Surname, Name:
Student ID:

CE300 – MS OFFICE SESSION
HOMEWORK #1
Microsoft Word

Due date: 06/07/2009

You will encounter various problems along your professional life. Maybe, you won't be familiar with some of these problems. However, your boss or customer will ask you for a reliable and engineered solution. In this case, the best option would be to search the literature and learn the subject on your own in order to recommend a reasonable solution. Within this context, the scope of this homework is not only to measure your ability of application of your knowledge but also to measure your self-learning skill.

In this homework, you are supposed to create this document with its all components via Microsoft Word software. You can use any recent version of MS Office. Use Times New Roman, size 11 and single line spacing. Help menu will be very useful if you are looking for a feature you aren't familiar with.

Important Notice: You can discuss and share your ideas about the homework with your friends. However, you should do your homework *on your own*. *Submit your homework as a hardcopy. Softcopy submissions will not be accepted.*

Part 1: A part of an academic writing is provided below. You are asked to create the same text as it is shown below. (Hint: You don't have to type the provided text. Search for an easy way to copy the text from Adobe Reader and paste into MS Word. After you paste the text, only thing you need to do is formatting the text.)

Earthquakes have been one of the natural disasters causing great losses of life and property along the history of humankind. Since 1930s, with increasing awareness of earthquake disaster, strong-motion networks have been established along the seismically active regions around the world to understand and monitor the earthquake kinematics. the ground-motion records have also been in use by engineers to understand their likely effects on structures in order to mitigate the earthquake hazard. Although the ground-motion records have started to be common in earthquake related studies, current strong-motion databases are still limited in terms of uniform and trustworthy magnitude, distance, site class and faulting style distribution. A typcal case is presented in Figure 1.1 that shows the scatter plot of of "usable" records of recently compiled Turkish strong-motion database. The term "usable" describes the high quality records having reliable moment magnitude, site class, faulting style and source-to-site distance information. Figure 1.1 indicates that Turkish strong-motion database Contains a fairly good amount of records between $3.5 \leq M_w \leq 6.5$ and $M_w \geq 7.0$. However, there is a certain magnitude gap between 6.5 and 7.0. Also note that there is small number of records with $R_{JB} \leq 20$ km and $M_w \geq 5.5$. When the site class is of concern, it is observed that the Turkish database is dominated by ground motions recorded at NEHRP C and D sites. The number of ground motions recorded at NEHPR B sites is very few.

Similar limitations are also observed in the strong-motion databases of other regions as well as global databases. The lack of reliable data is due to the absence of nearby recording stations to the events or because of the site being in a low to to moderate seismicity region as well as other deficiencies such as lack of site class information of strong-motion stations and source parameters. The long recurence period of large earthquakes constitutes anothr reasoning of this deficiency. Furthermore, some of the ground motions recorded by analogue instruments are problematic and removal of these recordings decreases the number of strong-motion data that are suitable for earthquake related studies.

To overcome the difficulties arising from the lack of strong-motion data, either the ground motions obtained from other seismic regions are used or synthtic time series are generated. The use of actual ground motions from different seismic regions requires the recordings to be scaled from host regions to the the target region. However, proper scaling of ground-motion records requires sound knowldge on the source, path and site characteristics of both host and target regions. Therefore, ground-motion simulation procedures are commonly employed as they can provide the specific seismological features of ground motions for engineering studies.

Part 2: While you are typing, it is easy to make mistakes such as misspelling of a word, use of wrong punctuation or mistakenly typing a word twice. Therefore, it is strongly recommended to check the text after you've finished typing. There are 10 typing errors in the text above. Find these mistakes and correct within the text. (Hint: You can set the language in MS Word so that it continuously checks for typing errors according to that language. Thank Uncle Bill for providing such a useful feature.)

Part 3: Count the number of words in the above text and write those to the spaces provided below. (Hint: It would be very difficult if MS Word had no word count feature.)

