Table of Contents

Pardis Pishdad-Bozorgi, Ph.D.
Assistant Professor
School of Building Construction

I. Earned Degrees

Doctor of Philosophy in Environmental Design and Planning   2012
Virginia Tech
Department of Building Construction
Ph.D. Advisor: Dr. Yvan Beliveau
Committee Members: Michael Garvin, Andrew McCoy, Kihong Ku

Master of Science in Civil Engineering   2012
Virginia Tech
The Charles E. Via, Jr. Department of Civil and Environmental Engineering
The Vecellio Construction Engineering and Management Program (VCEMP)
Thesis Advisor: N/A- Coursework-only Option

Master of Design Studies (MDesS), Post professional degree   2006
Harvard University
Graduate School of Design
Thesis Advisor: N/A- Coursework-only Option

Master of Architecture (MArch)   2005
University of Tehran
College of Fine Arts
Thesis Advisor: Issa Hodjat

Bachelor in Architectural Engineering   2002
I.A. University of Shiraz
College of Art and Architecture
Thesis Advisor: N/A- Coursework-only Option

Diploma in Science   1997
National Organization of Developing Exceptional Talents

II. Employment History

Tenured Associate Professor   Fall 2020- Present
Georgia Institute of Technology
College of Design, School of Building Construction

Associated General Contractors (AGC) Faculty Industry Resident   Summer 2019
Beam , INC (BIM Consulting Company)

Assistant Professor (Tenure Track) 2012- 2020
Georgia Institute of Technology
College of Design, School of Building Construction

Lecturer III Fall 2011- Spring 2012
University of Texas at San Antonio
College of Architecture, Construction Science Management Program

Instructor Fall 2010
Virginia Tech
Myers-Lawson School of Construction

Graduate Teaching Assistant Fall 2007- Spring 2010
Virginia Tech
College of Architecture & Urban Studies, Department of Building Construction

Schedule Engineer Summer 2008
Turner Construction Company's subsidary: QPS, Northern Virginia

Project Manager & Estimator Assistant Summer 2007
Tishman Construction Corporation, Washington D.C.

III.   Honors and Awards

Recognition Title	Level	Year
1. The Editor's Choice for my co-authored 2020 journal article and was featured in the special collection of the ASCE Journal of Construction Engineering and Management, https://doi.org/10.1061/(ASCE)CO.1943-7862.0001983	International	2021
2. Acknowledged for my GDOT-sponsored research, which was showcased in the Innovation Summit (EDC-6) organized by the US Department of Transportation	National	2020
3. Provost Teaching and Learning Fellow	Institutional	2020
4. Hanover Grant Writing Research Fellow	College	2020
5. Recipient of 2019 DBIA Faculty/Academia Design-Build Scholarship	National	2019
6. Associated General Contractors Industry Residency 2019 Class of 7 Faculty	National	2019
7. Virginia Tech VCEMP Outstanding Alumni Award	Institutional	2019
8. Construction Management Association of America (CMAA) Educator of the Year	National	2018
9. Engineering News-Record (ENR) National Top 20 Under 40 Professionals	National	2018
10. Transportation Research Board's CM Committee Best Poster Award, 2nd Place	National	2018

11. Thank-a-Teacher Certificate of Recognition by Georgia Tech	Institutional	2018
12. Featured Sponsored Project of the Year by Georgia Tech's CDAIT	Institutional	2018
13. Engineering News-Record (ENR) Southeast Top Young Professionals	Regional	2018
10. Thank-a-Teacher Certificate of Recognition by Georgia Tech	Institutional	2017
14. Construction Industry Institute (CII) Outstanding Researcher Award	National	2016
15. Georgia Tech College of Design Outstanding Faculty Award	College	2016
16. 2015 GT National Science Foundation (NSF) Advance Women of Excellence	College	2015
17. 2015 iTWO Best Research Partner in America Award	International	2015
18. Georgia Tech 2014 Face of Inclusive Excellence	Institutional	2014
19. Associated Schools of Construction (ASC) National Excellence Teaching Award	National	2014
20. ASC Regional Excellence Teaching Award	Regional	2013
21. 2013 Class of 1969 Teaching Fellows Program, Georgia Tech	Institutional	2013

IV.   Research, Scholarship, and Creative Activities

A.   Published Books, Book Chapters, and Edited Volumes

A1. Books

1. Pishdad-Bozorgi, P. (2022[1]). 5D+ Building Information Modeling (BIM): Data-driven Supply Chain Integration. Wiley.

A2. Refereed Book Chapters

* 1. **Yoon, J.**, **Gao, X.**, Pishdad-Bozorgi, P. (2020). Chapter: Blockchain: Technologies for Facilitating Cyber-Physical Security in Smart Built Environment. BIM-Enabled Cognitive Computing for Smart Built Environment: Potential, Requirements and Implementation. Taylor & Francis.

* 2. Pishdad-Bozorgi, P., Shelden, D., **Gao, X.** (accepted, 2020). Chapter 4: Introduction to Cyber-Physical Systems in the Built Environment. Construction 4.0: An Innovation Platform for the Built Environment, Edited by Sawhney, A., Riley, M., and Irizarry, J., Taylor and Francis.

* 3. Shelden, D., Pauwels, P., Pishdad-Bozorgi, P., and **Tang, S.** (accepted, 2020). Chapter 12: Data Standards and Data Exchange for Construction 4.0. Construction 4.0: An Innovation Platform for the Built Environment, Edited by Sawhney, A., Riley, M., and Irizarry, J., Taylor and Francis.

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[1] To be published in 2022: Book proposal accepted, in development.

A3. Edited Volumes

B. Refereed Publications and Submitted Articles

B1. Published and Accepted Journal Articles

* 1. **Lu, H.**, Zhang, Q., Cui, Q., Luo, Y., Pishdad-Bozorgi, P., Hu, X., (2021). How Can Information Technology Use Improve Construction Labor Productivity? An Empirical Analysis from China. Journal of Sustainability.

* 2. **Gao, X.**, Pishdad-Bozorgi[2], P., Shelden, D., **Tang, S.** (2020). An Internet of Things (IoT)-enabled Data Acquisition Framework for the Smart Built Environment. *Journal of Construction Engineering and Management*. Vol. 147, Issue. 2. https://doi.org/10.1061/(ASCE)CO.1943-7862.0001983

* 3. **Tang S**, Shelden DR, Eastman CM, Pishdad-Bozorgi P, Gao X. (2020). BIM assisted Building Automation System information exchange using BACnet and IFC. *Automation in Construction*, 110, 103049. doi:10.1016/j.autcon.2019.103049

* 4. Wang, G., **Lu, H.**, Hu, W., **Gao, X.**, Pishdad-Bozorgi, P. (2020). Understanding Behavioral Logic of Information and Communication Technology Adoption in Small and Medium-sized Construction Enterprises: An Empirical Study from China. *Journal of Management in Engineering.* Vol. 36. Issue 6. https://doi.org/10.1061/(ASCE)ME.1943-5479.0000843

* 5. **Gao, X.**, Pishdad-Bozorgi, P. (2019). A Framework of Developing Machine Learning Models for Facility Life-cycle Cost Analysis. *Journal of Building Research and Information*. Vol. 48, Issue 5. https://doi.org/10.1080/09613218.2019.1691488

* 6. **Lu, H.**, Pishdad-Bozorgi, P., Wang, G., Xue, Y., and Tan, D. (2019). ICT Implementation of Small- and Medium-Sized Construction Enterprises: Organizational Characteristics, Driving Forces, and Value Perceptions. Journal of Sustainability. 11(12).3441. doi:10.3390/su11123441.

