MOSTAFA BATOULI

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EDUCATION

PhD in Civil and Environmental Engineering

May 2017

Graduate Assistant, School of Construction

Florida International University, Miami, Florida, US

Dissertation Title: Exploratory Assessment of Roadway Infrastructure Adaptation to the Impacts of Sea-Level Rise

Master of Public Administration

July 2015

Green School of International and Public Affairs, Florida International University, Miami, Florida, US

Graduate Certificate in Homeland Security and Emergency Management December 2014

Green School of International and Public Affairs, Florida International University, Miami, Florida, US,

M.Sc. in Civil Engineering-Construction Engineering and Management September 2009

IAU, Science and Research Branch, Tehran, Iran

Thesis title: Proposing a Multi-Parameter Model for Contractor Selection and Assessment of the Model Applicability

B.Sc. in Civil Engineering - Surveying

April 2006

University of Tehran, Tehran, Iran

High School Diploma

May 2000

National Organization for Development of Exceptional Talents (NODET)

Allame Helli High School, Tehran, Iran

RESEARCH INTERESTS

Smart City Resilience, Sustainable and Resilient Infrastructure, Infrastructure Adaptation to Climate Change, Engineering Education, Sustainable Construction, Construction Automation, Project Control and Project Management, Life Cycle Assessment, Life Cycle Cost Analysis, Complex System-of-Systems Modeling, Decision-Making under Deep Uncertainty, Disaster and Emergency Management.

- 1. **Batouli,M.,** Joshi,D., Smart and Equitable Resilience: A Social Sensing Approach for Infrastructure Adaptation to Sea Level Rise (2021), In Preparation.
- Saadatzadeh, E., Ali Abbaspour, R., Chehreghanb, A., Batoulic, M. (2021). Infrastructure-free Indoor Navigation based on Smartphone Sensors in Smart Buildings, Under Review, Sensors
- Batouli, M., Mostafavi, A., Chowdhury, A. (2020). DyNet-LCCA: A Simulation Framework for Dynamic Network-Level Life Cycle Cost Analysis in Evolving Infrastructure Systems. Sustainable and Resilient Infrastructure, https://doi.org/10.1080/23789689.2019.1710071
- Orgut, R. E., Batouli, M., Zhu, J., Mostafavi, A., & Jaselskis, E. J. (2019). Critical Factors for Improving Reliability of Project Control Metrics throughout Project Life Cycle. Journal of Management in Engineering, 36(1), 04019033.
- Batouli, M., & Mostafavi, A. (2018). Multiagent simulation for complex adaptive modeling of road infrastructure resilience to sea-level rise. Computer-Aided Civil and Infrastructure Engineering, 33(5), 393-410.
- 6. Orgut, R. E., Zhu, J., **Batouli, M.**, Mostafavi, A., & Jaselskis, E. J. (2018). Metrics That Matter: Core Predictive and Diagnostic Metrics for Improved Project Controls and Analytics. Journal of Construction Engineering and Management, 144(11), 04018100. (Selected as the Editor's Choice).
- Inyim, P., Batouli, M., Reyes, M., Carmenate, T., Bobadilla, L., Mostafavi, A. (2018) "A Smartphone Application for Personalized and Multi-Method Interventions toward Energy Saving in Buildings", Sustainability, 10(6), 1744.
- 8. **Batouli, M.,** Bienvenu, M., & Mostafavi, A. (2017). Putting sustainability theory into roadway design practice: Implementation of LCA and LCCA analysis for pavement type selection in real world decision making. Transportation Research Part D: Transport and Environment, 52, 289-302.
- Batouli, M., & Mostafavi, A. (2017). Service and performance adjusted life cycle assessment: a
 methodology for dynamic assessment of environmental impacts in infrastructure systems. Sustainable
 and Resilient Infrastructure, 1-19.
- Batouli, S. M., Zhu, Y., Nar, M., & D'Souza, N. A. (2014). Environmental Performance of Kenaf-fiber Reinforced Polyurethane: a Life Cycle Assessment Approach. Journal of Cleaner Production, 66, 164-173.
- Rasoulkhani, K., Mostafavi, A., Reyes, M., Batouli, M. (2020), Resilience Planning in Hazards-Humans-Infrastructure Nexus: Simulation-based Exploratory Assessment of Coastal Water Supply Infrastructure Adaptation to Sea-level Rise. Environmental Modelling and Software, 125.104636

