

Interactive comment on “Analysis of water distribution network under pressure deficient conditions through Emitter Setting” by Suribabu Conety Ravi et al.

Suribabu Conety Ravi et al.

suribabu@civil.sastra.edu

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General comment: In this paper a practical approach is proposed to analyse water distribution networks under pressure deficient conditions. It is an important topic, since many water distributions systems (in developing countries) are dealing with this situation. The paper is well written and gives a clear overview of the field and some results are given of the proposed methodology and these are compared to previous attempts. However the structure of the paper needs some more attention (see below).
General comments: - Chapter 1, 2, 3, and 4 should be merged and more concised, since it is common practice to give an overview and drawbacks of existing methodolo-

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gies in the introduction, to come up with a clear objective of the paper. - Then introduce the proposed methodology in a separate chapter in a more extended way, so that it is more clear what is the difference with other methods and how it will work (and why this approach is adopted). - The Examples should then be discussed in the Results and Discussion chapter, separately.

Reply: Authors accept to merge Chapter 2, 3 and 4 with chapter 1. Now, introduction chapter will have subheads. Concising will reduce the understandability. Since this is not a well-researched and not published many times, hence authors interested to retain for the benefit of readers. The detailed description provides wide overview on the topic. Methodology is given in detail along with flow-diagram figure. This is enough to explain the methodology. Results and discussion chapter is to be more elaborate and so they are dealt with three cases and provided in detail. Reducing the length of the 'Results and discussion' will affect the value of the paper. Hence, they are provided in detail.

Specific comments:

Comment: Line 40-42, summarize the performance of the methodology in the abstract-

Reply: The following text is included in the abstract. Though the proposed approach is an iterative one, the computational burden of adding artificial elements in the other methods is avoided and hence useful for analyzing large networks.

Comment: Line 49, explain abbreviation Δt and then use it always Reply: Corrected.

Comment: Line 50-52 give references Reply: References are included

Comment: Line 75, condition = conditions – Reply: Corrected as condition.

Comment: Line 90, less = lower – Reply: Changed as “lower” number of. . .

Comment: Line 90-92 avoid repetitions.. Reply: Removed list of components.

Comment: Line 100-101, explain what is the difference with the other methods (see general comments)– Reply: Though the present method requires iteration to find solu-

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tion, but addition and deletion of artificial elements does not arise.

Comment:Line 114-115, parameters in italic Reply: corrected.

Comment:Line 143 “snapsort”? Reply: Corrected as snapshot

Comment:Line 188-200 not exactly clear what is different from the previously described approach Reply: Changed as above mentioned

Comment:Line 210-212, seems to be the basics of the approach, but not totally clear.. (e.g. how emitter coefficient is calculated?)

Reply: Please refer equation 2.

Comment:Line 242-243 and what was the performance of the proposed approach?

Reply: This approach does not require addition of artificial link.

Comment:Line 283 use past tense (and check rest of the document: past tense when obtained result from the study) Reply: corrected.

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