

Supplementary Material: Quantitative Electroencephalography Analysis for Improved Assessment of Different Consciousness Level in Comatose Patients Using a Proposed Stimulus Stage

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Table S1. Kruskal Wallis test post-hoc results (Dunn's test, Bonferroni correction).

Feature/ EEG Band	Channel 1 (F3-F4)				Channel 2 (C3-C4)				Channel 3 (T3-T4)				Channel 4 (P3-P4)			
	alpha	beta	theta	delta	alpha	beta	theta	delta	alpha	beta	theta	delta	alpha	beta	theta	delta
1st Feature Energy					3-4		3-4	3-4		3-4		3-5			3-4	
	3-4	3-4	3-4	3-4	3-5	3-4	3-5	3-5	3-5	3-5	3-5	3-6	3-4	3-4	3-5	3-4
	3-5	3-5	3-5	3-5	3-6	3-5	3-6	3-6	3-6	3-6	3-6	3-7	3-6	3-5	3-6	3-6
	3-6	3-6	3-6	3-6	3-7	3-6	3-7	3-7	3-7	3-7	3-7	4-5	3-6	3-6	3-7	3-7
	3-7	3-7	3-7	3-6	4-8	3-7	4-8	4-8	5-8	4-6	4-6	4-6	3-7	3-7	4-8	5-7
2nd Feature fmax	3-8	3-8	3-8	3-7	5-8	3-8	5-8	5-8	6-8	6-7	5-8	5-8	4-8	5-8	6-8	7-8
					7-8		6-8	6-8		6-8	6-8	6-7			7-8	
							7-8	7-8				6-8				
3rd Feature Pmax		3-6				3-8							3-5			
	3-4	3-8				4-8				3-8			3-7	3-6	3-4	
	3-5	4-8	3-6	**	**	5-8	**	**	3-5	4-8	3-6	3-6	4-5	4-8	4-6	**
	3-6	5-8	6-7			6-8			4-5	5-8	4-6	3-7	5-8	5-8	4-7	
	3-7	6-8				7-8				6-8			6-7	6-8	5-7	
4th Feature Area1		7-8								7-8			6-5	7-8		
													7-8			
5th Feature Area2	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-5	3-5	3-5	3-5	3-4	3-4	3-4	3-6
	3-5	3-5	3-4	3-5	3-5	3-5	3-6	3-6	3-7	3-6	3-7	3-7	3-5	3-7	3-5	3-7
	3-6	3-6	3-5	3-6	3-6	3-6	3-7	3-7	4-6	3-7	4-6	4-5	3-6	3-8	3-7	4-7
	3-7	3-7	3-6	3-7	3-7	3-7	4-8	4-8	4-8	4-6	5-8	4-6	3-7	5-8	4-8	5-7
	3-8	3-8	3-7	6-8	5-8	3-8	5-8	5-8	5-8	4-6	5-8	5-8	4-8	6-8	6-8	6-7
6th Feature Ratio1					7-8		6-8	6-8	6-8	7-6	6-8	6-7	4-8	7-8	7-8	7-8
							7-8	7-8	7-8			6-8				
7th Feature					3-4		3-4	3-4				3-5			3-4	3-4
					3-5		3-5	3-5	3-5			3-6		3-4	3-6	3-5
					3-6	3-4	3-6	3-6	3-6	3-5	3-6	3-7	3-4	3-5	3-7	3-6
					3-7	3-5	3-7	3-7	3-7	3-6	3-7	4-5	3-5	3-6	5-7	3-7
					4-8	3-6	4-8	4-8	4-6	3-7	4-6	4-6	3-6	3-7	4-8	5-7

Ratio2	6-8	3-8 4-8 5-8 6-8 7-8	5-7 6-7 8-7		5-6	3-8 4-8 5-8 6-8 7-8			3-8 5-6 5-7 6-8 7-8	4-8 5-8 6-8 7-8				3-6 3-8 4-8 5-8 6-8 7-8	3-5 4-6 5-6	
8th Feature Ratio3	4-8 6-8	3-6 3-8 4-8 5-8 6-8 7-8	3-7 5-7 6-7 8-7	**	3-6 5-6	3-4 3-8 4-8 5-8 6-8 7-8	3-8	**	3-5 3-8 5-6 5-7 6-8 7-8	3-8 4-8 5-8 6-8 7-8	**	4-5	5-6	3-4 3-6 3-8 4-8 5-8 6-8 7-8	3-4 3-5 4-6 5-6	**
9th Feature NTPower	3-4 3-5 3-6 3-7	3-8 4-8 5-8 6-8 7-8	3-4 3-5 3-6 3-7 4-8	3-4 3-5 3-6 3-7	3-4 3-5 3-6 3-7 4-8 5-8 7-8	3-4 3-5 3-8 3-7 5-6 5-7 6-8 7-8	3-4 3-5 3-6 3-7 4-8 5-8 6-8 7-8	3-4 3-5 3-6 3-7 4-8 5-8 6-8 7-8	3-4 3-5 3-6 3-7 4-8 5-8 6-8 7-8	3-4 3-5 3-6 3-7 4-8 5-8 6-8 7-8	3-5 3-6 3-7 4-6 5-8 6-8	3-5 3-6 3-7 4-6 5-8 6-7 6-8 7-8	3-4 3-6 3-7 4-5 4-8	3-4 3-6 3-7 4-5 4-8 6-8 7-8	3-4 3-6 3-7 4-5 4-8 6-8 7-8	3-6 3-7 5-7 7-8
10th Feature TPower	3-4 3-5 3-6 3-7 3-8	3-4 3-5 3-6 3-7 3-8	3-4 3-5 3-6 3-7	3-4 3-5 3-6 3-7	3-4 3-5 3-6 3-7 4-8 5-8 7-8	3-4 3-5 3-6 3-7 4-8 5-8 6-8 7-8	3-4 3-5 3-6 3-7 4-8 5-8 6-8 7-8	3-4 3-5 3-6 3-7 4-8 5-8 6-8 7-8	3-5 3-6 3-7 4-6 5-8 6-8 7-8	3-5 3-6 3-7 4-6 5-8 6-8 7-8	3-5 3-6 3-7 4-5 4-6 5-8 6-7 6-8	3-5 3-6 3-7 4-5 4-6 5-8 6-7 6-8	3-4 3-5 3-6 3-7 4-8 5-8 7-8	3-4 3-6 3-7 3-8 5-8	3-4 3-5 3-6 3-7 4-8 6-8 7-8	3-6 3-7 5-7 7-8

** significance value $p > 0.05$. (3-4 shows that features obtained from EEG signals of GCS 3 and GCS 4 patients are statistically different).