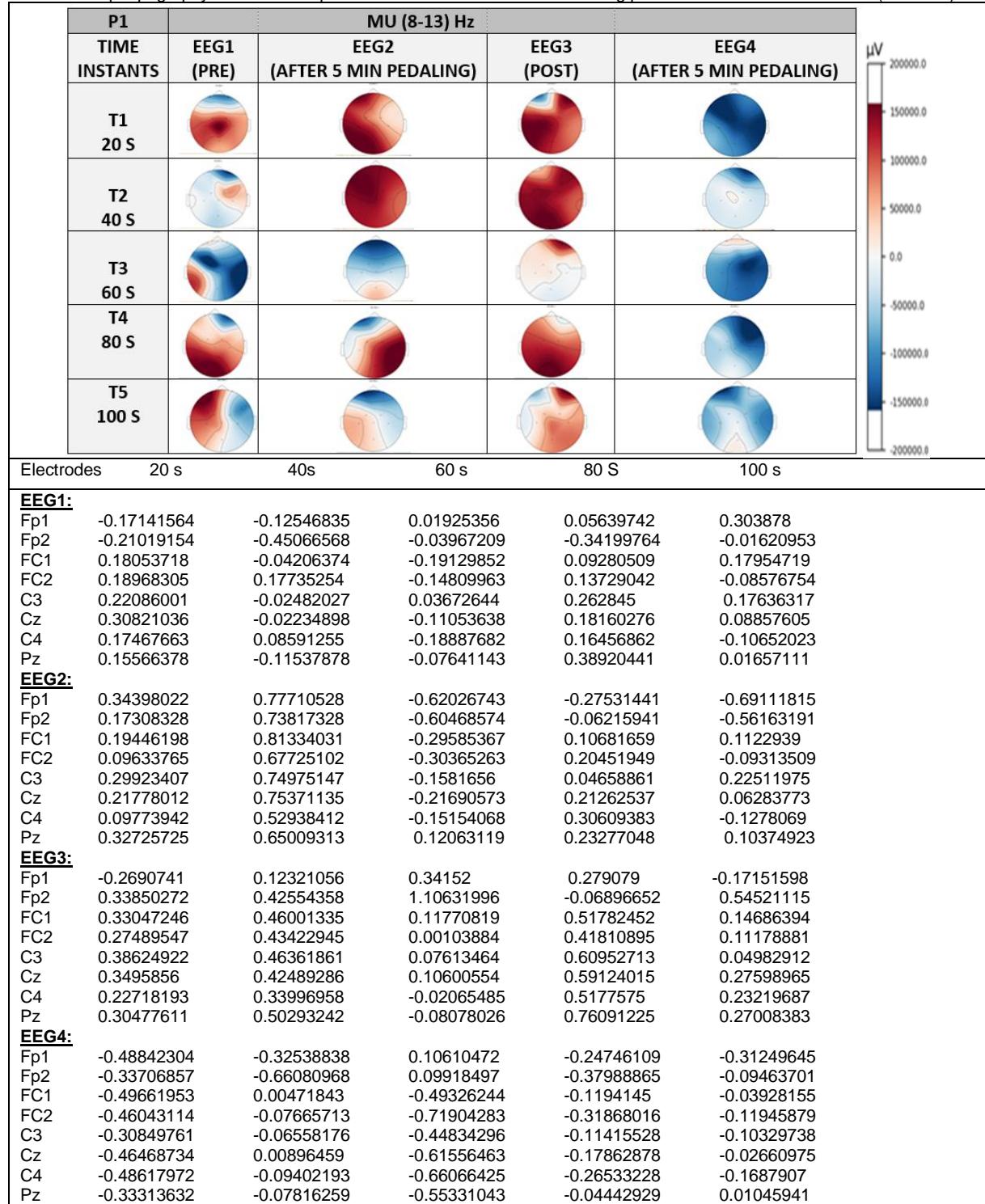


All data related to the article "Evaluating the Immediate Effect of the Cerebrospinal Stimulation in Combination with Motor Imagery, Virtual Reality and Pedaling on Mu and Beta Band Modulation Through Brain Connectivity Analysis in Post-Stroke Patients"