PEER REVIEWED CONFERENCE PAPERS

- 1. Rasoulkhani, K., Mostafavi, A., Reyes, **M., Batouli**, M. (2020), Simulation-based Assessment of Adaptive Planning in Coastal Water Supply Infrastructure Systems. Accepted, Proceedings of Construction Research Congress 2020.
- 2. **Batouli, M.**, Burke, R., Plumblee, J., Davis, J. (2019) Deconstructing Student Motivations for Selecting a College Major: Strategies to Improve Recruitment in Construction Engineering. In: 55th International Conference of Associated Schools of Construction.
- 3. **Batouli, M.**, Burke, R., Plumblee, J., Davis, J. (2019) Impact of Misperception on Selecting an Engineering College Major: An Empirical Analysis. In: Proceedings of 2019 ASEE Southeastern Section Conference.
- 4. **Batouli, M.**, Burke, R., Wood, T. (2019) Gamification of Student Advising: Helping Students Decide Between Civil and Construction Engineering. In: Proceedings of 2019 ASEE Southeastern Section Conference.
- Wood, T., Batouli, M., Book, E., Michalaka, D., Brown, K. (2019) Perspectives on an Innovative Homework Policy. 2019 ASEE Southeastern Section Conference. In: Proceedings of 2019 ASEE Southeastern Section Conference.
- Batouli, M., & Mostafavi, A. (2016). Assessment of Sea-Level Rise Adaptation in Coastal Infrastructure Systems: Robust Decision-Making under Uncertainty, Proceedings of Construction Research Congress 2016
- 7. **Batouli, M.,** & Mostafavi, A. (2016). A Simulation Framework for Sustainability Assessment in Evolving Socio-Technical Infrastructure Systems, ICSDEC16 International Conference on Sustainable Design, Engineering and Construction
- 8. Orgut, R., **Batouli, M.,** Zhu, J., Mostafavi, A., Jaselskis, J. (2016). Metrics that Matter: Evaluation of Metrics and Indicators for Project Progress Measurement, Performance Assessment, and Performance Forecasting during Construction, Proceedings of Construction Research Congress 2016
- 9. Carmenatea, T., Inyim, P, Pachekara, N., Chauhana, G., Bobadillaa, L., Mostafavi, A., **Batouli, M.** (2016). Modeling Occupant-Building-Appliance Interaction for Energy Waste Analysis, ICSDEC16 International Conference on Sustainable Design, Engineering and Construction
- 10. Batouli, M., & Mostafavi, A. (2015). Assessment of network-level environmental sustainability in infrastructure systems using service and performance adjusted life cycle analysis, ICSC15 The Canadian Society for Civil Engineering's 5th International/11th Construction Specialty Conference
- 11. Orgut, R. E., Zhu, J., **Batouli, M.,** Mostafavi, A., & Jaselskis, E. J. (2015). A review of the current knowledge and practice related to project progress and performance assessment, The Canadian Society for Civil Engineering's 5th International/11th Construction Specialty Conference

- 12. **Batouli, M.,** Mostafavi, A. (2014). A hybrid simulation framework for integrated infrastructure management, Winter Simulation Conference 2014.
- 13. **Batouli, M.,** Swei, O. A., Zhu, J., Gregory, J., Kirchain, R., & Mostafavi, A. (2015, June). A Simulation Framework for Network Level Cost Analysis in Infrastructure Systems. In International Workshop on Computing in Civil Engineering.
- Batouli, S. M., & Zhu, Y. (2014). A Framework for Assessing Environmental Implications of an Urban Area, Construction Research Congress 2014
- 15. **Batouli, S. M.,** & Zhu, Y. (2014). Using Accrual Accounting Life Cycle Assessment as an Indicator of Urban Sustainability, International Conference on Computing in Civil and Building Engineering 2014
- 16. **Batouli, S. M.,** Zhu, Y. (2013). Comparative Life-Cycle Assessment Study of Kenaf Fiber-Based and Glass Fiber-Based Structural Insulation Panels. In ICCREM 2013@Construction and Operation in the Context of Sustainability (pp. 377-388). ASCE.
- 17. **Batouli**, **M.**, Vesali, N., Ghoddousi, P. (2010) "Contractor Selection Criteria: Investigation of Opinions of Iran Construction Practitioners", 6th International project Management Conference, Tehran, Iran
- 18. Vesali, N., **Batouli, M.,** Hosseinalipour, M. (2010) "Factors Influencing Bid/No-Bid Decision of Iranian Construction Contractors", 6th International project Management Conference, Tehran, Iran
- 19. **Batouli**, **M.**, Vesali, N., Hosseinalipour, M. (2008) "Multi-parameter contracting and prequalification: A comparative study", 2nd National Conference on Projects Procurement System, Tehran, Iran
- 20. Vesali, N., **Batouli**, **M.**, Hosseinalipour, M. (2008) "Factors affecting mark-up decisions among large contractors in Iran", 2nd National Conference on Projects Procurement System, Tehran, Iran

