

Javier Irizarry, Ph.D., P.E.
Professor
College of Design
School of Building Construction
Georgia Institute of Technology

I. Earned Degrees

Ph.D. 2005 Civil Engineering, Purdue University
Dissertation: Safety Issues in Steel Erection: Impact of Task Durations and Risk Perception of Ironworkers
Advisor: Dr. Dulcy M. Abraham

MEM 2000 Engineering Management, Polytechnic University of Puerto Rico

B.Sc. 1995 Civil Engineering, University of Puerto Rico, Mayagüez

II. Employment History

Professor Georgia Institute of Technology	8/2021 – Present
Associate Professor Georgia Institute of Technology	7/2014 – 7/2021
Director CONETech Lab @ Georgia Tech	8/2008 – Present
AGC Faculty Scholar -Safety Management Division Batson-Cook Construction Company	5/2016 - 8/2016
Chair, Residential Development Track School of Building Construction, Georgia Tech	8/2010-6/2016
Assistant Professor Georgia Institute of Technology	8/2008 – 6/2014
Assistant Professor Southern Polytechnic State University (Kennesaw State University)	8/2005 - 6/2008
Instructor Purdue University, Calumet	8/2004 - 12/2004
Chief Operations Office/ Chief Financial Officer Engineered Research Inc.	2/2012 - 12/2013

Senior Associate Civitello Project Management	8/2001 - 12/2013
Scheduling Manager Redondo Construction Corporation, Puerto Rico	7/1997 - 7/2001
Estimator / Scheduler Frederic R. Harris Inc., Puerto Rico	8/1995 - 7/1997

III. Honors and Awards

National/International

1. *Outstanding Educator Award Region 2-Associated Schools of Construction 2019
2. *Associated General Contractors of America Faculty Scholar 2016
3. *National Outstanding Researcher Award-Associated Schools of Construction 2012
4. *Outstanding Researcher Award-Associated Schools of Construction Region 2 2011
5. *ASCE EXCEED Fellowship - ASCE merit-based scholarship to attend Excellence in Civil Engineering Education (EXCEED) workshop in the United States Military Academy, West Point, NY 2011
6. *National Teaching Award-Associated Schools of Construction 2008
7. Society of Hispanic Professional Engineers Foundation Scholar-Hispanic Engineer National Achievement Awards Corporation 2004

Institute

1. *Student Recognition of Excellence in Teaching: Class of 1934 Award 2020
2. *Selected to the 2019-2020 Emerging Leaders Program, Office of the Provost, Georgia Tech 2019
3. *Thank a Teacher Certificate: BC6005 Spring 2019, Center for Enhancing Teaching and Learning, Georgia Institute of Technology 2019
4. *Thank a Teacher Certificate: BC4140 Spring 2018, Center for Enhancing Teaching and Learning, Georgia Institute of Technology 2018
5. *GoSTEM Faculty Fellowship, Georgia Institute of Technology. - A fellowship in support of increasing Latino cultural awareness and community building between Georgia Tech and other community organizations, through the GoSTEM program. 2014
6. *Thank a Teacher Certificate: BC6005, Center for Enhancing Teaching and Learning, Georgia Institute of Technology 2011
7. *Georgia Tech Class of 1969 Teaching Scholar 2010

Others

1. *Best Paper Award Sustainable Built Environment (SBE) 2019 Seoul: Kim, S., Won, H., Choi, M., Hong, J., and Irizarry, J. (2020) "Theoretical Concept of Heterogeneous Robots for Infrastructure Maintenance System (HR4IMS) in Future Smart City" 2019
2. *Best Conference Paper – Honorable Mention Award for Gheisari, M., Foroughi, M., Chen, P., and Irizarry, J., (2016) "An Augmented Panoramic Environment to 2016

- Access Building Information on a Construction Site,” ASC 52nd Annual International Conference of the Associated Schools of Construction, Provo, UT
3. Outstanding Faculty of the Year - Southern Polytechnic State University 2008
 4. George Washington Carver Doctoral Fellowship, Purdue University 2001

IV. Research, Scholarship, and Creative Activities

A. Published Books, Book Chapters, and Edited Volumes

A1. Books

1. *Sawhney, Anil, Mike Riley and Javier Irizarry (Eds.) (2020) Construction 4.0: An Innovation Platform for the Built Environment. Abingdon, Oxon: Routledge
2. *Daniel Castro-Lacouture, Javier Irizarry, and Baabak Ashuri (Eds.) (2014) Proceedings of ASCE Construction Research Congress 2014: Construction in a Global Network, Construction Institute (CI) of the American Society of Civil Engineers (ASCE)

A2. Refereed Book Chapters

1. *Anil Sawhney, Mike Riley, and Javier Irizarry (2020) “Construction 4.0 Introduction and Overview”, Chapter 1 in Construction 4.0-Innovation Platform for the Built Environment, Co-Editors, Anil Sawhney, Mike Riley, and Javier Irizarry, Abingdon, Oxon: Routledge
2. *Masoud Gheisari, Dayana Bastos Costa, and Javier Irizarry (2020) “Unmanned Aerial System Application in Construction”, Chapter 14 in Construction 4.0-Innovation Platform for the Built Environment, Co-Editors, Anil Sawhney, Mike Riley, and Javier Irizarry, Abingdon, Oxon: Routledge
3. *Preface of the Proceedings of ASCE Construction Research Congress 2014: Construction in a Global Network, Construction Institute (CI) of the American Society of Civil Engineers (ASCE), Daniel Castro-Lacouture, Javier Irizarry, and Baabak Ashuri (Eds.), Atlanta, Georgia, May 19-21, 2014.
4. Abraham, D.M., Lew, J., Wirahadikusumah, R., Irizarry, J., and Arboleda, C.A. (2004) “Trenching Accidents and Fatalities: Identifying Causes and Implementing Changes” Chapter 26 in: Construction Safety Management Systems, (ed. Steve Rowlinson), Spon Press, Apr. 2004, London, 387-401.

A3. Edited Volumes

No Data

B. Refereed Publications and Submitted Articles

B1. Published and Accepted Journal Articles

1. *Zhou, Z., Irizarry, J., and Guo, W. (2021) "A Network-Based Approach to Modeling Safety Accidents and Causations within the Context of Subway Construction Management", *Safety Science*, 139 (2021) 105261
2. *Zhou, Z., Irizarry, J., and Zhou, J. (2021) "Development of a Database Exclusively for Subway Construction Accidents and Corresponding Analyses", *Tunneling and Underground Space Technology*, Volume 111, 2021, 103852, ISSN 0886-7798, <https://doi.org/10.1016/j.tust.2021.103852>.
(<https://www.sciencedirect.com/science/article/pii/S0886779821000432>)
3. *Kim, S., Gan, Y., and Irizarry, J. (2021) "Framework for UAS-Integrated Airport Runway Design Code Compliance Using Incremental Mosaic Imagery." *J. Comp. Civ. Eng.*, 35(2): 04020061. DOI: 10.1061/(ASCE)CP.1943- 5487.0000960.
4. *Kim, S., and Irizarry, J. (2020) "Exploratory Study of User-Perceived Effectiveness of Unmanned Aircraft System (UAS) Integration in visual inspections of Transportation Agency" *Innovative Infrastructure Solutions*, 5, 110 (2020).
<https://doi.org/10.1007/s41062-020-00355-2>
5. *Kim, S., Irizarry, J. & Costa, D.B. (2020) "Field Test-Based UAS Operational Procedures and Considerations for Construction Safety Management: A Qualitative Exploratory Study." *International Journal of Civil Engineering* 18, 919-933.
<https://doi.org/10.1007/s40999-020-00512-9>
6. *Kim, S., Irizarry, J., and Kanfer, R. (2020) "A Multi-Level Goal Hierarchy Model for Team Decision-Making Process in UAS-integrated Construction and Infrastructure Condition Inspections" *ASCE Journal of Management in Engineering*, DOI: 10.1061/(ASCE)ME.1943-5479.0000803
7. *Kim, J., and Irizarry, J. (2020) "Evaluating the Use of Augmented Reality Technology to Improve Construction Management Student's Spatial Skills", *International Journal of Construction Education and Research*, DOI: 10.1080/15578771.2020.1717680 Vol. 17, No. 2, 99-116
8. *Kim, S., and Irizarry, J. (2019) "Human Performance on Unmanned Aircraft Systems (UAS) Operations in Construction and Infrastructure Environments", *ASCE Journal of Management in Engineering*, Vol 35 Issue 6
9. *Nourbakhsh, M., Irizarry, J., and Haymaker, J. (2018) "Generalizable surrogate model features to approximate stress in 3D trusses" *Engineering Applications of Artificial Intelligence*, Volume 71, May 2018, Pages 15-27
10. *Zhou, Z., Irizarry, J., and Lu, Y. (2018) "A Multidimensional Framework for Unmanned Aerial System Applications in Construction Project Management" *Journal of Management in Engineering*, DOI: 10.1061/(ASCE)ME.1943-5479.0000597.

11. *Paes, D., Arantes, E., Irizarry, J. (2017) "Immersive environment for improving the understanding of architectural 3D models: Comparing user spatial perception between immersive and traditional virtual reality systems", *Automation in Construction*, 84, 292-303. DOI: 10.1016/j.autcon.2017.09.016.
12. *Zolfagharian, S., and Irizarry, J. (2017) "Constructability Assessment Model for Commercial Building Designs in the United States" *Journal of Construction Engineering and Management*, Vol 143 Issue 8
13. *de Melo, R. R. S., Costa, D. B., **Álvares, J. S.**, & Irizarry, J. (2017). "Applicability of unmanned aerial system (UAS) for safety inspection on construction sites". *Safety science*, 98, 174-185. <https://doi.org/10.1016/j.ssci.2017.06.008>
14. *Irizarry, J., and Costa, D.(2016). "Exploratory Study of Potential Applications of Unmanned Aerial Systems for Construction Management Tasks" *J. Manage. Eng.*, DOI: 10.1061/(ASCE)ME .1943-5479.0000422.
15. *Gheisari, M., Foroughi Sabzevar, M., Chen, P., & Irizarry, J. (2016). "Integrating BIM and Panorama to Create a Semi-Augmented-Reality Experience of a Construction Site". *International Journal of Construction Education and Research*, 12(4), 303-316. (Invited)
16. *Gheisari, M., & Irizarry, J. (2016) "Investigating human and technological requirements for successful implementation of a BIM-based mobile augmented reality environment in facility management practices". *Emerald Journal of Facilities*, 34(1/2).
17. *Karan, E., Irizarry, J., and Haymaker, J. (2015). "BIM and GIS Integration and Interoperability Based on Semantic Web Technology." *J. Computing in Civil. Engineering*, 10.1061/(ASCE)CP.1943-5487.0000519, 04015043.
18. *Karan, E., and Irizarry, J. (2015) "Extending BIM interoperability to preconstruction operations using geospatial analyses and semantic web services" *Automation in Construction*, online <http://dx.doi.org/10.1016/j.autcon.2015.02.012>
19. *Karan, E., Irizarry, J., and Haymaker, J. (2015) "Generating IFC Models from heterogeneous data using semantic web" *Construction Innovation*, Vol. 15(2) EarlyCite Online <http://www.emeraldinsight.com/toc/ci/15/2>
20. *Zhou, Z., Irizarry, J. (2015) "Integrated framework of modified accident energy release model and network theory to explore the full complexity of the Hangzhou subway construction collapse" *Journal of Management in Engineering* 32 (5), 05016013
21. *Zolfagharian, S., Irizarry, J., Ressang, A., **Nourbakhsh, M.** and **Gheisari, M.** (2014) "Automated safety planning approach for residential construction sites in Malaysia" *International Journal of Construction Management* Vol. 14, Iss. 3, 2014
22. *Thomas, A. and Ryherd, E. and Bowling, T. and Irizarry, J. (2014) "Simulated and laboratory models of aircraft sound transmission in residences" *The Journal of the Acoustical Society of America*, 135, 2342-2342 DOI:<http://dx.doi.org/10.1121/1.4877694>

