

IBRAHIM S. ODEH

Education

Doctor of Philosophy in Civil and Environmental Engineering – PhD, MAY 2010

University of Illinois at Urbana-Champaign – Champaign, Illinois – USA

Masters of Business Administration – MBA, MAY 2004

University of St. Thomas – Minnesota – USA

Bachelor of Science in Civil Engineering – B.Sc., DEC 2000

Jordan University of Science and Technology – Jordan

Industry Experience and Consulting

Working Group Lead – World Economic Forum (WEF) – Switzerland, MAY 2016 – Present

- Leading one of six groups from an industry executives and managers of several international firms to contribute to the multi-year initiative led by WEF which is focused on studying “*The Future of Construction*”.

Consultant – AI Engineers – New York, FEB 2018 – Present

- Advising on major technological trends of the construction market industry and developing a framework for a corporate university for the company.

Consultant – Skanska Inc. – New York, OCT 2016 – Present

- Developing a comprehensive analysis of a global survey (with around 2000 replies) with 5 members in my team on the “*Future of the Ideal Workplace*” in construction.

Consultant – Skanska Inc. – London (UK), JUN 2017 – Present

- Leading a team of 8 to develop a comprehensive study of the Profitability Journey of three industries: Aerospace, Automotive, and Shipbuilding. Extracted lessons learned of their journeys to be implemented in the construction industry.

Consultant – Dentons US LLP – New York, SEP – DEC 2017

- Developed an assessment study of the PPP trends and status in the USA market.

Consultant – The Vertex Companies Inc. – New York, JUN – DEC 2017

- Led a team of 2 to analyze the business model of 8 consulting engineering firms to potential acquire one; AND developed a framework to establish Corporate University for Vertex Inc.

Consultant – Skanska Inc. – New York, JAN – MAY 2017

- Developed with 4 members in my team a thorough analysis of the sustainability maturity level of 16 metropolitan cities in the USA.

Consultant – HAKS Engineers– New York, JAN – AUG 2017

- Analyzed the construction market size, trends, and best entry strategies for the UAE.

Consultant – Skanska Inc. – New York, OCT 2016 – MAY 2017

- Conducted comprehensive study with 4 in my team on how Millennials and the Coming Generations view differently the construction industry than Baby Boomers and Generation Z.

Consultant – Dentons – New York, JAN – AUG 2016

- Led a team of 7 to perform market analysis and assessment as well as study the status of four transportation sectors in 10 countries outside the USA.

Consultant – Skanska Inc. – New York, SEP 2015 – AUG 2016

- Developed a market analysis with a team of 4 members to study sustainability regulations and tools implemented in the infrastructure markets in 50 states of the USA.
- Analyzed sustainability characteristic of 22 infrastructure projects to help with bid process.

Advisor – The Vertex Companies Inc. – New York, JAN – DEC 2015

- Developed a comprehensive market study to analyze and learn from the lifecycle trends of 100 contractors and designers starting in the year 1965 and ending on 2015.

Consultant – Skanska Inc. – New York, MAY 2014 – MAY 2015

- Led a team of three to conduct a bottom-up detailed market research of capital plans and future investments on major infrastructure sectors in the USA for all 50 states as the core market analysis of Skanska Civil USA Business Plan 2020.

Researcher – AECOM – New York, JUN 2014

- Researched the cement and rebar markets in the MENA region to assist in the bid process for the Jeddah Metro Project.

Publications

Selected Papers in Refereed Journals:

- Fitch, G.; Odeh, I.; Kautz, F; and Ibbs, W. (2018) “Simulation of Real Options in Process Switching” ASCE Journal of Infrastructure Systems; *To be Submitted in May*.
- Fitch, G.; Odeh, I.; Kautz, F; and Ibbs, W. (2017) “SD Models for the Valuation of Real Options in P3 Concession Project Agreement” ASCE Journal of Infrastructure Systems.
- Antunes, R.; González, V.; Walsh, K; Rojas, O.; O'Sullivan, M.; Odeh, I. (2017) “Benchmarking Project-Driven Production In Construction Using Productivity Function: Capacity And Cycle Time” ASCE Journal of Construction Engr. & Management.
- Asgari, S., Kandil, A., and Odeh, I. (2016) “Impact of Considering Need for Work and Risk on Performance of Construction Contractors: An Agent-Based Approach” Journal of Automation in Construction, 2016.
- Fitch, G.; Odeh, I.; and Ibbs, W. (2015) “Economic Sustainability of DBO Water Based on Wastewater Projects in the U.S.: Three Case Studies” ASCE Journal of Construction Engineering and Management, 2015.

Selected Proceedings of Refereed Conferences:

- Fitch, G.; Odeh, I.; and Kautz, F. (2018) "Multi-method Model for Infrastructure Portfolio Management” Proceedings for the ISEC Structural Engineering and Construction Conference, at the American University in Beirut, Lebanon.
- Fitch, G.; Odeh, I.; and Kautz, F. (2017) “System Dynamics Model for the Valuation of Real Options in Public-private Partnerships” Proceedings for the CSCE Conference on Leadership in Sustainable Infrastructure in Vancouver, Canada.
- Fitch, G., Odeh, I., and Kandil, A. (2016) “Employing a System-of-Systems Approach to Water Management in The Shale Gas Value Chain” International Conference on Smart Infrastructure and Construction, Cambridge, England.
- Asgari, S., Kandil, A., and Odeh, I. (2016) “Optimal Risk Attitude for Construction Contractors in Competitive Bidding Environments” ASCE Construction Institute, Construction Research Conference.
- Fitch, G., Odeh, I., and Kandil, A. (2016) “Planning and Cost Control of Air Quality Control Systems for Clean Coal Power Generation” ASCE Construction Institute, Construction Research Conference.

Selected Technical Reports, Articles, Videos:

- White, P. & Odeh, I. (March 2018) “US Infrastructure: Maximizing the benefits of private participation”, Dentons “[White Paper](#)”
- “An Action Plan to Accelerate Building Information Modeling (BIM) Adoption” World Economic Forum, “[Report](#)”, February 2018
- Odeh, I., Buehler, M., and Castagnino, S. (May 2017) “8 ways the construction industry can rebuild itself for the 21st century”. World Economic Forum, “[Article](#)”
- “The Future of Construction – Thoughts by Ibrahim Odeh, PhD, MBA” Part of Series of Videos by World Economic Forum, “[Video](#)”, May 2017
- “Shaping the Future of Construction: Inspiring innovators redefine the industry” World Economic Forum “[Report](#)”, February 2017
- “Shaping the Future of Construction: A Breakthrough in Mindset and Technology.” World Economic Forum “[Report](#)”, May 2016

Awards Received

- Named Top 20 Under 40 by Engineering News Records, 2018
- Named Top 40 Under 40 by Consulting-Specifying Engineer, 2018
- Columbia University Presidential Award for Outstanding Teaching; finalist 10 from among 1,000 nominations and 5,000 faculty members, 2018
- Construction Management Specialization Courses on Coursera.org platform ranked #3 globally in all Coursera Specializations, 2017
- Columbia University, School of Engineering, Distinguished Faculty Teaching Award, 2014