Dear Editorial Board,

First of all, we would like to thank Mr. G.nbsp; P. Ganapaty for his valuable comments and your cooperations. We revised our paper and did all of comments of the referee.

The title of manuscript was modified with "Investigating the influence of togographic irregularities and two dimensional effects on surface ground motion intensity with one- and two- dimensional analyses".

Here are our answers :

Referee comment:

1. Weigh the references completely in the content. A portion of the references which is specified in the reference are lost in the content part. Page 21, Line 1, Line 3, Line 17, Line 20, Line 22

Our answer:

1. We checked our manuscript page 21.

- -At line 1, the reference "Hashash et. al.." is located page 9, line 10.
- -At line 3, the reference "Idriss (1990)" is located Page 23, line 5 in Table 2.
- -At line 17, the reference "Schnabel et.al." is located page 8, line 19.
- -At line 20, the reference "Seed and Idriss (1970)" is located page 23, line 7 and 8 in table 2.
- -At line 22, the reference "Vucetic and Dobry (1991)" is located page 23, line 1 in table 2.

So, no changes were made.

<u>Referee comment:</u>

2. Page No.26 Fig 1. Its not clear no lithological units represented properly. The contours are very thick and it hides whole map. Include the Coordinates for the study area.

Our answer:

2. We improved picture quality Fig 1 and added manuscript.

Referee comment:

3. Page No. 27, Fig 2. It's not clear. Since the section lines are already given in Fig 1, no need to repeat the same, the Fig 2 can be removed. The cross section numbers can be transferred to Figure 1.

Our answer:

3. We changed Fig 2 with the other picture which was named "location of the area".

Referee comment:

4. Page 2, Line 11, a 475 years "replication" remove replication use the word "return".

Our answer:

4. I changed "replication" with the word "return".

<u>Referee comment:</u>

5. Page 2, Line 14, It has mentioned the section 5-5 'selected for examine the effect of land topography- On what basis the it has selected.

Our answer:

5. The 5-5' section selected due to the passing of all sections. Moreover it is parallel to Earthquake-producing fault in Marmara Sea so the acceleration value is not changed much.

Referee comment:

6. Page 2. Line 20 to 25. The sentence is not completed, rephrase the sentence

Our answer:

6. We completed the sentences in the following way. "The damage to structures that occurs during an earthquake is not only related to the superstructure but also to the following significant factors; the earthquake characteristics and local soil conditions. The characteristics of earthquake waves may change while passing through diferent types of soil and this may increase the earthquake forces that impact on the structures situated on the surface of the ground."

Referee comment:

7. Page 10. Line 18, it has mentioned the PLAXIS Software used – Which version? Also in the reference part it has mentioned that Plaxis use same UPPERCAPS.

Our answer:

7. I used Plaxis 8.2 version. I added this into the article.

<u>Referee comment:</u>

8. There is no discussion of validation of the study based on the historical seismicity. Also the author advised to add a seismicity map/ geotechnical of the study area.

Our answer:

8. This subject is quite extensive. So reference was added at Page 11, line 20 with regards to historical seismicity of the study area.