* 7. **Gao, X.**, and Pishdad-Bozorgi, P. (2019). BIM-enabled Facilities Operation and Maintenance: A Review. *Journal of Advanced Engineering Informatics*, Vol. 39, pp. 227-247. https://doi.org/10.1016/j.aei.2019.01.005

* 8. **Tang, S.**, Shelden, D., Eastman, C., Pishdad-Bozorgi, P., **Gao, X.** (2019). A review of building information modeling (BIM) and the internet of things (IoT) devices integration: Present status and future trends*. Journal of Automation in Construction,* Vol. 101, pp. 127–139. https://doi.org/10.1016/j.autcon.2019.01.020

* 9. Pishdad-Bozorgi[3], P., **Gao, X**., Eastman, C., and **Self, P.** (2018). Planning and developing facility management-enabled building information model (FM-enabled BIM). *Journal of Automation in Construction*, Vol. 87, pp. 22-38. https://doi.org/10.1016/j.autcon.2017.12.004

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[2] Editor's of choice and featured in the special collection of JCEM
[3] Corresponding author

* 10. de la Garza, J.M, and Pishdad-Bozorgi, P. (2018). A Workflow Process Model for Flash Track Projects. *ASCE, Journal of Construction Engineering and Management,* Vol. 144, Issue 6. https://doi.org/10.1061/(ASCE)CO.1943-7862.0001501

* 11. Pishdad-Bozorgi, P. [3] (2017). Future Smart Facilities: State-of-the-Art BIM-Enabled Facility Management. *ASCE, Journal of Construction Engineering and Management*. Vol. 143, Issue 9. https://doi.org/10.1061/(ASCE)CO.1943-7862.0001376

* 12. Pishdad-Bozorgi, P. (2016 online, 2017 printed). Case Studies on the Role of Integrated Project Delivery (IPD) Approach on the Establishment and Promotion of Trust. Taylor & Francis, *ASC International Journal of Construction Education and Research*. Vol. 13, Issue 2. https://dx.doi.org/10.1080/15578771.2016.1226213

* 13. Pishdad-Bozorgi, P.[3], and Beliveau, Y.J. (2016). A Schema of Trust Building Attributes and Their Corresponding Integrated Project Delivery Traits. Taylor & Francis, *ASC International Journal of Construction Education and Research*. Vol. 12, Issue 2. https://dx.doi.org/10.1080/15578771.2015.1118171

* 14. Pishdad-Bozorgi, P.[3], and Beliveau, Y.J. (2016). Symbiotic Relationships between Integrated Project Delivery (IPD) and Trust. Taylor & Francis, *ASC International Journal of Construction Education and Research*. Vol. 12, Issue 3. https://dx.doi.org/10.1080/15578771.2015.1118170

* 15. Pishdad-Bozorgi, P. [3], de la Garza, J.M., and **Austin, R.B.** (2016). Readiness Assessment for Flash Tracking. *ASCE, Journal of Construction Engineering and Management.* Vol. 142, Issue 12. https://dx.doi.org/10.1061/(ASCE)CO.1943-7862.0001190

* 16. Pishdad-Bozorgi, P.[3], **Austin, R.B.**, and de la Garza, J.M. (2017). Network Analysis of Flash Track Practices. *ASCE, Journal of Management in Engineering*. Vol. 33, Issue 1. https://dx.doi.org/10.1061/(ASCE)ME.1943-5479.0000466

* 17 **Austin R.**, Pishdad-Bozorgi, P.[3], and de la Garza, J.M. (2015). Identifying and Prioritizing Best Practices to Achieve Flash Track Projects. *ASCE, Journal of Construction Engineering and Management*. Vol. 142. Issue 2. https://doi.org/10.1061/(ASCE)CO.1943-7862.0001061

B2. Conference Presentation with Proceedings (Refereed)

* 1. Pishdad-Bozorgi, P., **Yoon, J. H.** Dass, N. (2020). Blockchain-based Information Sharing: A New Opportunity for Construction Supply Chains. 56th Annual Associated Schools of Construction Conference. Liverpool, UK.

* 2. Pishdad-Bozorgi, P., **Kumar, S.** (2020). Exploring the Synergy Between Lean Construction and Flash Track Implementation. 56th Annual Associated Schools of Construction Conference. Liverpool, UK.

* 3. **Gao, X**., Pishdad-Bozorgi, P., Shelden, T., Tang, S. (2020). Machine Learning-based Building Life-cycle Cost Prediction: A Framework and Ontology. Construction Research Congress. March, 2020. Tempe, AZ.

* 4. **Hao, L., Gao, X.** Pishdad-Bozorgi, P., and Wang, G. (2019). Construction Supply Chain Integration: Past and Future. The 17th International Conference on Construction and Real Estate Management (ICCREM 2019), Alberta, Canada.

* 5. **Gao, X.**, and Pishdad-Bozorgi, P., Shelden, D. (2019). Machine Learning-based Life-cycle Cost Analysis for Educational Facilities. Proceedings of the Associated Schools of Construction (ASC) 55th Annual International Conference, Denver, CO.

* 6. Pishdad-Bozorgi, P., **Shah, A.** (2019) Case Study of a Living Building Challenge Project. Proceedings of the Associated Schools of Construction (ASC) 55th Annual International Conference, Denver, CO

* 7. **Gao, X.**, Pishdad-Bozorgi, P., Shelden, D., **Tang. S.**, A Scalable Cyber-Physical System Data Acquisition Framework for the Smart Built Environment. ASCE International Conference on Computing in Civil Engineering (2019). Atlanta, GA.

* 8. **Gao, X**., Pishdad-Bozorgi, P., Shelden, D., **Hu, Y.** (2019). Machine Learning Applications in Facility Life-cycle Cost Analysis: A Review. Proceedings of the 2019 ASCE International Conference on Computing in Civil Engineering. Atlanta, GA.

* 9. **Lu, H**., Du, J., Wang, G., Pishdad-Bozorgi, P. (2018). Concession Candidates Selection Model for Infrastructure projects Using Interval Number and Grey Relational Analysis: A Social-Cost-Based Perspective. Proceedings of 49th Annual Meeting of the Decision Sciences Institute. Chicago, IL.

* 10. Pishdad-Bozorgi, P., and **Srivastava. D.** (2018). Assessment of Integrated Project Delivery (IPD) Risk and Reward Sharing Strategies from the Standpoint of Collaboration: A Game Theory Approach. Proceedings of the ASCE 2018 Construction Research Congress. New Orleans, LA.

* 11. **Gao, X.**, and Pishdad-Bozorgi, P. (2018). Past, Present, and Future of BIM-enabled Facilities Operation and Maintenance. Proceedings of the ASCE 2018 Construction Research Congress. New Orleans, LA.

* 12. Pishdad-Bozorgi, P., de la Garza, J.M., and **Bhatambrekar, A. J.** (2018). Georgia Department of Transportation Flash Tracking Best Practices for Accelerated Project Delivery. Proceedings of Transportation Review Board. Washington, D.C.

* 13. de la Garza, J.M., and Pishdad-Bozorgi, P. (2018). Virginia Department of Transportation Flash Tracking Best Practices for Accelerated Project Delivery. Proceedings of Transportation Review Board. Washington, D.C.

* 14. Pishdad-Bozorgi, P., **Austin R.**, and de la Garza J.M. (2016). Flash Track Practices Distilled via Structured Interviews from EPC Projects. Proceedings of the ASCE 2016 Construction Research Congress Proceedings. San Juan, Puerto Rico.

* 15. Bhattacharjee, S., Pishdad-Bozorgi, P., and Ganapathy, R. (2016). Adoption of Pre-fabrication in Construction to Achieve Sustainability Goals: An Empirical Study. Proceedings of the ASCE 2016 Construction Research Congress Proceedings. San Juan, Puerto Rico.

Technology. Proceedings of 46th Annual International Associated School of Construction (ASC). Boston, MA.

29. Pishdad, P.B., and Beliveau, Y. J. (2010). Integrating Multi-Party Contracting Risk Management (MPCRM) Model with Building Information Modeling (BIM). Proceedings of CIB W78 Conference. Cairo, Egypt.

30. Pishdad, P.B., Bozorgi, A., and Beliveau, Y. J. (2010). Towards Promoting A Collaborative Mindset: Reaping the Benefits of Big Building Information Modeling (BIM) in an Integrated Real Estate Program. Proceedings of Ecobuild America, BIM Forum Workshop. Washington, D.C.

B3. Other Refereed Material

1. Pishdad, P.B., and Beliveau, Y.J. (2011). Integrated Real Estate Program: a proposal for undergraduate curricula. American Real Estate Society meetings. Seattle, WA.

B4. Submitted Journal Articles (with Date of Submission)

* 1. **Gao, X.**, Pishdad-Bozorgi, P., Shelden, D., **Tang, S.** A Scalable Cyber-Physical System Data Acquisition Framework for the Smart Built Environment. *Journal of Management in* Engineering. (2nd revision submitted on 05.31.2019. 1st submission on 02.15.2019).

* 2. **Gao, X.**, Pishdad-Bozorgi, P. Developing Machine Learning Models for Facility Life-cycle Cost Analysis. Journal of Computing in Civil Engineering. (submitted on 05.30.2019).

* 3. Wang, G., **Lu, H.**, Luo, Y., Pishdad-Bozorgi, P. Influencing Factors and Technological Contribution of Labor Productivity in Construction Industry: a Perspective of Informatization Development. *Journal of Advances in Civil Engineering. (submitted on 04.03.2019).*

* 4. **Lu, H.**, Pishdad-Bozorgi, P., Wang, G., Xue, Y., Song, J., and Tan, D. Implementation of Information and Communication Technologies in the Construction Industry: Organization Characteristics, Driving Forces and Value Perceptions. *Journal of Sustainability. (submitted on 05.26.2019).*

* 5. **Tang, S**., Shelden, D., Pishdad-Bozorgi, P., **Gao, X.** BIM assisted BAS Information Exchange using BACnet and IFC. *Journal of Automation in Construction.* (2nd revision submitted on 06.11.2019. 1st submission on 02.05.2019).

