Abstract

The well planned SPLC (Software project life cycle) doesn’t give certainty about the completion of project in time and budget. The PMP (Project Management Processes), pregnant processes, rework, some float types and review process, always, put stumbling block for completion of project in Time. Apart from this defined process, there is need of genius decision making process. The various planned schedule, redundancy and contingency target schedules can be used as input for decision making processes and the solutions to be adapted during the stages of SPLC. This paper gives various schedule types with respect to software project contracts. These schedule types are the outputs of GRGA (Gene Repair Genetic algorithm) along the utilisation of EVM (Earned Value Management) concepts. The GRGA (Gene Repair based Genetic Algorithm) approach gives choice to change the constraints and or features as objective components in objective function. In this paper, we present different schedules as the outcome to evaluate the effectiveness of genetic operator GeneRepair. This operator is developed to correct invalid schedule generated following crossover and mutation. Following implementation and testing of GA with GeneRepair, we found a significant positive side in our results in speed and accuracy also. we have been able to generate very good results in an efficient manner, in terms of both time and number of evaluations using GeneRepair with traditional crossover and mutation operators.
References

- PMI India PMBOK Guide and Standards.
- Konduru Sivaramakrishnan Anandasivam Gopal. On vendor preferences for contract types in offshore software projects: The case of fixed price vs. time and materials contracts.
1999.
- Walt Lipke. Earned schedule application to small projects. PM WORLD TODAY, 2011.
Software Project Contacts by GRGA Scheduling and EVM

- Yogita D. Sinkar Reshma R. Nazirkar, Dinesh B. Hanchate. Scheduling project with random and time-dependent activity. IEEE International conference on computation of power, energy, information and communication (ICCPEIC), April 2014.
- Gabrielle Zimmerman. Contract types for software development. TurnLevel

**Index Terms**

Computer Science  
Software Engineering

**Keywords**

PMP  Software Contacts  GRGA  COCOMO  SPSP (Software Project Scheduling problem)  Constraints Optimization  EVM.