**Drinking Water
Engineering and Science
Discussions**

Interactive comment on "CLIPS based decision support system for Water Distribution Networks" *by* S. Kulshrestha and R. Khosa

Anonymous Referee #2

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1. The manuscript is concerned with CLIPS based decision support system for water distribution networks, which is interesting. It is relevant and within the scope of the journal. 2. However the manuscript, in its present form, contains several weaknesses. Adequate revisions to the following points should be undertaken in order to justify recommendation for publication. 3. Full names should be shown for all abbreviations in their first occurrence in texts. For example, NASA in p.2, GIS in p.4, PC in p.4, NMS in p.5, etc. 4. For readers to quickly catch the contribution in this work, it would be better to highlight major difficulties and challenges, and your original achievements to overcome them, in a clearer way in abstract and introduction. 5. The key model parameters are not mentioned. The rationale on the choice of the particular set of parameters should be explained. Have the authors experimented with other sets of values? What are the sensitivities of these parameters on the results? 6. Many assumptions are

stated in various sections. More justifications should be provided on these assumptions. Evaluation on how they will affect the results should be made. 7. "..the following partial rule that is used by the system. . ." mentioned in line 8 of p.11 appears to have been missing. 8. Moreover, the manuscript could be substantially improved by relying and citing more on recent literatures about application of AI technology and/or decision supporting systems in different fields such as the followings: ïĄň Wang, H.J., Zhang, J.P., Chau, K.W. and Anson, M., "4D dynamic management for construction planning and resource utilization," Automation in Construction, Vol. 13, No. 5, 2004, pp. 575-589. ïĄň Cheng, C.T., Ou, C.P. and Chau, K.W., "Combining a fuzzy optimal model with a genetic algorithm to solve multiobjective rainfall-runoff model calibration," Journal of Hydrology, Vol. 268, No. 1-4, 2002, pp. 72-86. ïĄň Xie, J.X., Cheng, C.T., Chau, K.W. and Pei, Y.Z., "A hybrid adaptive time-delay neural network model for multi-step-ahead prediction of sunspot activity," International Journal of Environment and Pollution, Vol. 28, No. 3-4, 2006, pp. 364-381. ïĄň Zhao, M.Y., Cheng, C.T., Chau, K.W., Li, G., "Multiple criteria data envelopment analysis for full ranking units associated to environment impact assessment," International Journal of Environment and Pollution, Vol. 28, No. 3-4, 2006, pp. 448-464. ïĄň Jia, W., Ling, B., Chau, K.W., Heutte, L., "Palmprint Identification Using Restricted Fusion," Applied Mathematics and Computation, Vol. 205, No. 2, 2008, pp 927-934. ïĄň Muttil, N. and Chau, K.W., "Machine learning paradigms for selecting ecologically significant input variables," Engineering Applications of Artificial Intelligence, Vol. 20, No. 6, 2007, pp. 735-744. 9. Some minor errors that needed attention are: ïĄň In line 4 of p.15, ". . .The carry out simulation studies.." should read ". . .They carry out simulation studies.." ïĄň In line 25 of p.16, ". . .system under goes ageing process.." should read ". . .system undergoes ageing process.." 10. In the conclusion section, limitation and suggested improvements of this work should be highlighted.

Interactive comment on Drink. Water Eng. Sci. Discuss., 4, 1, 2011.