C. Other Publications and Creative Products

* 1. Pishdad-Bozorgi, P., de la Garza, J.M. (2020). Flash Tracking for Accelerated Project Delivery. Poster presented at the EDC-6 Innovation Summit at the US Department of Transportation Federal Highway Administration, November, 2020.

* 2. Pishdad-Bozorgi, P., de la Garza, J.M. (2020). Flash Tracking Implementation Guidelines Complementing Existing Design-Build Manual. Poster presented at the 8th Annual GDOT\GTI Research Expo, October, 2020.

* 3. **Gao, X.**, Pishdad-Bozorgi, P., & Shelden, D. (2019). Machine Learning-based Life-cycle Cost Analysis for Educational Facilities: A Case Study. A (refereed) poster

presented at the 55th Annual International Associated School of Construction (ASC). Denver, CO.

* 4.   de la Garza, J.M., and Pishdad-Bozorgi, P. (2018). Virginia Department of Transportation Flash Tracking Best Practices for Accelerated Project Delivery. A (refereed) poster presented at Transportation Review Board. Washington, D.C. *(This poster received the 2018 Best Poster Award, 2nd Place by TRB's Standing Committee on Construction Management).*

* 5.   Pishdad-Bozorgi, P., de la Garza, J.M., and **Bhatambrekar, A. J.** (2018). Georgia Department of Transportation Flash Tracking Best Practices for Accelerated Project Delivery. A (refereed) poster presented Transportation Review Board. Washington, D.C.

* 6.   **Gao, X.,** Pishdad-Bozorgi, P., **Tang, S.**, Shelden, D. (2018). Foundational Research in Integrated Building Internet of Things (IoT) Data Standards. A Sponsored project report submitted to Georgia Tech Center for the Development and Application of Internet-of-Things Technologies (CDAIT). See Section IV.G for media related to the report.

* 7.   Pishdad-Bozorgi, P., de la Garza, J.M. (2018). Flash Tracking for Accelerated Project Delivery for Georgia Department of Transportation (GDOT). A Sponsored project report submitted to GDOT.

* 8.   de la Garza, J.M., Pishdad-Bozorgi, P. (2018). Flash Tracking for Accelerated Project Delivery for Virginia Department of Transportation (VDOT) Phase II. A Sponsored project report submitted to VDOT.

* 9.   Pishdad-Bozorgi, P., de la Garza, J.M. (2018). Flash Tracking Readiness Assessment Toolkit for x Department of Transportation (xDOT). A Sponsored project report submitted to GDOT and VDOT.

* 10.   Pishdad-Bozorgi, P., de la Garza, J.M. (2018). xDOT Playbook: A Reference Guide for Flash Tracking. A Sponsored project report submitted to GDOT and VDOT.

* 11.   de la Garza, J.M., Pishdad-Bozorgi, P. (2017). Flash Tracking for Accelerated Project Delivery for Virginia Department of Transportation (VDOT) Phase I. A Sponsored project report submitted to VDOT.

* 12.   Pishdad-Bozorgi, P., de la Garza, J.M., And **Austin, R.** (2015). Research Summary: Successful Delivery of Flash Track Projects. A sponsored research summary submitted to Construction Industry Institute.

* 13.   Pishdad-Bozorgi, P., de la Garza, J.M., And **Austin, R.** (2015). Research Report: Successful Delivery of Flash Track Projects. A sponsored research report submitted to Construction Industry Institute.

* 14.   Pishdad-Bozorgi, P., de la Garza, J.M., **Austin, R.** (2015). Implementation Resource: Successful Delivery of Flash Track Projects. A sponsored implementation resource submitted to Construction Industry Institute.

* 15.   Pishdad-Bozorgi, P., de la Garza, J.M., **Austin, R.** (2015). Flash Tracking Readiness Assessment Toolkit for Construction Industry Institute (CII). A Sponsored toolkit submitted to CII.

* 16. Pishdad-Bozorgi, P., **Self, A.** (2015). A Case Study of Building Information Modeling (BIM) Implementation for Facilities Management. A sponsored research report submitted to Digital Building Lab. Georgia Tech.

* 17. Pishdad-Bozorgi, P., **Chapman, A. S.** (2014). A Framework for Assessing the Comparative Effectiveness of Integrated Project Delivery (IPD) versus Design-Build (DB) on Value and Waste in Design and Construction Projects. A sponsored research report submitted to Georgia Tech GTF.

D.   Presentations

D.1. Plenary Presentations

* 1. Pishdad-Bozorgi, P. (October 29, 2019). Sustainability Follows Integration. Sustainability Showcase. Brook Byers Institute for Sustainable Systems. Georgia Tech. Atlanta, GA.

* 2. Pishdad-Bozorgi, P., and de la Garza, J.M. (March 2018). cPEpC Workflow Process Model for Flash Track Projects. Construction Industry Institute's Board of Advisors Meeting. San Antonio, TX.

* 3. Pishdad-Bozorgi, P. (August 2017). Symbiotic Relationships between Integrated Project Delivery (IPD) and Trust-building Traits. 2017 AIA SAR Architecture for Health Conference. Atlanta, GA.

* 4. Pishdad-Bozorgi, P., and RT 311 (August 2015). Successful Delivery of Flash Track Projects. Construction Industry Institute. Boston, MA.

* 5. Pishdad-Bozorgi, P. (October 2014). Transformational Trends in the Construction Industry. AEC Academic-Industry Partnership Symposium. Georgia Institute of Technology. Atlanta, GA.

D.2. Invited presentations

* 6. Pishdad-Bozorgi, P. (October, 2020). The Blockchain-applied Construction Supply Chain: An Integrative Literature Review. Construction Industry Institute (CII) Construction Supply Chain CBA.

* 7. Pishdad-Bozorgi, P. (May 7, 2020). Future of the Construction Supply Chain with Blockchain Technology. Construction Industry Institute (CII) Construction Supply Chain CBA.

* 8. Pishdad-Bozorgi, P. and Gao, X. (May 2019). Smart Campus Platforms and Machine Learning for Life Cycle Cost Analysis. Digital Building Lab (DBL) Symposium. Georgia Tech. Atlanta, GA.

* 9. Pishdad-Bozorgi, P. (November 2018). Manifesting The Vision for Smart Cities through Digital Twin Transformation. Digital Twin Summit. Georgia Tech

* 10. Pishdad-Bozorgi, P. (October 2018). Sustainable, High Performing, Smart Buildings. Digital Building Lab (DBL) Symposium.

* 11. Pishdad-Bozorgi, P., (January 2018). IoT Applications in Smart Buildings. College of Design Research Forum. Georgia Tech. Atlanta, GA.

* 12. Pishdad-Bozorgi, P. (October 2017). Trust: The Key to Successful Implementation of Integrated Projects. 2018 Construction Management Association of America (CMAA). Washington, D.C.

* 13. Pishdad-Bozorgi, P., and Sheldon, D. (October2017). A Scalable Cyber-Physical System: Integrating IoT Data Standards and BIM IFC Standard. Digital Building Lab (DBL) Symposium. Georgia Tech. Atlanta, GA.

* 14. Pishdad-Bozorgi, P. (October 2017). Research Showcase. Presented at the College of Design's Industry Advisory Board Meeting. Georgia Tech. Atlanta, GA.

* 15. Pishdad-Bozorgi, P. (May 2016). Introducing a Few Examples of Georgia Tech Courses on Emerging and Futuristic Trends in the Construction Industry. Associated Builders and Contractors (ABC) Symposium. Georgia Tech. Atlanta, GA.

* 16. Pishdad-Bozorgi, P. (December 2016). Introducing Georgia Tech Program Management Curriculum as well as BIM and Sustainability Courses offered by the School of Building Construction. Construction Management Association of America (CMAA) Executive Board of Directors Meeting. Vienna, VA.

* 17. Pishdad-Bozorgi, P. (March 2015). Successful Delivery of Flash Track Projects. Georgia Tech College of Architecture Research Forum. Atlanta, GA.

* 18. Pishdad-Bozorgi, P. (October 2013). Impacts of BIM and IPD on the Business Health of Architectural Practice. 2013 AIA Georgia Annual Conference. Columbus, GA.

* 19 Pishdad-Bozorgi, P. (March 2013). IPD Case Studies. AIA meeting. Atlanta, GA.

* 20. Pishdad-Bozorgi, P. (February 2013). IPD Model and Trust-building Attributes. Purdue University's Industry Advisory Board Meeting. West Lafayette, IN.

