A comparative study on time-cost trade-off approaches within critical path method

ABSTRACT

In this study we present two approaches of time-cost trade-off to complete the project within T (the shortest possible duration to complete the project at least cost within the maximum available budget). The aim of this study is to discuss a comparison between the approach of Crashing Critical Activities (CCA) and the approach of Stretching Noncritical Activities (SNA) to illustrate the gauge of which approach should be used to complete the project within T in the least number of steps. Based on the five projects of varying levels and difficulties we can observe the obvious difference between the number of steps required to complete each project within T by CCA and the number of steps required to complete each project within T by SNA, i.e., SNA could complete the project in the least number of steps than CCA.