23. ***Williams, G., Gheisari, M., Chen, P.,** and Irizarry, J. (2014). "BIM2MAR: An Efficient BIM Translation to Mobile Augmented Reality Applications." ASCE ICT Special Issue of Journal of Management in Engineering, 10.1061/(ASCE)ME.1943-5479.0000315, A4014009.
24. *Irizarry, J., **Gheisari, M., Williams, G.,** and Roper, K. (2014) "Ambient Intelligence Environments for Accessing Building Information: A Healthcare Facility Management Scenario", Facilities, Vol. 32 Iss: 3/4 120-138
25. *Zhou, Z., Irizarry, J., and Li, Q. (2014) "Using Network Theory to Explore the Complexity of Subway Construction Accident Network (SCAN) for Promoting Safety Management" Journal Safety Science, (64) 127-136
26. ***Karan, E.,** Sivakumar, R., Irizarry, J., and Guhathakurta, S. (2013) "Digital Modeling of Construction Site Terrain using Remotely Sensed Data and Geographic Information Systems Analyses", ASCE Journal of Construction Engineering and Management 10.1061/(ASCE)CO.1943-7862.0000822
27. *Zhou, Z., Irizarry, J., Li, Q., and Wu, W. (2013). "Using Grounded Theory Methodology to Explore the Information of Precursors Based on Subway Construction Incidents." J. Manage. Eng., 31 (2) 10.1061/(ASCE)ME.1943-5479.0000226 (Jun. 3, 2013)
28. *Irizarry, J., **Gheisari, M.** (2013) "Situation Awareness (SA), A Qualitative User-Centered Information Needs Assessment Approach", International Journal of Construction Management, Vol. 13 No.3, 35-53
29. *Zhou, Z., Irizarry, J., and Li, Q. (2013) "Applying advanced technology to improve safety management in the construction industry: a literature review", Construction Management and Economics, 31 (6), 606-622
30. ***Florez, L.,** Castro, D., and Irizarry, J. (2013) "Measuring Sustainability Perceptions of Construction Materials" Construction Innovation: Information, Process, Management, Volume 13, No. 2, pages 217-234
31. *Irizarry, J., **Gheisari, M.,** Meadati, P., and *Solfagarian, S. (2013) "Human Computer Interaction Modes for Construction Education Applications: Experimenting with Small Format Interactive Displays", International Journal of Construction Education and Research, Volume: 9, Issue: 02, 83–101
32. *Irizarry, J., **Karan, E.,** and Jalaei, F. (2013) "Integrating BIM and GIS to improve the visual monitoring of construction supply chain management", Journal of Automation in Construction, 31, 241-254
33. *Irizarry, J., **Gheisari, M.,** Williams, G., and Walker, B. (2012) "InfoSpot: A mobile Augmented Reality method for accessing building information through a situation awareness approach", Journal of Automation in Construction, 33, 11-23

34. *Irizarry, J., and **Karan, E.** (2012) "Optimizing Location of Tower Cranes on Construction Sites Through GIS and BIM Integration" *Journal of Information Technology in Construction* *Journal of Information Technology in Construction (ITcon)*, Vol. 17, pg. 351-36
35. *Meadati, P., Liou, F.S., Irizarry, J., and Akhnouk, A.K. (2012) "Enhancing Visual Learning in Construction Education using BIM" *International Journal of Polytechnic Studies*, Vol. 1, No. 2
36. *Irizarry, J., **Gheisari, M.**, and Walker, B. N. (2012) "Usability Assessment of Drone Technology as Safety Inspection Tools," *Journal of Information Technology in Construction*, Vol. 17, pg. 194-212
37. ***Zolfagharian, S., Nourbakhsh, M.**, Hussein Mydin, S., Mohamad Zin, R., and Irizarry, J. (2012) "A Conceptual Method of Constructability Improvement", *IACSIT International Journal of Engineering and Technology*, Vol. 4, No. 4, 456-459
38. ***Nourbakhsh, M., Zolfagharian, S.**, Zin, R.M., and Irizarry, J. (2012) "Affordable Software for Collaboration, Document Management, and on-site Information Management in Small- and Medium-sized Construction Companies", *IACSIT International Journal of Engineering and Technology*, Vol. 4, No. 4, 460-463
39. ***Florez, L.**, Irizarry, J., Castro-Lacouture, D., **Abdollahipour, S.**, and Jeong, H., (2012) "Feasibility of Implementing a Computer-Assisted PCC Rehabilitation Decision Support System in Georgia and Oklahoma" *International Journal of Construction Education and Research*, Vol. 8, 281-300
40. *Irizarry, J., **Zolfagharian, S., Nourbakhsh, M.**, Mohamad Zin, R., Jusoff, K., and Zakaria, R. (2012) "The Development of a Sustainable-Construction Planning System" *Journal of Information Technology in Construction*, Vol. 17, 162-178
41. ***Nourbakhsh, M.**, Mohamad Zin, R., Irizarry, J., **Zolfagharian, S.**, and **Gheisari, M.** (2012) "Mobile Application Prototype for On-site Information Management in Construction Industry." *Journal of Engineering, Construction and Architectural Management*, Vol. 19 Issue: 5, 474-494
42. *Nourbakhsh, M., Zolfagharian, S., Mohamad Zin, R., and Irizarry, J. (2012) "Affordable Software for Collaboration, Document Management, and on-site Information Management in Small- and Medium-sized Construction Companies" *Procedia Engineering*
43. *Zolfagharian, S., Nourbakhsh, M., Hussein Mydin, S., Mohamad Zin, R., and Irizarry, J. (2012) "A Conceptual Method of Constructability Improvement" *Procedia Engineering*
44. *Irizarry, J., Meadati, P., Akhnouk, A., and Barham, W. (2012) "Exploring Applications of Building Information Models for Enhancing Visualization and Information Access in Engineering and Construction Education Environments." *International Journal of Construction Education and Research*, Volume: 8, Issue: 02, pages 119 – 145

45. ***Nourbakhsh, M.,** Mohamad Zin, R., Hussein Mydin, S., **Zolfagharian, S.,** Irizarry, J., and Golzarpoor, H., (2012) "Relative Importance of Key Performance Indicators of Construction Projects towards Buildability at Design Stage" *Advanced Materials Research* (ISSN: 1022-6680) Vol. 446-449 pp. 340-344, <http://www.scientific.net/AMR.446-449.340>
46. ***Nourbakhsh, M.,** Hussein Mydin, S., Mohamad Zin, R., **Zolfagharian, S.,** Irizarry, J., and Mardiyah, Z., (2012) "A Conceptual Model to Assess the Buildability of Building Structure at Design Stage in Malaysia" *Advanced Materials Research* (ISSN: 1022-6680) Vol. 446-449 pp. 3879-3884, <http://www.scientific.net/AMR.446-449.3879>
47. ***Zolfagharian, S., Nourbakhsh, M.,** Irizarry, J., **Gheisari, M.,** and Zakaria, R. (2011) "Impact of Sustainable Development Education at Universiti Teknologi Malaysia (UTM)" *Jurnal Teknologi*, 56 (Sains & Kej.), © Penerbit UTM Press, Universiti Teknologi Malaysia, Sept. 2011: 45–62
http://www.penerbit.utm.my/onlinejournal/56/K/JT56SK_Sept2011_04.pdf
48. *Irizarry, J. (2011). "Application of Methods Analysis to Steel Erection Tasks: Implications for Safety and Performance," *International Journal of Construction Management*, Volume 11, No.4, 31-47
49. ***Gheisari, M.,** and Irizarry, J., (2011). "Investigating Facility Mangers' Decision Making Process through a Situation Awareness Approach," *International Journal of Facility Management*, Vol 2, No 1 (2011)
50. Irizarry, J., and Abraham, D.M. (2006) "Assessment of Risk Perception of Ironworkers," *Journal of Construction Research*, Volume 7 Number 1 & 2 March and September 2006 111-132
51. Irizarry, J., Simonsen K.L., and Abraham, D.M. (2004) "Effect of Safety and Environmental Variables on Task Durations in Steel Erection," *Journal of Construction Engineering and Management ASCE*, 131(12), 1310-1319

B2. Conference Presentation with Proceedings (Refereed)

1. ***Perez, C. T.,** COSTA, D. B., and Irizarry, J. (2020) "Algoritmos genéticos: uma abordagem visual para reduzir as perdas por transporte em canteiros de obra." In: ENCONTRO NACIONAL DE TECNOLOGIA DO AMBIENTE CONSTRUÍDO, 18., 2020, Porto Alegre. **Anais...** Porto Alegre: ENTAC, 2020. ISBN: 978-65-00-13488-3.
2. ***Sawhney, A, Riley, M.,** Irizarry, J., and Toca-Perez, C. (2020) "A Proposed Framework for Construction 4.0 Based on a Review of Literature" 56th Annual Associated Schools of Construction 2020 International Conference, Liverpool, UK April 15-18, 2020 (paper accepted for publication, presentation re-scheduled to Sept. 2020 due to COVID 19)

3. ***Kim, S.**, Won, H., Choi, M., Hong, J., and Irizarry, J. (2020) "Theoretical Concept of Heterogeneous Robots for Infrastructure Maintenance System (HR4IMS) in Future Smart City" Sustainable Built Environment (SBE) 2019 Seoul. (best paper award)
4. ***Kim, S., Paes, D.**, and Irizarry, J. (2020) "An Exploratory Study of Small Unmanned Aerial Vehicle (SUAV) Implementation in Railway Condition Inspection Tasks" 2020 ASCE Construction Research Congress, Tempe, AZ., March 8-10, 2020
5. ***Kim, S.**, and Irizarry, J. (2020) "Knowledge-based Considerations for Developing UAS Operational Procedures on Infrastructure and Construction Task Environments" 2020 ASCE Construction Research Congress, Tempe, AZ., March 8-10, 2020
6. *Irizarry, J. (2019) "Use of Small Unmanned Aerial Systems in Construction Management Curriculum in Compliance with FAA Regulations: A Case Study" 55th Annual Associated Schools of Construction 2019 International Conference, Denver Co. April 11-13, 2019
7. ***Kim, S., Paes, D., Lee, K.**, Irizarry, J., and Johnson, E. (2019) "UAS-based Airport Maintenance Inspections: Lessons Learned from Pilot Study Implementation" 2019 ASCE International Conference on Computing in Civil Engineering, Atlanta, GA, June 17-19, 2019
8. ***Paes, D.**, and Irizarry, J. (2019) "The Relevance of Visual Cues in Immersive Environments: Does Pictorial Realism Matter?" 2019 ASCE International Conference on Computing in Civil Engineering, Atlanta, GA, June 17-19, 2019
9. *Brioso, X., **Calderon-Hernandez, C.**, Irizarry, J., and **Paes, D.** (2019) "Using Immersive Virtual Reality to Improve Choosing by Advantages System for the Selection of Fall-Protection Measures" 2019 ASCE International Conference on Computing in Civil Engineering, Atlanta, GA, June 17-19, 2019
10. ***Calderon-Hernandez, C., Paes, D.** Irizarry, J. and Brioso, X. (2019) "Comparing Virtual Reality and 2-Dimensional Drawings for the Visualization of a Construction Project" 2019 ASCE International Conference on Computing in Civil Engineering, Atlanta, GA, June 17-19, 2019
11. *Arroteia, A., **Paes, D.**, Irizarry, J., and Melhado, S., (2018) "A comparative diagnosis of students' proficiency in BIM in construction-related graduate programs in Brazil and in the United States" 22th Conference of the Iberoamerican Society of Digital Graphics, Nov. 2018, São Carlos, Brazil
12. ***Kim, S.** and Irizarry, J. (2018) "Framework for Human Performance Analysis in Unmanned Aircraft System (UAS) Operations in Dynamic Construction Environment" 2018 Construction Research Congress (CRC), New Orleans, LA, pp.33-42
13. ***Paes, D.** and Irizarry, J. (2018) "A Usability Study of an Immersive Virtual Reality Platform for Building Design Review: Considerations on Human Factors and User Interface", 2018 Construction Research Congress (CRC), New Orleans, LA, pp.419-428

14. *Lopez Del Puerto, C., Rivera, E., Irizarry, J., and Gilkey, D. (2018) "An Exploratory Study to Investigate Safety Climate Among Construction Workers in Puerto Rico" *2018 Construction Research Congress (CRC)*, New Orleans, LA, pp.303-313
15. *Kim, J. and Irizarry, J. (2017) "Assessing the Effectiveness of Augmented Reality on the Spatial Skills of Postsecondary Construction Management Students in the U.S." *34th International Symposium on Automation and Robotics in Construction (ISARC 2017)*, Taipei, Taiwan
16. *Irizarry, J., Kim, S., Johnson, E., and Lee, K. (2017) "Potential Unmanned Aircraft Systems Based Operations within a Department of Transportation: Findings from a Focus Group Study" *The 53rd 2017 International Conference of the Associated Schools of Construction (ASC)*, Seattle, Washington
17. *Paes, D., Kim, S., and Irizarry, J. (2017) "Human Factors Considerations of First Person View (FPV) Operation of Unmanned Aircraft Systems (UAS) in Infrastructure Construction and Inspection Environments" *2017 CSCE Annual Conference and General Meeting*, Vancouver, Canada
18. *Paes, D., and Irizarry, J. (2016) "Virtual Reality Technology Applied in the Building Design Process: Considerations on Human Factors and Cognitive Processes" *Proceedings of 7th International Conference on Applied Human Factors and Ergonomics (AHFE 2016)*, Orlando, FL. pp. 3-15. doi: 10.1007/978-3-319-41983-1_1
19. *Kim, S., Irizarry, J. and Costa, D.B. (2016). "Potential factors influencing the performance of Unmanned aerial system (UAS) integrated safety control for construction worksites." *Construction Research Congress 2016*, San Juan, Puerto Rico.
20. *Gheisari, M., Foroughi, M., Chen, P., and Irizarry, J., (2016) "An Augmented Panoramic Environment to Access Building Information on a Construction Site," *ASC 52nd Annual International Conference of the Associated Schools of Construction*, Provo, UT, April 13 – 16, 2016 (Best Conference Paper – Honorable Mention Award)
21. *Kim, S., Irizarry, J., Costa, D.B. and Mendes, T. C. (2016). "Lessons learned from unmanned aerial system-based 3D mapping experiments." *52nd ASC International Conference Proceedings*, Provo, Utah.
22. *Kim, S. and Irizarry, J., (2015) "Exploratory Analysis of Factors Influencing the Performance of UAS in Highway Construction Sites: as the Case of Safety Monitoring," *Proceedings of 2015 Conference on Autonomous and Robotic Construction of Infrastructure*, Ames, Iowa
23. *Irizarry, J., and Costa, D., B., Kim, S. (2015) "Potential applications of unmanned aerial systems for construction management tasks" *Proceedings of International Conference on Innovative Production and Construction (IPC 2015)*, Perth, Australia

