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An approach for reliability prediction of instrumentation & control cables by artificial neural networks and weibull theory for probabilistic safety assessment of NPPs

T.V. Santhosh , V. Gopika , A.K. Ghosh , B.G. Fernandes

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Highlights

- An approach for reliability prediction of I&C cables based on ANNs is proposed.
- Prediction of time-dependent reliabilities for use in PSA of NPPs is demonstrated.
- Comparison of alternate models with ANN has been discussed.
- The issue of modelling synergistic effects in reliability analysis is addressed.
- Statistical significance tests performed suggest good confidence in ANN findings.

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