

The main program (Ibrahim Omar Haroun):

	Α				В	W	INV(A'WA)				SIGMA
	1	0	0	0	5.21	2500	0.00023	0.00011	0.0001	0.0001	0.0167523
	0	1	0	0	1.9	1300	0.00011	0.00027	0.00015	0.00013	0.016209
	0	0	1	0	-8.41	1100	0.0001	0.00015	0.00028	0.00015	0.0159013
	0	0	0	1	2.93	1600	0.0001	0.00013	0.00015	0.00026	0.0161299
	-1	1	0	0	3.27	1400					
	-1	0	1	0	13.58	885					
	-1	0	0	1	2.18	1075					
	0	-1	1	0	10.21	1802					
	0	-1	0	1	-1.13	1429					
	0	0	-1	1	-11.35	2000					0.01625
1-					В	w	INV(ÁWA)				SIGMA
1-	1	0	0	0	5.21	2500	0.00023	0.00011	0.00011	0.0001	0.01677
1-	1 0	1	0	0	5.21 1.9	2500 1300	0.00023 0.00011	0.00027	0.00016	0.00012	0.01677 0.018
1-	1 0 0	1 0	0 1	0 0	5.21 1.9 -8.41	2500 1300 1100	0.00023 0.00011 0.00011	0.00027 0.00016	0.00016 0.00036	0.00012 0.00008	0.01677 0.018 0.02262
1-	1 0 0 0	1 0 0	0 1 0	0 0 1	5.21 1.9 -8.41 2.93	2500 1300 1100 1600	0.00023 0.00011	0.00027	0.00016	0.00012	0.01677 0.018
1-	1 0 0 0 -1	1 0 0 1	0 1 0 0	0 0 1 0	5.21 1.9 -8.41 2.93 3.27	2500 1300 1100 1600 1400	0.00023 0.00011 0.00011	0.00027 0.00016	0.00016 0.00036	0.00012 0.00008	0.01677 0.018 0.02262
1-	1 0 0 0 -1 -1	1 0 0 1 0	0 1 0 0 1	0 0 1 0 0	5.21 1.9 -8.41 2.93 3.27 13.58	2500 1300 1100 1600 1400 885	0.00023 0.00011 0.00011	0.00027 0.00016	0.00016 0.00036	0.00012 0.00008	0.01677 0.018 0.02262
1-	1 0 0 0 -1 -1 -1	1 0 0 1 0	0 1 0 0 1	0 0 1 0 0	5.21 1.9 -8.41 2.93 3.27 13.58 2.18	2500 1300 1100 1600 1400 885 1075	0.00023 0.00011 0.00011	0.00027 0.00016	0.00016 0.00036	0.00012 0.00008	0.01677 0.018 0.02262
1-	1 0 0 0 -1 -1 -1	1 0 0 1 0 0 -1	0 1 0 0 1 0	0 0 1 0 0 1	5.21 1.9 -8.41 2.93 3.27 13.58 2.18 10.21	2500 1300 1100 1600 1400 885 1075 1802	0.00023 0.00011 0.00011	0.00027 0.00016	0.00016 0.00036	0.00012 0.00008	0.01677 0.018 0.02262
1-	1 0 0 0 -1 -1 -1 0	1 0 0 1 0 0 -1 -1	0 1 0 0 1 0 1	0 0 1 0 0 1 0	5.21 1.9 -8.41 2.93 3.27 13.58 2.18 10.21 -1.13	2500 1300 1100 1600 1400 885 1075 1802 1429	0.00023 0.00011 0.00011	0.00027 0.00016	0.00016 0.00036	0.00012 0.00008	0.01677 0.018 0.02262 0.01769
1-	1 0 0 0 -1 -1 -1	1 0 0 1 0 0 -1	0 1 0 0 1 0	0 0 1 0 0 1	5.21 1.9 -8.41 2.93 3.27 13.58 2.18 10.21	2500 1300 1100 1600 1400 885 1075 1802	0.00023 0.00011 0.00011	0.00027 0.00016	0.00016 0.00036	0.00012 0.00008	0.01677 0.018 0.02262

