



## **ACADEMIC YEAR 2012 – 2013**

### **TITLE OF DIPLOMA THESIS:**

MANAGEMENT AND DEVELOPMENT FOR THE REDUCTION OF THE CONVENTIONAL CONSTRUCTION TIME AND COST IN THE STRUCTURAL SYSTEM OF A TALL CONCRETE BUILDING

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### **ABSTRACT**

The purpose of the present dissertation is the reduction of the construction time in the structural system of a tall concrete building with the higher goal of reducing the time required for the construction of the whole project. This reduction can be achieved mainly by removing the beams of a multi-storey building (flat slab) and by using modern science achievements in the field of materials (concretes with high manifestation of their strength). The time required for the construction of one floor is about 4 days. In this way it is easy to improve the economy, the functionality and the aesthetics of the final project without losing any earthquake protection. Thus, reinforcement concrete can be used in buildings' projects where the speed of the construction process is of a high priority. Steel is no more the only alternative solution in such cases. The owner and the contractor of the project can both be benefited by using these techniques for many reasons. The reduction of the construction time can affect the cost of the project by reducing it, while the earlier completion of the whole project offers serious advantages.

### **KEYWORDS**

reduction of the construction time, tall concrete buildings, flat slab, time management