RESEARCH REPORTS

- 1. **Batouli, M.**, Michalaka, D., Nale, D., Ryan, J. (2020). SC ASCE Report Card Sections Ports, Aviation, Roads, Transit, and Bridges, Under Review by ASCE Infrastructure Initiatives
- Batouli, M., Bienvenu, M. & Mostafavi, A. (2016). Development of Life-Cycle Assessment (LCA) and Life-Cycle Cost Analysis (LCCA) for Pavement-Type Selection for SR-836 Extension, Research Study for the Miami-Dade Expressway Authority (MDX)
- 3. Orgut, R; **Batouli, M.**; Zhu, J; Jaselskis, E; Mostafavi, A (2016) "Metrics That Matter: Improving Project Progress and Performance Assessment, Research Study for the Construction Industry Institute, Austin, TX.
- 4. Orgut, R; **Batouli, M.**; Zhu,J; Jaselskis, E; Mostafavi, A (2016) "Project Control Improvement (PCI) Software and User Guide, Research Study for the Construction Industry Institute, Austin, TX.

GRANTSMANSHIP

1. "Climate Risks, Infrastructure, and Income Disparity: Impacts of Sea-Level Rise on Social Inequality in South Carolina's Coastal Communities", June 2019

Funding Source: SC Sea Grant Consortium

PI: Mostafa Batouli, Co-PI: Ismail Farajpour

Amount of Funding: \$70,590

Status: Accepted

2. "Infrastructure Reliability, Public Perception, and Social Networks: A social sensing approach to study evacuation decisions during natural disasters," October 2019

Funding Source: The Citadel Center for Climate Studies

PI: Deepti Joshi, Co-PI: Mostafa Batouli

Amount of Funding: \$12,000

Status: Accepted

3. "Developing ASCE Report Card for South Carolina", March 2019

Funding Source: ASCE SC Board

Role: Chair of the Report Card Committee

Amount of Funding: \$8,000

Status: The report card to be published in 2020

4. "Faculty Development Grant to Attend ASCE ExCEEd Workshop", April 2019

Funding Source: Shared between ASCE and College of Engineering and Computing at The Citadel

Amount of Funding: \$3,717.60

Status: I attended the workshop in Florida in August 2019

5. "Faculty Research Grant", June 2019

Funding Source: College of Engineering and Computing at The Citadel

Amount of Funding: \$4,250

Status: Completed

6. "Faculty Research Grant", April 2019

Funding Source: College of Engineering and Computing at The Citadel

Amount of Funding: \$3,000

Status: Completed

7. "Faculty Development Grant", April 2019

Funding Source: College of Engineering and Computing at The Citadel

Amount of Funding: \$2,500

Status: Completed

8. "Faculty Presentation Grant", April 2019

Funding Source: College of Engineering and Computing at The Citadel

Amount of Funding: \$1,306

Status: Used to attend the 2019 Engineering Sustainability Conference in Pittsburgh, PA

9. "Faculty Presentation Grant", April 2019

Funding Source: College of Engineering and Computing at The Citadel

Amount of Funding: \$1,283

Status: Used to attend the 2019 ASC Conference in Denver, Colorado

10. "Dissertation Year Fellowship", July 2018

Funding Source: Graduate School, Florida International University

Amount of Funding: \$16,000+Tuition Waiver+ Health Insurance

Status: Completed

11. "PhD Colloquium Scholarship", December 2014

Funding Source: Winter Simulation Conference

Amount of Funding: \$1000+ Registration Waiver

Status: Used to attend 2014 Winter Simulation Conference

AWARDS & HONORS

- Third Place Best PhD Poster Award, Construction Research Congress, 2016
- Dissertation Year Fellowship, Florida International University, 2016
- > Student Government Association Graduate Scholarship Award, 2015
- > Graduate Student Appreciation Week (GSAW) Scholarly Forum Third Poster Award, 2015
- ➤ University Wide Scholarship Award, Florida International University, 2014
- ➤ PhD Colloquium Scholarship, Winter Simulation Conference, 2014
- > FIU Finalist for Odebrecht Award for Sustainable Development, 2013
- ➤ Ranked 2nd among 40 students in the Department of Engineering and awarded a scholarship, Islamic Azad University, Science and Research Branch, 2007
- ➤ Ranked 2nd among 40 students in the Department of Engineering and awarded a scholarship, Islamic Azad University, Science and Research Branch, 2008
- ➤ Ranked 6th among more than 12,000 applicants in National Azad University Matriculation for graduate students, Fall 2006
- ➤ Ranked 1270th among more than 500,000 students in the Nationwide Universities Matriculation, Summer 2000
- Ranked 3rd in Chess competition among Iranian students, 1994
- Ranked 1st in Scientific competition of students in province of Tehran, 1994

