

CASE BASED REASONING APPROACH FOR SAFETY MANAGEMENT IN CONSTRUCTION INDUSTRY

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Abstract

An attempt is made in this paper to identify the major causes of accidents that influence safety in construction industry. In addition, it suggests an approach to prevent and reduce the accidents using Case Based Reasoning (CBR) methodology. Previous project accidents occurred in the recent years were researched upon collecting data involving major causes of accidents leading to major and minor accidents and their impact on different projects under construction. CBR methodology is applied for 21 major projects under construction being executed in Hyderabad city. Data such as cost, duration, type of material, labor and equipment used by individual project sites are recorded. Moreover, the detailed causes of accidents and preventive measures taken by the construction companies were also identified and recorded. Required safety measures and precautions were suggested to minimize and/or prevent the accidents in construction projects. The study under CBR provides new direction for applying it to the other construction management problems. The major performance strength of the case based approach is that the guidance in the form of relevant previous cases is provided in almost every instance.

keywords : Accidents, Safety, Construction Industry, Case Based Reasoning, Case study