Engin 103	Topics:
May 5, 2011	Project 3 Part II Presentations
	Project 3 Assigned Improvements for
back to e-syllabus	<u>Day 2</u>
	Logbook questions

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Project 3 Part II Presentations Section 1 (9:30 AM)

Team #	1) Insert a snapshot of your modified Front Panel, resize to 2in. tall	2) Insert a snapshot of the modified Block Diagram here, resize to 2in. tall	Explain how did your team implement the modifications for Part II of the project
1 section 1			
2 section 1			
3 section 1			
4 section 1			
5 section 1			
6 section 1			
7 section 1			
8 section 1			
9 section 1			
10 section 1			

Section 2 (2:00 PM)

Team #	1) Insert a snapshot of your modified Front Panel, resize to 2in. tall	2) Insert a snapshot of the modified Block Diagram here, resize to 2in. tall	Explain how did your team implement the modifications for Part II of the project
1 section 2			
2 section 2			
3 section 2			
4 section 2			
5 section 2			
6 section 2			
7 section 2			
8 section 2			
9 section 2			
10 section 2			

		п	А	1	D		Б	L	G	•
Total part I P&D (90)	0.00	79.50	84.00	85.50	90.00	0.00	79.50	84.00	85.50	90.00
Project 3 -part I P&D/ Teams	1	2	3	4	5	6	7	8	9	10
Total part II P&D (90)	0.00	79.50	84.00	90.00	90.00	0.00	85.50	84.00	87.00	90.00
Total part II P&D (90) Project 3 -part II P&D/ Teams	0.00	79.50 2	84.00 3	90.00 4	90.00 5	0.00 6	85.50 7	84.00 8	87.00 9	90.00 10
Total part II P&D (90) Project 3 -part II P&D/ Teams pack	0.00	79.50 2	84.00	90.00 4	90.00 5	0.00 6	85.50 7	84.00 8	87.00 9	90.00 10

Project 3

Project	Description	Part II Assigned Modifications
А	Predict the max. temp. for the	Add a third option to do data modeling
	next day using previous thirty	beyond polynomials and exponentials;
	days' temperatures, using	also output parameters and residue or
	polynomial and other models	standard deviation for all models
В	Predict the oil price for next	Add a third option to do data modeling
	week using previous thirty	beyond polynomials and exponentials;
	weeks' prices, using polynomial	also output parameters and residue or
	and other models	standard deviation for all models
С	Detect the frequency spectrum of	Apply a low-pass filter on the spectrum
	a given signal (in wav format)	(allowing the user to control the cut-off
	using Fourier Transforms, output	frequency), then do an inverse FFT and
	the number of frequency	sound out the filtered signal
	components of the signal	
D	Say the decimal number for any	Allow two binary number inputs, have
	four-digit binary number	it say in decimal each number and their
		sum
E	Make a 16 keys piano	Add a button so it plays all 16 sounds
		up and down: 1 to 16 to 1
F	Solve the quadratic equation	Add a graph of the quadratic
	with distinction of the three	polynomial
	cases for the discriminant.	
	Provide solutions including:	
	double roots, different roots, and	
	complex conjugate roots.	
G	A VI that inputs sound via a	Acquire a second sound wave, then
	microphone, when the sound	insert a button to make it play both
	amplitude is above certain limit	waves at the same time
	it will display the waveform,	

н	replay the sound, save it into a file, and present results of a tone measurement including amplitude, frequency and phase of the signal	Allow the option of adding a second VI
11	display an html file containing the front panel (with a description of problem solved, inputs and outputs), block diagram, and notes. The html file will be saved as p2p2a.html	with its Front Panel and Block Diagram plus text into the same report.
Ι	A VI that produces two or more chirp sounds, that is, a sound whose frequency is changing with time	Produce two chirps and with one Graph display their spectra in one case of a Case Structure, in the other case show the spectrum of the sum of the two chirps. Only one graph should be added.
J	Make a "sound recording utility" that can record voice from a microphone, display it and its FFT, then save it into a file. When a 'playback button' is pressed it will play the recorded sound.	The VI should acquire two voice samples, then the playback button will play both at the same time and show the FFT Spectrum of the sum.

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LOGBOOK: example of a logbook page

-Use a quadrille notebook; number all pages; date all entries

-Write your notes for all activities, thoughts, problems and solutions, and learning conclusions related to Engin 103. You should write down progress, outcomes, and conclusions on projects and teamwork; conclusions from class work (including LabVIEW) and homework.

-In addition you should answer in the logbook all questions listed in these notes in blue, as shown below:

53) Describe two other projects (presented by other teams), include information about their Front Panel and Block Diagram (what elements did they use and why)

54) Describe the modifications required for your team Virtual Instrument. Explain how this was done: what LabVIEW elements have been added in the Front Panel and Block Diagram, name those elements as they are called in LabVIEW, include a diagram of their inputs and output connections, and explain how were these elements connected to the rest of the Block Diagram.

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