24. ***Patterson, L., Gheisari, M.,** and Irizarry, J., (2015) "A Prototype Goal Oriented Construction Project Management Application for Owners," ASC 51st Annual Conference, Texas A&M, College Station TX, April 22 – 25, 2015
25. ***Gheisari, M., Williams, G.,** Walker, B., and Irizarry, J. (2014) Locating Building Components in a Facility Using Augmented Reality vs. Paper-Based Methods: A User-Centered Experimental Comparison. *Computing in Civil and Building Engineering (2014)*: pp. 850-857. doi: 10.1061/9780784413616.106
26. ***Karan, E.P.** and Javier Irizarry (2014) "Developing a spatial data framework for facility management supply chain" *Proceedings of the ASCE Construction Research Congress, Atlanta, GA*
27. ***Karan, E.P., *Christmann, C., *Gheisari, M.,** Irizarry, J. and Johnson, E. (2014) "A Process to Develop a Comprehensive Matrix of Unmanned Aerial Systems Requirements for Potential Applications within a Department of Transportation" *Proceedings of the ASCE Construction Research Congress, Atlanta, GA*
28. ***Gheisari, M.,** Irizarry, J. and Walker, B. (2014) "UAS4SAFETY: The potential of unmanned aerial systems for construction safety applications" *Proceedings of the ASCE Construction Research Congress, Atlanta, GA*
29. ***Zolfagharian, S.** and Irizarry, J. (2014) "Current Trends in Construction Site Layout Planning" *Proceedings of the ASCE Construction Research Congress, Atlanta, GA*
30. ***Williams, G., Gheisari, M.** and Irizarry, J. (2014) "Issues of Translating BIM for Mobile Augmented Reality (MAR) Environments" *Proceedings of the ASCE Construction Research Congress, Atlanta, GA*
31. ***Nourbakhsh, M., Stevenson, R.** and Irizarry, J. (2014) "A Motion Sensor-Based User Interface for Construction Drawings Navigation" *Proceedings of the ASCE Construction Research Congress, Atlanta, GA*
32. ***Gheisari, M.,** Goodman, S., Schmidt, J. **Williams, G.** and Irizarry, J. (2014) "Exploring BIM and Mobile Augmented Reality Use in Facilities Management" *Proceedings of the ASCE Construction Research Congress, Atlanta, GA*
33. ***Thomas, A.,** Irizarry, J., Ryherd, E., Castro, D. and Porter, R. (2014) "Aircraft sound transmission in homes categorized by typical construction type" *Proceedings of the ASCE Construction Research Congress, Atlanta, GA*
34. ***Karan, E.** and Irizarry, J. (2014) "Effects of Meta-Cognitive Strategies on Problem Solving Ability in Construction Education" *Proceedings of the 50th Annual International Conference of the Associated Schools of Construction (ASC), Washington DC*
35. ***Gheisari, M.** and Irizarry, J. (2014) "Understanding Information Needs of Facility Managers in Preventive and Corrective Building Maintenance Practices, A Qualitative

Approach” Proceedings of the 50th Annual International Conference of the Associated Schools of Construction (ASC), Washington DC

36. ***Zolfagharian S.**, Irizarry, J., and Meadati, P. (2013) “Exploring BIM impacts on students learning in engineering courses via using various interactive displays” ASEE Annual Conference, Atlanta, Georgia, Paper ID #6243, Online at <http://www.asee.org/public/conferences/20/papers/6243/view>
37. *Meadati, P. Irizarry, J., and Liou, F (2013) “Teaching Using 3D Laser Scans” Proceedings of the 49th Annual International Conference of the Associated Schools of Construction (ASC), in conjunction with the CIB Workgroup 89 – April 9-13, 2013 at California Polytechnic State University, San Luis Obispo, California, Online at <http://ascpro.ascweb.org/chair/paper/CEGT108002013.pdf>
38. *Meadati, P., Irizarry, J., and Aknoukh, A. (2012) “BIM and RFID – A New Teaching Tool” Proceedings of the 47th Annual International Conference of the Associated Schools of Construction (ASC), Birmingham, UK
39. ***Gheisari, M., Florez, L.**, Irizarry, J., and Castro, D. (2012) “Initial Steps in the Evaluation of Data Requirements for Computerized Constructability Analysis of Pavement Rehabilitation Projects in Georgia” Proceedings of the 2012 Construction Research Congress
40. ***Nourbakhsh, M.**, Mohamad Zin, R., Irizarry, J., and **Zolfagharian, S.** (2012) “Information Technology Adoption between Developing and Developed Countries,” Proceedings of the 2012 Construction Research Congress
41. ***Nourbakhsh, M.**, Mohd Azwanfadzli, B.D., **Zolfagharian, S.** Irizarry, J., (2012) “Workers’ Awareness of Noise Pollution in Malaysian Construction Projects,” Proceedings of the 2012 Construction Research Congress
42. ***Zolfagharian, S., Nourbakhsh, M.**, Irizarry, J., Mohamad Zin, R. (2012) “Environmental Impacts Assessment in Construction Sites in Malaysia,” Proceedings of the 2012 Construction Research Congress
43. ***Zolfagharian, S.**, Ressang, A., Irizarry, J., and **Nourbakhsh, M.** (2012) “Potential Applications of Cognitive Work Analysis in Construction Safety Training” Proceedings of the 2012 Construction Research Congress
44. ***Gheisari, M., Florez, L.**, Irizarry, J., and Castro, D. (2012) “Evaluation of Data Requirements for Computerized Constructability Analysis of Pavement Rehabilitation Projects” Proceedings of the 2012 Construction Research Congress, West Lafayette, IN, May 21-23. 2012, 129-138
45. ***Nourbakhsh, M.**, Mohamad Zin, R., Irizarry, J., and **Zolfagharian, S.** (2012) “Comparing Information Technology Adoption between Developing and Developed Countries,” Proceedings of the 2012 Construction Research Congress West Lafayette, IN, May 21-23. 2012, 650-657

46. ***Zolfagharian, S., Nourbakhsh, M.**, Irizarry, J., Mohamad Zin, R. (2012) "Environmental Impacts Assessment in Construction Sites in Malaysia," Proceedings of the 2012 Construction Research Congress West Lafayette, IN, May 21-23. 2012, 1750-1759
47. ***Nourbakhsh, M.**, Mohamad Zin, R., Irizarry, J., **Zolfagharian, S.**, and **Gheisari, M.** (2011) "Mobile Application Information Requirement in Construction Industry", Proceedings of the Sixth International Conference on Construction in the 21st Century (CITC-VI) "Construction Challenges in the New Decade" July 5-7 2011, Kuala Lumpur, Malaysia, pp. 843-852
48. ***Zolfagharian, S.**, Ressang, A., Irizarry, J., **Nourbakhsh, M.**, and Mohamad Zin, R. (2011) "Risk Assessment of Common Construction Hazards among Different Countries," Proceedings of the Sixth International Conference on Construction in the 21st Century (CITC-VI) "Construction Challenges in the New Decade" July 5-7 2011, Kuala Lumpur, Malaysia, pp. 151-160
49. *Meadati, P., Irizarry, J., and Aknoukh, A. (2011) "Building Information Modeling Implementation – Current and Desired Status" Proceedings of the 2011 ASCE International Workshop on Computing in Civil Engineering, Miami, FL., pp. 512-519.
50. *Barham, W., Meadati, P., and Irizarry, J. (2011) "Enhancing Student Learning in Structures Courses with Building Information Modeling" Proceedings of the 2011 ASCE International Workshop on Computing in Civil Engineering, Miami, FL., pp. 850-857
51. ***Gheisari, M.**, Irizarry, J., and Horn, D.B., (2010) "Improvement of Facility Management Practices – Situation Awareness Approach," Proceedings of the COBRA 2010 Conference, Universite Paris-Dauphine, Paris, France, September 2-3, 2010
52. ***Gheisari, M.**, Irizarry, J., and Horn, D.B., (2010) "Situation Awareness Approach to Construction Safety Management Improvement," In: Egbu, C. (Ed) Proceedings of the 26th Annual ARCOM Conference 6-8 September 2010, Leeds, UK, Association of Researchers in Construction Management, 311-318
53. ***Giles, C.**, Irizarry, J., and **Gheisari, M.**, (2010) "Does Gender make a Difference? An Analysis of Motivational Factors in Sustainability Practice," In: Egbu, C. (Ed) Proceedings of the 26th Annual ARCOM Conference 6-8 September 2010, Leeds, UK, Association of Researchers in Construction Management, 1517-1525
54. *Meadati, P., Irizarry, J., and Akhnoukh, A.K., (2010) "BIM and RFID Integration: A Pilot Study," Proceedings of the Second International Conference on Construction in Developing Countries (ICCIDC-II), Advancing and Integrating Construction Education, Research & Practice, August 3-5, 2010, Cairo, Egypt
55. ***Pourazima, H.**, Muthukumar, S., Irizarry, J. (2010) "Mobile application for land study using geographic information systems." In Computing in Civil and Building Engineering, Proceedings of the International Conference, W. TIZANI (Editor), 30 June-2 July, Nottingham, UK, Nottingham University Press, Paper 63, p. 125, ISBN 978-1-907284-60-1

56. *Florez, L., Castro, D., and Irizarry, J. (2010) "Impact of Sustainability Perceptions on Optimal Material Selection in Construction Projects," Proceedings of the Second International Conference on Sustainable Construction Materials and Technologies, Università Politecnica delle Marche, Ancona, Italy, Coventry University and The University of Wisconsin Milwaukee Centre for By-products Utilization, J Zachar, P Claisse, T R Naik, E Ganjian eds., June 28 – June 30, 2010, ISBN 978-1-4507-1490-7, pp. 719-727
57. *Gheisari, M., Abdullah, A., Irizarry, J., and Pillai, C., (2010) "A Web-Based Environment for Buildings' Life Cycle Cost Analysis," Proceedings of the 6th International Conference on Innovation in Architecture, Engineering and Construction (AEC) from June 9-11, 2010, Anumba, C.J., Bouchlaghem, N.M., Messner, J.I., and Parfitt, M.K., editors, pp. 262-270
58. *Florez, L., Castro, D., and Irizarry, J. (2010) "Impact of sustainability perceptions on the purchasability of materials in construction projects," Proceedings of the 2010 Construction Research Congress, Banff, Canada, May 2010, Runawanpura, J., Mohamed, Y., and Lee, S., editors, pp. 1447-1456
59. *Irizarry J., Meadati P., and Gheisari M. (2010) "The Need and Challenges for Interdisciplinary Education in AEC," Proceedings of the 2010 Construction Research Congress, Banff, Canada, May 2010, Runawanpura, J., Mohamed, Y., and Lee, S., editors, pp. 1447-1456
60. *Meadati P. and Irizarry J. (2010) "BIM – A Knowledge Repository," Proceedings of the 46th Annual International Conference of the Associated Schools of Construction (ASC), in conjunction with The Annual Meeting of CIB (Conseil International du Bâtiment) Workgroup 89, Wentworth Institute of Technology (WIT), Boston, Massachusetts April 7-10th, 2010, Sulbaran, T., and Sterling, C., editors
61. *Irizarry, J., Castro D., and Arboleda, C.A. (2009) "Effects of Design-Construction Interactions on PCC Pavements Constructability and Staging Methodologies in Georgia," Conference on Developing a Research Agenda for Transportation Infrastructure Preservation and Renewal, Transportation Research Board, November 12-13, 2009, Washington, DC
62. *Irizarry, J. and Gill, T., (2009) "Mobile Applications for Information Access on Construction Jobsites", 2009 ASCE International Workshop on Computing in Civil Engineering, June 24-27, 2009, Austin, TX
63. *Irizarry, J. (2009), "Technology Enhanced Construction Safety Training for the Hispanic Workforce", Safety 2009, American Society of Safety Engineers Conference, June 28 to July 1, 2009, San Antonio, TX
64. *Irizarry, J. (2009) "Enhancing Hispanic Safety Training with Interactive Computing Technologies", XX1st Annual International Occupational Ergonomics and Safety Conference 2009, June 11-12, 2009, (in CD-ROM)