* 21. Pishdad-Bozorgi, P. (April 2013). Integrated Project Delivery (IPD) Model. Atlanta Emerging Green Professionals Meeting and ceremony designating the LEED-CI Platinum award. Haworth Project. Atlanta, GA.

* 22. Pishdad-Bozorgi, P. (November 2012). IPD model and the roadmap to Building Information Modeling (BIM). Digital Building Lab. Georgia Tech. Atlanta, GA.

D.3. Panel presentations

* 22. Pishdad-Bozorgi, P. (August 2017). Integrated Project Delivery (IPD) Implementation in the Industry: Opportunities and Challenges. 2017 AIA SAR Architecture for Health Conference. Atlanta, GA.

* 23. Pishdad-Bozorgi, P. (June 2017). Millennials in Construction. Construction Management Association of America, South Atlantic Chapter. Atlanta, GA.

* 24. Pishdad-Bozorgi, P. (October 2015). Future of Construction. Frontline Panel. Association of Equipment Manufacturers. Atlanta, GA.

* 25. Pishdad-Bozorgi, P. (October 2014). Integrated Project Delivery (IPD) Panel Discussion. Associated Builders & Contractors (ABC). Atlanta, GA.

D.4. Sponsored Research Presentations

* 26.   Pishdad-Bozorgi, P. (October 2018). Foundational Research in Integrated Building - IoT Data Standards. Georgia Tech Center for the Development and Application of Internet-of-Things Technologies

* 27.   Pishdad-Bozorgi, P., and Sheldon, D. (December 2017). Foundational Research in Integrated Building-IoT Data Standards. Center for Development and Application of Internet of Things Technologies (CDAIT), Georgia Tech, Atlanta, GA.

* 28.   Pishdad-Bozorgi, P., and Sheldon, D. (August 2017). Foundational Research in Integrated Building-IoT Data Standards. Center for Development and Application of Internet of Things Technologies, Georgia Tech, Atlanta, GA.

* 29.   Pishdad-Bozorgi, P. (May 2016). Planning and Developing FM-enabled Building Information Modeling. Digital Building Lab Symposium, Georgia Tech, Atlanta, GA.

* 30.   Pishdad-Bozorgi, P. (May 2015). FM-enabled BIM Commissioning. Digital Building Lab (DBL) Symposium, Georgia Tech, Atlanta, GA.

* 31.   Pishdad-Bozorgi, P. (May 2014). BIM Application in Facility Management: A Progress Report Presentation. Digital Building Lab (DBL) Symposium, Georgia Tech, Atlanta, GA.

D.5. Refereed Presentations

* 32.   Pishdad-Bozorgi, P. (May 2017). Leveraging BIM in Serious Games for Training Purposes. Digital Building Lab (DBL) Symposium. Georgia Tech. Atlanta, GA.

* 33.   Pishdad-Bozorgi, P. (May 2016). Strategic Research for BIM-enabled Facility Management. Digital Building Lab (DBL) Symposium. Georgia Tech. Atlanta, GA.

* 34.   Pishdad-Bozorgi, P. (August 2015). Transitioning to BIM-enabled Facility Management. Digital Building Lab (DBL) Symposium. Georgia Tech. Atlanta, GA.

* 35.   Pishdad-Bozorgi, P. (October 2014). Successful Delivery of Flash Track Projects. 2014 Associated General Contractors (AGC) and Associated Schools of Construction (ASC) Faculty Conference for Region 2. Greensboro, NC.

E.   Grants and Contracts

E1. As Principal Investigator

* 1.   Title of Project: Flash Tracking for Accelerated Project Delivery- Phase II
Agency/Company: Georgia Department of Transportation (GDOT) & Federal Highway Administration
Total Dollar Amount: $289,362
Role: PI
Collaborator: Dr. Jesus M. de la Garza
Period of Contract: August 2019-August 2021

Candidate's Share: 57% ($163,260)

* 2. Provost Teaching Learning Fellow Grant
Total Dollar Amount: $14,000

* 3. Title of Project: AGC Education & Research Foundation- Bowen Industry Residency
Agency/Company: Associated General Contractors Education and Research
Foundation
Total Dollar Amount: $27,140
Role: PI
Collaborator: N/A
Period of Contract: May 2019- August 2019
Candidate's Share: 100% ($27,140)

* 4. Title of Project: Flash Tracking for Accelerated Project Delivery (APD)
Agency/Company: Georgia Department of Transportation (GDOT) & Federal Highway
Administration
Total Dollar Amount: $226,399
Role: PI
Collaborator: Dr. Jesus M. de la Garza
Period of Contract: July 2016-August 2018
Candidate's Share: 41% ($90,568)

* 5. Title of Project: Foundational Research in Integrated Building-IoT Data Standards
Agency: Center for Development and Application of Internet of Things Technologies
Total Dollar Amount: $49,000
Role: PI
Collaborators: Dennis Shelden (co-PI)
Period of Contract: July 2017-May 2018
Candidate's Share: 80% ($39,000)

* 6. Title of Project: Advancing a University Course Curriculum on 5D Modeling
Agency/Company: RIB Software SE
Total Dollar Amount: $28,806
Role: PI
Collaborators: N/A
Period of Contract: August-December 2017
Candidate's Share: 100% ($28,806)

* 7. Title of Project: Smart Cities
Agency/Company: Georgia Tech Foundation (GTF)
Total Dollar Amount: $999.45
Role: PI
Collaborator: N/A
Period of Contract: January-August 2017
Candidate's Share: 100% ($999.45)

* 8. Title of Project: Advancing a University Course Curriculum on 5D Modeling
Agency/Company: RIB Company
Total Dollar Amount: $25,312

Role: PI
Collaborator: N/A
Period of Contract: August- December 2016
Candidate's Share: 100% ($25,312)

* 9. Title of Project: Developing a University Course Curriculum on 5D Modeling, entitled "Integrated Design and Construction Process"
Agency/Company: RIB Company
Total Dollar Amount: $40,000
Role: PI
Collaborator: N/A
Period of Contract: July-December 2015
Candidate's Share: 100% ($39,988)

* 10. Title of Project: Transitioning to BIM-Enabled Facility Management
Agency/Company: Digital Building Lab (DBL)
Total Dollar Amount: $15,614
Role: PI
Collaborator: N/A
Period of Contract: December 2015-December 2016
Candidate's Share: 100% ($15,614)

* 11. Title of Project: Successful Delivery of Fast-track Projects
Agency/Company: Construction Industry Institute (CII)
Total Dollar Amount: $194,540
Role: PI
Collaborator: Dr. Jesus M. de la Garza
Period of Contract: September 2013-August 2015
Candidate's Share: 57% ($109,661)

* 12. Title of Project: Contracting for FIM (Facility Information Modeling)
Agency/Company: Digital Building Lab (DBL)
Total Dollar Amount: $34,000
Role: PI
Collaborator: N/A
Period of Contract: January-July 2014
Candidate's Share: 100% ($34,000)

* 13. Title of Project: A Framework of Metric for Assessing the Comparative Effectiveness of IPD versus DB on Value and Waste Realized in Design and Construction Process
Agency/Company: GTF
Total Dollar Amount: $10,000
Role: PI
Collaborator: N/A
Period of Contract: August 2013-May 2014
Candidate's Share: 100% ($10,000)

* 14. Title of Project: A Framework of Metric for Assessing the Comparative Effectiveness of IPD versus DB on Value and Waste Realized in Design and Construction Process
Agency/Company: GTF
Total Dollar Amount: $10,000

Role: PI
Collaborator: N/A
Period of Contract: August 2013-May 2014
Candidate's Share: 100% ($10,000)

* 15   Title of Project: Class of 1969 Teaching Fellows Program
        Agency/Company: Class of 1969 Teaching Fellows
        Total Dollar Amount: $1,000
        Role: PI
        Collaborator: N/A
        Period of Contract: August 2013-May 2014
        Candidate's Share: 100% ($1,000)

E2. As Co-Principal Investigator

* 1.   Title of Project: Flash Tracking for Accelerated Project Delivery (APD)- Phase III
        Agency/Company: Virginia Department of Transportation (VDOT)
        Total Dollar Amount: $266,136
        Role: co-PI
        Collaborator: Dr. Jesus M. de la Garza
        Period of Contract: October 2018-September 2020
        Candidate's Share: 17% ($45,640)

* 2.   Title of Project: Flash Tracking for Accelerated Project Delivery (APD)- Phase II
        Agency/Company: Virginia Department of Transportation (VDOT)
        Total Dollar Amount: $165,875
        Role: co-PI
        Collaborator: Dr. Jesus M. de la Garza
        Period of Contract: July 2016-August 2018
        Candidate's Share: 40% ($62,313)