Results of P1 - Mu band

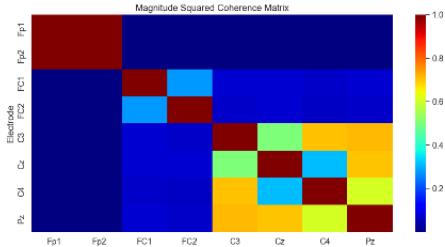
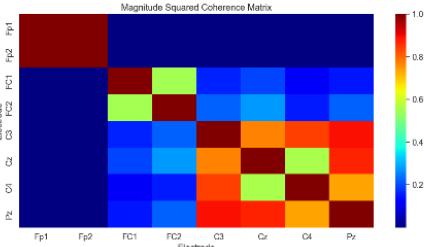
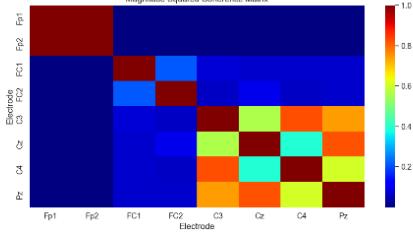
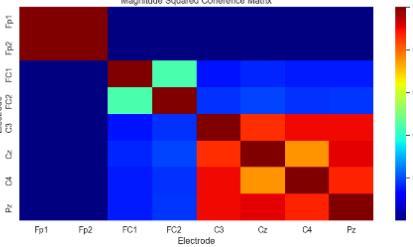
Table 1. Scalp topography and mean amplitude values for each electrode among phases and time instants for P1 (Mu band)



Kruskal-Wallis test p-value: 0.3206

Cohen's d: -0.15

Table 2. Magnitude-Squared Coherence (MSC) between electrode pairs among phases for P1-Mu band

Magnitude-Squared Coherence (MSC)		P1-MU	
EEG1 Overall Mean MSC within ROI: 0.2904	EEG2 Overall Mean MSC within ROI: 0.4462		
EEG3 Overall Mean MSC within ROI: 0.3153	EEG4 Overall Mean MSC within ROI: 0.4645		
EEG1	EEG2	EEG3	EEG4
FC1 and FC1: 1.0000 FC1 and FC2: 0.2741 FC1 and C3: 0.0707 FC1 and Cz: 0.0736 FC1 and C4: 0.0656 FC1 and Pz: 0.0708 FC2 and FC2: 1.0000 FC2 and C3: 0.0660 FC2 and Cz: 0.0704 FC2 and C4: 0.0607 FC2 and Pz: 0.0648 C3 and C3: 1.0000 C3 and Cz: 0.5013 C3 and C4: 0.7043 C3 and Pz: 0.7132 Cz and Cz: 1.0000 Cz and C4: 0.3099 Cz and Cz: 0.7023 C4 and C4: 1.0000 C4 and Pz: 0.6088 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.5505 FC1 and C3: 0.1567 FC1 and Cz: 0.1949 FC1 and C4: 0.1073 FC1 and Pz: 0.1477 FC2 and FC2: 1.0000 FC2 and C3: 0.2213 FC2 and Cz: 0.2771 FC2 and C4: 0.1486 FC2 and Pz: 0.2196 C3 and C3: 1.0000 C3 and Cz: 0.7734 C3 and C4: 0.8419 C3 and Pz: 0.8908 Cz and Cz: 1.0000 Cz and C4: 0.5551 Cz and Cz: 0.8728 C4 and C4: 1.0000 C4 and Pz: 0.7361 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.2134 FC1 and C3: 0.0772 FC1 and Cz: 0.0675 FC1 and C4: 0.0693 FC1 and Pz: 0.0685 FC2 and FC2: 1.0000 FC2 and C3: 0.0622 FC2 and Cz: 0.0942 FC2 and C4: 0.0606 FC2 and Pz: 0.0691 C3 and C3: 1.0000 C3 and Cz: 0.5598 C3 and C4: 0.8257 C3 and Pz: 0.7439 Cz and Cz: 1.0000 Cz and C4: 0.3913 Cz and Pz: 0.8231 C4 and C4: 1.0000 C4 and Pz: 0.6045 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.4387 FC1 and C3: 0.1428 FC1 and Cz: 0.1637 FC1 and C4: 0.1485 FC1 and Pz: 0.1518 FC2 and FC2: 1.0000 FC2 and C3: 0.1732 FC2 and Cz: 0.1930 FC2 and C4: 0.1725 FC2 and Pz: 0.1780 C3 and C3: 1.0000 C3 and Cz: 0.8620 C3 and C4: 0.9020 C3 and Pz: 0.9008 Cz and Cz: 1.0000 Cz and C4: 0.7538 Cz and Pz: 0.9140 C4 and C4: 1.0000 C4 and Pz: 0.8736 Pz and Pz: 1.0000

