Impact of Project Delivery Systems and Information Technology On Contractual Performance and Disputes

New technologies have offered a significant shift from conventional methods of construction engineering and management. As a result, this special collection presents an opportunity to improve construction contracts and project performance related to change orders, claims, and disputes, which in the long run may produce legal challenges in engineering and construction. The use of various project delivery systems, e.g. Construction Manager At-Risk (CMAR), Design-Build (DB), Design-Build-Operate (DBO), and Public Private Partnerships (PPP), coupled with the use of technology, have made design and construction works of both infrastructure and building projects more efficient. Building Information Modeling (BIM) and Civil Integrated Management (CIM) have provided opportunities to reduce disputes, claims, and change orders in building and highway projects, respectively, using various delivery systems.

Therefore, the paradigm shift from conventional technologies and project delivery systems to smart, high-tech construction, and the use of alternative delivery systems is expected to yield legal, financial, social, and economical benefits. To compile the existing knowledge and innovative technology used in projects built by different delivery systems, the *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction* invites prospective authors to submit original manuscripts to a special collection focusing on technology for reducing change orders, claims, and disputes. Therefore, this special collection seeks a wide range of papers related to technologies and their potential in handling managerial and legal problems during design, contract procurement, change orders, and claims performance. Potential topics include, but are not limited to:

1. Use of BIM to reduce change orders, claims, and disputes in construction projects completed with alternative delivery methods.
2. Use of CIM to reduce change orders, claims, and disputes in construction projects completed with alternative delivery methods.
3. Smart and high-tech construction in projects completed using alternative delivery systems.
4. Benchmarking of project performance related to change orders, claims, and disputes of construction projects using innovative technology and alternative delivery systems.
5. Use of innovative technology in construction projects for dispute resolution, such as:
   a. Legal and practical implications of drone use on construction projects;
   b. Visualization tools (Virtual, Augmented and Mixed Reality) as media for dispute resolution;
   c. Legal implications of real-time data (geometric data from laser scanners; tracking data from equipment and personnel; environment data from IoT enabled devices) on construction process tracking and analysis;
   d. Natural Language Processing for knowledge management and learning from past lawsuits;
Journal of Legal Affairs and Dispute Resolution in Engineering and Construction
Special Collection Call for Papers

e. Impact of robotics and automation, self-operating machinery and equipment, and virtual assistants on the liability and legal structure of a project; and
f. Artificial Intelligence for construction conflict resolution.

6. Other legal issues encountered during design, construction, operation, and maintenance using high tech and smart construction.

Key Dates and Submission Guide:
1. Full paper submission deadline: June 01, 2020
2. All papers will go through the regular review process; only those papers that pass the review process will be accepted for publication.
3. The link to the submission site is at https://ascelibrary.org/journal/jladah
4. Authors should prepare manuscripts in accordance with ASCE Author Guidelines: https://ascelibrary.org/doi/book/10.1061/9780784479018

Journal Editor-in-Chief
Professor Amarjit Singh, Department of Civil & Environmental Engineering, University of Hawaii at Manoa, Hawaii, USA.
Email: asingh@hawaii.edu

Guest Editor:
Professor Pramen P. Shrestha, Department of Civil & Environmental Engineering & Construction, University of Nevada Las Vegas, Las Vegas, Nevada, USA.
Email: pramen.shrestha@unlv.edu