65. *Irizarry, J., Meadati, P. (2009) "Use of Interactive Display Technology for Construction Education Applications", ASEE Southeastern Section Annual Conference, April 5-7, 2009, (in CD-ROM)
66. *Irizarry, J., (2008) "Potential Application of Emerging Portable Computing Platform for Information Sharing in Construction Projects" International Conference on Construction and Real Estate Management (ICCREM 2008), October 4-5, 2008, (in CD-ROM)
67. *Abaza, H., Irizarry, J., (2008) "Interactive Self-Directed Cad Applications Learning Modules for the Construction Management Students". Multimedia Educational Resource for Learning and Online Teaching-MERLOT Eight International Conference, August 7-10, 2008, Minneapolis, Minnesota.
68. *Irizarry, J., Castro D., and Arboleda, C.A. (2008) "Improvement of Research in Construction Safety: A Proposal for the Application of Quantitative Approaches" Evolution of and Directions in Construction Safety and Health, 14th Rinker International Conference, CIB W99, March 9-11, 2008, Gainesville, Florida. Jimmie Hinze, Editor.
69. Castro D., Irizarry, J., and Arboleda, C.A. (2007) "Ultra-Wideband Positioning System and Method for Safety in Building Construction Sites" 2007 Construction Research Congress, Grand Bahama Island, Bahamas, May 2007
70. Irizarry, J., Moore, B., Rehberg, S. (2006) "Using WebCT Vista for Construction Education: A Case Study" Faculty Conference of the Associated Schools of Construction, Charlotte, NC, October 2006
71. Irizarry, J., **Robertson, J., Whitley, J. and Wilson, T. R.** (2006) "A Survey of Applications of Information Technology in the Operation of Construction Related Organizations in the Atlanta Metropolitan Area", International Conference on Construction and Real Estate Management (ICCREM 2006), October 2006, (in CD-ROM)
72. Irizarry, J., Siddiqi, K. (2006) "Outcomes Assessment Tools: Improving the Quality of Construction Management Programs", 9th International Conference on Engineering Education, San Juan, Puerto Rico, July 2006 (in CD-ROM)
73. Irizarry, J., **Adams W.** (2006) "Benefits of Industry Involvement in Construction Education" ASCE/CIB Leadership Conference, Grand Bahama Island, Bahamas, May 2006
74. Irizarry, J., Abraham, D.M. (2005) "Effect of safety practices in construction: the case of steel erection" Third International Structural Engineering and Construction Conference, ISEC-03, Shunan, Japan, Sep. 2005.
75. Irizarry, J., Abraham, D.M. (2005) "Application of Virtual Reality Technology for the Improvement of Safety in the Steel Erection Process" Proceedings of the ASCE International Conference on Computing in Civil Engineering, Lucio Soibelman, Feniosky Peña-Mora – Editors, July 12–15, 2005, Cancun, Mexico 179, 148

76. Irizarry, J., Abraham, D.M. (2003) "Productivity and Safety Issues in the Steel Erection Process" Proceedings of ASCE Construction Research Council (CRC) Research Symposium, Nov. 2003, Nashville, TN, 71-78.
77. Irizarry, J., D.M. Abraham, R. Wirahadikusumah, and C. Arboleda. (2002). "Analysis of Safety Issues in Trenching Operations". Proceedings of the 10th International Symposium on Construction Innovation and Global Competitiveness, CIB W-65 Sept. 9-13, 2002, Cincinnati, OH, 1133-1144.
78. Lew, J., Abraham, D.M., Wirahadikusumah, R., Irizarry, J., and Arboleda, C. (2002) "Excavation and Trenching Safety: Existing Standards and Challenges" Proceedings of the Third International Conference on Implementation of Safety and Health on Construction Sites – One Country – Two Systems, May 8-17, 2002, Hong Kong/Beijing, China, (in CD-ROM).
79. Arboleda, C., Abraham, D.M., Wirahadikusumah, R., and Irizarry, J. (2002) "Trench-Related Fatalities in Construction: An Analysis of Fatality Assessment and Control Evaluation (FACE) Records" Proceedings of the First International Conference on Construction in the 21st Century (CITC2002), Apr 25-26. 2002, Miami, FL, 277-282.

C. Other Publications and Creative Products

1. *Bershadsky, D., **Epps, J., Haviland, S.**, Huber, N., and Irizarry, J., (2020) "Palledrone – Autonomous Resupply UAS Delivers 100lbs", 2020 Defense TechConnect Virtual Innovation Summit and Expo
2. *Irizarry, J., Johnson, E., **Kim, S., Lee, K., Paes, D.** (2020) "Field Test Based Guidelines Development for the Integration of Unmanned Aerial Systems (UASs) in GDOT Operations", Sponsored Project Report to Georgia Department of Transportation, Project 16-09
3. *Featured in Inside Unmanned Systems Special Issue on [Autonomous Construction Article](#)
4. *Featured in Beyond BIM Podcast (July 2020) "Construction 4.0: Unmanned Aerial Vehicles" <https://soundcloud.com/beyondbim/construction-40-unmanned-aerial-vehicles>
5. *Gheisari, M., Costa, D., and Irizarry, J. (2020) "Special Collection on Unmanned Aerial Systems Applications in Civil Engineering" ASCE Journal of Computing in Civil Engineering, (Upcoming 2020)
6. *Featured in Building Design and Construction, "[Bridges to the Future: Universities with AEC programs hone their curricula and research to prepare students to hit the ground running in the construction industry](#)", By John Caufield April 2020
7. ***Haviland, S.**, Bershadsky, D., **Epps, J.**, and Irizarry, J. (2019) "Palledrone" Poster presented at the Vertical Lift Research Center (VLRC) review. Nov.6-7 2019

8. ***Haviland, S.**, Bershadsky, D., and Irizarry, J. (2019) "Mostly-automated non-conventional, Direct Force Control (DFC) multirotor design" Poster presented at the Vertical Lift Research Center (VLRC) review. Nov.6-7 2019
9. *Irizarry, J., Johnson, E., ***Paes, D.**, and ***Kim, S.** (2019) "Results of Field Test Based Guidelines Development for the Integration of Unmanned Aerial Systems (UASs) in GDOT Operations – Preliminary Field-Testing Products" Poster presented at the 7th Annual Research Expo, Georgia Department of Transportation
10. *Irizarry, J., Johnson, E., **Kim, S.**, **Lee, K.**, **Paes, D.** (2019) "Field Test Based Guidelines Development for the Integration of Unmanned Aerial Systems (UASs) in GDOT Operations", Sponsored Project Report to Georgia Department of Transportation, Project 16-09
11. *Featured in Equipment World, "New construction tech course is training drone pilots, preparing Ga. Tech students for industry's future" Article about BC6500, April 2017 <https://www.equipmentworld.com/new-construction-tech-course-is-training-drone-pilots-preparing-ga-tech-students-for-industrys-future/>, By Wayne Grayson
12. *Featured in Safety and Health, the Magazine of the National Safety Council, "When Drones Fly: What do safety pros need to know about this evolving technology", By Kevin Druley June 2017
13. ***Kim, S.** and Irizarry, J. (2017) "Preliminary Findings of Field Test Based Guidelines Development for the Integration of Unmanned Aerial Systems (UASs) in GDOT Operations" Poster presented at the 5th Annual Research Expo, Georgia Department of Transportation
14. *Featured in Breakground, "Just another tool that flies: The new normal is about to take flight on the jobsite", By David Park and Aaron Silverstein, April 2016
15. *Irizarry, J. (2016) "Things to consider B4UFLY a drone on a jobsite", Georgia Construction Today, Winter/Spring 2016
16. ***Kim, S.**, Irizarry, J., and Johnson, E. (2016) "Field Test Based Guidelines Development for the Integration of Unmanned Aerial Systems (UASs) in GDOT Operations-Research" Poster Presented in the 4th Annual Research Expo, Georgia Department of Transportation
17. *Featured in MTV News, "The Drones Are Coming! Here Are 9 Ways They're Going To Make Everything Awesome", By Kristina Marusic, July 21, 2015
18. *Featured in AGC Constructor, "Flying High: Why the Industry Needs Drones to Get Off the Ground" By Katie Kuehner-Hebert May-June 2015
19. *Featured in USGlass, Metal & Glazing, "Look, Up in the Sky. Are Drones the Next Big Thing on Construction Sites?", March 2015
20. *Featured in Engineering News Record, "From Werable to Wireless On the Construction Site", March 23rd, 2015

21. *Irizarry, J., and Costa, D. (2015) "Potential Applications of Unmanned Aerial Systems for Construction Management Tasks", Insights, July 20, 2015
22. *Irizarry, J. Costa, B.D., **Kim, S.**, (2015) "Evaluation of Unmanned Aerial Systems in Construction Safety Applications: A Case Study at Unilever's Project Sequoia, Independence, MO" Sponsored Project Contract no. 4956643 Research Report
23. *Featured in the US Glass News Network, "Jobsite Monitoring as You Know it is About to Change", Posted on February 17th, 2015 by Ellen Rogers
24. ***Kim, S.**, and Irizarry, J. (2015) "Critical Factors and Performance Measurement of Unmanned Aircraft System (UAS) in Construction Environments: Safety Monitoring" Poster Presented in the 1st Annual Career, Research, and Innovation Development Conference (CRIDC), Georgia Institute of Technology
25. *Featured in Equipment World, "Eyes in the Sky: How drones are already affecting construction jobsites today", October 2014
26. *Irizarry, J. and Johnson, E. (2014) "Feasibility Study to Determine the Economic and Operational Benefits of Utilizing Unmanned Aerial Vehicles (UAVs)", Sponsored Project Report to Georgia Department of Transportation, Project 12-381.
27. ***Karan, E.**, and Irizarry, J. (2013) "Modeling Temporary Components in a BIM Environment" Poster presented at the Associated Schools of Construction (ASC) 49th Annual International Conference, California Polytechnic State University (Cal Poly), San Luis Obispo, CA
28. *Irizarry, J., Castro-Lacouture, D., **Gheisari, M., Florez, L., Nourbakhsh, M., Zolfagharian, S., and Karan, E.** (2013) "Evaluation of Data Requirements for Computerized Constructability Analysis of Pavement Rehabilitation Projects," Sponsored Research Report to Georgia Department of Transportation, Project SP&R 11-16
29. ***Gheisari, M., Williams, G.**, and Irizarry, J. (2013) "BIM2MAR: Exchange Method and Workflow for Efficient BIM Translation to Mobile Augmented Reality (MAR) Applications in AECO Practices" Sponsored Research Report to Digital Building Lab
30. ***Gheisari, M., Williams, G.**, and Irizarry, J., (2013) "ARWindow: Integrating Building Information Modeling (BIM) & mobile Augmented Reality (AR) to Access Facility Management-related Information," Poster presented at the Associated Schools of Construction (ASC) 49th Annual International Conference, California Polytechnic State University (Cal Poly), San Luis Obispo CA
31. ***Karan, E.**, and Irizarry, J. (2013) "Modeling and Locating Temporary Structures Using BIM-GIS Integration" Poster presented in Georgia Tech Research and Innovation Conference (GTRIC)
32. ***Zolfagharian, S.**, and Irizarry, J. (2013) "An Automated Safety Planning Approach for Residential Construction Sites" Poster presented in Georgia Tech Research and Innovation Conference (GTRIC)

33. ***Gheisari, M., Williams, G.**, Irizarry, J., and Walker, B. (2013) "ARWindow: Accessing Building Information through Mobile Augmented Reality" Poster presented in Georgia Tech Research and Innovation Conference (GTRIC)
34. ***Nourbakhsh, M., Stevenson, R.**, and Irizarry, J. (2013) "A Motion Sensor-Based User Interface for Construction Drawings Navigation" Poster presented in Georgia Tech Research and Innovation Conference (GTRIC)
35. *Featured in Professional Engineer, "Do Drones have a Future in Construction?", July 2013
36. *Featured in Atlanta Journal-Constitution, "Could Drones Ease your Commute?", June 7th, 2013
37. *Featured in Engineering News Record, "Research Ramps Up for Drones on Jobsites", March 4th, 2013
38. *Featured in Discovery News, "Drones to Watch Over US Highways", January 30th, 2013
39. ***Karan, E.**, and Irizarry, J., (2012) "Integrating BIM and GIS to Improve the Visual Monitoring of Construction Supply Chain" Poster presented in Construction Research Congress 2012, ASCE, Purdue University, West Lafayette IN
40. ***Nourbakhsh, M.**, and Irizarry, J., (2012) "Measuring Shared Safety Knowledge of Construction Crews from the Perspective of Safety Supervisors" Poster presented in Construction Research Congress (CRC), West Lafayette, IN
41. *Featured in GT Alumni Magazine's Innovate Section for InfoSpot, GT Alumni Magazine, Vol.88, No.3 2012
42. *Featured in Engineering News Record "Augmented Reality for Facilities Management Edges Closer to Real-World Applications", April 9th, 2012
43. ***Gheisari, M.** and Irizarry, J., (2012) "InfoSPOT: A Mobile Augmented Reality Method for Accessing Building Information through a Situation Awareness Approach," Poster presented in Construction Research Congress 2012, ASCE, Purdue University, West Lafayette IN
44. ***Karan, E.**, and Irizarry, J., (2012) "Optimizing Location of Tower Cranes on Construction Sites through GIS and BIM Integration" Poster presented in Georgia Tech Research and Innovation Conference (GTRIC), Atlanta, GA
45. ***Gheisari, M.** and Irizarry, J., (2011) "Situation Awareness Approach to Natural User Interface-based MODSS (Mobile Decision Support Systems)," Poster presented in Associated Schools of Construction (ASC) 47th Annual International Conference, Omaha, Nebraska
46. ***Gheisari, M.** and Irizarry, J., (2011) "Situation Awareness Approach to the Development of Innovative Decision Support Applications for the AEC Industry," Poster presented in Georgia Tech Research and Innovation Conference (GTRIC), Atlanta, GA

47. *Irizarry, J., and Castro-Lacouture, D., and Florez, L. (2010) "Evaluation of Construction Strategies for PCC Pavements," Sponsored Research Report to the Oklahoma Transportation Center, Project DTRT06-G-0016
48. Irizarry, J., Castro-Lacouture, D., and Arboleda, C. (2008) "Constructability of PCC Pavements," Sponsored Research Report to Georgia Department of Transportation, Project SPR00-0008-00-632
49. Irizarry, J. (2005) "Safety issues in steel erection: Impact on task durations and risk perception of ironworkers" Dissertation, presented to Purdue University at West Lafayette, Indiana, in partial fulfillment of the requirements for the Degree of Doctor of Philosophy.

