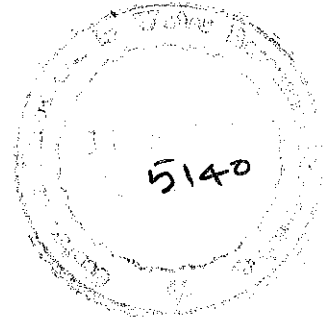


APPLICATION OF SUPERPROJECT SOFTWARE TO CONSTRUCTION PLANNING OF GHAZI BARRAGE

THESIS SUBMITTED

BY



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ABSTRACT

In this modern era of science and technology, like the advances in other technologies, construction has developed into an industry. Projects are becoming more advance and complex therefore it is need of the hour to handle the projects with proper planning and management skills. For this, many project planning techniques can be applied according to the nature of the project. Today is the day of computer. Its widest current application in industry is in the collection and processing of data in order to provide management with more complete information upon which it can base decisions. To handle the complex projects with large amount of activities allocated with a variety of resources, it is wise to take help from computer for successful application of construction management techniques.

The main objective of the present study was to test the hypothesis that project management softwares can be used to improve the planning and monitoring of water resources projects. For achieving this, a project management software, CA-SuperProject, was used for the construction planning of the barrage section of Ghazi-Barotha Hydropower Project. As the complete data could not be obtained from the consultants, data of a partially solved example from a text book was used to fully explore the features of CA-SuperProject.

Using the available data of Ghazi-Barrage, as an input to the software, a construction schedule was prepared. It comprised more details and gave an easy look as compared to the construction schedule prepared by the consultants. Further, progress of project execution on an assumed date was checked using the tracking features of CA-SuperProject and the results gave an excellent comparison of the actual work with the planned one.

For the second part of study, data from the example was used to develop cost/time relationship. Different values of project Direct and Indirect costs were obtained, exercising a number of trials for assigned resources, and were plotted against respective

durations. A curve showing different values of project total cost was obtained from where optimum project cost and duration were determined.

The results of the present study are encouraging and intend to attract both contractors and consultants to exercise their plans using CA-SuperProject as it offers powerful and versatile features for project management-scheduling, tracking, preparing reports and charts. In brief, the present study is a contribution to the future work on construction management and hopefully, it would be helpful for the engineers concerned with management of projects.