**Evaluation of Reservoir Optimization Techniques**

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**ABSTRACT:**

The management of reservoir system in today’s scenario has become the umbilical cord for the sustainable development approaches. In accordance there are many techniques that appreciate the optimization of any reservoir systems. This paper evaluates techniques like Fuzzy logics, Meta heuristics, nature inspired techniques to determine the optimized solution for the given system. Such approach is necessary to build the gap between the demand and supply of water for various purposes like drinking water, industrial and other domestic purposes. The design of best system involves including the constraints that might occur like economical, technical, financial, social and other political constraints. Further these constraints also include seasonal variation of water supply, geological and geographical conditions. The objectives of this paper are to extend previous state-of-the-art reviews in the operational management of a network of multi-purpose reservoirs with recent developments and to focus on the application of Model Predictive Control for real time control of a reservoir system.

**Key words:** Management of reservoir, Fuzzy logics, nature inspired techniques, optimization, etc.,