Adaptive Risk Analysis and Management (ARAM) for the Lightning Strike on Power Station Systems based on Machine Learning Modeling

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Authors:

Muhammad A. Sulaiman, Ja'afar Zangina Sulaiman

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Abstract

The effects of lightning strike to transmission and distribution systems are numerous and unfavorable. Just imagine the cost and havoc if a giant telecommunications company is shut down for an hour or day as a result of devices damage or a petrochemical plant catches fires due to lightning strike. Hence the needs to protect power apparatus from overvoltage surge are imperative. In this study an adaptive risk analysis & management (ARAM) based on artificial neural networks is proposed to analyze and proactively control the overvoltage at power substation due to lightning strike.

References

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