

## ***Interactive comment on “Shear wave velocity by support vector machine based on geotechnical soil properties” by I. Shooshpasha et al.***

**Anonymous Referee #3**

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This review is for the paper "Shear Wave Velocity by Support Vector Machine Based on Geotechnical Soil Properties"

This is a very short paper, not much depth, which is sort of 'OK' to add to the literature. Feels more like a note rather than a paper, but this is probably OK. Not terribly strong in results, but fairly concisely written.

- (A) Abstract. This is good, but put the major quantitative conclusions in the abstract.
- (B) Sentence 1 of introduction does not make sense. 'What' is directly related to  $V_S$ ?
- (C) Introduction Sentence 2. Needs a reference.
- (D) Table of variables and acronyms – it would be useful, as there are a lot of them,

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to have a table of variables and acronyms.

(E) The font size in Figure 1 is so small it is hard to see the city names. Perhaps you could take the legend, put it below, and thus allow more space for the rectangle to be left to right. Otherwise it is hard to follow (see next) discussion of where sample sites are.

(E) For key cities/regions discussed in the text, can you label these A, B, C on Fig. 1, so that the reader can get a quick idea of where they are? The figure is fairly small, so it is not easy to quickly figure out which region is being referred to.

(F) Figure 2 and discussion in the text. (1) Elevation (m) – is this above sea level? Need to be clear. (2) Where exactly are these two profiles with relation to Figure 1? This is unclear. (3) Are these two profiles, and if so are they then separated by 20 m? (4) The figure caption needs a lot more information (e.g., it is unclear what the x-axis for each profile is representing, why you have a 'level' at the 0 m elevation, and what the dots represent, without reading the text, and even then, it is not very clear).

(G) It is unclear why you have 'one soil profile' but then are mentioning multiple bores. Do you have soil profiles elsewhere? What are we supposed to be learning from the soil profiles that you have shown?

(H) Figure 3. State in the figure captions that this is for 620 case study histories.

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