TEACHING EXPERIENCE

At The Citadel

Instructor

Project Management Career Skills Spring 2020

Project Scheduling Fall 2019, Fall 2020

Project Management and Engineering Administration Fall 2019

Project Management Career Skills Spring 2020, Fall 2020, Spring 2021

Statics and Mechanics of Materials Summer 2019, Summer 2020, Summer 2021

Advanced Estimating Spring 2019, Spring 2020, Spring 2021
Asphalt & Concrete Laboratory Spring 2019, Spring 2020, Spring 2021
Commercial Construction Equipment Spring 2019, Spring 2020, Spring 2021

Resource Estimating Fall 2018, Fall 2019, Fall 2020

Quality Management and Labor Relations Fall 2018, Fall 2019, Fall 2020

Statics Fall 2018

At FIU

Instructor

Construction Documentation and Communication Spring 2018, Summer 2018

Construction Sitework and Equipment Fall 2017, Spring 2018

Construction Materials and Methods Fall 2017

Management of Construction Projects Summer 2017

Co-Instructor:

Construction Information Systems Summer 2017

Sustainable Construction Spring 2014, Spring 2015

Topics in International Construction Spring 2018

Online Course Moderator:

Construction Information Systems Summer 2014, Summer 2015, Summer 2016

Topics in International Construction Spring 2015, Spring 2016

Management of Construction Organization Fall 2014, Fall 2015, Fall 2016

Teaching Assistant:

Sustainable Construction Spring 2012, Spring 2013

Construction Scheduling Fall 2013

Guest Lecturer:

Sea Level Solutions Interdisciplinary Studio Spring 2016- Spring 2017

PROFESSIONAL EXPERIENCE

[Fall 2018- Present] Assistant Professor of Civil and Construction Engineering

Department of Civil & Environmental Engineering; The Citadel

[Fall 2017-Summer 2018] Visiting Professor of Construction Management

Moss School of Construction, Infrastructure, & Sustainability; Florida International University

[Summer 2017] Adjunct Professor

Moss School of Construction, Infrastructure, & Sustainability; Florida International University

[2012-2017] Research and Teaching Assistant

Moss School of Construction, Infrastructure, & Sustainability; Florida International University

[2009- 2011] Quality Control Director

Iranian Concrete Manufacture; Tehran, Iran

[2007-2009] Quality Control Coordinator

Iranian Concrete Manufacture; Tehran, Iran

[2006-2008] Assistant Project Manager (part time)

Parsan Engineering Company; Tehran, Iran

[2004-2006] Surveying Engineer, Assistant Project Manager (part time)

Parsan Engineering Company; Tehran, Iran

PROFESSIONAL MEMBERSHIP AND CERTIFICATES

Project Management Professional (PMP), Since February 2020

ASCE ExCEEd Fellow, Since August 2019

Member of Project Management Institute (PMI) Since 2019

Associate Member of American Society of Civil Engineering (A.M.ASCE), Since 2019

COMPUTER SKILLS

Programming Language: Java, Visual C++, Visual Basic, and MATLAB

Technical Software: Anylogic, Arc GIS, Revit, SPSS, AutoCAD, MS Project, Primavera Project

Planner, SimaPro LCA Software, Athena Impact Estimator for Buildings, Athena Pavement LCA

Tools: Microsoft Office, @Risk, Adobe Photoshop, etc.

REFERENCES

<u>Dr. A.Mostafavi</u>, Assistant Professor, Zachry Department of Civil Engineering, Texas A&M University, Email: amostafavi@civil.tamu.edu; Ph: 979-845-4856

Dr. Jin Zhu, Assistant Professor, Department of Civil and Environmental Engineering; University of

Connecticut; Email: jzhu@uconn.edu; Ph: 860-486-0489

<u>Dr. Deepti Joshi</u>, Associate Professor of Computer Science, Department of Cyber and Computer Science, The Citadel, ; Email: djoshi@citadel.edu; Ph: 843-953-7895

<u>Dr. E. Jaselskis</u>, Clancy Distinguished Professor, Department of Civil, Construction, and Environmental Engineering, North Carolina State University, Email:<u>ejjasels@ncsu.edu</u>; Ph: 919-515-1158

<u>Dr. N. Ganapati</u>, Associate Professor, Department of Public Administration, Florida International University, Email: <u>ganapat@fiu.edu</u>; Ph: 305-348-0436

Dr. Y. Zhu, Pulte Homes Endowed Professor in Construction Management, Turner Department of Construction Management, Louisiana State University, Email: yiminzhu@lsu.edu; Ph: 225-578-5373
 All documents are available upon request.