H. David Jeong, PHD, M.ASCE
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Dr. David Jeong is a professor in Construction Science at Texas A&M University. Prior to entering academia, he worked for six years as a cost engineer and project engineer for heavy civil infrastructure projects. He has been the PI and co-PI of more than 40 research projects that have been funded by NCHRP, SHRP-2, FHWA, Iowa, Montana, Minnesota, and Oklahoma DOTs, Federal Transit Administration, the Construction Industry Institute, and others. Dr. Jeong has extensive research experience in the areas related to this MnDOT/LRRB 554 project. He is currently leading the NCHRP 08-114 project: *systematic approach for determining construction contract time*, in which the impact of incentives and incentives on contract time is investigated and a national guidebook will be published in spring 2020. His first three research contracts with Oklahoma DOT were to modernize the contract time determination procedures for highway projects. His team evaluated contractor's bidding patterns and strategies when a project is delivered via the A+B contracting strategy. Through several projects sponsored by Iowa DOT and Oklahoma DOT, he has also gained deep understanding of pavement performance indicators and their relationships with life cycle costs. Dr. Jeong has published more than 50 technical journal and conference papers in this field and he has received notable research awards including 2016 ASCE *Journal of Construction Engineering and Management's* Best Scholarly Paper Award, 2015 CII Distinguished Professor Award, 2010 CII Researcher of the Year Award, and 2008 Institute of Industrial Engineers (IIE) Transactions Award – Best Application Paper. His several national awards are the clear indicator of his dedication, high quality of work and satisfactory deliverables to the research sponsors.

Education
PhD, Civil and Environmental Engineering, Purdue University, IN, 2005
MS, Civil and Environmental Engineering, Purdue University, IN, 2001
BS, Agricultural Engineering (Emphasis area: Civil Engineering), Seoul National University, 1994

Experience
NCHRP 08-114: Systematic Approach for Determining Construction Contract Time Determination (National Cooperative Highway Research Program) Aug 2018 – March 2020
Dr. Jeong is currently leading this national effort to develop a national guidebook on strategies, methods, and tools to determine construction contract time. As part of this project, the research team will evaluate the tradeoff between time and cost, and the impact of incentives and disincentives on construction contract time. This NCHRP project will be leveraged to bring other DOTs' advanced and recent experiences on incentives/disincentives to this MnDOT/LRRB 554 project.

Historical Performance Evaluation of Iowa Pavement Treatments Using Data Analytics (Iowa Department of Transportation), 2014-2015

Various pavement rehabilitation projects were evaluated using the actual pavement performance data and by applying advanced data analytics. The knowledge and experience gained from this project will be highly beneficial for this MnDOT/LRRB 554 project. It will help define the quantitative relationship between key pavement performance measurement parameters and expected pavement life and its costs.

Alternative Bidding Strategies for Asphalt and Concrete Pavement Projects Utilizing Life Cycle Cost Analysis (Oklahoma DOT), 2010-2012
Dr.Jeong's team evaluated the effectiveness and performance of the A+B contracting method, incentives and disincentives using historical projects. Expected contractor's strategies and behavior when a project is delivered via those contracting methods were also identified.

Evaluation of Construction Strategies for PCC Pavements (Oklahoma DOT), 2008-2010
Dr.Jeong was the PI on this project. This study investigated project management level solutions to optimizing resources, minimizing costs (including user costs) and time for PCC pavement rehabilitation projects. This study extensively evaluated the applicability of the Construction Analysis for Pavement Rehabilitation Strategies (CA4PRS) software program as a potential solution to achieve the goal. Different types of competing workzone phasing plans considering site conditions and

anticipated traffic patterns and volume were evaluated and the most effective and economical plan was recommended. The project also recommended what type of data must be continuously collected and stored to improve the accuracy of the model.

Development of an Improved System for Contract Time Determination (Phase I, II, and III) (Oklahoma DOT), 2006-2010.
Dr.Jeong worked as the principal investigator in this three phased project to modernize the contract time determination procedures and methods for Oklahoma DOT. A standalone computer software program was developed that can automatically determine the anticipated contract time of a highway project. The program is linked with the Microsoft project to automatically produce a project schedule and the critical path of the project.

Selected Reports/Projects

Jeong, H.D., Smadi, O., and Abdelaty, A. (2016) Historical Performance Evaluation of Iowa Pavement Treatments using Data Analytics, Institute for Transportation, ISU, Ames, IA, 126 p.

Abdelaty, A., Jeong, H.D., Smadi, O., Gransberg, D. D. (2015) Iowa Pavement Asset Management Decision-Making Framework, Institute for Transportation, ISU, Ames, IA, 114 p.

Jeong, H. S. and Abdollahipour, S. (2012) Alternate Bidding Strategies for Asphalt and Concrete Pavement Projects Utilizing Life-Cycle Cost Analysis (LCCA), Oklahoma Transportation Center (OkTC), OK, 144 p.

Jeong, H.S., Abdollahipour, S., Florez Perez, L., Irizarry, J., and Castro, D. (2010), Evaluation of Construction Strategies for PCC Pavement Rehabilitation Projects, Oklahoma Transportation Center, 128 p.

Jeong, H. S., Oberlender, G.D., Atreya, S. and Akella, V. (2008) Development of an Improved System for Contract Time Determination (Phase I & II), Oklahoma Department of Transportation, FHWA-OK-08-02, 139 p.

Selected Publications

Buss, A., Abdelaty, A., and Jeong, H.D. (2018) Performance Analysis of Microsurfacing on Asphalt pavements and Asphalt Overlays, 2018 International Society for Asphalt Pavements (ISAP) conference, Fortaleza, Brazil, June 19-21, 2018.

Abdelaty, A., Jeong, H. D., and Smadi, Omar (2017) Radar Chart Tool for Evaluating the Performance of Pavement Rehabilitation Treatments, Construction Research Congress, ASCE. Vancouver, Canada, May 31- June 3, 2017.

Abdelaty, A.*, Jeong, H.D., Dannen, B., and Todey, F. (2016) *Enhancing Life Cycle Cost Analysis with a Novel Cost Classification Framework for Pavement Rehabilitation Project*, Construction Management and Economics, 34 (10), 724-736, Taylor & Francis.

Pour, S.*, Jeong, H. D., Liu, T., and Oberlender, G. D. (2015), *Impacts of Unit Time Values on Bidders' Competitiveness in A+B Highway Contracts*, International Journal of Construction Engineering and Management, 4(6): 219-229.

Florez, L., Irizarry, J., Castro, D. Abdollahipour, S.*, and Jeong, H. S. (2012) *Feasibility of Implementing a Computer-Assisted Pavement Rehabilitation Decision Support System*, International Journal of Construction Education and Research, 8(4), 281-300

Pour, S. A.*, and H. S. Jeong (2012). *Realistic Life-Cycle Cost Analysis Using Typical Sequential Patterns of Pavement Treatments via Association Analysis*. Transportation Research Record: Journal of the Transportation Research Board, No. 2304, Transportation Research Board of the National Academies, Washington, D.C., pp. 104-111.

Jeong, H. S., Atreya, S.*, Oberlender, G.D., and Chung, B. Y. (2009) *Automated Contract Time Determination System for Highway Projects*, Automation in Construction, 18(7), 957-965.