Permutation test p-value: 0.6721

Cohen's d: 0.03

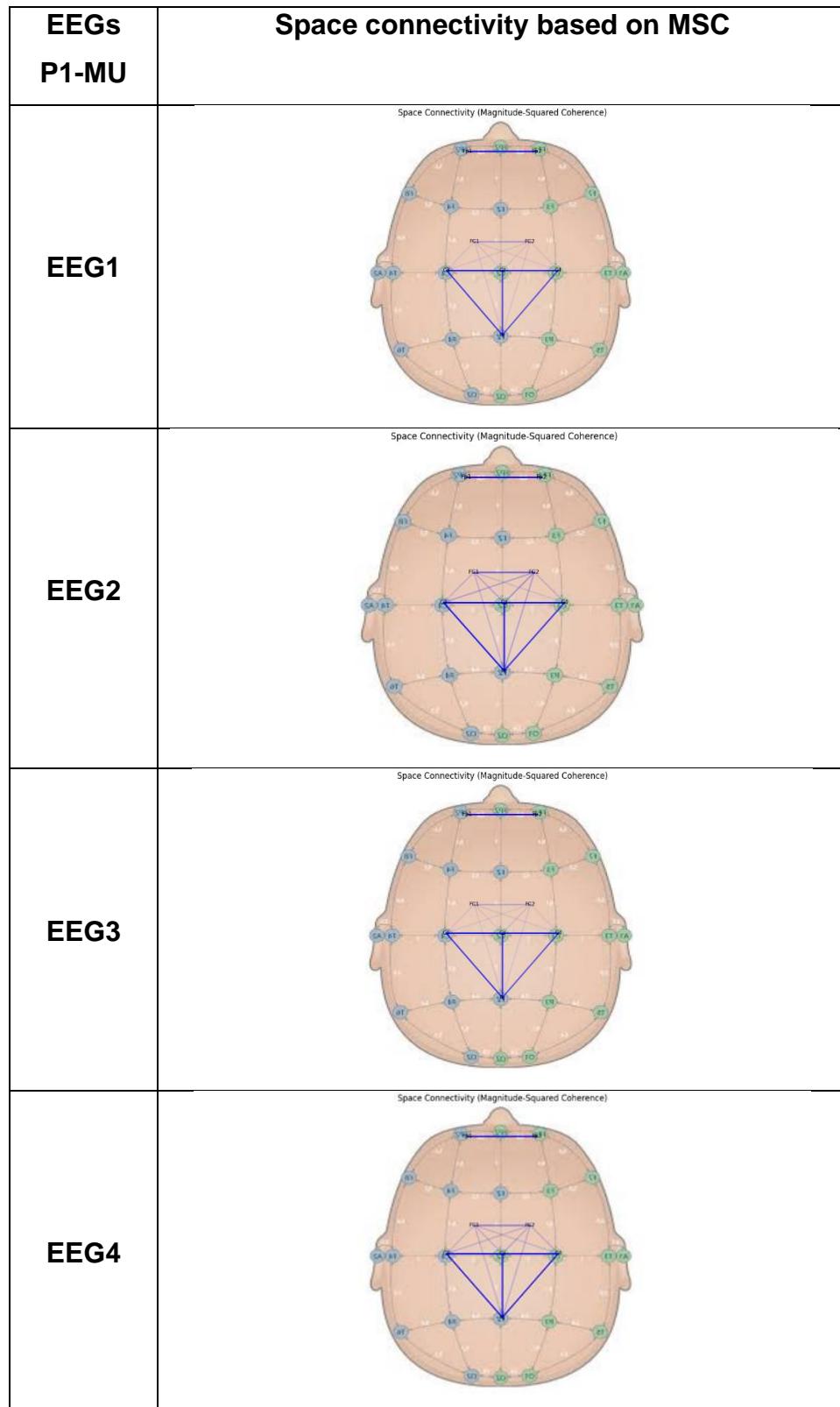


Fig 1. Space connectivity based on MSC – P1- Mu

Table 3. Phase Locking Value(PLV) between electrode pairs among phases for P1-Mu band

Phase locking Value (PLV)		P1-MU			
EEG1	EEG2				
Overall Mean PLV within ROI: 0.5026	Overall Mean PLV within ROI: 0.6725				
EEG3	EEG4				
Overall Mean PLV within ROI: 0.4664	Overall Mean PLV within ROI: 0.6333				
EEG1	EEG2	EEG3	EEG4		
FC1 and FC1: 1.0000 FC1 and FC2: 0.6703 FC1 and C3: 0.2745 FC1 and Cz: 0.2914 FC1 and C4: 0.2766 FC1 and Pz: 0.2937 FC2 and FC2: 1.0000 FC2 and C3: 0.2212 FC2 and Cz: 0.2103 FC2 and C4: 0.2351 FC2 and Pz: 0.2540 C3 and C3: 1.0000 C3 and Cz: 0.7832 C3 and C4: 0.8603 C3 and Pz: 0.8450 Cz and Cz: 1.0000 Cz and C4: 0.6578 Cz and Pz: 0.8440 C4 and C4: 1.0000 C4 and Pz: 0.8228 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.8556 FC1 and C3: 0.4985 FC1 and Cz: 0.5591 FC1 and C4: 0.4147 FC1 and Pz: 0.4584 FC2 and FC2: 1.0000 FC2 and C3: 0.5218 FC2 