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TITLE OF DIPLOMA THESIS:

Management of precast concrete bridge construction. Implementation of MS Project and comparison of monitoring techniques and assessing the completion time of construction

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ABSTRACT

The aim of the present thesis is the management of precast concrete bridge construction and monitored by MS Project. This thesis includes a comprehensive description of all stages and necessary equipment of bridge construction with precast concrete beams. Seven existing bridges are presented and compared in the consumptions, the qualities of materials and cost. Further, a road and a rail bridge are compared about the consumptions and the cost, Egnatia bridges, bridges in Colorado and others with qualified materials about the cost. The management of construction of Greek organizations is also described. Finally, by creating an actual bridge construction schedule, using MS Project software and monitor in real time based on work completion, the methods of operation 'Earned Value' and 'Earned Schedule' are examined in controlling the development of a project and forecast the total length and standard deviations are presented in the project schedule. The results of the analysis are of particular interest to software functions and benefits of their implementation in a project.

KEYWORDS

Earned value, Earned schedule, Precast concrete girders