CE490   HOMEWORK-1   H. Sucuoğlu – A.Yakut
(**Due Date: 17.03.2015**)

Obtain a copy of a ground acceleration component from an actual earthquake that is assigned to you via course web site. (http://www2.ce.metu.edu.tr/~ce490/homeworks.html). Note the information about the earthquake (date, epicenter), station name, site characteristics (rock, soil or loose alluvium, if available) and component of the record. These should be printed on your figures. Related information can be found on the internet at related websites (i.e. http://ngawest2.berkeley.edu/, etc.)

1) Plot $\ddot{u}_g, \dot{u}_g, u_g$ vs. time. *(Print out the plots.)*

2) Calculate and plot the following spectra for 2, 5, 10 % damping respectively. *(Print out the plots.)*
      a) S_a
      b) PS_a
      c) PS_v
      d) S_d

3) Compare the 5% damped S_a with the code Spectrum, Seismic Zone 1 for the associated site characteristics. *(Print out the plots.)*

4) Discuss the results obtained in parts 2, 3 and 4.

IMPORTANT REMARKS:

- *It is strongly recommended to use a computer program (i.e. Matlab, Mathcad or Excel etc.) or any kind of scripting language to process the ground motion data for your calculations and for your plots.*
- *You should also submit your source code of your program or the template of the software (i.e. soft copy of your work) that you utilized for your calculations to **Kaan Kaatsız (via e-mail). If you do not submit the soft copy of your homework, it will not be graded.***
- *Provide a clear and illustrative script that is highlighted with comments and/or program template for your work as well as a neatly presented hard copy (i.e. plots, discussions and other parts that you submit in a printed format) of your homework. Do not forget to include your full name and ID in your file names, etc.*
- *For large files that you wish to submit, please send a cloud link of the file from platforms such as Dropbox, Google Drive, OneDrive, etc. rather than sending the file.*

Ground Motion File Assignment Table

#	Id Number	Last Name	First Name	GM Assignment
1	1809227	AKDENİZ	İZEL	116270
2	1550086	AKSOY	AYKUT	116360
3	1809458	BAŞGÜL	SERHAT	A02043
4	1736289	BOZKURT	MUHAMMET TURGAY	BOL000
5	1736339	CEBE	YILMAZCAN	CLS090
6	1669415	CEBECİ	ATALAY	DZC270
7	1550474	DEMİRCİ	HALİL	E06140
8	1736529	DİREKCİ	LEVENT	E11140
9	1736511	DÜZENLİ	EREN	E11230
10	1384890	EMRE	BERKAN	ELC180
11	1736578	ERDOĞAN	ÇAĞRI	ERZEW
12	1701325	GORGANI	DANIAL	G01000
13	1193226	GÖKMEN	SERKAN	G01090
14	1739085	GÜLDÜR	HAZAL	G02000
15	1736701	GÜLŞEN	BURAK CAN	G02090
16	1809821	GÜMÜŞ	HASAN	G03000
17	1809854	GÜRBÜZ	MÜCAHİT	G03090
18	1736750	IŞIK	EMRECAN	G04360
19	1810969	İÇİNSEL	NESİM	GIL067
20	1809946	KARALI	SERKAN	GIL337
21	1736818	KARAPINAR	ARİF CÜNEYT	GOF090
22	1810001	KAYA	FATMA BEGÜM	GOF180
23	1670033	KIRDAR	MELİH	GRN270
24	1670041	KIRMA	MUSTAFA	HE04410
25	1810050	KOCAKAYA	MEHMET OZAN	IZT090
26	1810068	KOCAMAZ	KORHAN	LCN275
27	1810100	KORKMAZ	BURAK	LEX000
28	1736966	KULAY	EMRAH	LOB000
29	1810209	KÜPÇÜ	EREN	LOB090
30	2122885	MERCİMEK	ÖMER	MTW000
31	1810258	MIZRAK	SEDA	NIS090
32	1810316	OĞUZ	UMUT	NPS210
33	1737683	ÖZDEMİR	MUSTAFA	ORR090
34	1810845	ÖZKAN	SEDAT ANIL	ORR360
35	1492727	ÖZTÜRK	SEDA	PCD254
36	1701424	RUMIJA	GERTI	PTS315
37	1592252	SADIK	MAHMOUD	SPV270
38	1810977	ŞAHİN	UMUTCAN	STG000
39	1809169	ÜNGÖR	HALİS ARDA	STG090
40	1828243	YILMAZ	ABDULLAH	SYL360