D. Presentations

D.1 Plenary Presentations

1. Irizarry, J. (November 2020) Construction 4.0: An Innovation Platform for the Construction Industry in the "New Normal", **Keynote** at buildSMART 2020 Conference, South Korea, November 24-25, 2020
2. Irizarry, J. (October 2020) Construction 4.0 - An Innovation Platform for the Built Environment, **Keynote** at CONENX 2020, Brazil, October 16, 2020
3. Irizarry, J. (July 2020) "Construction 4.0 and The Future of Construction in the "New Normal" **Keynote** at International Conference on Construction Futures, Wolverhampton, UK., July 7-8, 2020
4. *Irizarry, J. (April 2016) "Potential UAV Applications in the Construction Environment" Arkansas' Transportation Research Committee's Engineering Conference, April 5-6 2016
5. *Irizarry, J. (May 2016) Masonry Contractors Association of America's South of 40 Event, "Innovation in Construction Information Technology: Current Trends and Future Directions", May 6, 2013, Washington DC.
6. *Irizarry, J. (October 2011) "Virtual Environments in Civil Engineering and Construction: Opportunities for Collaboration in Research and Education" at 2011 6th International Workshop on Enterprise Integration, Interoperability and Networking (EI2N) and NSF International Workshop on Information Centric Engineering (NSF ICE'2011) and Cyber technologies, October 20, 2011, Hersonissos, Crete, Greece

D.2 Invited Presentations

1. *Irizarry, J. (2020) "Leveraging Best Practices to Streamline Pilot Training and Certification Requirements" Unmanned Systems for Utilities and Power, Atlanta GA, July 22-23, 2020
2. *Irizarry, J. (2019) "Drones 101: UAS Technology in Construction" Speaker at Construction Specifications Institute Gulf Coast Chapter Conference, Little Rock, Arkansas, June 7, 2019

3. *Irizarry, J. (2018) "Drone Technology in the Built Environment" Speaker at China University of Petroleum, Qingdao, China, December, 20 2018
4. *Irizarry, J. (2018) "Research application of Unmanned Aerial Systems in AEC" Speaker at Nanjing University of Aeronautics and Astronautics in Nanjing, China, December 21, 2018
5. *Irizarry, J. (2018) "The View from Above, Drones as Agents of Good in the Built Environment" Speaker at Liverpool John Moores University, Liverpool, UK, April 4, 2018
6. *Irizarry, J. (2017) "UAS Research in Construction Environments at Georgia Tech" Speaker at University of Puerto Rico, Mayaguez, March 21, 2017
7. *Irizarry, J. (2016) "Drones at work: Integrating UAS Technology in your Jobsite" Speaker at Associated Builders and Contractors Technology Conference, May 18, 2016
8. *Irizarry, J. (2016) "Drones in Construction: Latest Regulations & Applications" Speaker at AGC Georgia's Construction Professionals Conference and Marketplace, April 27, 2016
9. *Irizarry, J. (2013) "Current Research Overview: Information Access in the Mobile Space", Speaker at PhD Seminar, University of Michigan, March 27, 2013
10. *Irizarry J. (2013) "Advanced IT-Based Research in BC" School of Building Construction, Georgia Tech PhD Seminar, January 29, 2013
11. *Irizarry, J. (2012) "BIM2MAR Application of BIM & Mobile Augmented Reality (MAR) Integration in AEC/FM Practices", Speaker at meeting with Lord, Aeck and Sargent meeting, October 24, 2012, Atlanta, Georgia
12. *Irizarry, J. (2012) "BIM-assisted Mobile Augmented Reality for Facilities Management", Speaker at meeting with Hyundai Architecture, Atlanta, Georgia, September 19, 2012
13. *Irizarry, J. (2012) "Application of BIM-assisted Mobile Augmented Reality for Facilities Management", BIM Breakfast, Georgia Institute of Technology, Atlanta, GA, August 22nd, 2012
14. *Irizarry, J. (2012) "Overview of Current and Future Research Directions in Mobile BIM and GIS based Technologies" Speaker at Skanska Apple 2 Campus Project, Cupertino Ca. July 11, 2012
15. *Irizarry, J. (2012) "Navigation in Virtual Augmented Space" Digital Building Lab (DBL) Symposium, Georgia Institute of Technology, Atlanta, GA, May 15th-16th, 2012.
16. *Irizarry, J. (2012) "An Ambient Intelligence (Aml) Environment for Accessing Building Information in Facility Management Practices" Speaker at Skanska USA Meeting on the Future of BIM Integration into Facility Management, May 2, 2012, Atlanta, Georgia.

17. *Irizarry, J. (2012) "CONNECTech Research Lab Overview," School of Building Construction PhD Seminar, Georgia Tech, January 31, 2012
18. *Irizarry, J. (November 2011) "Situation Awareness Approach to AEC+FM Decision Support System Design" Georgia Institute of Technology's College of Architecture Research Forum, November 17, 2011
19. *Irizarry, J. (2011) "Workflow Simulation: Applied Research Opportunities" Digital Building Lab (DBL) Symposium, Georgia Institute of Technology, Atlanta, GA, May 25th-26th, 2011.
20. *Irizarry, J. (2011) "Globalization of Superficiality" to "Globalization of Knowledge" Santa Clara University, Civil Engineering Department, February 18, 2011
21. *Irizarry, J. (2011) "HCI Research in AEC", Speaker at School of Building Construction PhD Seminar, February 15, 2011
22. *Irizarry, J. (2011) "Information Technology in Construction: Current State of Research" Texas State University San Marcos, Department of Engineering Technology, February 8, 2011
23. *Irizarry, J. (2010) "BIM Education" Digital Building Lab (DBL) Symposium, Georgia Institute of Technology, Atlanta, GA, June 15, 2010.
24. *Irizarry, J. (2009) "The Building Construction Profession" College of Architecture Common First Year Class Lecture, November 9, 2009
25. *Irizarry, J. (2009) "Technology Enhanced Safety Training for the Hispanic Workforce" Speaker at the American Society of Safety Engineers Conference, San Antonio, Texas, June 30, 2009.
26. *Irizarry, J. (2009) "Using Technology for Better Building" Speaker at the Southern Building Show, Atlanta Georgia, June 6, 2009
27. *Irizarry, J. (2008) "Research in Building Construction" College of Architecture PhD Seminar Lecture, August 20, 2008
28. Irizarry, J. (2006) "Computerized Construction Planning and Scheduling" Ohio University Civil Engineering, Athens, Ohio USA, April 15 2006

D.3 Panel Presentations

1. * Irizarry, J. (April 2019) Panelist at First Symposium on Unmanned Aerial Systems in the Built Environment "The view from above; drones as agents of good in the built environment", April 26, 2019
2. *Irizarry, J. (January 2016) Panelist at TRB 2016 UAS Workshop "Enabling Tech", January 10, 2016

3. *Irizarry, J. (July 2012) Panelist at the FUTURE Tech Engineering News Record Conference, “The Future of Mobile Applications for the Construction Industry”, July 10, 2012, San Francisco, California
4. *Irizarry, J. (June 2012) Panelist at the Engineering News Record Webinar Series, “Field Guide to Mobile Apps in Construction, June 6, 2012.
5. *Irizarry, J. (2010) “Choosing the Best Approach: Integrated Project Delivery, CM-At-Risk, Hard Bid or GMP” 14th Annual National Construction Industry Conference of the Associated Owners & Developers (AOD), September 20, 2010

D.4 Sponsored Research Presentations

1. *Irizarry, J. (2016) “BIM2IVR: An integrated platform for Building Information Modeling and Immersive Virtual Reality as a support tool to the design process” Digital Building Lab (DBL) Symposium. Georgia Tech. Atlanta, GA., May 16-17, 2016

D.5 Refereed Presentations

1. *Irizarry, J. (2005) “Application of Methods Analysis to Steel Erection Tasks” Faculty Conference of the Associated Schools of Construction, Charlotte, NC, October 2005
2. *Irizarry, J. (2015) “AR in AEC+FM: Has the technology delivered?” Digital Building Lab (DBL) Symposium. Georgia Tech. Atlanta, GA., May, 2015
3. *Irizarry, J. (2013) “Design and Construction Applications of BIM-Based Mobile Augmented Reality”, Digital Building Lab (DBL) Symposium. Georgia Tech. Atlanta, GA., August, 2013

D.6 Workshops Presentations

1. *Irizarry, J. (2018) “Safety and Health Risk Management” Short course at China University of Mining and Technology, Xuzhou China. (December 2018)
2. *Irizarry, J., Pishdad-Bozorgi, P., Clarke, S., de la Garza, J.M., Allison, D., Edwards, B., Smith J. (August 2017). Architecture, Engineering and Construction Teaching and Research Initiatives for 2020- An Engagement of Academia, Industry, and Organizations, Sponsored by A+CA, Georgia Tech, Atlanta, GA.
3. *Irizarry, J. (2017) “GDOT UAS Research Project Seminar” Workshop for Georgia Department of Transportation, Atlanta, GA.
4. *Irizarry, J. (2017) “Technology Applications in Construction” Short course at Federal University of Bahia Brazil, May 2017
5. *Irizarry, J. (2017) “Technology Applications in Construction” Short course at Federal University of Bahia Brazil, May 2014

6. *Irizarry, J. (2009) "Architecture Design Overview 101" Career, Technical, and Agricultural Education, July 22-23, 2009

E. Grants and Contracts

E1. As Principal Investigator

1. *Title of Project: "Logistics Support Drones: Innovation Corps @ Department of Defense Program"
Agency/Company: U.S. Department of Defense
Total Dollar Amount: \$69,816
Role: PI
Period of Contract: 9/1/2020 – 9/1/2021
2. *Title of Project: "Development of Drone-Assisted Highway Mowing Operations Planning, Monitoring, and Verification Capabilities"
Agency/Company: Georgia Department of Transportation
Total Dollar Amount: \$264,968
Role: PI
Collaborators: Yong Cho (co-PI)
Period of Contract: 8/24/2020 – 1/23/2022
3. *Title of Project: "Development of Drone-Assisted Pavement Profile Mapping: Near-Surface Void Detection Application"
Agency/Company: Georgia Department of Transportation
Total Dollar Amount: \$264,988
Role: PI
Collaborators: Tarek Rakha (co-PI)
Period of Contract: 8/13/2020 – 1/12/2022
4. *Title of Project: "Novel Unmanned Aerial System Sensor Applications in the Built Environment"
Agency/Company: College of Design, Georgia Tech
Total Dollar Amount: \$12,000
Role: PI
Collaborators: N/A
Period of Contract: 7/1/2020 – 6/30/2021
5. *Title of Project: "GT Airbook Phase 2: Development of Drone-based Delivery System for GT Library"
Agency/Company: Georgia Tech Library
Total Dollar Amount: \$303,850
Role: PI
Collaborators: N/A
Period of Contract: 1/1/2019 – 5/31/2020
6. *Title of Project: "ROTORx HEAVY LIFT POLYROTOR-Palldrone"

Agency/Company: Georgia Research Alliance
Total Dollar Amount: \$50,000
Role: PI
Collaborators: N/A
Period of Contract: 4/18/2018-5/14/2020

7. *Title of Project: "Mohamed Bin Zayed International Robotics Challenge Sponsorship (MBZIRC)"

Agency/Company: Khalifa University of Science and Technology
Total Dollar Amount: \$180,000
Role: PI
Collaborators: N/A
Period of Contract: 7/1/2018 – 4/30/2020

8. *Title of Project: "GT Airbook Phase 1: Development of Drone-based Delivery System for GT Library"

Agency/Company: Georgia Tech Library
Total Dollar Amount: \$136,612
Role: PI
Collaborators: N/A
Period of Contract: 1/1/2018 – 12/31/2018

9. *Title of Project: "College of Design Symposium to Advance College of Design's Culture of Research: Symposium on Unmanned Aerial Systems (UAS) in the Built Environment"

Agency/Company: Georgia Tech College of Design
Total Dollar Amount: \$7,000
Role: PI
Collaborators: Keith Kaseman
Period of Contract: 1/1/19-6/15/19

10. *Title of Project: "AGC Resident Scholars Program-Partner-AGC"