* 3.   Title of Project: Flash Tracking for Accelerated Project Delivery (APD)
        Agency/Company: Virginia Department of Transportation (VDOT)
        Total Dollar Amount: $150,369
        Role: co-PI
        Collaborator: Dr. Jesus M. de la Garza
        Period of Contract: January 2015-December 2016
        Candidate's Share: 50% ($70,876)

* 4.   Title of Project: GOALI: Conference on Architecture and Construction Research
        Initiatives for 2020- An Engagement of Academia, Industry, and Organizations
        Agency/Company: A+CA
        Total Dollar Amount: $30, 693
        Role: co-PI
        Collaborators: Javier Irizarry, Shima Clarke, Jesus M. de la Garza, David Allison, Brian
        Edwards, James Smith
        Period of Contract: January 2015-August 2016
        Candidate's Share: 14% ($4,341)

E3. As Senior Personnel or Contributor: N/A

E4. Pending Proposals

* 1. Title of Project: Investigating The Roles of Incentive and Disincentive Mechanisms on Collaboration Among Firms: A Game Theory Approach
Agency: National Science Foundation
Total Dollar Amount: $390,000
Role: PI
Collaborator: Morvarid Rahmani (co-PI)
Date of Submission: May 2019
Candidate's Share: 93% ($362,000)

* 2. Title of Project: Smart Building Technology Assessment
Agency/Company: Intel
Total Dollar Amount: $100,000
Role: PI
Collaborator: Dr. Dennis Shelden
Period of Contract: August 2019-May 2020
Candidate's Share: 50% ($50,000)

E5. Proposals Submitted but Not Funded (Last Two Years)

F. Other Scholarly and Creative Accomplishments

G. Societal and Policy Impacts

Three major national and state organizations, i.e., CII, GDOT, and VDOT, have already incorporated my research findings on flash tracking into their operations. GDO and VDOT.

1. GDOT has applied my research findings on Flash Tracking into a $21 million project, the Courtland Street Bridge Replacement Project. The Flash Track best practices identified through my research informed the customization of the request for proposal for this project to select the most qualified design-builder. We also met with GDOT and the selected design-build team at the onset of the project to introduce them to Flash Track best practices, and to assess their readiness using our Flash Track Readiness Assessment Toolkit. The project was very successful received the Distinguished National Award in the "small projects" category by the Design-Build Institute of America (DBIA).

   Additionally, we have been engaged in other GDOT projects to educate the teams on Flash Track Best Practices, and assess their readiness in successful flash tracking. By doing so the teams have become aware of any potential risks and mitigation measures. These projects include SR 400EL, I-85 widening, and I-16 & I-95.

   Following the completion of my previous GDOT-sponsored research on Flash Tracking for Accelerated Project Delivery (2016-2018), I have been awarded another research grant to create an appendix to GDOT's Design-Build Manual, specifically tailored to time-sensitive projects. The appendix is a means to turn the flash track best practices to implementation guidelines and policies enforced by GDOT.

   My research has been highly impactful in advancing the state of the practice at GDOT and resulted into a new Guideline complementing GDOT's Design-Build manual. I am humbled and honored that GDOT showcased my research in the Innovation Summit (EDC-6)

organized by the US Department of Transportation Federal Highway in 2020. GDOT also nominated my research project on "Flash Tracking for Accelerated Project Delivery" as a High Value Research Project to American Association of State Highway and Transportation Officials (AASHTO). The criteria for nomination includes impact, research execution, innovation, implementation in practice, and validation.

2. VDOT is also incorporating flash tracking requirements into the RFP for a high-profile bridge and tunnel project in Hampton Roads.

3. CII member firm has implemented the cPEpC delivery model for flash tracking, proposed by my research, in a first-to-market project.

4. My research on ways of sustaining construction market has been featured in Atlanta Business Chronicle, in the section on "Structured Growth", February 21-27, 2013 highlighting the role of establishing trust in sustaining construction businesses during an unstable economic condition.

5. My research on IoT, funded by CDAIT, has explored ways of integrating IoT data protocols with the BIM open standard protocol towards realizing the vision for a smart built environment. My collaborative research on BIM-IoT is the 2018 featured project of the year by CDAIT and Georgia Tech's press release was picked up by numerous media around the globe.

   1) "Georgia Tech Internet of Things Center Releases Research Report on IoT Data Standards for the Smart Built Environment."(9/10/2018). Georgia Tech News Center.
   Follow on press included:

   2) "How to Improve IoT's Role In City Construction? Model It from the Start, a New Report Says." (9/19/2018). StateScoop.

   3) "Smart-Building and Iot Technologies Are Highly Fragmented." (9/17/2018). Tech Central, Ireland.

   4) "Georgia Tech Research: Smart-Building and Iot Technology Are Highly Fragmented." (9/15/2018). Computer World, Australia.

   5) "Free Report Details IoT Data Standards for Smart Buildings." (9/13/2018). Machine Design, UK.

   6) "Free Report Details IoT Data Standards for Smart Buildings." (9/13/2018). Alterstrategy, Ukraine.

   7) "Georgia Tech Internet of Things Center Releases Research Report on IoT."Data Standards for the Smart Built Environment, (9/11/2018)..IoT Investing, India.

   8) "Georgia Tech Internet of Things Center Releases Research Report on IoT Data." (9/10/2018). Standards for the Smart Built Environment, NextGenNews.

   9) "CDAIT Reports on IoT Data Standards for Smart Built Environment." (9/10/2018) Sensors Online.

   10) "Georgia Tech Internet of Things Center Releases Research Report on IoT Data." (9/10/2018). Standards for the Smart Built Environment, IoT Counsel, Netherlands.

11) "Georgia Tech Internet of Things Center Releases Research Report on IoT Data." (9/10/2018). Standards for the Smart Built Environment, IoT Business News, France.

12) "Georgia Tech Internet of Things Center Releases Research Report on IoT Data." (9/10/2018). Standards for the Smart Built Environment, IoT Expert, Italy.

13) "Georgia Tech Internet of Things Center Releases Research Report on IoT Data." (9/10/2018). Standards For The Smart Built Environment, IoT Investing, India.

14) "CDAIT reports on IoT data standards for Smart Built Environment."(9/10/2018). IoT 360 News, Germany.

15) "Georgia Tech Iot Center Releases Report On Iot Data Standards for Smart Built Environment." (9/10/2018). The Internet of All Things, India.

16) "Georgia Tech Internet of Things Center Releases Research Report on IoT Data Standards for the Smart Built Environment." (9/10/2018). IoTosphere

17) "Research Report on Iot Data Standards for the Smart Built Environment Released By Georgia Tech Internet of Things Centre." (9/10/2018). IoT Now, UK

H. Other Professional Activities

1. In 2013, the owner team of Cherokee Indian Hospital of North Carolina reached out to me to consult on a newly emerged approach, called Integrated Project Delivery (IPD). The owner was in the process of selecting an appropriate delivery method for the hospital replacement project. I provided consulting services to inform the owner's decision. I also conducted multiple educational workshops with the owner team. The result led to the owner's selection of IPD as their project delivery method. The project was successfully built and the owner has been very satisfied with the process and IPD delivery model. The CEO of the hospital presented their project and share their success stories with IPD delivery model and team-building at a conference on "Building Trust Through Collaborative Project Delivery" on August 26th 2017 at Georgia Tech. In his speech, the CEO of the hospital acknowledged my research contribution on IPD and Trust-building to the success of their project and it's alignment with their tribe's values.

2. I am currently employed at Beam Consulting (May-August 2019) through AGC Faculty Industry Residency Initiative. The goal of this residency is to get exposed to current state-of-practice and gain industry experience that would inform my research and educational activities on the subject of Building Information Modeling (BIM) and Integrated Supply Chain Management.

