

Corrigendum to “A Comparison of Malicious Interdiction Strategies Against Electrical Networks”

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I. CORRECTION

This note is to correct an error in the published manuscript of [1]. Specifically, it appears that one step in preparation of the test systems was not correctly implemented. To quote from Section IV B. *System and Load Normalisation*:

“In each system, where multiple branches connected the same two buses, they were merged. This allows a fairer application of topological measures which don’t consider that edges can have inherent redundancy. The merged line’s impedance and thermal limits were updated to match the electrical characteristics of the multiline parallel combination.”

However, inspection of the original scripts [2] which are meant to implement this step indicates that while such mergings were calculated, they were not appropriately recorded. This means that the test system data available at [3] includes unmerged parallel branches, and this is reflected in the branch counts provided in TABLE I of [1].

For transparency, both the original and corrected versions of the relevant script, `BatchNormalizeSystems.m`, have been uploaded to the persistent Figshare repository, alongside some other scripts used to produce these results [2].

This error in test system preparation changes the interpretation of [1]’s results. In particular, the topological measures simulated there will perform differently, and likely more effectively, if applied to systems having appropriately merged parallel branches.

The author wishes to apologise for this error in test system preparation.

ACKNOWLEDGMENT

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REFERENCES

- [1] P. Cuffe, “A comparison of malicious interdiction strategies against electrical networks,” *IEEE Journal on Emerging and Selected Topics in Circuits and Systems*, vol. 7, no. 2, pp. 205–217, 2017.
- [2] —, “System preparation scripts from “A comparison of malicious interdiction strategies against electrical networks”,” Apr. 2019. DOI: 10.6084/m9.figshare.7973663.
- [3] —, “Raw data from “A comparison of malicious interdiction strategies against electrical networks”,” May 2017. DOI: 10.6084/m9.figshare.4970804.v1.