and Cz: 0.6234 FC2 and C4: 0.4212 FC2 and Pz: 0.5003 C3 and C3: 1.0000 C3 and Cz: 0.8621 C3 and C4: 0.9127 C3 and Pz: 0.9338 Cz and Cz: 1.0000 Cz and C4: 0.7511 Cz and Pz: 0.8992 C4 and C4: 1.0000 C4 and Pz: 0.8765 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.5981 FC1 and C3: 0.1649 FC1 and Cz: 0.1966 FC1 and C4: 0.2053 FC1 and Pz: 0.2309 FC2 and FC2: 1.0000 FC2 and C3: 0.1267 FC2 and Cz: 0.0758 FC2 and C4: 0.1681 FC2 and Pz: 0.1523 C3 and C3: 1.0000 C3 and Cz: 0.8337 C3 and C4: 0.9036 C3 and Pz: 0.8988 Cz and Cz: 1.0000 Cz and C4: 0.7189 Cz and Pz: 0.8980 C4 and C4: 1.0000 C4 and Pz: 0.8251 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.7847 FC1 and C3: 0.4030 FC1 and Cz: 0.4630 FC1 and C4: 0.3949 FC1 and Pz: 0.3938 FC2 and FC2: 1.0000 FC2 and C3: 0.4426 FC2 and Cz: 0.5039 FC2 and C4: 0.4147 FC2 and Pz: 0.4263 C3 and C3: 1.0000 C3 and Cz: 0.8822 C3 and C4: 0.9158 C3 and Pz: 0.9173 Cz and Cz: 1.0000 Cz and C4: 0.7845 Cz and Pz: 0.9013 C4 and C4: 1.0000 C4 and Pz: 0.8727 Pz and Pz: 1.0000		

