SOLVING UNIT COMMITMENT PROBLEM WITH SOLAR PLANT BY USING IMPROVED EVOLUTIONARY PROGRAMMING

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ABSTRACT

The aim of this study is to solve the Unit Commitment Problem with Solar Plant using the Improved Evolutionary Programming technique. The objective of this study is to search for minimum operational cost while satisfying the ranging load demand, to compare the performance of Improve Evolutionary Programming with Evolutionary Programming before installing Solar Plant and after the installation. The constraints considered in this research include spinning reserve margin, load demand, power and reserve limit, and also start-up cost. The improved technique is based on conventional technique where, the only difference is that in the initialization process instead of generating 20 population this Improve Evolutionary Programming generating 100 populations to have a wide range of data and from this it will select the best possible data combination. It also consists of three main steps, initialization, mutation, selection. The result obtains shown an improvement in performance of Improve Evolutionary Programming are shown [1, 2].

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