Agency/Company: AGC Education and Research Foundation
Total Dollar Amount: \$10,000
Role: PI
Collaborators: N/A
Period of Contract: 5/19/2016 to 8/19/2016

11. *Title of Project: "AGC Resident Scholars Program-Partner-Batson-Cook"

Agency/Company: Batson-Cook
Total Dollar Amount: \$10,000
Role: PI
Collaborators: N/A
Period of Contract: 5/19/2016 to 8/19/2016

12. *Title of Project: "Field Test Based Guidelines Development for the Integration of Unmanned Aerial Systems (UASs) in GDOT Operations"

Agency/Company: Georgia Department of Transportation
Total Dollar Amount: \$346,706

Role: PI
Collaborators: Eric Johnson (co-PI)
Period of Contract: 4/19/2016-2/25/2019

13. *Title of Project: "Evaluation of Unmanned Aerial Systems in Construction Safety Applications: A Case Study at Unilever Manufacturing Facility in Independence, MO"
Agency/Company: Unilever Inc.
Total Dollar Amount: \$38,168
Role: PI
Collaborators: N/A
Period of Contract: May 2015 to September 2015
14. *Title of Project: "Feasibility Study to Determine the Economic and Operational Benefits of Utilizing Unmanned Aerial Vehicles (UAVs)"
Agency/Company: Georgia Department of Transportation
Total Dollar Amount: \$74,984
Role: PI
Collaborators: Eric Johnson (co-PI)
Period of Contract: Spring 2013 – Spring 2014
15. *Title of Project: "Curriculum Improvements and Research Expansion in Residential Construction" Housing Education Leadership Program (H.E.L.P.)"
Agency/Company: Housing Education Leadership Program (H.E.L.P.), National Housing Endowment
Total Dollar Amount: \$99,535
Role: PI
Collaborators: Daniel Castro, Debbie Phillips, Rick Porter, David Ellis, and Brenda Morris
Period of Contract: Spring 2011 – Spring 2015
16. *Title of Project: "Evaluation of Data Requirements for Computerized Constructability Analysis of Pavement Rehabilitation Projects"
Agency/Company: Georgia Department of Transportation
Total Dollar Amount: \$352,657
Role: PI
Collaborators: Daniel Castro (co-PI)
Period of Contract: May 2011-May 2013
17. *Title of Project: "Constructability and Scheduling of PCC Pavements"
Agency/Company: Georgia Department of Transportation
Total Dollar Amount: \$250,000
Role: PI
Collaborators: Daniel Castro (co-PI) and Carlos Arboleda (co-PI)
Period of Contract: September 2007 - September 2008
18. *Title of Project: "Design and Construction Applications of BIM-Based Mobile Augmented Reality"
Agency/Company: Digital Building Lab
Total Dollar Amount: \$36,384

Role: PI
Collaborators: N/A
Period of Contract: August 2013-August 2014

19. *Title of Project: "BIM2MAR: Exchange Method and Workflow for Efficient BIM Translation to Mobile Augmented Reality (MAR) Applications in Architecture, Engineering, Construction, and Owner (AECO) Practices"
Agency/Company: Digital Building Lab
Total Dollar Amount: \$41,000
Role: PI
Collaborators: N/A
Period of Contract: August 2012-August 2013
20. *Title of Project: "Incorporation of Laser Scanning Technology in Architecture, Engineering, and Construction (AEC) Courses"
Agency/Company: Georgia Tech Technology Fee
Total Dollar Amount: \$34,000
Role: PI
Collaborators: Daniel Castro, Jochen Teizer, Charles Eastman, Ioannis Brilakis, Lawrence Kahn, Russel Gentry, Munjung Maing, and Claudia Rebola
Period of Contract: September 2011
21. *Title of Project: "Incorporation of Energy Assessment Technology in Built Environment Courses"
Agency/Company: Georgia Tech Technology Fee
Total Dollar Amount: \$4,925
Role: PI
Collaborators: N/A
Period of Contract: June 2011
22. *Title of Project: "Situation Awareness Approach to Mobile Decision Support System Design for Construction Safety"
Agency/Company: Georgia Tech Foundation
Total Dollar Amount: \$7,016
Role: PI
Collaborators: N/A
Period of Contract: July 2010-June 2011
23. *Title of Project: "Wireless Technologies for Enhanced Mobile Instruction in Classroom Environments"
Agency/Company: Georgia Tech Technology Fee Funding
Total Dollar Amount: \$13,804
Role: PI
Collaborators: N/A
Period of Contract: June 2010
24. Title of Project: "Development of Building Information Modeling Teaching Tool "
Agency/Company: Southern Polytechnic State University, Technology Fee Fund

Total Dollar Amount: \$14,500
Role: PI
Collaborators: Pavankumar Meadati
Period of Contract: August 2008 – June 2009

25. Title of Project: “Virtual Construction Instructional Laboratory”
Agency/Company: Southern Polytechnic State University, Technology Fee Fund
Total Dollar Amount: \$4,160
Role: PI
Collaborators: N/A
Period of Contract: August 2006 - June 2007

E2. As Co-Principal Investigator

1. *Title of Project: “An Engagement of Academia, Industry, and Organizations: A GOALI Proposal”
Architecture+Construction Alliance
Agency/Company: Architecture+Construction Alliance
Total Dollar Amount: \$10,000
Role: Co-PI
Collaborators: Shima Clarke, Jesus M. de la Garza, David Allison, Brian Edwards, James Smith
Period of Contract: January 2015-August 2016
2. *Title of Project: “U.S.-Afghan University Partnership with Kabul Polytechnic University in Geology and Mining, Establishing a Geographic Information System (GIS) Department”
Agency/Company: U.S. Department of State, Public Affairs Section, U.S. Embassy, Kabul, Afghanistan
Total Dollar Amount: \$1,000,000
Role: Co-PI
Collaborators: Subhro Guhathakurta (co-PI) and Ramachandra Sivakumar (co-PI)
Period of Contract: October 2013 to December 2015
3. *Title of Project: “Establishment of an Academic Partnership in Communication Design with the Indus Valley School of Art and Architecture in Karachi, Pakistan”
Agency/Company: U.S. Department of State Public Affairs Section, U.S. Embassy, Islamabad, Pakistan
Total Dollar Amount: \$999,987
Role: Co-PI
Collaborators: N/A
Period of Contract: September 2013 to September 2016
4. *Title of Project: “Evaluation of Construction Strategies for PCC Pavements”
Agency/Company: Oklahoma Transportation Center
Total Dollar Amount: \$400,000
Role: Co-PI
Collaborators: Hyung-Seok Jeong (co-PI) and Daniel Castro (co-PI)
Period of Contract: August 2008 - July 2010

E3. As Senior Personnel or Contributor

1. *Title of Project: "Semi-automated Infrastructure Inspection using Drones, Machine Learning and 4D Simulation"
Agency/Company: National Agency for Research and Development, Government of Chile (Fondecyt)
Total Dollar Amount: \$467,040
Role: International Expert Advisor
Collaborators: Danny Lobos, UTEM, Victor Poblete, UTEM
Period of Contract: Fall 2020-Fall 2022 (Submitted May 2020)

2. *Title of Project: "Estimation of Noise Level Reduction – Test House Field Measurement and Modeling"
Agency/Company: Federal Aviation Administration
Total Dollar Amount: \$90,000
Role: Contributor
Collaborators: Erica Ryherd (PI) and Kenneth Cunefare (co-PI)
Period of Contract: August 2014 to August 2015

3. *Title of Project: "Phase IV: Sound Transmission Indoors - Study of Whole Houses: Modeling Tool to Simulate Sound Isolation of Dwelling Envelopes"
Agency/Company: Federal Aviation Administration
Total Dollar Amount: \$100,000
Role: Contributor
Collaborators: Erica Ryherd (PI)
Period of Contract: August 2013 to September 2014

4. *Title of Project: "Phase III: Sound Transmission Indoors - Study of Whole Houses Agency/Company: Federal Aviation Administration"
Total Dollar Amount: \$82,000
Role: Contributor
Collaborators: Erica Ryherd (PI)
Period of Contract: August 2012 to December 2013

F. Other Scholarly and Creative Accomplishments

1. *Invention Disclosure (7946): Airbook: Unmanned Aircraft System-Assisted Method for Book Delivery
Approved: 06/28/2018
Innovators Rafael Bras; Steve Haviland; Javier Irizarry; Eric Johnson; Kimberly Mull; Dmitry Bershinsky
Abstract: Airbook is a concept for the delivery of books in a college campus using an unmanned aircraft system (UAS) platform. The innovation lies in the integration of the UAS with a library's book delivery system, to provide books to users by taking the books

to pre-determined drop stations/locations around the college campus. The concept relies on autonomous flight plans and route optimization for the deliveries.

G. Societal and Policy Impacts

1. *Georgia Department of Transportation (GDOT) project number 16-09 “Field Test Based Guidelines Development for the Integration of Unmanned Aerial Systems (UASs) in GDOT Operations”: This project aimed at developing guidelines for the integration of Unmanned Aerial Systems (UASs) in Georgia Department of Transportation (GDOT) operations based on the experience and lessons learned from field tests with UAS technology on selected tasks performed by several groups within GDOT. The results of the research have been implemented by GDOT in their policy for the use of UAS. The research continued to attract media attention and recognize the School of Building Construction as a leader in UAS research in construction applications. The following is a list of the media articles featuring the research.
 1. “When Drones Fly: What do safety pros need to know about this evolving technology” Article in Safety and Health Magazine of the National Safety Council, June 2017
 2. Just another tool that flies: The new normal is about to take flight on the jobsite, Breakground, By David Park and Aaron Silverstein, April 2016
2. *Georgia Department of Transportation (GDOT) project number 12-38 “Feasibility Study to Determine the Economic and Operational Benefits of Utilizing Unmanned Aerial Vehicles (UAVs)”: A study to determine the potential applications of UAS for GDOT operations based on the needs of personnel performing various tasks within several areas of the department. Five reference systems were proposed for the performance of a range of tasks within GDOT. The study generated significant media interest in the topic of UAS in the built environment and established the School of Building Construction as a leader in UAS research in construction applications. The following is a list of the media articles featuring the research.
 1. The Drones Are Coming! Here Are 9 Ways They’re Going to Make Everything Awesome, MTV News, By Kristina Marusic, July 21, 2015
 2. Flying High: Why the Industry Needs Drones to Get Off the Ground, AGC Constructor, By Katie Kuehner-Hebert May-June 2015
 3. Look, Up in the Sky. Are Drones the Next Big Thing on Construction Sites? USGlass, Metal & Glazing, March 2015
 4. From Wearable to Wireless on the Construction Site., Engineering News Record, March 23rd, 2015
 5. Jobsite Monitoring as You Know it is About to Change., Posted on February 17th, 2015 by Ellen Rogers
 6. Eyes in the Sky: How drones are already affecting construction jobsites today., Equipment World, October 2014
 7. Do Drones have a Future in Construction? Professional Engineer, July 2013
 8. Could Drones Ease your Commute? Atlanta Journal-Constitution, June 7th, 2013
 9. Research Ramps Up for Drones on Jobsites., Engineering News Record, March 4th, 2013
 10. Drones to Watch Over US Highways, Discovery News, January 30th, 2013
3. *Digital Building Lab project: “BIM2MAR: Exchange Method and Workflow for Efficient BIM Translation to Mobile Augmented Reality (MAR) Applications in Architecture, Engineering, Construction, and Owner (AECO) Practices”: This research developed a method for the integration of BIM into an AR platform for use in AECO applications. The prototypes

developed inspired further development of the technology and was precursor of applications in use today by several companies. The research was featured in Engineering News Record and the GT Alumni publication.

1. InfoSpot: Featured in GT Alumni Magazine's Innovate Section., GT Alumni Magazine, Vol.88, No.3 2012
2. Augmented Reality for Facilities Management Edges Closer to Real-World Applications., Engineering News Record, April 9th, 2012
4. *Georgia Department of Transportation (GDOT) project number SPR00-0008-00-632, "Constructability of PCC Pavements": An assessment of best practices for staging of PCC pavements were made available to GDOT design and construction personnel to include in the quality assurance/quality control program as part of the plan development process. This assessment included recommendations for improving the communication between these two groups and for streamlining knowledge acquisition and management processes in order to preserve the expertise of the engineers and lessons learned from previous experiences when planning and executing future projects.
5. *K-12 outreach on diversity-related initiatives: I have been involved with the GoSTEM initiative at Georgia Tech for the last eight years. GoSTEM is a collaboration between Georgia Tech and the Gwinnett County Public School District to enhance the educational experience of Latino students in Georgia and strengthen the pipeline of these students into post-secondary STEM (Science, Technology, Engineering and Mathematics) education. I have been a member of the program's Advisory Board and organized activities for students participating in the program including research lab visits with hands-on activities and guest lectures at local schools.

