



POLITECNICO  
DI TORINO

# Honors thesis

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MASTER DEGREE COURSE IN ARCHITECTURE FOR  
RESTORATION AND VALORISATION OF THE  
HERITAGE.

Abstract

Thesis title

Optimization of time and quality costs of a construction contract  
through the Project Construction Management.  
Business strategies to exit the industry crisis and support the  
economy of the country.

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The realization of this thesis stems from the curiosity to know better and analyze the different facets related to the reality of Italian construction companies and to propose a new model of building contract management, trying to give voice to a world and a social and physical context that in recent years, it is undergoing a slow and inexorable decline. Through the work carried out during the course of the thesis, based on research activities and personal operational experiences carried out by the candidate in the management of a building site from its start-up phase to its final stages for a total duration of 4 months, it emerged as both fundamental to carry out a radical change in order to be able to distance itself more and more from an obsolete and far from profitable project management model, demonstrating the validity of project construction management and in particular of Earned Value methodologies, as instruments capable to bring concrete benefits in the entire management of a building process in terms of costs, time and quality, without neglecting and highlighting the real difficulties and gaps that are found, especially given the considerable gap that arises between the theoretical model and the real situation that can be felt today on building sites, where we still perceive the imprint of an old-fashioned craft that still seems destined not to evolve. The objective is therefore to make the protagonists of the sector understand the importance of developing and refining certain skills and characteristics that make building orders more effective and efficient, thus contributing to create a mechanism of excellence in a sector that is a pivotal economy national constantly changing, influencing the identity of individual companies that are thus mirrors of themselves, contributing in parallel to redefining them in a positive key for the whole system. The following thesis therefore addresses the issue of project management as an instrument of innovation in construction processes, passing through four moments. Starting from an in-depth bibliographic research, using the help of sector reports, attention was focused on what is the delicate situation of the construction market and on the imminent need to undertake new approaches in the construction world. The second part deals with the theme related to the production on commission and to the complex world linked to construction companies. From a purely conceptual phase, exclusively linked to definition, we arrive at a methodological phase, revealing the innovation that the tool is able to provide in terms of costs, time and quality. This third part aims to demonstrate, through the use of the "Project" software of Office, fundamental software in the field of project management, how it is possible to monitor, forecast and manage the construction site timing using a real construction contractor case. The final part of the thesis is aimed at demonstrating the truthfulness of what was affirmed by carrying out a real case, through which the veracity of the instrument is verified, thanks to which it becomes very easy and effective to plan and control the various work phases reported in a common tender document. The "McFIT" project, for the building Former FIAT Headquarters of Corso Ferrucci 112 located in Turin, thus becomes a real "test bench" with which to demonstrate, through the history of a real contract, the validity of the proposed tools from the project construction management and the importance of the software created for this purpose, in order to plan the work phases of the entire construction cycle in an effective and efficient

way; finally, through an approach to Cost Control, the verification of the cost components of the project is carried out through the application of the Earned Value technique.

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