshop (a total of 6 members)
- Member of ASCE VIMS Subcommittee for Best Paper Award – 2012 ASCE TCCIT Computing in Civil Engineering Workshop
- Member of Scientific Committee for 2012 International Conference on Construction and Real Estate Management
- Member of the Scientific Committee for the 2011 International Conference on Sustainable Design and Construction Committee
- Member of the Organizing Committee, the 26th International Symposium on Automation and Robotics in Construction
- Member of the Organizing Committee, the 2009 ASCE Workshop on Computing in Civil Engineering

Reviewer:

Journals

- Journal of Applied Energy
- Journal of Construction Education and Research
- ASCE Journal of Construction Engineering and Management
- ASCE Journal of Computing in Civil Engineering
- ASCE Journal of Infrastructure Systems
- Journal of Automation in Construction
- Journal of Advanced Engineering Informatics
- Journal of Construction Management and Economics
- Journal of Civil Engineering and Management
- KSCE Journal of Civil Engineering
- Journal of Sustainable City and Societies
- Journal of Transportation Engineering
- Journal of Computer-Aided Civil and Infrastructure Engineering
- Journal of Transportation Research: Part A

- International Journal of Digital Earth
- Building Simulations
- Sensors
- International Journal of Intelligent Robotics and Applications
- Natural Hazards Review

Conferences

- International Symposium on Automation and Robotics in Construction
- Construction Research Congress
- ASCE International Workshop on Computing in Civil Engineering
- International Conference on Sustainable Design and Construction Committee

UNIVERSITY SERVICE

University Committee

- Assistant Director and Liaison to the School of Engineering for NSF Research Traineeship for Coastal Climate Risk and Resilience Program
- Member of Earth observations and forecasting strategic planning committee
- Member of Graduate School Program Review Committee, Southern Illinois University Edwardsville
- Assistant Director, National Science Foundation Research Traineeship Grant: Coastal Climate Risk and Resilience

School Committee

- Member of Henry Rutgers Advanced Manufacturing Search Committee, 2016 – present
- Member of School of Engineering Faculty Research Committee, Rutgers University, 2013 – present
- Member of Open House Committee, Southern Illinois University Edwardsville
- Instructor, the High School Outreach Summer Program, Southern Illinois University Edwardsville

Others

- Organizer of Civil Engineering Department Activities on 2013 Rutgers Open House Day
- Presenter at the 2013 School of Engineering Student Recruiting event
- Mentor, DHS Summer Minority Institution Summer Research Program, 2016 & 2017
- Mentor, Rutgers Aresty Undergraduate Research Experience Program

COURSES/PROGRAMS DEVELOPED OR SUBSTANTIALLY REVISED

1. Developed two new graduate courses including Building Information Modeling and Methods and Models for Resilient Building and Infrastructure Systems
2. Contributed to the development of and serving as the program coordinator at civil engineering department for Coastal Climate Risk and Resilience Certificate - a graduate certificate program which span over the discipline of Urban Planning, Civil Engineering, Human Ecology, and Earth, Ocean, and Atmosphere Science
3. Contributed to the development of and serving as the program coordinator at civil engineering department for Energy Systems Certificate - a graduate certificate program at the School of Engineering

COURSE TAUGHT

Courses – Rutgers, the State University of New Jersey

- Advanced Construction Management I (Graduate)
- Advanced Construction Management II (Graduate)
- Building Information Modeling (Graduate)
- Construction Engineering Management (Undergraduate)
- Construction Projects (Undergraduate-Capstone)
- Advanced Topics in Civil Engineering – Models and Methods for Resilient Building and Infrastructure Systems

Courses – Southern Illinois University Edwardsville

- Building Information Modeling (undergraduate)
- Construction Materials and Methods (undergraduate)
- Computer Applications in Construction (undergraduate)
- Soils (undergraduate)

