

MACHINE LEARNING TECHNIQUE BASED FAULT CLASSIFICATION AND SITE LOCATION ON TRANSMISSION LINES

ABSTRACT:

The protection and maintenance of an energy transmission system during fault condition is indispensable to make sure of an efficient and reliable power supply to consumers. Forecasting of faults (classification and site) with high precision increases the operational strength and reliability of the power system and helps to avoid huge power outage. This paper proposes a machine learning technique based fault classification and location identification on the transmission line. A Machine learning algorithm has ability to “learn” from the info without explicitly programmed and may independently adapt when exposed to new data. Previously artificial neural network technique is employed for the detection, classification of fault in transmission cable which fails to locate and it needs huge training data. Whereas the proposed technique doesn't require such large data, to predict the fault site and classification