V. Education

A. Courses Taught

Term, Year	Course No.	Course Title	Teaching (T) Advising (A)	No. of Students
Spring '20	BC6850	Building Construction Facility Mgmt. Capstone	T	15
	BC6050	Building Information Modeling	T	12 (6+6)
	BC4050	Building Information Modeling	T	

Fall '19	BC4130	Integrated Design, Construction, & Development	T	16
	BC6550	Design and Construction Process	T	(6+10)
	BC7200	Advanced Readings	A	1
Spring '19	BC6850	Building Construction Facility Mgmt. Capstone	T	14
	BC6050	Building Information Modeling	T	24
	BC4050	Building Information Modeling	T	
	BC8903	Special Problem Building Construction	A	1
	BC9000	Doctoral Thesis	A	1
Fall '18	BC6850	Building Construction Facility Mgmt. Capstone	T	24
	BC6550	Design and Construction Process	T	29
	BC4130	Integrated Design, Construction, and Development	T	
Spring '18	BC6850	Building Construction Facility Mgmt. Capstone	T	9
	BC8999	Doctoral Thesis Prep	A	1
Fall '17	BC4130	Integrated Design, Construction, Development	T	23
	BC6550	Design and Construction Processes	T	
	BC8903	Special Problem Building Construction	A	2
	BC7200	Advanced Reading	A	1
	BC8999	Doctoral Thesis Prep	A	1
Summer '17	BC8999	Doctoral Thesis Prep	A	1
Spring '17	BC4630	Senior Capstone Project	T	2
	BC7200	Advanced Readings	A	1
	BC8903	Special Problem Building Construction	A	1
Summer '16	BC8903	Special Problem Building Construction	A	1
Spring '16	BC6050	Building Information Modeling	T	38
	BC4050	Building Information Modeling	T	
	BC4630	Senior Capstone Project	T	2
	BC8903	Special Problem Building Construction	A	1
Fall '15	BC4130	Integrated Design, Construction, Development	T	31
	BC6550	Design and Construction Processes	T	
	BC4630	Senior Capstone Project	T	5
Spring '15	BC4630	Senior Capstone Project	T	5
Fall '14	BC4630	Senior Capstone Project	T	12
	BC4803	Special Topics: Building Information Modeling	T	14
	BC8803	Special Topics: Building Information Modeling	T	
	BC8999	Doctoral Thesis Prep	A	1
Summer '14	BC8903	Special Problem Building Construction	A	1
	BC8999	Doctoral Thesis Prep	A	1
Spring '14	BC4803	BIM Applications	T	19
	BC8803	BIM Applications	T	
	Arch503	BIM Applications	T	
	BC4630	Senior Capstone Project	T	9
	BC8999	Doctoral Thesis Prep	A	1
Fall '13	BC4630	Senior Capstone Project	T	11

	BC4803	Special Topics: Building Information Modeling	T	24
	BC8803	Special Topics: Building Information Modeling	T	
	BC8903	Special Problem Building Construction	A	1
	BC7200	Advanced Readings	A	1
Spring '13	BC4803	BIM Applications	T	10
	BC8803	BIM Applications	T	
	BC8903	Special Problem Building Construction	A	1
Fall '12	BC4803	Pre-construction Workshop	T	3

B.   Individual Student Guidance

B1. Ph.D. Students

B1.1. Ph.D. Students Advised and Graduated

*   1.   Name: Xinghua Gao
My role: Sole advisor and committee chair
Advisement period: Fall'15- Spring'19
Title of Dissertation: A Framework for Developing Machine Learning Models for Facility Life Cycle Cost Analysis Through BIM and IOT
Position upon graduation: Tenure-track Assistant Professor at Virginia Tech Myers-Lawson School of Construction, starting in Fall 2019.
Indicators of mentorship quality:
- ✓ Finished PhD in 4 years simultaneously with a Master degree in Computer Science.
- ✓ Co-authored and published 3 journal articles in high impact leading journals, 2 more are under review.
- ✓ Co-authored, published, and presented 4 conference papers and 1 poster at key conference proceedings.
- ✓ Fully funded through my sponsored projects.
- ✓ Mentored him on both teaching and research.
- ✓ He is warded the 2019 Graduate Teaching Assistant Award presented by the School of Building Construction at Georgia Tech.
- ✓ Got 3 faculty offers from good universities and accepted a tenure-track faculty position at a Tier 1 Institute (Virginia Tech).

*   2.   Name: Robert Austin
My role: Sole advisor during PhD research and committee chair.
Advisement period: Fall'13- Spring'16
Title of dissertation: Successful Delivery of Flash Track Projects
Position upon graduation: Tenure-track Assistant Professor at Bowling State University, Fall'16- present.
Indicators of mentorship quality:
- ✓ Finished PhD research phase in less than 3 years.
- ✓ Co-authored and published 3 journal articles.
- ✓ Co-authored, published, and presented 1 conference paper.
- ✓ Got a tenure-track faculty position at Bowling Green State University upon graduation in 2016.

B1.2. Current Ph.D. Students

* 3. Name: Jong Han Yoon
Advisement period: Fall'19 – Present
Title of research: Building Information Modeling for Facilities Management

* 4. Name: Ihuoma Onungwa (PhD visiting scholar)
Advisement period: Fall'19 – Present
Title of research: Building Information Modeling for Facilities Management

B2. M.S. Students (non-thesis- special topics and research projects)

Note: Almost all our Master students at the School of Building Construction follow course-work-only option. Thus, we rarely get students who choose to write master Thesis. Despite that, I have advised 15 Master students on research (8 were funded through my sponsored projects). With my Master students, I have co-authored and published 8 conference papers, 1 journal paper, and 1 poster in high profile conference proceedings and journal.

* 1. Name: Alan Jara
Advisement period: Fall'20- Present
Research Project: Internet-of-Things (IoT) Applications in Construction
Indicators of mentorship quality: Journal paper under development

2. Name: Nida Eftikhar
Advisement period: Spring'21- Present
Research Project: Integrated Project Delivery (IPD)
Indicators of mentorship quality: Journal paper under development

* 2. Name: Fenil Shah
Advisement period: Spring '20
Research Project: Flash Tracking
Indicators of mentorship quality: assistance with GDOT-sponsored project

* 3. Name: Anant Patel
Advisement period: Spring '20
Research Project: Flash Tracking
Indicators of mentorship quality: assistance with GDOT-sponsored project

* 4. Name: Akash Shah
Advisement period: Fall'17- Spring'18
Research Project: Living Building Challenge (LBC): A Georgia Tech Case Study
Position: Master student
Indicators of mentorship quality: Working on a case study paper, have got a summer internship with Turner Construction Company.

* 5. Name: Sooraj Kumar
Advisement period: Fall'17- Spring'18
Research Project: Lean and Flash Tracking, Building Information Modeling (BIM)
Position: Master student

Indicators of mentorship quality: Developed a conference paper to be submitted, got recruited by DPR company because of his BIM training.

* 6. Name: Eashwar Sriram
  Advisement period: Spring'17- Fall'17
  Research Projects: (1) Flash Tracking for Virginia Department of Transportation Projects; (2) Identifying Gap and Overlaps of Risk Financing Approaches in IPD Projects.
  Position: Graduated in December 2017. Employed at Clayco.

* 7. Name: Aditya J. Bhatambrekar
  Advisement period: Spring'17, Summer'17, Fall'17
  Research Projects: Flash Tracking for Georgia Department of Transportation Projects
  Position: Master student. He will graduate in May 2018.
  Indicators of mentorship quality: co-authored a conference paper published by Transportation Research Board.

* 8. Name: Tushar Dhamani
  Advisement period: Fall'17
  Research Projects: Flash Tracking for Virginia Department of Transportation Projects
  Position: Master student

* 9. Name: Divyansh Srivastava
  Advisement period: Spring'17
  Research Projects: Relative Effectiveness of IPD versus Design-Build on Project Success
  Position: Graduated. Employed at Secretariat International.
  Indicators of mentorship quality: Have co-authored and published a paper at the ASCE Proceedings of 2018 Construction Research Congress.

* 10. Name: Ivan M Ramireza
  Advisement period: Spring'16- Fall'16
  Research Projects: Flash Tracking for Virginia Department of Transportation Projects
  Position: Graduated in December 2016. Employed at Worthing Southeast Builders.

* 11. Name: Jeff Chermely
  Advisement period: Fall'15- Spring'16
  Research Projects: Building Information Modeling
  Position: Graduated and. Employed at Perkins+Will

* 12. Name: Alonzo Self
  Advisement period: Spring'14, Summer'14, Fall'14
  Research Projects: BIM for Facilities Management: EBB Case Study
  Position: Graduated in May 2015. Employed at Kiewit.
  Indicators of mentorship quality: co-authored and published an article in the *Journal of Automation in Construction.*

* 13. Name: Sara Chapman
  Advisement period: Fall'13, Spring'14
  Research Projects: Comparative Analysis of Integrated Project Delivery and Design-Build
  Position: Graduated in 2015.

* 14. Name: Hamid Abdirad

Advisement period: Fall'13, Spring'14
Research Projects: Metrics to Assess Collaboration in IPD, Trends of Assessing BIM
   Implementation
Position: Graduated in 2014.
Indicators of mentorship quality: co-authored two conference papers published the
   proceedings of International Conference on Computing in Civil and Building
   Engineering, and Associated Schools of Construction Conference.

* 15. Name: Ehsan Hamzanlui Moghaddam
Advisement period: Fall'12, Spring'13
Research Projects: Target Price and Target Value Design in IPD
Position: Graduated in 2013.
Indicators of mentorship quality: co-authored two conference papers published at the
   proceedings of Canadian Society of Civil Engineers, and Associated Schools of
   Construction Conference.

