

Smart Device Based Power Generation Facility Management System in Smart Grid

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Abstract— As energy consumption is gradually increased due to rapid development of industrialization, the whole world including our country is faced with an issue of lack of back-up power, exhaustion of fossil energy and global warming. Under this background, as a method of maximizing energy efficiency by preventing global warming and reduction of greenhouse gas emission, smart grid that converged existing power network with IT technology receives concentrative attention as a growth engine of next generation [1-3]. Currently, maintenance of domestic solar power plant management is provided at the center through remote monitoring by using measuring sensor being installed at power plant and as regular check-up or repair being performed at site is progressed by site management personnel by directly moving power generation facility, there is a difference in time and accuracy depending on ability of site management personnel. In this paper, a system of managing smart grid power generation facility by internet of things (IOT) technology is suggested. Maintenance of suggested system for its regular check-up and failure is allowed by site manager conveniently and by using facility recognition based technology instead of existing QR code, its direct application is allowed without additional equipment to smart grid power generation facility being operated at present and by developing power generation facility recognition service using markerless based facility recognition technology, it may be expanded to a technology of recognizing other smart grid power generation facility in the future.

Keyword— Smart Grid, Power plant facility management, Smart Phone, Location Based Service



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