



Ain Shams University
Faculty of Engineering

**COST CONTROL FOR CIVIL WORKS IN AIRPORTS
UPGRADE PROJECTS**

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Submitted By

Eng. Mohamed Abdel Razek Mohamed El Saadawy
B.Sc. of civil Engineering

Supervised By

Prof .Dr El MOSTFA M. HIGAZY

Associate Prof of structure engineering department Faculty of
Engineering –Ain Shams University

CAIRO – ٢٠٠٥

Examiners' Committee

Name, Title and Affiliation

Signature

Dr. REFAAT HASSAN ABDEL RAZEK

Professor of Project Management

Faculty of Engineering, Zagazig University

Dr. MOSTAFA KAMEL ZIDAN

Professor & Head of Structural Engineering Dept

Faculty of Engineering, Ain Shams University

Dr. El MOSTAFA M. HIGAZY

Associate Prof of Structural Engineering

Faculty of Engineering –Ain Shams University

DATE: -----/---/٢٠١٥

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Information about the researcher

Name: Mohamed Abdel Razek Mohamed El Saadawy

Date of Birth: October ٠٨, ١٩٧٤

Place of Birth: Cairo, Egypt

Qualification: BSC degree in Civil Engineering - Structural Section,
Faculty of Engineering, Ain Shams University, June ١٩٩٨.

Current Job: Senior cost control & Claims Engineer, Orascom, Cairo,
Egypt

ABSTRACT

Construction as a bell weather industry along with the vulnerability of most construction projects to lagging behind schedule and suffering over budgeting lent the need for a control system that handles both functions of management; time management and cost management, a crucial importance. Managing both time and cost in an integrated fashion could ascertain project completion on schedule and within the assigned budget. An intrinsic success feature that should be ensured in the intended control mechanism is its continuity through out the life time of the project aiming at an early warning deliverables that allows on-going, real-time remedial actions.

Such mechanisms are mostly needed for Lump-sum contract projects when ceiling price maintenance is the nature of the cost control tool and where risk transfer to the contractor. A novel cost control technique that embodies time, scope and cost, namely the Earned Value Technique is examined in this thesis versus the traditional cost control systems aiming at providing an insightful and reliable tool for cost control that focuses on Airport Upgrade projects as the pilot case of study. Comparative analysis are carried out leading to a conclusive verdict which states that EVT is the technique to be adopted in projects of similar magnitude and nature of our pilot study case, namely, civil works in Airport Upgrade Projects.

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