

DIY Smart Auxiliary Power Supply for Emergency Use

[Lecture Notes on Data Engineering and Communications Technologies](#)

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Abstract

Implementation of Internet of Things technologies in various fields is one of the priority areas of modern development. Energy efficiency is one of the urgent problems in Ukraine today. As part of this study, the use of IoT will help monitor and control energy consumption data. Auxiliary power supplies are devices that provide supplemental power to an existing power source. They are often used in automotive, electrical, and industrial applications. DIY auxiliary power supplies are those that are built by the user instead of purchasing a ready-made product. Building your own power supply can be a cost-effective option, as well as an enjoyable DIY project. The purpose of the research is to develop a device based on the existing electrical engineering components, which allows you to completely or partially replace the functionality of industrial analogs of power supplies. © The Author(s), under exclusive license to Springer Nature Switzerland AG 2023.

Author keywords

Auxiliary power supply; battery; communication; DC-DC converter; inverter; lighting; uninterruptible power supply