

# Battery duration algorithm for communication base station



## Overview

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In this article, an algorithm for automatic control of energy sources was developed to improve the uninterrupted power supply of mobile communication base stations. Based on the proposed algorithm, a simulation model was created in the Proteus program and experimental tests were conducted. The. Dec 7, In the communication power supply field, base station interruptions may occur due to sudden natural disasters or unstable Dec 15, Simultaneously, with the rapid deployment of communication base stations, power costs for operators are rising sharply. This paper investigates the demand. The SmartRescue Base Stations, utilizing an analog home run configuration, provide a seamless means of communication between stranded individuals, rescue personnel, and offsite parties; Equipped with built-in battery backup, these base stations ensure uninterrupted communication even during power. This work studies the optimization of battery resource configurations to cope with the duration uncertainty of base station interruption.

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### [Algorithms for uninterrupted power supply to mobile ...](#)

In this article, an algorithm for automatic control of energy sources was developed to improve the uninterrupted power supply of mobile communication base stations. Based on the proposed ...

### [Battery lifetime estimation for energy efficient telecommunication](#)

Base stations (BSs) are the primary entities contributing to the power consumption in the telecommunication network. To efficiently deploy solar powered base stations, it is imperative to ...



### [Battery continuation algorithm for communication base stations](#)

Mar 31, On the basis of ensuring smooth user communication and normal operation of base stations, it realizes orderly regulation of energy storage for large-scale base stations,



### [Communication Batteries: Why Telecom Base Stations Have Unique ...](#)

The phrase "communication batteries" is often applied broadly, sometimes including handheld radios, emergency devices, or general-purpose backup batteries. In practice, when ...



### [Optimization of Communication Base Station Battery ...](#)

Abstract: In the communication power supply field, base station interruptions may occur due to sudden natural disasters or unstable power supplies. This work studies the optimization of battery resource ...



### [Optimization of Communication Base Station Battery Configuration](#)

For this reason, we propose a model for allocating battery resources in base stations under uncertain interruption durations, which combines the state and battery resource usage ...



### [Battery configuration for communication base station](#)

An energy deployment algorithm based on high efficiency for micro base stations is considered as jointly optimizing micro base station's number, deployment location, and power configuration.



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