7. Conclusion

An accurate traveling wave based algorithm for fault distance location on double circuit transmission line fed from sources at both ends is presented covering all types of faults in both the circuits. The algorithm effectively eliminates the effect of varying fault type, fault location, fault resistance, fault inception angle, mutual coupling and remote source infeed. The complexity of all ten types of faults, fault locations (0-100km), fault inception angles (0-90^0), fault resistance (0-100 Ω) are considered. The simulation results show that all ten types of faults are correctly located with fault location error less than 0.1%.

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Author Profile

J Ankamma Rao received the B.E. degree in Electrical & Electronics Engineering from Andhra University, Visakhapatnam, A.P, India, 2007 & M.Tech. degree in Integrated Power System from Visvesvaraya National Institute of Technology, Nagpur, India, in 2012. Currently, he is an Assistant Professor in Samara University, Samara, Afar Region, Ethiopia. His research areas are power system protection and FACTS.

Mr. Bizuayehu Bogale received the B.Ed. degree in Electrical & Electronics Technology in 2007 and also M.Sc degree in Electrical Power Engineering in 2011 from Adama Science & Technology University, Adama, Ethiopia. Currently, he is a Lecturer in Samara University, Samara, Ethiopia. His research areas are renewable energy, power system protection and FACTS.

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