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EARNED VALUE MANAGEMENT CONSIDERING TECHNICAL READINESS LEVEL FOR NEW
LAUNCH VEHICLE DEVELOPMENT

Abstract

This paper proposes a new earned value management (EVM) framework reflecting the viewpoint of technology development. A traditional EVM, which is mandatorily applied to NASA's projects that cost USD 20M or higher, is a project management methodology that can effectively measure the project progress by integrated information on the schedule and cost.

The new EVM framework combines the concept of the technology readiness level (TRL) with the conventional EVM approach, which enables the management of not only the project progress but also the technological achievement. We expect that this new feature of the proposed framework is well suited for the projects that require significant consideration of acquiring new technologies – e.g. research and development (RD) project for a new and complex system.

A case study introducing the interim results on the application of the proposed framework to an actual RD project referred to as Korea Space Launch Vehicle - II (KSLV - II) program is presented. Details on the implementation of the framework for the project are explained and important findings and insights that we obtained so far are exhibited. Finally, identified issues on the practice of the framework and potential improvements are discussed.