Drinking Water

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Discussions

Interactive comment on "Hybridisation of brownboost classifier and glowworm swarm based optimal sensor placement for water leakage detection" by Rejeesh Rayaroth and Sivaradje Gopalakrishnan

Anonymous Referee #1

Received and published: 21 November 2018

In the paper a new methodology is introduced to localize leakages in distribution networks. It is extensive work and the results of the simulations are compared to two other methods. General comments: - The abstract is too long, and should not focus too much on the description of the methodology - Shorten introduction and make the description of the various methodologies more condensed at analyse the short-comings at once, so that it gives a good reason for the adopted approach. - Introduction and "related work" should be combined, because in the introduction related work should already be cited to set the boundaries for the proposed approach. - Mention at the end of the

introduction what is the reason to develop the proposed approach (and what is new).
- Avoid in the methodology section using s "code" and too detailed descriptions in the
main text (preferably in supplementary data/information), but concentrate more on how
the calibration/validations are done. Are real pressure data used or is it all simulated
data, e.g.? - In the results section new definitions should be avoided (should be in-
troduced in Methodology section). Also avoid repetition and figures and tables with
same information. It is suggested to present one large table with all data in it and then
discuss the differences of the three methods at once. - It is not clear from the results
how the localization of the sensors is determined - It should be good to discuss the
implementation of the proposed approach in practice. Is it for example needed to run
the EPAnet model continuously to detect anomalies? - Check tenses: past tense when
it is the author's work, present tense when it is general knowledge - Check abbrevia-
tions: introduce once and then always use abbreviation (not introducing again) - Check
language in general.

Specific comments: - Page 1, Line 26, unclear what is meant - Page 1, line 27 give
references - Page 1, line 28 evade=avoid - Page 2, line 1 "..in (kang et al. . ..) that.."
should be something like "Kang et al. (2018) found. . ." check rest of the document too.
- Page 2, line 6-7 stick to references that are related to leak detection in pressurized
pipes. - Page 2, line 33 introduce abbreviation - Page 3, line 5-18, is more for the
methodology section - Page 4, line 26, give references (not always the case. . .) - Page
9, line 4-5 this statement should be proven by the results (and is not adequate here).
- Page 14, Figure 4 is not readable - Page 15, line 2 Explain better (in methodology
section) what is meant by "classified" - Page 24, line 29-31 Not clear what is meant. . .
Only less false positive or also better on other 3 performance indicators? What is
meant by "experimental evaluation"? What experiments are executed?

Interactive comment on Drink. Water Eng. Sci. Discuss., https://doi.org/10.5194/dwes-2018-
19, 2018.