B3. Undergraduate Students

I coached a team of undergraduate students, who won 2nd place at the 2013 ASC Region II Design-Build Students Competition. The team was composed of a student from the School of Architecture (Olivia King) and five students from the School of Building Construction (Blake Carson, Christa Kelly, John Kennedy, Rebecca Ramia, Christopher Sovchen).

B4. Service on Thesis or Dissertation Committees

B.4.1.   Ph.D. Dissertation Committees

* 1. Name: Shu Tang
Affiliated School: School of Architecture, Georgia Tech
Committee service period: Fall' 17- Fall'19

* 2. Name: Claudia Garrido Martins
Affiliated School: The University of New Mexico, Department of Civil, Construction &
Environmental Engineering
Committee service period: Fall'18 - Present

* 3. Name: Brandi Williams
Affiliated School: Georgia Tech School of Building Construction
Committee service period: Fall'18- Spring'18

* 4. Name: Aleksandra Markovic Graff
Affiliated School: Virginia Tech, Department of Civil and Environmental Engineering
Committee service period: Spring'18- Present

* 5. Name: Daniel Carneiro
Affiliated School: Georgia Tech School of Building Construction
Committee service period: Fall'17- Present

* 6. Name: Timothy Gardiner
Affiliated School: Virginia Tech, Department of Building Construction
Committee service period: 2015

*   7.   Name: Kyungki Kim
Affiliated School: Georgia Tech, School of Civil and Environmental Engineering
Committee service period: Spring'18- Present

*   8.   Name: John Fard
Affiliated School: Georgia Tech School of Building Construction
Committee service period: 2013-2014

*   9.   Name: Arya Sedehi
Affiliated School: Georgia Tech School of Building Construction
Committee service period: 2013-2014

B.4.2.   Master Thesis Committees

Note: Almost all our Master students at the School of Building Construction follow course-work-only option. Thus, we rarely get students who choose to write master Thesis. Due to my unique specialization on Flash Tracking, I have been invited by other universities to serve on thesis and dissertation committees outside Georgia Tech.

*   1.   Name: Mahima Saravanan
Option: Thesis
Affiliated School: Georgia Tech, School of Building Construction
Committee service period: Spring'19 - Present

*   2.   Name: Daniel Linares
Option: Thesis
Affiliated School: Virginia Tech, Department of Civil and Environmental Engineering
Committee service period: 2016

*   3.   Name: Christian Figueroa
Option: Project & Report
Affiliated School: Virginia Tech, Department of Civil and Environmental Engineering
Committee service period: Spring'18- Present

*   4.   Name: James Toohey
Option: Project & Report
Affiliated School: Virginia Tech, Department of Civil and Environmental Engineering
Committee service period: 2015

B5. Mentorship of Postdoctoral Fellows or Visiting Scholars

*   1.   Name: Hao Lu
Graduate level: Ph.D.
Advisement period: Fall'17- Spring'18
Research Project: Information Communication Technology & Integrated Supply Chain
Position: 3rd year PhD student from Tongji University, Department of Construction Management and Real Estate.
Indicators of mentorship quality:
   ✓ Co-authored 2 journal articles, currently under review.
   ✓ Published 1 conference paper.

C. Educational Innovations and Other Contributions

C.1. Participation in interdisciplinary initiatives

C.1.1. Serve-Learn-Sustain (SLS) Fellows Programs

In 2017, I got selected by the institute to participate in the Serve-Learn-Sustain (SLS) Fellows Programs at Georgia Tech. SLS Fellows Programs are interdisciplinary learning communities bringing together faculty and staff from all six Georgia Tech colleges to develop new ideas for interdisciplinary and engaged research and teaching. Our SLS Fellows program research theme was focused on Smart Cities, which informed my research on Smart Buildings and IoT, which later got funded by the Center for Development and Application of IoT and became their 2018 featured project of the year.

C.1.2. Architecture + Construction Alliance (A+CA) Initiative

From 2015-2017, I have also been part of an initiative that informed the agenda of a conference, entitled "2017 AIA SAR Architecture for Health" and led to a half day workshop, entitled "Architecture, Engineering and Construction Teaching and Research Initiatives for 2020- An Engagement of Academia, Industry, and Organizations", Sponsored by A+CA.

 The goal was to promote integration between design and construction disciplines and between industry and academia. The workshop brought faculty and industry professionals together to discuss challenges in the architecture, engineering, and construction (AEC) disciplines and how they are taught. The workshop focused on trust because many of the multidisciplinary issues in the AEC industry stem from a lack of trust.

C.2. Professional Education

I have been frequently invited by various leading professional design and construction associations, such as the Construction Management Association of America (CMAA), American Institute of Architects (AIA), Associated Builders and Contractors (ABC) to provide professional continuing education. I have actively disseminated my research and discussed its applications and value in practice. Additionally, I have conducted multiple half-a-day workshops, attended by industry professionals and academics.

C.2.1. Workshops (Half a day workshops with attendees from industry and academia)

* 1. Pishdad-Bozorgi, P., Kolarić, S., Swarts, M., and Jeng, T. (May 2018). Blockchain for Construction. Digital Building Lab (DBL) Symposium. Georgia Tech. Atlanta, GA.

* 2. Pishdad-Bozorgi, P., and **Gao, X**. (May 2018). BIM and IoT. Digital Building Lab (DBL) Symposium. Georgia Tech. Atlanta, GA.

* 3. Pishdad-Bozorgi, P., Irizarry, J., 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.

C.3.   New courses developed

I have been involved in the development and transformation of 4 new courses. I have developed one new course in both undergraduate and graduate versions (BC4050/6050) that previously did not exist in the catalogue. I have also co-developed BC6850 that did not exist in the catalogue. I have completely transformed the course contents of combined BC4130/BC6550 by developing completely new course contents two times, once in 2015 and once again in 2018 in response to the Institute's request due to the discontinuation of the course software.

C.3.1. Building Information Modeling (BIM)- BC6050 & BC4050

I developed this course and offered it as a Special Topic course 4 times from Spring 2013-Fall 2014. The course got approved by the institute as a permanent catalogue course in Fall 2015. This inter-disciplinary course provides insights into various applications of BIM for designers, builders, owners, and facility managers throughout different phases of a facility life cycle. It involves both lecture and lab sessions. The lecture covers the theoretical aspects of BIM and discussions on real-world BIM case studies. The lab incorporates Autodesk Revit and Navisworks to expose the students with cutting-edge technologies to develop 3D building models and 4D construction simulations, and to perform clash detection between different building systems in a virtual environment.

C.3.2. Building Construction Facility Management Capstone (BC6850)

I co-developed this course with two other instructors and have offered it 3 times since Spring 2018. This newly developed course is not only multidisciplinary but also co-taught by multi-disciplinary instructors specializing in Program Management (PM), Construction Management (CM), and Facilities Management (FM). The students who are from different tracks of PM, CM, and FM are put together in multi-disciplinary teams and work on a real project in three modules of PM, CM, and FM playing different roles and completing different assignments related to each phase of the project.

C.3.3. Integrated Design, Construction, and Development (BC4130) Combined with Design and Construction Process (BC6550)— 2015 to 2017

Even though these two courses previously existed in the catalog, but I was asked to completely transform them and re-develop them from scratch. I developed new instructional course materials for these two undergraduate and graduate courses. The lecture materials covered emerging and integrating trends, such as Integrated Project Delivery (IPD), Lean Construction, and BIM. The computer lab sessions focused on a cutting-edge technology, including iTWO, which is a 5D modeling solutions integrating and supporting different phases of a project life cycle. I offered this courses 2 times from Fall 2015 to Fall 2017.

C.3.4. Integrated Design, Construction, and Development (BC4130) Combined with Design and Construction Process (BC6550)— 2018 to Present

In Fall 2018, just two weeks before the beginning of the semester, the University administration decided to discontinue the license of iTWO software and I was asked to redevelop my course and not teach iTWO. I had to completely transform my course by

designing a new syllabus and completely new instructional materials. In this newly modified course, the students learn about different ways of integrating design and construction processes by following a framework that includes strategies for system, process, organizations, and information integration. Despite the short notice for transforming and developing new contents for the course, I successfully managed the transition and received the CIOS effectiveness score of 4.9 and 5 in these two courses with 29 students.

C.4.   Laboratory experiments and instructional materials developed

Please see section C.3.

C.5.   Interdisciplinary course developed and taught

C.5.1. Senior Capstone (BC4630)

The Senior Capstone course has been taken by students from Building Construction as well as students from other disciplines (e.g., Civil Engineering and Architecture), who are interested in pursuing a certificate in Building Construction. The course is project-based and requires fundamental interdisciplinary knowledge of design, engineering, construction, and management as it relates to the built environment. I have taught this course 7 times from Fall 2012-Spring 2017.

