

Introduction for Volume 2, Issue 4 - the Special Issue on *Risk Management in Construction*

Construction is one of the high-risk industries. Constructed facilities are becoming more sophisticated and complex and risk management in construction is imperative. I would like to thank the Journal of Risk Analysis and Crisis Response (JRACR) for providing the platform for construction professionals and educators to interact and exchange research experience and results on risk management in construction.

The Special Issue contains seven papers. The topics cover the development of new models, methods, and framework of risk management in construction; dispute analysis based on numerous data, and the impact of climate on property values.

The first paper titled 'Analysis of Disputes in Transportation Projects' by M. Emre Bayraktar, Cagri Cinkilic and Farrukh Arif presents an analysis of the disputes for transportation projects and the related lessons learned. It was found that majority of disputes in the 262 cases studied were due to unforeseen conditions. The analysis is based on the data stored in the Dispute Resolution Board (DRB) database of the Florida Department of Transportation (FDOT).

The second paper by Payam Bakhshi and Ali Touran proposes a new approach for contingency determination in a portfolio of construction projects. A Bayesian approach is employed to modify a model on regular intervals that helps an agency find the level of confidence needed for individual projects to ensure that the portfolio budget will meet the minimum level of confidence based on available funding and the agency's policy goals.

The third paper contributed by Dean Kashiwagi and Jacob Kashiwagi presents a new risk management model designed by using deductive logic. The new model identifies risk, mitigates risk by use of transparency and dominant information which has been used by the expert contractor to minimize the risk they do not control.

The fourth paper contributed by Lingguang Song, Sang-Hoon Lee and Fitria H. Rachmat deals with a new method for scheduling repetitive construction operations with stochastic simulation to incorporate uncertainty in activity performance during field operations. The proposed Stochastic Linear Scheduling Method (SLSM)

has been implemented and demonstrated in a pipeline construction project.

The fifth paper titled 'Risk Management Framework for the Construction Industry according to the ISO 31000:2009 Standard' and contributed by Vitor Sousa, Nuno Marques De Almeida and Luís Alves Dias discusses the risk management framework and proposes a risk management framework for the construction industry.

The sixth paper by Babak A. Samani and Farzad Shahbodaghlou emphasizes the need for a fuzzy systematic structural approach to the risk assessment of construction projects and introduces the processes required to form a hierarchical systematic structure based on fuzzy logic using the Fuzzy Decision Making Trial and Evaluation Laboratory.

The last paper, contributed by Huili Hao, Patrick Long and Scott Curtis examines property owners' attitudes regarding the impacts of climate on property ownership and future property values in coastal communities.

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