## A Conceptual and Systematics for Intelligent Power Management System-Based Cloud Computing: Prospects, and Challenges

Ahmed Hadi Ali AL-Jumaili, Yousif I. Al Mashhadany, Rossilawati Sulaiman, Zaid Abdi Alkareem Alyasseri

## **Abstract:**

This review describes a cloud-based intelligent power management system that uses analytics as a control signal and processes balance achievement pointer, and describes operator acknowledgments that must be shared quickly, accurately, and safely. The current study aims to introduce a conceptual and systematic structure with three main components: demand power (direct current (DC)-device), power mix between renewable energy (RE) and other power sources, and a cloud-based power optimization intelligent system. These methods and techniques monitor demand power (DC-device), load, and power mix between RE and other power sources. Cloud-based power optimization intelligent systems lead to an optimal power distribution solution that reduces power consumption or costs. Data has been collected from reliable sources such as Science Direct, IEEE Xplore, Scopus, Web of Science, Google Scholar, and PubMed. The overall findings of these studies are visually explained in the proposed conceptual framework through the literature that are considered to be cloud computing based on storing and running the intelligent systems of power management and mixing.