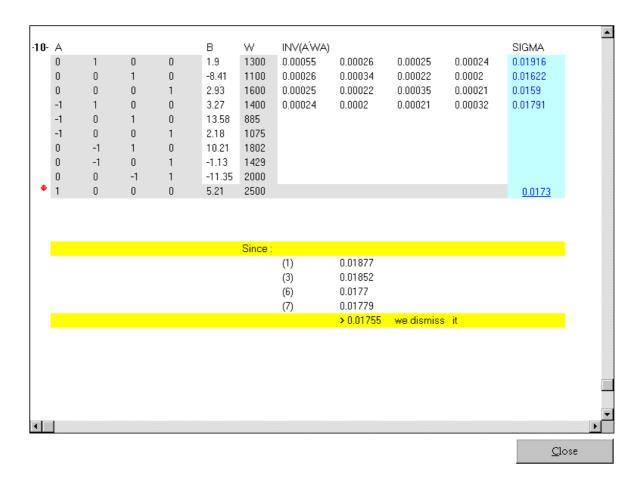
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-	0	-1	1	0	10.21	1802					0.01852	
*	0	0	-1	1	-11.35	2000					0.01050	
	0	-1	0	1	-1.13	1429						
	-1	0	0	1	2.18	1075						
	-1	0	1	0	13.58	885						
	-1	1	0	0	3.27	1400						
	0	0	0	1	2.93	1600	0.0001	0.00012	0.00015	0.00026	0.01615	
	0	0	1	0	-8.41	1100	0.0001	0.00009	0.00035	0.00015	0.01746	
	0	1	0	Ō	1.9	1300	0.00011	0.00032	0.00009	0.00012	0.02234	
Ĭ	1	0	0	0	5.21	2500	0.00023	0.00011	0.0001	0.0001	0.01813	
-3-	Δ				В	W	INV(A´WA)				SIGMA	
*	0	-1	0	1	-1.13	1429					0.01745	
	0	0	-1	1	-11.35	2000						
	0	-1	1	0	10.21	1802						
	-1	0	0	1	2.18	1075						
	-1	0	1	0	13.58	885						
	-1	1	0	o o	3.27	1400	0.0001	0.00000	0.00010	0.0000	0.01120	
	0	0	Ö	1	2.93	1600	0.0001	0.000013	0.00025	0.00013	0.01700	
	0	Ó	1	0	-8.41	1100	0.00011	0.00032	0.00015	0.00005	0.01708	
	1 0	1	0	0	1.9	1300	0.00023	0.00011	0.0001	0.0001	0.01765	
-2-		0	0	0	B 5.21	W 2500	INV(A´WA) 0.00023	0.00011	0.0001	0.0001	SIGMA 0.01789	
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		ū		Ū	, 3.50	555					0.01000	_
*	0 -1	0	-1 1	1 0	-11.35 13.58	2000 885					0.01686	
	0	-1 0	0	1	-1.13	1429						
	0	-1	1	0	10.21	1802						
	-1	0	0	1	2.18	1075						
	-1	1	0	0	3.27	1400						
	0	0	0	1	2.93	1600	0.00009	0.00013	0.00016	0.00026	0.01621	
	0	0	1	0	-8.41	1100	0.00008	0.00015	0.00032	0.00016	0.01658	
	0	1	0	0	1.9	1300	0.00011	0.00027	0.00015	0.00013	0.01697	
	1	0	0	0	5.21	2500	0.00025	0.00011	0.00008	0.00009	0.01768	
-5-	А				В	W	INV(A´WA)				SIGMA	
*	-1	0	0	1	2.18	1075					0.01697	
	0	0	-1	1	-11.35	2000						
	0	-1	Ö	1	-1.13	1429						
	0	-1	1	0	10.21	1802						
	-1 -1	0	1	0	13.58	885						
	0 -1	0 1	0	1 0	2.93 3.27	1400	0.00007	0.00014	0.00016	0.0003	0.01731	
	0	0	1	0	-8.41	1100 1600	0.0001	0.00015	0.00029	0.00016	0.01657	
	0	1	0	0	1.9	1300	0.00011	0.00027	0.00015	0.00014	0.01623	
	1	0	0	0	5.21	2500	0.00026	0.00011	0.0001	0.00007	0.01778	
4-	Α				В	W	INV(A'WA)				SIGMA	