H. Other Professional Activities

1. Consulted for Ferrovial Construction UK on High Speed 2 (HS2) project tender on implementation of the Construction 4.0 framework (Fall 2020)
2. Consulted for Exactus Energy on drone applications for solar panel installation feasibility (Since Fall 2020)
3. Consulted for Drogenuity LLC on drone applications for property valuations (since Fall 2020)
4. Consulted for Eagle View/DroneUp on UAS applications for storm damage assessment (since Spring 2020)
5. Track Chair (Computer Applications and Simulation, Advanced Technologies, and Data Analytics) Construction Research Congress 2020.
6. *Irizarry, J. (2018) Consulting project with Precision 2000 Construction to explore the applications of Unmanned Aerial Systems on surveying tasks on projects located at large airport facilities. Used the Sullivan Road project at Hartsfield-Jackson Atlanta International Airport as case study.

7. *Irizarry, J. (2018-2019) Consulting project with the WEMARATHON Company to explore the applications of Unmanned Aerial Systems for indoor and outdoor inspection tasks at active construction sites. Used a commercial building project in Suwanee, GA as case study.
8. *Appointed Visiting Research Fellow, Built Environment at Liverpool John Moores University, Liverpool, UK. (2018-Present)
9. *Selected to the Associated General Contractors of America Faculty Fellowship to conduct a 3-month residency at Batson-Cook Construction in Atlanta, GA focusing on construction safety (May-August 2016)
10. President, IMATEK Consulting Services Inc., Puerto Rico and Indiana, U.S. (8/2000 - 7/2011)
11. Pre-Construction Intern at the General Management, Architecture, and Engineering Consultant (GMAEC), Puerto Rico, (6/1995 - 8/1995)

V. Education

A. Courses Taught

Semester	Year	Course No.	Course Title	No. of Students
Spring	2020	BC4140	Construction Management Certificate Project	5
Spring	2020	BC6005	Technology Applications in Construction	11
Fall	2019	BC4803	Special Topics-Drone Apps in Built Environment	5
Fall	2019	BC8803	Special Topics-Drone Apps in Built Environment	10
Fall	2019	BC6005	Technology Applications in Construction	8
Spring	2019	BC4140	Construction Management Certificate Project	6
Spring	2019	BC6005	Technology Applications in Construction	21
Fall	2018	BC4140	Construction Management Certificate Project	1
Fall	2018	BC6005	Technology Applications in Construction	16
Spring	2018	BC4140	Construction Management Certificate Project	7
Spring	2018	BC6005	Technology Applications in Construction	11
Fall	2017	BC6005	Technology Applications in Construction	29
Summer	2017	BC6005	Technology Applications in Construction	9
Spring	2017	BC8803	Technology Applications in Construction	22
Fall	2016	BC6025	Project Management	27
Fall	2016	BC8803	Technology Applications in Construction	10
Spring	2016	BC6675	Residential Design and Construction	6
Spring	2016	CEE 4130	Construction Safety	53

Spring	2015	BC4600	Project Management 2	16
Spring	2015	BC 6675	Residential Design and Construction	10
Fall	2014	BC 6025	Project Management	27

B. Individual Student Guidance

B1. Ph.D. Students

1. Name: Steven Kassinger
 Advisement Period: Fall 2019-Present
 Title of Dissertation: Technology Assisted Workplace Adaptation for an Aging Workforce (tentative)
 Indicators of mentorship quality: TBD

2. Name: Irish Horsey
 Advisement Period: Fall 2016-Present
 Title of Dissertation: A Study on the Persistent Impediments of the Disadvantaged Business Enterprise Program Policy that Encumbers Minority Firm Growth and Development on Construction Transportation Projects
 Position: Assistant Professor and Interim Chair at Kennesaw State University. Successfully passed Comprehensive Examination on May 20, 2018. Expected to Present Proposal in April 2020
 Indicators of mentorship quality: TBD

3. Name: Daniel Paes
 Advisement Period: Fall 2015-Fall 2019
 Research topic: User-centered assessment of Layout Perception and Presence in BIM-based Virtual Reality Environments
 Position: Assistant Professor, Department of Civil, Construction, and Environmental Engineering. Massey University, New Zealand
 Indicators of mentorship quality: Co-authored and published one journal paper in Automation in Construction, and co-authored and published three conference papers.

4. Name: Sungjin Kim
 Advisement Period: Fall 2014-Spring 2018
 Research topic: User-Perceived Effectiveness of Unmanned Aircraft System (UAS) Integration in Infrastructure Construction Environments
 Position: Assistant Professor, Department of Civil, Construction, and Environmental Engineering. University of Alabama
 Indicators of mentorship quality: As student, co-authored and published six conference papers and presented three research posters.

5. Name: Samaneh Zolfagharian
 Advisement Period: Fall 2012-Fall 2016
 Research Topic: A Knowledge-Based BIM Exchange Model for Constructability Assessment of Commercial Building Designs
 Position: Senior Product Line Manager, Autodesk.

Indicators of mentorship quality: As student, co-authored and published eight journal papers and twelve conference papers.

6. Name: Mehdi Nourbakhsh
Advisement Period: Spring 2012-Spring 2016
Research Topic: Generalizable Surrogate Models for the Improved Early-Stage Exploration of Structural Design Alternatives in Building Construction
Position: Generative Design Research Scientist, Autodesk.
Indicators of mentorship quality: As student, co-authored and published eight journal papers and eleven conference papers.
7. Name: Ebrahim P. Karan
Advisement Period: Fall 2011-Fall 2014
Research Topic: Extending Building Information Modeling (BIM) Interoperability to Geo-Spatial Domain using Semantic Web Technology.
Position: Associate Professor at Sam Houston State University, Texas.
Indicators of mentorship quality: As student, co-authored three journal papers and three conference papers as well as presented four research posters.
8. Name: Masoud Gheisari
Advisement Period: Fall 2009-Fall 2013
Research Topic: An Ambient Intelligent Environment for Accessing Building Information in Facility Management Operations; A Healthcare Facility Scenario
Position: Assistant Professor at the University of Florida
Indicators of mentorship quality: As student, co-authored and published ten journal papers, fifteen conference papers and presented five research posters.

B2. M.S. Students (Indicate Thesis Option for Each Student)

1. Name: Ali Mohammad
Advisement Period: Fall 2017-Spring 2018
Research Project: Real world testing of automated drone flight paths using BIM data
Position: WeWork, New York, N.Y., Masters Student.
Indicators of mentorship quality: Was selected for competitive MSBC Research Assistantship for Spring 2018
2. Name: Simon Clopton
Advisement Period: Fall 2017-Summer 2018
Research Project: Exploratory Study of Unmanned Aerial Systems as Communication Enhancing Tools in Construction Environments
Indicators of mentorship quality: Was selected for competitive MSBC Research Assistantship for Spring 2018
3. Name: Achala Gowda
Advisement Period: Fall 2015-Spring 2016
Thesis Research Topic: Factors Influencing Energy Consumption in Affordable Housing: Focus on Resident's Behavior and Awareness Factors in the State of Georgia

Position: Project Manager at Stewart Construction

4. Name: Jeff Kim
Advisement Period: Fall 2014-Fall 2016
Thesis Research Topic: Assessing the Effects of Augmented Reality on the Spatial Skills of Postsecondary Construction Management Students in the U.S.
Position: Assistant Professor at Auburn University

5. Name: Catherine N. Powers
Advisement Period: Fall 2014-Fall 2015
Thesis Research Topic: A Process for evaluating the benefits of near-infrared reflective roof coatings used on asphalt shingle roofs
Position: Project Engineer at Patillo Construction

6. Name: Lachlan Patterson
Advisement Period: Spring 2014-Spring 2015
Thesis Research Topic: An issues-based mobile decision support system for Facility Management Applications
Position: Senior Project Manager at the Massachusetts Institute of Technology
Indicators of mentorship quality: As student, co-authored and published one conference paper.

7. Name: Lee Myers
Advisement Period: Fall 2012-Spring 2014
Thesis Research Topic: Feasibility study of build-to-rent as a product line for homebuilders
Position: Colonnade Enterprises

8. Name: Abraham "Abe" Kreuger
Advisement Period: Fall 2011-Fall 2013
Thesis Research Topic: Impact of HVAC Filters on Residential Energy Efficiency
Position: Partner at SK Collaborative

B3. Undergraduate Students

1. Supervised Candace Giles, Presidential Undergraduate Research Award (PURA), Fall 2010. Her research project topic was: Analyzing the Existence of Gender Roles in Sustainability Practice

2. Coached teams of undergraduate students for the ASC Region 2 Student Competition, the National Association of Home Builders Competition, the Associated Builders and Contractors Competition and the Electrical Contractors competition between 2008 and 2012.

B4. Service on Thesis or Dissertation Committees

B4.1 PhD. Dissertation Committee

1. Name: Jeremy Epps (PhD)
Advisor: Dr. Eric M. Feron
Affiliated School: Georgia Tech School of Aerospace Engineering
Committee service period: Fall 2020-Present
2. Name: Zhenan Feng (PhD)
Advisor: Dr. Vicente Gonzalez
Affiliated School: Department of Civil and Environmental Engineering, The University of Auckland, New Zealand
Committee service period: (external examiner) Spring 2020
3. Name: Leonardo Bottia Garcia (PhD)
Advisor: Dr. Daniel Castro
Affiliated School: Georgia Tech School of Building Construction
Committee service period: Spring 2020-Present
4. Name: Cristina Toca-Perez (PhD)
Advisor: Dayana Bastos Costa
Affiliated School: Federal University of Bahia - Salvador-Bahia-Brazil
Committee service period: Fall 2018-Present
5. Name: Yang Cao (PhD)
Advisor: Dr. Baabak Ashuri
Affiliated School: Georgia Tech School of Building Construction
Committee service period: Spring 2019
6. Name: Xinghua Gao (PhD)
Advisor: Dr. Pardis Pishdad
Affiliated School: Georgia Tech School of Building Construction
Committee service period: Fall 2018-Spring 2019
7. Name: Stephen Haviland (PhD)
Advisor: Dr. Eric Johnson
Affiliated School: Georgia Tech School of Aerospace Engineering
Committee service period: Fall 2018-Present
8. Name: Mehrad Niknam (PhD)
Advisor: Dr. Saeed Karshenas
Affiliated School: Marquette University, Dept. of Civil, Construction, and Environmental Engineering
Committee service period: Spring 2015-Fall 2015
9. Name: Liz Minne (PhD)
Advisor: John C. Crittenden
Affiliated School: Georgia Tech School of Civil and Environmental Engineering
Committee service period: Fall 2014-Spring 2015
10. Name: Saud Eissa Aboshiqah (PhD)

Advisor: Dr. Robert Corner
Affiliated School: Faculty of Science and Engineering, Department of Spatial Sciences at Curtin University, Australia
Committee service period: (external examiner) Spring 2013

11. Name: Angelica Ospina-Alvarado (PhD)
Advisor: Dr. Daniel Castro
Affiliated School: Georgia Tech School of Building Construction
Committee service period: Fall 2011-Spring 2011

B4.2 Master Committee

1. Name: Michael Boynton Tobey (MS)
Advisor: Dr. Perry Yang
Affiliated School: Georgia Tech City and Regional Planning
Committee service period: Fall 2018-Spring 2018
2. Name: Rene Jean Robert (MS)
Advisor: Erica Ryherd
Affiliated School: Georgia Tech George W. Woodruff School of Mechanical Engineering,
Committee service period: Fall 2014-Fall 2015
3. Name: Robert Stephenson (MS)
Advisor: Dr. Baabak Ashuri
Affiliated School: Georgia Tech School of Building Construction
Committee service period: Fall 2011-Fall 2012
4. Name: Samaneh Zolfagharian (MS)
Advisor: Dr. Aziruddin Ressang
Affiliated School: Universiti Teknologi Malaysia (UTM)
Committee service period: as Co-Advisor Fall 2010-Fall 2011
5. Name: Laura Florez-Perez (MS)
Advisor: Dr. Daniel Castro
Affiliated School: Georgia Tech School of Building Construction
Committee service period: Fall 2009-Fall 2010
6. Name: Mehdi Nourbakhsh (MS)
Advisor: Dr. Rosli Mahamd Zin
Affiliated School: Universiti Teknologi Malaysia (UTM)
Committee service period: as Co-Advisor Fall 2009-Fall 2010

B5. Mentorship of Postdoctoral Fellows or Visiting Scholars

1. Name: Cristina Toca-Perez
Advisement Period: Fall 2018-Summer 2019

Research Topic: Integrating BIM and simulation to reduce logistics waste on construction sites

Position: Doctoral Student at Federal University of Bahia - Salvador-Bahia-Brazil

2. Name: Claudia Fabiola Calderón Hernández
Advisement Period: Jan. 2018-Mar. 2018
Research Topic: Develop a framework for the use of the Augmented/Virtual reality tool
Position: Graduate Student at Pontifical Catholic University of Peru- Lima, Peru
3. Name: Dayana Bastos Costa
Advisement Period: Spring 2015-Spring 2016
Research Topic: Unmanned Aerial Systems Applications in Construction
Position: Associate Professor at Federal University of Bahia - Salvador-Bahia-Brazil
4. Name: Jun Sun
Advisement Period: Spring 2015-Spring 2016
Research Topic: Virtual Reality Application for Construction Safety
Position: Professor, Huazhong University of Science and Technology in P.R. China
5. Name: Zhipeng Zhou
Advisement Period: Spring 2011- Fall 2012
Research Topic: Application of Relative Precursors into Safety Management of Subway Construction to Prevent Fatal or Injury Accidents
Position: Associate Professor, Nanjing University of Aeronautics and Astronautics, Nanjing P.R. China

C. Educational Innovations and Other Contributions

C.1. New Educational Programs

1. Collaborated with faculty in the School of Building Construction in the development of the re-imagined Undergraduate Degree Program in Building Construction with an emphasis in Construction 4.0 technologies.
2. Led development of the Professional Masters in Occupational Safety and Health (PMOSH) from concept to approval by the University System of Georgia Board of Regents. (development of the program is part of BC strategic plan) (Spring 2014-Fall 2015)
3. Developed Study Abroad program to Brazil in collaboration with Federal University of Bahia, Brazil: BC4900 Sustainable Methods for Informal Construction as part of the program titled, Technology Integrated Service Learning for the Sustainable Built Environment in Brazil-Fall 2015
4. Advised Prof. Rick Porter in the development of prospectus and proposal for the Masters in Real Estate Development (MRED) degree. (Spring 2015-Fall 2016)

5. Collaborated with faculty in the School of Building Construction in the development of the Undergraduate Certificate in Construction Management.

