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(57) Abstract :
Exemplary aspects of the present disclosure are directed towards a hybrid strategy for load frequency control (LFC) of a multi area power system (PS) using hybrid renewable energy sources. The hybrid strategy is the joint execution of Recalling Enhanced Recurrent Neural Network (RERNN) and Balancing Composite Motion Optimization (BCMO), hence it is named as RERNN-BCMO technique. Here, the analyzing of LFC signal is a noteworthy part to reduce the Area control error (ACE), tie-line (TL) power flow deviation and frequency deviation (FD). The proposed method consists of 3 area power system like wind, thermal, Hydro. These three areas are controlled by proportional integral derivative (PID) controller to improve the system performance. The LFC can be achieved by the help of RERNN-BCMO technique. It provides some benefits like increased predicting capacity, less complexity, high speed, and high reliable output. The result is analyzed using MATLAB/Simulink platform. The result is compared with existing methods. According to the comparison result, the proposed method provides the good performance than existing method. The proposed method gives good results of comparison than those of the other techniques and has an ability to overcome the associated problems. FIG1

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