

عنوان مقاله:

RBSDP as a Modified form of SDP for Reservoir Hydropower Optimization

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خلاصه مقاله:

Conventional Stochastic Dynamic Programming (SDP) has some drawbacks. The most important of them is curse of dimensionality. This phenomenon indicates that for increasing the accuracy of solution, the intensity of discretization should be increased. Unfortunately by increasing the number of discretized segments or clusters in each stage of solution in dynamic programming, burden of calculation increases exponentially. Second drawback of SDP is that, we have no control to define constraints in each stage of solution. This fact causes some values of interval indices in discretization to be physically useless. Third drawback is that some combinations of values of interval indices from current stage to next stage to be impossible to adopt and these combinations provide no satisfactory answer to the problem. This paper presents a new developed method called reliability-based stochastic dynamic programming (RBSDP) to handle disadvantages mentioned above. The result compared to SDP indicates promising methodology .for performing better operation in reservoir hydropower system

کلمات کلیدی: RBSDP, SDP, Optimization, GAMS

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