C.2. New Courses Developed

1. Drone Technology Applications in the Built Environment (BC4803/8903)
This course provides a current and comprehensive introduction to multiple innovative and cutting-edge drone technology applications in present and future use in the built environment. The course takes a practical and hands-on approach to the introduction of drone technology applications. By course completion, students are able to describe the various drone-related technologies and to functionally apply many of them. Students are also expected to be able to develop strategies for the integration of several of the covered drone technologies into built environment operational workflows including construction and facility management. The course innovations in terms of the practical approach used to teach drone technology was presented at the Celebrating Teaching Day at Georgia Tech in March 2020.
2. Technology Applications in the Construction Industry (BC6005)
The course was developed as part of the School of Building Construction's strategic plan to provide students in the masters program with exposure to the latest and most advanced Construction 4.0 technologies being introduced in the construction industry. Technologies covered include laser scanners, drones, and various project management and visualization software. Students in the course will benefit from using the only available textbook that I co-authored which comprehensively covers all the Construction 4.0 technologies introduced in the course
3. BC 4630, Senior Capstone (BC 4630)
Senior project course improved by increasing the complexity of the project that students work on. The project used reflects the scope of work students learn during the 4-year undergraduate degree and requires application of the knowledge gained. In addition, the final stage of the course includes a defense of the work judged by industry professionals in a panel setting.
4. Virtual Construction Operations Analysis (BC8833)
The course was designed to prepare students to perform pre-project analysis using the latest technologies for planning complex projects considering safety, schedule, and cost implications.
5. Sustainable Construction Technology (BC8933)
The course was design as an exploration of construction materials, methods and related technologies in the broad context of residential and commercial building construction considering their sustainability implications.

C.3. Mentoring Programs

No data.

C.4. Continuing Education

1. Instructor, AGC Supervisory Training Program, Scheduling Unit. Nov 14-15, 2019, 6 attendees.
2. Instructor, AGC Supervisory Training Program, Scheduling Unit. December 6 and 7 2018, 24 attendees.
3. Instructor, GDOT UAS Seminar, for the Georgia Department of Transportation, July 18th, 2017, 15 attendees.
4. Instructor, Building with a Drone, for the Associated General Contractors of Georgia, August 5, 2015, 25 attendees.
5. Instructor, Architecture Design Overview 101, for the Career, Technical, and Agricultural (CTAE) Resource Network at Campbell High School in Smyrna, GA, July 22 and 23, 2009, 18 attendees.
6. Instructor, Constructability of PCC Pavements (8 PDHs), Forest Park, Georgia, September 5 2008, Office of Materials and Research, Georgia Department of Transportation, 21 attendees.
7. Instructor, Project Management (1.6 CEUs), Marietta, Georgia, February 2 and 7 2007, Continuing Education Center, Southern Polytechnic State University, 9 attendees.
8. Instructor, Estimating and Bidding for Contractors (1.6 CEUs), Marietta, Georgia, September 1 and 8 2006, Continuing Education Center, Southern Polytechnic State University, 3 attendees.
9. Instructor, Estimating and Bidding for Contractors (1.6 CEUs), Marietta, Georgia, May 20, June 3 2006, Continuing Education Center, Southern Polytechnic State University, 4 attendees.

C.5. Interdisciplinary Initiatives

1. In 2019, I led a team which was awarded hosting the 2022 International Conference of the Associated Schools of Construction in collaboration with faculty from the Construction Management Department at Kennesaw State University. The conference will be the first held in Georgia in the almost 60 years of the conference history. The conference brings together faculty from construction related educational programs from around the world and it is sponsored by the Associated Schools of Construction. The ASC is the most important international organization in construction education with over 150 member schools accredited by the American Council of Construction Education (ACCE) as well as the American Board for Engineering and Technology (ABET).
2. In 2019 I led a multidisciplinary team of faculty and staff from the Schools of Building Construction, Architecture, Civil Engineering, and Aerospace Engineering in the planning and execution of the first Symposium on Unmanned Aerial Systems in the Built Environment. The symposium is a first of its kind and brought together faculty, students,

and industry professionals to discuss what is next from UAS or drones in the built environment. The symposium was part of the College of Design's Associate Dean for Research initiative to promote a culture of research in the College. The symposium will be a yearly event in collaboration with faculty and Schools from across the Institute.

3. From 2015-2017, I was part of a collaborative and leadership effort that led to a conference and a workshop in August 2017, promoting integration between the design and construction disciplines and between industry and academia. The conference was sponsored by the AIA Academy of Architecture for Health and the workshop was sponsored by Architecture + Construction Alliance. The workshop brought faculty and industry professionals together to discuss challenges in the architecture, engineering, and construction (AEC) disciplines and how they are taught.
4. In the 2019 Spring Semester I collaborated with School of Architecture Prof. Julie Kim, to integrate an architecture studio course with the Construction Management Certificate Project course (BC4140) to provide students with the experience of collaborating with architecture professionals in a design-build project. The experience was appreciated by students from both courses and enhanced collaboration with faculty from the School of Architecture.

VI. Service

A. Professional Contributions

- Reviewer for the International Journal of Architectural Research-2020-present
- Reviewer for ISPRS International Journal of Geo-Information-2020-present
- Member of Editorial Board of Technologies Journal, MDPI-2020-present
- Chair, First Symposium on Unmanned Aerial Systems in the Built Environment-2019
- Session Chair, 2019 International Conference on Computing in Civil Engineering-2019
- Session Chair, 2019 Associated Schools of Construction International Conference-2019
- Track Chair (Computer Applications and Simulation, Advanced Technologies, and Data Analytics) Construction Research Congress-2020
- Session Moderator, ASCE Construction Institute Summit-2019
- Reviewer for Oak Ridge Associated Universities – Nazarbaye University, Kazakhstan-2019
- Reviewer for the Applied Sciences Journal-2019-present
- Organizing Committee Member, 2019 ASCE International Conference on Computing in Civil Engineering-2018
- Reviewer for the Facilities Journal-2018-present
- Judge, 2018 EIC Awards of the Associated Builders and Contractors (Georgia Chapter)-2018
- Judge, 2018 Associated General Contractors of America (AGC-Georgia) Safety Leadership Award-2018
- Proposal Reviewer for the Fund for Research in Nature and Technology, Provincial Government of Quebec, Canada-2018

- Reviewer for the Journal of Infrastructure Systems-2017-present
- Reviewer for the Innovative Infrastructure Solutions Journal-2017-present
- Reviewer for the International Journal of Intelligent Robotics and Applications-2017-present
- Reviewer for the Construction Innovation: Information, Process, Management Journal-2017-present
- Judge for the 2017 AGC Ron Amerson Safety Excellence Award-2017
- Board Member of the International Conference on Human Factors and Simulation (HFSIM) as part of the Applied Human Factors and Ergonomics Conference-2016-present
- Technical Committee Member CRC-2016
- Reviewer for the International Journal of Intelligent Robotics and Applications-2016-present
- Reviewer for the Computers and Education-Elsevier-2016-present
- Judge, 2016 ABC Excellence in Construction Competition-2016
- NSF Panel Review for PFI:BIC Smart buildings, Construction and Ambient Intelligence-2016
- Moderator for Construction Management Association of America (CMAA) Panel on Technology in Construction-2016
- Regional Director, Associated Schools of Construction Region 2-2014-2016
- Technical Co-Chair, 2014 Construction Research Congress (CRC2014)-2014
- Founding Member, ASCE Construction Institute, North Georgia Chapter-2014
- Member of Editorial Board of the International Journal of Construction Education and Research-2014-2016, 2019-present
- Reviewer for the ASCE Journal of Computing in Civil Engineering-2014-present
- Founding Member and Advisor for the ASCE CI - Atlanta Chapter-2014
- Technical Committee Member for the Visualization, Information Modeling, and Simulation Track and Data Sensing and Analysis Track for the 2013 ASCE International Workshop on Computing in Civil Engineering-2013
- Session Chair, 2013 Associated Schools of Construction International Conference-2013
- Book Review of “Advanced Construction and Building Technology – Automation, Robotics, Services”, by Professor Thomas Bock from the Technical University of Munich, Cambridge University Press, Americas-2013
- Session Moderator, 2012 Construction Research Congress-2012
- President, Human Factors and Ergonomics Society, Atlanta Chapter-2012
- Judge, 2012 Associated Builders and Contractors’ Excellence in Construction (EIC) awards-2012
- Assistant Regional Director, Associated Schools of Construction Region 2-2011-2013
- Webmaster, Associated Schools of Construction Region 2-2011-2013
- Reviewer for the Journal of Automation in Construction-2011-present
- Reviewer for the ASCE Journal of Management in Engineering-2011-present
- Reviewer for the ASC Journal of Construction Education and Research-2011-present
- Advisory Board Member, Hapeville Career Academy Charter School (Hapeville, GA) AEC Initiative in Collaboration with the Construction Education Foundation of Georgia-2010-2012

- Review of Building Construction: Principles, Materials, and Systems, 2009 Update, Mehta, Scarborough and Armpriest. Prentice Hall-2009
- Review of National Fund for Scientific & Technological Development (FONDECYT) of the Government of Chile-2007

B. Public and Community Service

1. Organized and delivered a presentation and workshop to students at Tritt Elementary School on Unmanned Aerial Systems, October 27th, 2017
2. Organized and delivered a presentation and workshop to students at Kingsley Elementary Charter School on Basic Principles of Structural Engineering and Construction and Unmanned Aerial Systems, October 10th, 2016
3. Exhibitor representing School of Building Construction in Construction Education Foundation of Georgia (CEFGA) Career Exposition 2009 to 2012, 2015, 2016, 2018, 2019, 2020
4. Future City Competition, Georgia Regional Competition, Judge, Jan 21, 2006; Jan 27, 2007; Jan 24, 2009; Jan 22, 2011; Jan 21, 2012; Jan 26, 2013
5. Organized and delivered a presentation and workshop to students at Kingsley Elementary Charter School on Basic Principles of Structural Engineering and Construction, December 9th, 2010
6. Directed class for the ACE Mentor Program where GT Faculty conducted a teamwork activity on scheduling and project management on 2010, 2011, 2012

C. Institute Contributions

C1. Institute Level

- Georgia Tech Institute Diversity and Inclusion Council – Appointed by President Cabrera-2020-Present
- Georgia Tech Intellectual Property (IP) Advisory Committee- Appointed by the Executive Vice President for Research (EVPR) for a two-year term-2020-Present
- Georgia Tech Faculty Senate representative for College of Design-2017-2020
- Advisory Board Member for Goizueta STEM Initiative-2011-present
- Member of the Georgia Tech Graduate Education Strategic Plan Working Team-2013
- Judge for the Georgia Tech Research and Innovation Conference (GTRIC) poster competition, Atlanta, GA, Feb. 12, 2013
- Faculty Associate for the Grand Challenges Living Learning Community (GCLLC)-2012-2013

C2. College Level

- Co-Chair, Diversity and Inclusion Council-Fall 2019-present
- Member RP&T Committee-Spring 2019
- Member Graduate Curriculum Committee-Fall 2019-Spring 2020

- College of Architecture Promotion and Tenure Committee-2014-2016
- Digital Building Lab (DBL) Director Search Committee-2014
- College of Architecture Diversity Task Force-2013-2014
- College of Architecture, Curriculum Committee-2012-2013
- College of Architecture, Scholarship and Awards Committee-2011-2013

C3. School Level

- Advisor, Mohamed Bin Zayed International Robotics Challenge (MBZIRC)-2019-2020
- Student Construction Association/AGC Graduated Student Competition Teams Advisor-2018
- Task Force Member, Certificate in Building Construction-2014
- Task Force Member, Review and assess existing BC program tracks-2014
- National Electrical Contracting Association (NECA) and ELECTRI International (EI) Green Energy Challenge National Competition Team Coach-2010, 2012
- Student Construction Association/AGC/ABC Competition Teams Advisor-2008-2012
- BC Chair Search Committee Member-2010-2011
- National Association of Home Builders Student Competition (NAHB) Coach-2008, 2010
- College of Architecture Computing Committee-2008-2009