0 1 0 0 0	0 0 1 0	0 0 0	5.21 1.9	2500 1300	0.00027	0.00007	0.00009	0.00009	0.0215	
0	1			1300	0.00007					
0 0	0	0	0.44		0.00007	0.00033	0.00016	0.00014	0.01718	
0			-8.41	1100	0.00009	0.00016	0.00029	0.00015	0.01591	
		1	2.93	1600	0.00009	0.00014	0.00015	0.00026	0.01619	
0	1	0	13.58	885						
	0	1	2.18	1075						
-1	1	0	10.21	1802						
-1	0	1	-1.13	1429						
1	0	0	3.27	1400					0.0177	
0	0	0	5.21	2500	0.00026	0.00015	0.00015	0.00017	0.01683	
	·									
					0.00017	0.00022	0.00025	0.00045	0.02111	
	•									
									0.04770	
U	U		2.93	1600					0.01779	
	0	0 -1 1 0 0 0 1 0 0 1 1 0 0 1 0 0 -1 1 -1 0	0 -1 1 1 0 0 0 0 1 0 0 0 1 0 1 0 0 0 1 0 0 0 1 -1 1 0 -1 1 0	0 -1 1 -11.35 1 0 0 3.27 B 0 0 0 5.21 1 0 0 1.9 0 1 0 -8.41 1 0 0 3.27 0 1 0 13.58 0 0 1 2.18 -1 1 0 10.21 -1 0 1 -1.13 0 -1 1 -11.35	0 -1 1 -11.35 2000 1 0 0 3.27 1400	0 -1 1 -11.35 2000 1 0 0 3.27 1400 B W INV(AWA) 0 0 0 5.21 2500 0.00026 1 0 0 1.9 1300 0.00015 0 1 0 -8.41 1100 0.00015 1 0 0 3.27 1400 0.00017 0 1 0 13.58 885 0 0 1 2.18 1075 -1 1 0 10.21 1802 -1 0 1 -1.13 1429 0 -1 1 -11.35 2000	0 -1 1 -11.35 2000 1 0 0 3.27 1400 B W INV(AWA) 0 0 0 5.21 2500 0.00026 0.00015 1 0 0 1.9 1300 0.00015 0.00022 0 1 0 -8.41 1100 0.00015 0.0002 1 0 0 3.27 1400 0.00017 0.00022 0 1 0 13.58 885 0 0 1 2.18 1075 -1 1 0 10.21 1802 -1 0 1 -1.13 1429 0 -1 1 -11.35 2000	0 -1 1 -11.35 2000 1 0 0 3.27 1400 B W INV(AWA) 0 0 0 5.21 2500 0.00026 0.00015 0.00015 1 0 0 1.9 1300 0.00015 0.00032 0.0002 0 1 0 -8.41 1100 0.00015 0.0002 0.00034 1 0 0 3.27 1400 0.00017 0.00022 0.00025 0 1 0 13.58 885 0 0 1 2.18 1075 -1 1 0 10.21 1802 -1 0 1 -1.13 1429 0 -1 1 -11.35 2000	0 -1 1 -11.35 2000 1 0 0 3.27 1400 B W INV(A'WA) 0 0 0 5.21 2500 0.00026 0.00015 0.00015 0.00017 1 0 0 1.9 1300 0.00015 0.00032 0.0002 0.00022 0 1 0 -8.41 1100 0.00015 0.0002 0.00034 0.00025 1 0 0 3.27 1400 0.00017 0.00022 0.00034 0.00025 0 1 0 13.58 885 0 0 1 2.18 1075 -1 1 0 10.21 1802 -1 0 1 -1.13 1429 0 -1 1 -11.35 2000	0 -1 1 -11.35 2000 0.0177 B W INV(AWA) SIGMA 0 0 0 5.21 2500 0.00026 0.00015 0.00017 0.01683 1 0 0 1.9 1300 0.00015 0.0002 0.00022 0.01623 0 1 0 -8.41 1100 0.00015 0.0002 0.00034 0.00025 0.01698 1 0 0 3.27 1400 0.00017 0.00022 0.00025 0.00045 1 0 1 0 13.58 885 0 0 1 0 10.21 1802 -1 0 1 -1.13 1429 0 -1 1 -11.35 2000

-8-	٨				В	W	INV(A´WA)				SIGMA	
U	1	0	0	0	5.21	2500	0.00025	0.00014	0.00015	0.00013	0.01684	
	0	1	0	0	1.9	1300	0.00023	0.00014	0.00013	0.00013	0.01703	
	0	0	0	1	2.93	1600	0.00014	0.00031	0.00021	0.00017	0.01713	
	-1	1	0	Ö	3.27	1400	0.00013	0.00021	0.00042	0.00021	0.01704	
	-1 -1	0	1	0	13.58	885	0.00013	0.00017	0.00021	0.00023	0.01710	
	-1	0	Ö	1	2.18	1075						
	0	-1	1	Ö	10.21	1802						
	0	-1	Ö	1	-1.13	1429						
	0	o'	-1	1	-11.35	2000						
*	0	0	1	Ö	-8.41	1100					0.01699	
-9-	А				В	W	INV(A´WA)				SIGMA	
,	1	0	0	0	5.21	2500	0.00026	0.00017	0.00014	0.00013	0.01822	
	0	0	1	0	-8.41	1100	0.00017	0.00042	0.00023	0.0002	0.01714	
	0	0	0	1	2.93	1600	0.00014	0.00023	0.00033	0.00018	0.01592	
	-1	1	Ō	Ö	3.27	1400	0.00013	0.0002	0.00018	0.00029	0.01716	
	-1	Ö	1	0	13.58	885						ĺ
	-1	0	0	1	2.18	1075						
	0	-1	1	0	10.21	1802						
	0	-1	0	1	-1.13	1429						
	0	0	-1	1	-11.35	2000						
*	0	1	0	0	1.9	1300					0.01711	
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From the result we discard the lines:

3 - 4

B.M - 3

1 - 3

1 - 4

With Sigma greater than 0.0175 to obtain the required precision for network design.