Teaching Evaluations

Semester	Course	Enrollment	Overall Performance (out of 5.0 scale)
Rutgers, The State University of New Jersey			
Spring 2017	Construction Projects (4 hrs)	27	4.25
Spring 2017	Building Information Modeling (3 hrs)	17	4.69
Fall 2016	Construction Engineering Management (3 hrs)	49	4.79
Spring 2016	Construction Project (4 hrs)	45	4.14
Spring 2016	Methods and Models for Infrastructure System Modeling and Management (3 hrs)	8	4.91
Fall 2015	Civil Engineering Graduate Seminar (1 hr)	49	4.58
Fall 2015	Construction Engineering Management (3 hrs)	44	4.32
Spring 2015	Building Information Modeling (3 hrs)	13	4.77
Spring 2015	Advanced Construction Management I (3 hrs)	18	4.68
Fall 2014	Advanced Construction Management II (3 hrs)	7	5.00
Spring 2014	Building Information Modeling (3 hrs)	19	4.10
Fall 2013	Advanced Construction Management I (3 hrs)	28	4.10
Spring 2013	Building Information Modeling (3 hrs)	23	4.53
Fall 2012	Advanced Construction Management I (3 hrs)	16	4.36
		Average	4.52/5.0
Southern Illinois University Edwardsville			
Spring 2012	Soils and Soils Laboratory (4 hrs)	25	4.46
Spring 2012	Computer Applications in Construction (3 hrs)	19	4.61
Fall 2011	Building Information Modeling (3 hrs)	13	4.57
Fall 2011	Construction Materials and Methods (3 hrs)	22	4.67
Summer 2011	Computer Applications in Construction (3 hrs)	8	4.86
Spring 2011	Computer Applications in Construction (3 hrs)	32	4.69
Spring 2011	Soils and Soils Laboratory (4 hrs)	42	4.51
Fall 2010	Construction Materials and Methods (3 hrs)	24	4.41
Fall 2010	Building Information Modeling (3 hrs)	17	4.80
Summer 2010	Computer Applications in Construction (3 hrs)	11	4.82
Spring 2010	Soils and Soils Laboratory (4 hrs)	37	4.46
Spring 2010	Computer Applications in Construction (3 hrs)	32	4.05
		Average	4.58/5.0
Overall			4.55/5.0

STUDENT SUPERVISION

* Minority/Woman students

A. Doctoral theses supervised as primary advisor.

Completed:

Name	Completion	Major	Dissertation Topic
Farzan, Farbod	Summer, 2015	Civil Engineering	Bottom-Up Dynamic Modeling and Distributed Energy Resources Investment in Communities

(co-adv. with Jarfari-Industrial Engineering)			
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In Progress

Name	Proposal Defense	Dissertation Defense	Dissertation Topic
Hu, Xuan	Spring, 2017	Expect Fall, 2017	Computing with Big Spatial Disaster Data for Coastal Resilience Decision Support
Zhou, Zixiang	Spring, 2017	Expect Fall, 2017	Computer Vision-based Assessment of Coastal Building Structures during Hurricane Events
Guo, Mengyang*	Summer, 2017	Expect Fall, 2018	Intelligent Building Hazard Detection and Diagnosis with Emerging Non-Contact Assessment Techniques
Yu, Yi	Summer, 2017	Expect Fall, 2018	Building Smart Transportation Services for People with Disabilities with Internet of Things
Abusnina, Hamza*	Summer, 2017	Expect Fall, 2018	A Risk Analysis Framework for Mitigating Underground Excavation Damage to Natural Gas Pipelines
Sun Ho Ro	TBD	TBD	TBD
Raja, Prarthana* (NSF C2R2 Trainee)	TBD	TBD	TBD

B. Membership on doctoral theses committees

Completed:

Name	Completion	Major	Supervisor
Jalayer, Mohammad	Fall, 2015	Civil Engineering	Dr. Zhou, Huaguo (Auburn University)
Rodriguez, Andrew	Spring, 2015	Industrial Engineering	Dr. M. K. Jeong
Gharyeh, Kaveh	Summer, 2015	Civil Engineering	Dr. George Guo (Civil Engineering, Rutgers University)
Wang, Zilong	Summer, 2016	Civil Engineering	Dr. Hao Wang (Civil Engineering, Rutgers University)
Janbaz, Masoud	Summer, 2016	Civil Engineering	Dr. Ali Maher (Civil Engineering, Rutgers University)

In Progress:

Name	Period	Major	Supervisor
Olmschenk, Greg	Spring 2015 -	Computer Science	Dr. Zhigang Zhu (City University of New York)
	-		
	-		

C. Master's theses supervised as primary advisor.

Completed:

Name	Effort	Completion	Thesis
Guo, Mengyang*	Thesis	Fall, 2015	Spatially Resolved Infrared Imaging for Building Performance Evaluation
Krishnamoorthy, Raghav	Thesis	Spring, 2014	Intelligent Concrete Consolidation

In Progress:

Name	Effort	Period	Thesis Topic
Archer, Russell* (C2R2 NSF Research Trainee, co-advise with Dr. Najm)	Thesis	Expect, Fall 2018	Self-Elevating Flood Resilient Homes: Structural Engineering Analysis
Wengrowski, Sara* (C2R2 NSF Research Trainee)	Thesis	Expect, Fall 2018	A Critical Analysis of Building Damage Protocols

D. Membership on Master's theses committees

Name	Completion	Major	Supervisor	Thesis
Athanasopoulou, Eleni	Spring, 2013	Civil Engineering	Dr. Guo, George	Pre-Storm Dune Volumes & their Relation to Dune Breach Locations in Mantoloking, NJ, during Superstorm Sandy