Permutation test p-value: 0.6678

Cohen's d: -0.06

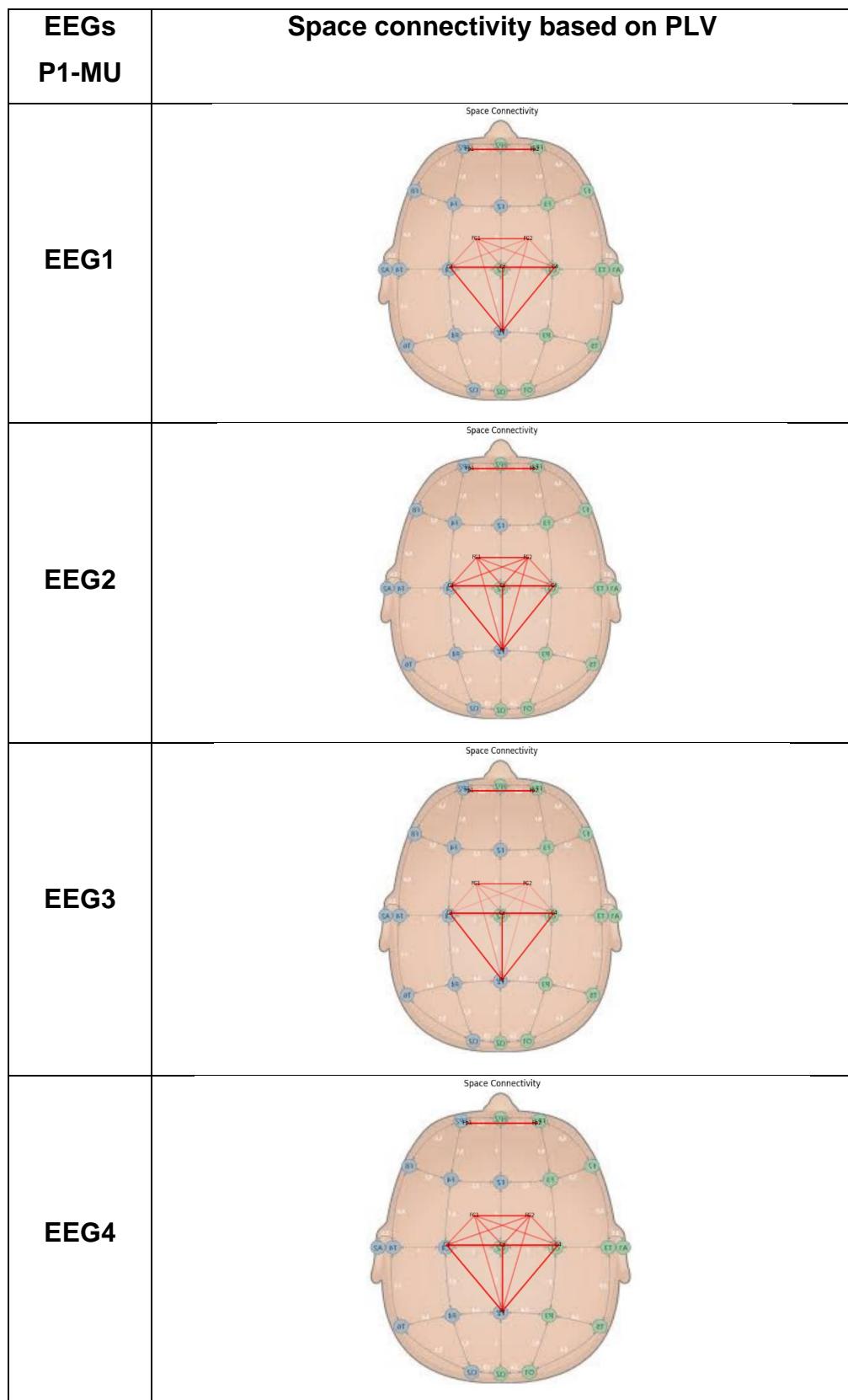
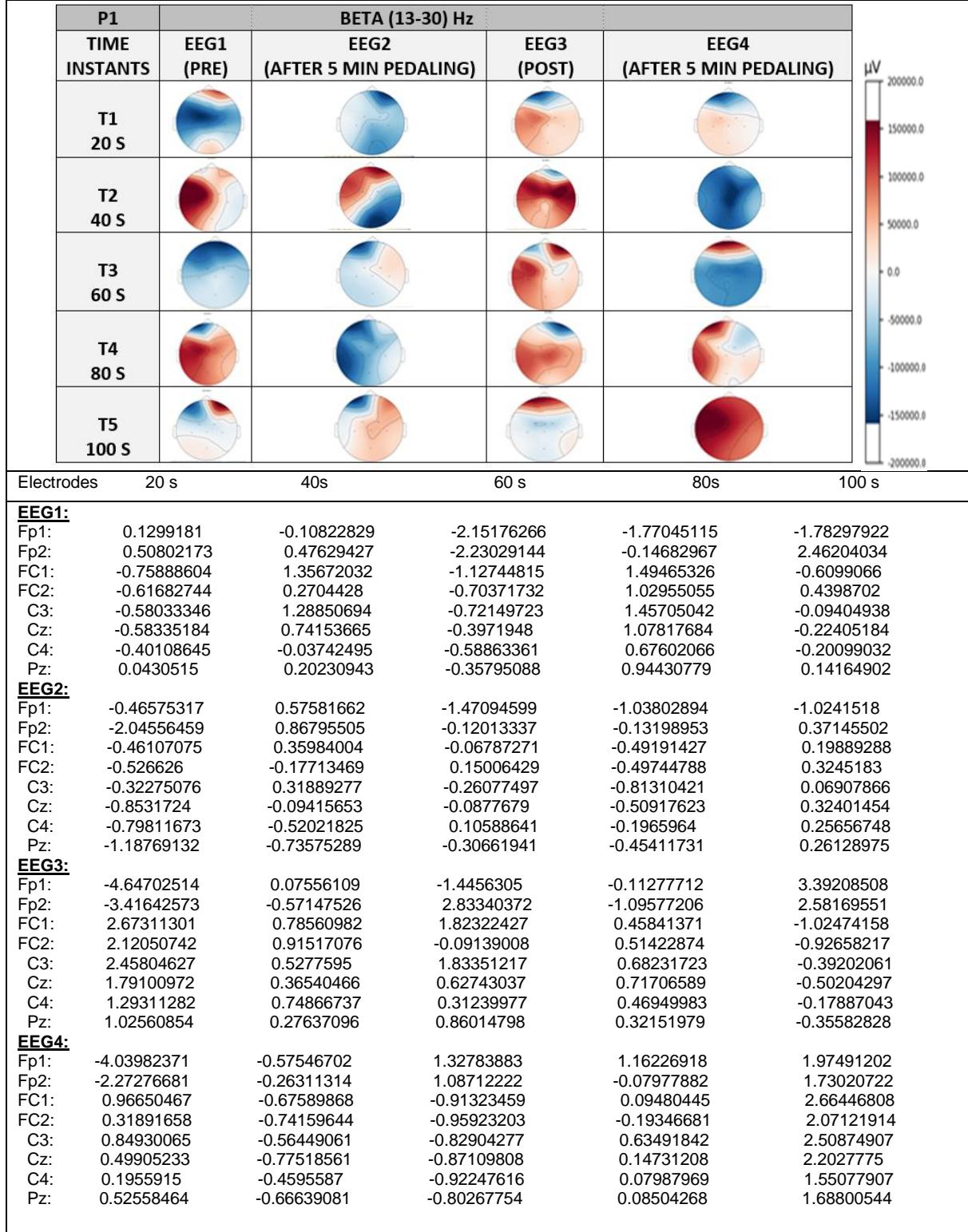