In 2013, I coached a multi-disciplinary team of students from my Capstone class who participated in the AGC region II Design-Build competition. The team was made of the students from Building Construction and Architecture. The successful interdisciplinary team effort led to the team's winning second place in the competition.

C.5.2. Building Information Modeling (BC6050 & BC4050)

The Building Information Modeling (BIM) course has been taken by students from different majors, including Architecture, Civil Engineering, and Building Construction. Occasionally, I have also had students majoring in Electrical Engineering or Business. The course focuses on the applications of BIM as an integrating and collaborative technology and set of processes. The class involves both discussion-based sessions and computer lab sessions on emerging BIM processes and technologies. The final project is team-based and involves interdisciplinary team collaboration using BIM technologies. For their final projects, the students have developed as-built BIM models for over 42 buildings at Georgia Tech campus, using historical 2D archives.

C.5.3. Building Construction Facility Management Capstone (BC6850)

Please see the description of C.3.2.

C.6.   Additional Educational Activities

I have been involved in educational service activities that are very important to our school and support the educational mission of the institute. Our school has phased out its undergraduate since 2013, and we have become a graduate school only. I have been engaged in launching an Undergraduate Certificate in Building Construction and most currently, in reconstituting the undergraduate degree in Building Construction.

C.6.1. Launching an Undergraduate Certificate in Building Construction

In years 2014 and 2015, I led the effort that culminated with the creation of the Undergraduate Certificate in Building Construction.

C.6.2. Reconstituting the Undergraduate Degree in Building Construction

Currently, I am the co-chair of a task force for reconstituting the undergraduate degree in Building Construction.

VI. Service

A. Professional Contributions

2021	Vice Chair, 5D BIM Estimating Traskforce, BIM Forum, BuildingSMART International
	Chair, Knowledge Subcommittee for SCM CBA at Construction Industry Institute (CII)
	Academic Advisor for SCM CBA at Construction Industry Institute (CII)
	Reviewer, Journal of Automation in Construction
2020	Judge, 2020 Associated Builders and Contractors Excellence in Construction
	Judge, 2020 Autodesk AEC Excellence Awards 2020 Construction
	Chair, Knowledge Subcommittee for SCM CBA at Construction Industry Institute (CII)
	Academic Advisor for SCM CBA at Construction Industry Institute (CII)
	Reviewer, Journal of Automation in Construction
	Reviewer, Journal of Construction Engineering Management
2019	Moderator, Symposium on Simulation for Architecture & Urban Design
	Reviewer, Journal of Management in Engineering
	Judge, 2019 CMAA Panel Reviewing Application for the Frances M. Keville Memorial Scholarship
2018	Academic Advisor, CMAA Board of Directors
	Judge, 2018 ABC Excellence in Construction Competition
	Moderator, ASCE Construction Research Congress (CRC)
	Research Committee, Associated School of Construction (ASC)
	Reviewer, *Journal of Automation in Construction*
	Reviewer, *Journal of Computing in Civil Engineering*
	Reviewer, *ASCE Journal of Construction Engineering & Management*
2017	Academic Advisor, CMAA Board of Directors
	Reviewer, *ASCE Journal of Construction Engineering & Management*
	Reviewer, *Journal of Automation in Construction*
2016	Academic Advisor, CMAA Executive Board of Directors
	Judge, 2016 ABC Excellence in Construction Competition
	Reviewer, *ASCE Journal of Construction Engineering and Management*
	Reviewer, *ASC Journal of Construction Education & Research*
	Track Chair and Reviewer, 2016 Construction Research Congress
	Reviewer, *ASCE Journal of Management in Engineering*
2015	Academic Committee, Construction Industry Institute (CII)
	Reviewer, 2016 Construction Research Congress
	Reviewer, *ASCE Journal of Construction Engineering and Management*

	Reviewer, *ASCE Journal of Management in Engineering*
	Reviewer, *Canadian Journal of Civil Engineering*
	Reviewer, Book Proposal Review for Willey
	Reviewer, Global Lean Construction Conference
	Reviewer, Lean Construction Conference
	Member, Research Committee, Associated School of Construction (ASC)
2014	Reviewer, *ASCE Journal of Construction Engineering and Management*
	Judge, Excellence in Construction Award, ABC
	Track Co-Chair and Reviewer for 2014 ASCE Construction Research Congress
	Moderator, CII Track, ASCE Construction Research Congress (CRC)
	Reviewer, *Journal of Automation in Construction*
	Reviewer, *ASCE Journal of Construction Engineering and Management*
	Reviewer, Construction Research Congress (CRC) PhD Students Posters
	Academic Committee, Construction Industry Institute (CII)
	Member, Research Committee, Associated School of Construction (ASC)
	Member, Invited Speaker Subcommittee, CII Academic Committee
2013	Track Co-Chair and Reviewer for 2014 ASCE Construction Research Congress
	Reviewer, *ASCE Journal of Construction Engineering and Management*
	Academic Committee, Construction Industry Institute (CII)
	Member, Research Committee, Associated School of Construction (ASC)
	Reviewer, *Journal of Automation in Construction*
	Reviewer, *Journal of Construction Management & Economics*
	Moderator, International Associated School of Construction Conference
	Session Chair of Construction Integration, Canadian Society of Civil Engineer Conference
2012	Reviewer, *ASCE Journal of Construction Engineering and Management*
	Academic Committee, Construction Industry Institute (CII)
	Reviewer, *Journal of Automation in Construction*

B.   Public and Community Service

I participated at the Construction Education Foundation of Georgia (CEFGA) event in Spring 2018 and showcased my students' 3D, 4D, and 5D projects on applications of technologies such iTWO and BIM at Georgia Tech School of Building Construction booth. I specifically reached out to female high school students and encouraged them to consider pursuing a professional career in construction management. CEFGA hosts its annual Career Expo, which consists of hands on displays that allow students to engage with industry professionals, equipment and materials in order to tap into their unique skills and interests. The event features the SkillsUSA State Championships, a competition that invites students to test their skills in a number of construction-related disciplines. These events have become increasingly successful, drawing a record 8,200-plus attendees in 2018.

C.   Institute Contributions

2021	Research Next Commission	Institute
	Provost Teaching Learning Fellow	Institute
	Blended Learning Faculty Learning Community	Institute
	Search Committee for BC School Chair	College
	College of Design curriculum Committee	College

	Review and assessment of student applications	School of BC
2020	"What I Wish I Knew My First Year on the Tenure-Track" panel	Institute
	Blended Learning Faculty Learning Community	Institute
	Provost Teaching Learning Fellow	Institute
	College of Design research & scholarship Committee	College
	Search Committee for BC School Chair	College
	Search committee for the Director of Digital Building Lab	College
	College of Design curriculum committee	College
	Task force for reviving the undergraduate degree in Building Construction	School of BC
	Search committee for MRED faculty hiring	School of BC
	Review and assessment of student applications	School of BC
	Unit level tenure and promotion committee	School of BC
2019	College of Design Research & Scholarship Committee	College
	Co-Chair of Task Force: Undergraduate Degree in Building Construction	School of BC
	Building Construction Lecture Series- Hosted 3 Lecturers	School of BC
	Review and assessment of student applications	School of BC
2018	5th Year Evaluation of Dean Steve French Committee	Institute
	Search Committee for the Director of High Performance Building Lab, Member	School of Architecture
	College of Design Research & Scholarship Committee	College
	College of Design Diversity & Inclusion Council	College
	Review and assessment of student applications	School of BC
2017	5th Year Evaluation of Dean Steve French Committee	Institute
	Search Committee for the Director of High Performance Building Lab, Member	School of Architecture
	College of Design Diversity & Inclusion Council	College
	Review and assessment of student applications	School of BC
2016	College of Design Diversity & Inclusion Council	College
	Review and assessment of student applications	School of BC
2015	Task Force Chair, Certificate in Building Construction	School of BC
	Digital Building Lab (DBL) Director Search Committee	College
	College of Design Advisory Committee Member	College
	Review and assessment of student applications	School of BC
2014	Task Force Chair, Certificate in Building Construction	School of BC
	Digital Building Lab (DBL) Director Search Committee	College
	College of Design Advisory Committee Member	College
	Faculty Advisor, Student Construction Association (SCA)	School of BC
	Coach for GT Students, Associated Schools of Construction Competition	School of BC
	Task Force Member, Review and assess existing BC program tracks	School of BC
	Review and assessment of student applications	School of BC
2013	Faculty Advisor, Student Construction Association (SCA)	School of BC
	Coach for GT Students, Associated Schools of Construction Competition	School of BC
	Review and assessment of student applications	School of BC
2012	Faculty Advisor, Student Construction Association (SCA)	School of BC