

Dear Authors

This paper insists to have found that temporary confined water in the middle layer of the slope was the most critical factor triggering landslides at piedmont gentle slopes in Ningzhen area. Field investigations, monitoring analysis, and numerical analysis were conducted to support the insistence and to analyze other influencing factors. Speaking in a general review, this paper should be majorly revised because the quality and descriptions of the results of field monitoring results is low and does not sufficiently back up its aforementioned main insistence (that the confined water is a major factor of the landslide triggering). On the other hand, the deductions from the numerical analysis and stability analysis are not warranted to be meaningful for general applications. Therefore, **this paper is not acceptable to be published and I judged that the paper should be rejected.** In addition, there are many points that require the authors' clarification as follows:

1. The quality of technical English writing is too low to be published. Strong recommendation of getting a language editing service.
2. [Line 55-58] Is “impermeable aquifers” a correct expression? Aquifer is defined as an underground layer of water-bearing “permeable” rock, rock fractures or unconsolidated materials. Moreover, if the surface layer is impermeable, how can rainfall infiltrate into the middle layer by crossing the surface layer?
3. [Line 58 and Fig. 1] Is the Ningzhen area a broader territory including Zhenjiang city in which the Paomashan Mountain is located? Moreover, how is the mountain shown in Fig.1 related to your study area, the P0 landslide? If they are different places, there seems no significant meaning in Fig. 1. It is difficult to understand the areal relations between the place names that are mentioned in your manuscript. Detailed explanation on your study area with a regional-scale map that clarifies the aforementioned questions is needed.
4. [Fig .4] If the formation of the three layers is like Fig. 4 and the middle layer has a significantly higher permeability than the upper and lower layers, isn't it more reasonable to speculate that the groundwater, which is temporarily formed in the middle(“gravel”) layer, will be drained out along the bottom of the middle layer that is connected to the lower end of slope and a flat area (see Fig. 4) ? Please justify how the water is confined and thereby pore-water pressure can be increased in the gravel layer of such a stratum structure.
5. [Line 73-74] Detailed information and descriptions on the monitoring system should be needed; what specific devices (or sensors) were used to monitor the displacement and water level at which specific depths (please indicate and mark at the specific depths of sensing in each of the two monitoring well in Fig. 4)? It is difficult to understand section 2.1 without the aforementioned information. For example, the monitoring system began to receive displacement data at what specific depths of which layer (Line 102-103)? The change of water pressure at what specific depths of which layer (Line 104)? The maximum displacements of No.2 and No.1 at what specific depths of which layer (Line 108-109)?
6. [Line 105-108] difficult to understand the paragraph. “Slide body”, “slope body”, and “sliding surface (in Fig. 4)”.....What does specifically each of the three terminologies indicate? What's the differences? Is the “subsequent and wider cracks” different from the sliding surface in Fig. 4? If so, why they are not depicted in Fig. 4?
7. [Line 111] The landslide conforms to the characteristics of “typical intermittent creeping landslides”.....in what aspect? Is it typical for the type of creeping landslides to have such three distinct stages? Is the expression “intermittent” correct in the case of this landslide event? Most typical creeping landslides exhibit multiple reactivations in a long-term period. Please justify your expression with referencing to literatures.
8. [Table 1] Permeability coefficientUnit?

9. [Fig. 5] Please reconsider the period of Initial Deformation. It is mentioned that the initial deformation occurred at 16:00 on the 25th and was 11 mm. Therefore, the period should be from the starting time of the deformation to the time when the deformation first reached 11 mm. The boundary of Initial Deformation that is drawn seems improper.
10. [Line 131-134] It is written as if such phenomena as “increasing number of subsequent cracks” and “extending length and gradual penetration” were “visually observed” during the period of Isokinetic deformation. Clear evidences must be accompanied when the author insists that such phenomena took place during Isokinetic deformation.
11. [Line 133-134] shear dislocation zones, seepage points.....what’s their relation with the Isokinetic deformation behavior? Evidences of these phenomena happening during the Isokinetic deformation?
12. [line 136-137] 88.8 mm.....Is it correct amount? Seeing Fig. 5, rainfall seems to have accumulated as much as ~130 mm on the 1st July.
13. [Line 138-139] How come the deformation increased to 11.3 mm/h? The unit!
14. [Line 146-147 and Fig. 6] Why was the confined water not formed at the monitoring point 2 in the grave layer?
15. [Line 147] a maximum water pressure of 26.3 m ?? Unit!
16. [Line 150-151] Please theoretically justify landslide occurred bedding on the interface between the surface layer and the middle layer. If it was because of the increase in the pore-water pressure caused by confined water, isn’t it more reasonable to see the sliding surface on the interface between the middle layer and the lowest layer?
17. [Line 155-156] “the silty clay ~ the weight of the slope increases greatly”.....Again, if the authors want to insist that these unique phenomena happened, clear evidences or reasonable theoretical deduction must be suggested in advance.
18. [Line 157] the lower part of the slope.....confusing and unclear expression. Where does it specifically indicate?
19. [Line 168-171] Where is the exposed part of the middle layer in Fig. 4 and Fig. 7? Why no indications in those figures? Moreover, rainfall infiltration boundary is supposed to be depicted as a series of arrows. Why no such indications in those figures? Such unkind descriptions exist a lot in this manuscript.
20. [Section 3.1] There is no explanation on how the initial condition (moisture or pore-water pressure state profiles) of the slope was set using what kind of analysis, what reference field data, or what kind of different boundary conditions....
21. [Line 179 and Fig. 8] 1) “the bottom of the confining bed”.....Please clarify where this expression indicate by marking the nodes in Fig. 7 where the pore-water pressure data was picked up to plot Fig. 8. 2) Why do the plots in Fig. 8 exhibit sharp conversions of the gradient from positive to negative at some distances around 30 m?
22. [Line 186-187] “.....can be divided into unconfined areas and confined areas.”Where do the authors mean by unconfined part and unconfined part? Another unkind description....
23. [Line 190-191] What is the reason of 150 mm/d reaching the highest water level instead of 175 mm/d? Furthermore, are these results of numerical study meaningful from the perspective of the applications in practice? In what aspect? Please persuade it.
24. [Line 198-210] It is very difficult to completely understand and match the descriptions in this paragraph with Fig. 9.
25. [Line 209] What does “lifting speed” mean?
26. [Line 218-209] the most optimal permeability 0.0001-0.0003.....It is only a result deduced from

a single specific event condition. What aspect does this study have valuable meaning for a general application?

27. [Line 224] What kind of limit equilibrium theory and what equation? At which depth was the sliding surface set in the stability analysis? How did you apply the pore-water pressure term that changes over time into the limit equilibrium equation? Detailed descriptions on your assumptions and settings in the stability analysis is entirely omitted.....
28. [Line 227] Normally, we use “factor of safety” rather than “stability coefficient”....In addition, the stability coefficient is positively(?) related to the water pressure level? Not negatively?