



CORRELATING LIGHTNING DATA WITH TRAVELING WAVES ON POWER LINES AIDS PATROL CREWS IN LOCATING FAULTS

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Wednesday, September 10 • 10 A ~ 11 A • EME 26

OVERVIEW

Utilities across the world are using traveling-wave based devices to locate faults with an accuracy of one to two tower spans. This presentation briefly discusses capabilities of line protective relays that include TW-based functions such as fault locating, line monitoring, and a line current differential scheme. This presentation includes a tutorial on Vaisala's National Lightning Detection Network and shows how the correlation of data from the lightning detection network and the relays helps the patrol crew to locate the disturbance. PPL Electric Utilities Corporation uses this correlation to confirm the root cause of the disturbance and to verify the performance of the lightning mitigation devices in the network.

BIO

Mr. Venkat Mynam received his MSEE from University of Idaho in 2003 and his BE in electrical and electronics engineering from Andhra University, College of Engineering, India, in 2000. He joined Schweitzer Engineering Laboratories, Inc. (SEL) in 2003 as an associate protection engineer in the engineering services division. He is presently working as an engineering director in SEL research and development. He was selected to participate in the US National Academy of Engineering 15th Annual US Frontiers of Engineering Symposium. He is a senior member of IEEE and holds patents in the areas of power system protection, control, and fault location.

