

Responses to reviewer 1 comments 20160413

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We hope that the editor and reviewer 1 agreed with our assessment that the paper has been substantively improved

I have had the opportunity to access to the answer from authors, but i have not been able to download the new manuscript version that points out to the modifications that have carried out.

Sorry, because I'm not familiar with editing system, the modification process files are not sent, and I upload again now.

In this sense, as in the preceding manuscript version, the sound is good, but the evaluation of the methodology requires the possibility of contrasting the date. I consider that many of the pointed out subjects can be used in order to evaluate susceptibility to the karst phenomena, but i still have doubt about the possibility that they can be used as been pointed out as an early warning system.

Through the study of karst geological conditions in Wuhan , this paper makes a estimation on karst collapse susceptibility distribution in session 3. Finally, the evaluation result Figure 5 is obtained. Figure 5 is the basis which is selected for karst collapse key monitoring area.

The session 5 is the design of monitoring and early warning system. The session 5.4 designs the structure of the monitoring data stored in the on Page 16, L15. The session 5.5 is system warning modules which is calculated according to the monitoring data. It contains Hydraulic gradient warning module, Plastic zone warning module, GPR warning module and he Comprehensive warning calculation model.

The session 6.1 Monitoring data management is implementation of karst collapse monitoring data management capabilities in the system on the page 19, L9. All the monitoring data is managed in database established by using EXCEL software, which includes the data of soil pressure, land surface movement, cracks, karst water level, pore water level, monitoring points in wells, ground water level and rainfall level.

The session 6.2 Monitoring data warning level calculations is warning level calculations that the system calls relevant monitoring data in the EXCEL, containing Hydraulic gradient warning level calculation, Plastic zone warning level calculation, GPR warning level calculation and Determination of comprehensive warning levels.