

## عنوان مقاله:

Modern Approach Handling SDH/SONET Asymmetrical Delay with Current Differential Relaying

## محل انتشار:

بیست و هفتمین کنفرانس بین المللی برق (سال: 1391)

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## خلاصه مقاله:

With the rise of SDH/SONET digital communication over fiber optics for high speed data transfer in the last decade, the electric power networks have also considered a revolutionary change in their protective relaying communication channels infrastructure. In order to meet all the stringent requirements for protection and isolation of a faulted line in the transmission networks, such as sensitivity, response time, and reliability replacing the well-known Power Line Carrier (PLC) with digital channels seemed almost inevitable. Nonetheless, as a result of poor communication between relaying and telecommunication groups the teleprotection system requirements were declared with some ambiguity. This paper focuses on one of the major problems caused by SDH/SONET automatic protection switching known as asymmetrical channel delay. At first, it describes different types of protective relaying using digital communication as their backbone. Subsequently, introduces the issue of asymmetrical delay rising from a split-path communication, and at last presents the current differential relays utilizing the Global Positioning System (GPS) as a solution to assure the consistency of the high voltage electrical network operations while switching occurs over digital communication channels

## کلمات کلیدی:

Asymmetrical channel delay, current differential protection, GPS, split-path communication, differential delay, Teleprotection

## لینک ثابت مقاله در پایگاه سیویلیکا:

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