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| **Author(s) Name:** | Sazzed Mahamud Khan, Abu Hena MD Shatil | | |
| **Contact Email(s):** | abu.shatil@aiub.edu | | |
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| **Abstract:** |  |
| The transmission lines repeatedly face an aggregation of shunt-faults and its impact in the real time system increases the vulnerability, damage in load, and line restoration cost. Fault detection in power transmission lines have become significantly crucial due to a rapid increase in number and length. Any kind of interruption or tripping in transmission lines can result in a massive failure over a large area, which necessitates the need of effective protection. The diagnosis of faults help in detecting and classifying transients that eventually make the protection of transmission lines convenient. In this paper, we propose a deep learning-enabled technique for the detection and classification of transmission line faults. The faulty information are extracted using Discrete Wavelet Transform (DWT) and fed into the multilayer perceptron classification model. The results indicate that the proposed approach is capable of accurately classifying and detecting faults in transmission line with high precision. | |