Handling Defects in Automatic Distribution Network Automation

Keywords YOLO V11, Unmanned aerial vehicles, Distribution automation system, Insulator defect detection, MobileNetV3

In this study, the effect of distribution network switches automation on improving the resilience of distribution networks in the event of large faults and failures has been investigated.

To address these challenges, this study proposes the use of deep learning techniques to achieve automatic identification of conductor strand breakage defects, offering a potential solution for ...

Our solution integrates advanced sensor technology with real-time data analysis and internet connectivity to swiftly detect and precisely locate faults within the distribution network.

From the simulation experiment, it can be seen that the real-time monitoring system for distribution network defects based on deep learning proposed in this article can play an important role in fault ...

Distribution automation allows utilities to detect feeder faults, isolate the damaged section, and restore service through automated switching and FLISR control logic. Faster fault isolation shortens outage ...

After the occurrence of a fault, the circuit breaker will be tripped by the protection functionality of the protected feeder followed by an automatic reclosing or an AR-shot, which is a function where the ...

The invention relates to the technical field of electric power system engineering, in particular to a method for efficiently processing automation defects of urban network distribution...

Abstract In the construction and stable operation of active distribution networks, the monitoring and management of defects in active distribution network equipment have always been ...

Automated control of devices in distribution systems involves a closed-loop control of switching devices, voltage controllers, and capacitors based on recommendations from distribution ...

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