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(54) **SYSTEMS AND METHODS FOR INTERFACING WITH BATTERIES HAVING DIFFERENT CHARGING CHARACTERISTICS**

(71) Applicant: **SCHNEIDER ELECTRIC IT CORPORATION**, Foxboro, MA (US)

(72) Inventors: **Sheng-Hsien Fang**, New Taipei City (TW); **Pradeep Tolakanahalli Nagabhushanrao**, Bangalore (IN); **Chandrasekaran Jayaraman**, Bangalore (IN)

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(57) **ABSTRACT**

According to an example of the disclosure, a battery-management system is provided including a first group of one or more switching devices, each being configured to be coupled to a power bus, a second group of one or more switching devices configured to be coupled to a battery, each switching device of the second group being coupled to the first group of one or more switching devices, a buck/boost charger coupled to the first group of one or more switching devices and being configured to be coupled to the battery, the buck/boost charger being further configured to adjust a voltage of charging power provided to the battery, and at least one controller configured to control the buck/boost charger to adjust the voltage of the charging power based on a rated voltage of the battery and based on an input voltage of input power received from the power bus.

