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(54) Title: METHOD AND SYSTEM FOR CONTROLLING HYDROELECTRIC TURBINES

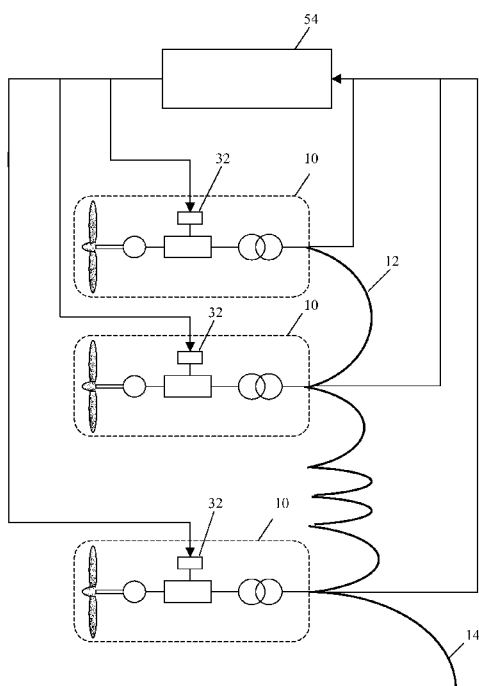


Fig. 7

(57) Abstract: A hydroelectric turbine array system comprises an array of turbine systems and a supervisory controller. Each turbine system of the array comprises a hydroelectric turbine and a control system. The control system includes a converter system arranged to convert AC power, supplied by a generator connected to the hydroelectric turbine and having a voltage and frequency that is a function of a rotational speed of the hydroelectric turbine, to AC power having a voltage and frequency of a transmission system for transmitting the AC power to a receiving station and a control unit co-operable with the converter system to adjust the AC voltage supplied by the generator. The supervisory controller determines a performance level of a plurality of hydroelectric turbines within the array and instructs the control unit of at least one of the turbine systems to adjust the AC voltage supplied by the generator to alter the power generated by the at least one of the turbine systems to thereby control the overall power generated by the array.



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