E. Postdoctoral trainees

Name	Period	Research Area
Liu, Bingsheng	05/2014 – 04/2015	Large Group Decision Making in Conflicting Scenarios Statistical Analysis of Infrastructure Data

F. Undergraduate Research Internship

Completed

Name	Title	Period	Research Project
Clinton Murphy	Undergraduate Research and Creative Activities program	09/2010 – 12/2010	Scan to BIM
Chris Hoff	Undergraduate Research and Creative Activities program	01/2011 – 05/2011	Masonry BIM
Ashlee Ocegura*	Undergraduate Research and Creative Activities program	09/2011 – 12/2011	3D Imaging
Philip Letherman*	Undergraduate Research and Creative Activities program	01/2012 – 06/2012	Thermal Imaging for Building Energy Efficiency
He, Haiwen*	Aresty Undergraduate Research Assistant	Fall, 2014 – Spring 2015	Explore and Quantify Hurricane Sandy Damage in a Virtual Environment
Ge, Ling*	Aresty Undergraduate Research Assistant	Fall, 2014 – Spring 2015	Explore and Quantify Hurricane Sandy Damage in a Virtual Environment

Lu, Kaiyue*	Aresty Undergraduate Research Assistant	Fall, 2016 – Spring 2017	Explore and Quantify Hurricane Sandy Damage in a Virtual Environment
Chen, Yijia	Aresty Undergraduate Research Assistant	Fall, 2016 – Spring 2017	Explore and Quantify Hurricane Sandy Damage in a Virtual Environment
Shehata, Andrew	Aresty Undergraduate Research Assistant	Fall, 2016 – Spring 2017	Smart and Connected Communities for People with Special Needs
Kim, Kevin*	Aresty Undergraduate Research Assistant	Fall, 2016 – Spring 2017	Smart and Connected Communities for People with Special Needs
Pooley, Emily*	Aresty Undergraduate Research Assistant	Fall, 2016 – Spring 2017	Smart and Connected Communities for People with Special Needs
Osnato, Jordan	Aresty Undergraduate Research Assistant	Fall, 2016 – Spring 2017	Smart and Connected Communities for People with Special Needs

**G. Master Project Supervision
Completed**

Name	Effort	Completion	Research Topic
Sadej, Wojciech	Report	Fall, 2014	Assessing the Potential of Using Data Mining for Cluster Analysis on New Jersey Pipeline Damages
Yu, Yi	Report	Fall, 2014	Laser Scanning for Bridge Construction Quality Control
Krothapalli, Vikas	Report	Fall, 2014	UAS for Civil Engineering Applications
Tselentakis, Elias E.	Report	Fall, 2013	Investigating the Potential of LiDAR Technology for Supporting Post-Hurricane Debris Removal and Recycling Operations
Prarthana, Raja*	Report	Spring, 2015	Integrating BIM and GIS for Building Performance Analysis
Baquero, Victor*	Report	Spring, 2015	Community Recovery Analysis for Hurricane Sandy
Blanco, Adriana*	Report	Spring, 2016	Use of Laser Scanning to Facilitate Bridge Load Rating Process
Wu, Xiaoyang	Report	Fall, 2016	LiDAR Technology for Bridge As-Built Condition Evaluation
Ro, So Ho	Report	Fall, 2016	Computer Vision Methods for Bridge Motion Monitoring
Buxbaum, Scott	Report	Spring, 2017	Use of UAS Technologies for Construction Site Management
Desai, Aditya	Report	Spring, 2017	New York City Build it Back (BiB) - A Case Study of Construction Management, Cost and Project Completion

In progress

Name	Effort	Period	Research Topic
Ruperto, Tyler	Report	Expect Fall 2017	RGB-D Cameras for Indoor Scene Mapping

H. Membership on master project committees

Name	Completion	Curriculum	Supervisor
Wang, Zilong	Spring, 2013	Civil Engineering	Dr. Wang, Hao
Ramesh, Prathiksha	Fall, 2013	Civil Engineering	Dr. Williams, Trefor
Wang, Ge	Fall, 2013	Civil Engineering	Dr. Guo, George

Amir, Mahyar	Fall, 2013	Civil Engineering	Dr. Gonzales, Eric
Shrivastava, Shruti	Fall, 2013	Civil Engineering	Dr. Gonzales, Eric
Mukkadan, Chir	Spring, 2014	Civil Engineering	Dr. Peter Jin
Nulvi, Arun Channappa	Spring, 2014	Civil Engineering	Dr. Balaguru
Sandeep Reddy	Fall, 2014	Civil Engineering	Dr. Williams, Trefor
Allison Riley	Fall, 2014	Civil Engineering	Dr. Najm, Husam
Humayun Kabir	Fall, 2015	Civil Engineering	Dr. Najm, Husam