Topic is interesting and have some research contribution. I believe the following areas need to be addressed in this manuscript:

1. Abstract states that " This necessitates developing a new relaying principle that overcomes those shortcomings. Such a principle is offered in this paper and is currently being validated using field data." Is there any field data proof that can be used? I would like to see validation of your claim.

2. There are some grammatical and paper format errors:

- Some minor grammatical errors need be fixed. . These need to be fixed.
- There should be "the" before the Fourier Transform, the FFT, the DWT etc. These need to be fixed.
- The IEEE paper format used Section/Figure/Table/Equation capitalized. These need to be fixed.

3. Other revision comments are not addressed properly. Please

- Mediocre quality figures. These figures are not publication quality. They are difficult to read (printed copy). I know the current format is svg and it is scalable. These figures have small fonts. The texts and numbers in the figures need to be enlarged. Visio and/or Inkscape can be used to edit svg files.
- The author indicates that 2011 paper by N. Perera and A. Rajapakse is the latest work in this area. There some other published papers:

Examples:

[1] "Detection of transmission line faults using discrete wavelet transform", Suman Devi; Nagendra K. Swarnkar; Sheesh Ram Ola; Om Prakash Mahela, 2016 Conference on Advances in Signal Processing (CASP), Year: 2016.

[2] "Morphology based radon processed neural network for transmission line fault detection", Vinayesh Sulochana; Anish Francis; Andrew Tickle, 2015 International Conference on Advances in Computing, Communications and Informatics, (ICACCI), Year: 2015.

[3] "Transmission line fault detection and classification using wavelet analysis", Subhra Jana; Abhinandan De, 2013 Annual IEEE India Conference (INDICON), Year: 2013.

[4] "Transmission line faults detection, classification, and location using Discrete Wavelet Transform", K. Saravanababu; P. Balakrishnan; K. Sathiyasekar, 2013 International Conference on Power, Energy and Control (ICPEC), Year: 2013

[5] "Transmission line faults detection, classification and location using artificial neural network", Eisa Bashier M. Tayeb; Omer A Aziz A Rhim, 2011 International Conference & Utility Exhibition on Power and Energy Systems: Issues and Prospects for Asia (ICUE), Year: 2011

[6] “Two-Terminal Traveling-Wave-Based Transmission-Line Protection”, F. B. Costa; A. Monti; F. V. Lopes; K. M. Silva; P. Jamborsalamati; A. Sadu, IEEE Transactions on Power Delivery, Year: 2017, Volume: 32, Issue: 3.

[7] “Power line fault detection and localization using high frequency impedance measurement”, Federico Passerini; Andrea M. Tonello, 2017 IEEE International Symposium on Power Line Communications and its Applications (ISPLC), Year: 2017.

[8] “Artificial neural network technique for transmission line protection on Nigerian power system”, Uma Uzubi; Arthur Ekwue; Emenike Ejiogu, 2017 IEEE PES PowerAfrica, Year: 2017.

[9] “Improved ANN-based algorithm for detection and classification of faultson transmission lines”, Farhana Fayaz; Abubakar Isa; H. K Verma; Soma Deb, ”2016 1st India International Conference on Information Processing (IICIP), Year: 2016

[10] “Importance of artificial neural networks for location of faults in transmission systems: A survey” Avagaddi Prasad; J. Belwin Edward, 2017 11th International Conference on Intelligent Systems and Control (ISCO), Year: 2017.

[11] “Fault detection and classification method using DWT and SVM in a power distribution network”, X. G. Magagula; Y. Hamam; J. A. Jordaan; A. A Yusuff, 2017 IEEE PES PowerAfrica, Year: 2017.

[12] “High Impedance Fault detection using DWT for transmission and distribution networks”, T. Ajay Ramamurthy; K. Shanti Swarup, 2016 IEEE 6th International Conference on Power Systems (ICPS), Year: 2016.

Good luck.