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Abstract:

A PSIS (100) for detecting a type of power source connected to an electric load (108) via a load bus (102), is disclosed. The PSIS 100 includes a sensor unit (208), a filtering unit (210), and a detection unit (214). The filtering unit is adapted to process each set of a current signals and a voltage signals generated by the sensor unit (208) to filter noise therein and generate a plurality of output values corresponding to a filtered set of the current signals and the voltage signals. The detection unit (214) is adapted to process the plurality of output values to identify a pattern using a supervised machine learning model. The detection unit (214) is adapted to compare the identified pattern with a set of previously learned patterns by the supervised machine learning model corresponding to different types of power sources (106) to identify the type of power source.

[Complete Specification](#)

Description:FIELD OF THE INVENTION

The present disclosure relates to a system and more particularly, relates to a power source identification system and a method for detecting a type of power source connected to an electric load via a load bus.

BACKGROUND

A plurality of power sources is adapted to provide a DC output power, to power an electric load. Typically, the plurality of power sources can include, but is not limited to, a battery, a power grid, etc. Generally, most of the power sources rely on converting alternating current (AC) power to DC power with the help of a rectifier. The DC output