

DEVELOPING A RISK CODE AND EVALUATING THE SAFETY AGAINST DIRECT PHYSICAL INJURIES IN HIGH RISE BUILDING CONSTRUCTION PROJECTS

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The research programme was conducted with the objective of developing the Risk Code and associated methodology which represent the level of safety against physical injuries in accordance with the considered building construction site at the construction phase. The information of physical accidents, photographic information of hazardous activities and site observations were collected over building construction sites during construction.

The details of physical accidents, photographic information of hazardous activities and the site observations were collected over ten high rise building construction sites performing site visits through the Questionnaire and Observation method. Then each Risk Codes were gradually developed based on the basic hypothesis in the field of Disaster Management and using the concepts of risk analysis methods and implementing the scheme in an Excel Spread Sheet. Risk Codes for construction sites were determined consisting of (DR) Disaster Risk Factor which is a main risk measuring parameter and other supportive parameters which express the associated condition of the site. Reducing the DR Factor could be done by taking appropriate safety and mitigation measures and when DR Factor is determined after former effort, thereby the reducing risk level could be quantitatively diagnosed. Comments to ICTAD (Institute of Construction Training and Development) Conditions were also given based on research findings and literature review.

It was suggested that the determined parameters such as DR Factor could be used to take legislative actions by taking appropriate safety and mitigation actions against lesser safety conditions based on the judgment taken by observing DR Factor and other Supportive Factors. Accordingly, main contractor of the construction site can be contractually influenced to improve their safety up to the required level and hence it is proposed to add this risk code methodology in to the ICTAD Legislation.

Consequently, implementation of risk code methodology will be helpful to reduce the risk of physical injuries of vulnerable population at the construction site by prior determination of risk, thereby it will cause to increase the human safety. This is introducing of concept of risk code methodology as an amendment to the Code of Practice being a structural mitigation effort in the field of Disaster Management.