Number of words in paragraph 1 ("Earthquakes have …"):
Number of words in paragraph 2 ("Similar limitations …"):
Number of words in paragraph 3 ("To overcome …"):

Part 4: Copy the following graph and paste it in your document (Hint: Does the tool you use to copy text from Adobe Reader work for graphs also? There should be another tool for graphs and pictures.). After you paste the graph in your document, change the size to 75% of its original size without changing the aspect ratio. (Hint: Your mouse has more than one button.)

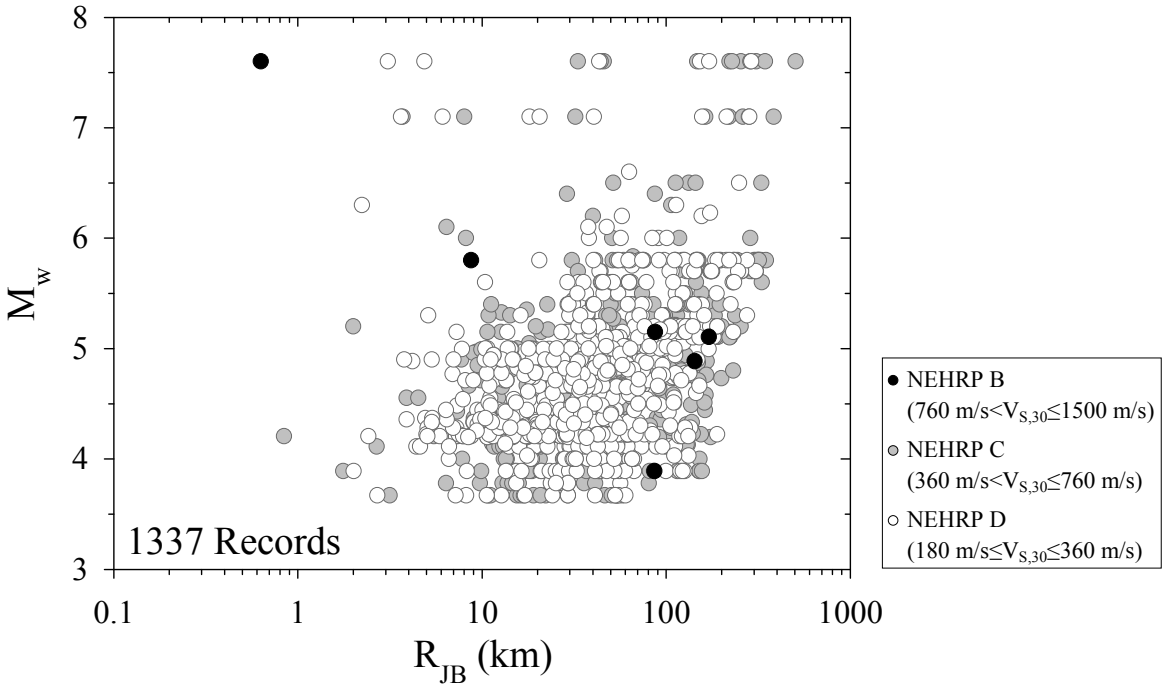

Figure 1.1 M_w-R_{JB} scatter of the recently compiled Turkish strong-motion database that includes main, fore- and after-shocks (M_w refers to moment magnitude; R_{JB} is the closest distance measured from the site to the vertical projection of the fault rupture).

Part 5: Type the text in Part 1 in capital letters. (Hint: You don't have to rewrite all the material in capital letters. Find a way to change the case of the text.)

(Provide the new text here)

Part 6: Create the following formulas via Equation Editor. (Hint: For MS Office 2003, you may not have equation editor tool in your menu bar. To reach this feature, right click on menu bar and select "Customize" option. A new window will appear. Select "Commands" tab and click on "Insert" option on the left hand side of the window. "Equation Editor" should be on the right hand side of the window.)

Taylor Series:

$$f(x) = \sum_{i=0}^{n} \frac{f^{(i)}(x_0)}{i!}(x - x_0)^i$$

Simpson's Numerical Integration Rule:

$$\int_{x_1}^{x_2} f(x)dx = \frac{\Delta x}{3}\left[f_1 + f_n + 4\sum_{i=even} f_i + 2\sum_{j=odd} f_j\right]$$