Fig 2. Space connectivity based on PLV – P1- Mu

Results P1 - Beta band

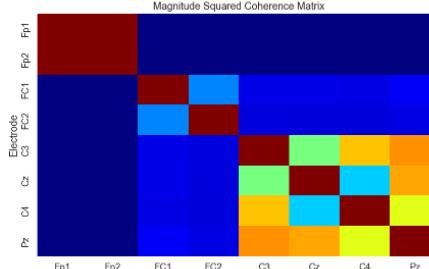
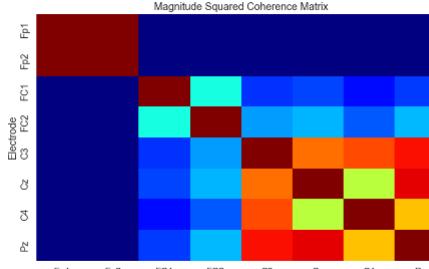
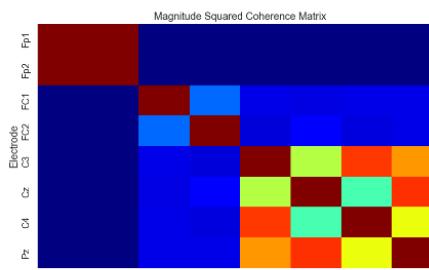
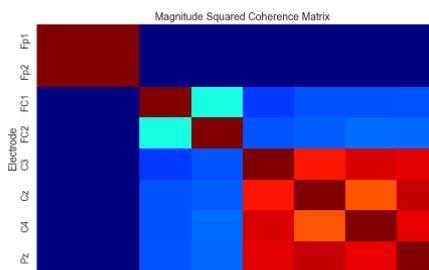
Table 4. Scalp topography and mean amplitude values for each electrode among phases and time instants for P1 (Beta band)



Kruskal-Wallis test p-value: 0.0039

Cohen's d: 0.29

Table 5. Magnitude-Squared Coherence (MSC) between electrode pairs among phases for P1-Beta band

Magnitude-Squared Coherence (MSC) P1-BETA			
EEG1 Overall Mean MSC within ROI: 0.3062	EEG2 Overall Mean MSC within ROI: 0.4579		
 <p>Magnitude Squared Coherence Matrix</p> <p>Electrode: Fp1, Fp2, FC1, FC2, C3, Cz, C4, Pz</p>	 <p>Magnitude Squared Coherence Matrix</p> <p>Electrode: Fp1, Fp2, FC1, FC2, C3, Cz, C4, Pz</p>		
EEG3 Overall Mean MSC within ROI: 0.3364	EEG4 Overall Mean MSC within ROI: 0.4967		
 <p>Magnitude Squared Coherence Matrix</p> <p>Electrode: Fp1, Fp2, FC1, FC2, C3, Cz, C4, Pz</p>	 <p>Magnitude Squared Coherence Matrix</p> <p>Electrode: Fp1, Fp2, FC1, FC2, C3, Cz, C4, Pz</p>		
EEG1	EEG2	EEG3	EEG4
FC1 and FC1: 1.0000 FC1 and FC2: 0.2545 FC1 and C3: 0.0921 FC1 and Cz: 0.0934 FC1 and C4: 0.0874 FC1 and Pz: 0.1052 FC2 and FC2: 1.0000 FC2 and C3: 0.0826 FC2 and Cz: 0.0817 FC2 and C4: 0.0785 FC2 and Pz: 0.0893 C3 and C3: 1.0000 C3 and Cz: 0.4927 C3 and C4: 0.7003 C3 and Pz: 0.7550 Cz and Cz: 1.0000 Cz and C4: 0.3248 Cz and Pz: 0.7328 C4 and C4: 1.0000 C4 and Pz: 0.6227 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.3752 FC1 and C3: 0.1755 FC1 and Cz: 0.1924 FC1 and C4: 0.1361 FC1 and Pz: 0.1835 FC2 and FC2: 1.0000 FC2 and C3: 0.2791 FC2 and Cz: 0.3029 FC2 and C4: 0.2110 FC2 and Pz: 0.3050 C3 and C3: 1.0000 C3 and Cz: 0.7903 C3 and C4: 0.8318 C3 and Pz: 0.8912 Cz and Cz: 1.0000 Cz and C4: 0.5766 Cz and Pz: 0.9122 C4 and C4: 1.0000 C4 and Pz: 0.7069 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.2280 FC1 and C3: 0.0927 FC1 and Cz: 0.0861 FC1 and C4: 0.0903 FC1 and Pz: 0.0916 FC2 and FC2: 1.0000 FC2 and C3: 0.0783 FC2 and Cz: 0.1098 FC2 and C4: 0.0845 FC2 and Pz: 0.0900 C3 and C3: 1.0000 C3 and Cz: 0.5664 C3 and C4: 0.8513 C3 and Pz: 0.7486 Cz and Cz: 1.0000 Cz and C4: 0.4348 Cz and Pz: 0.8582 C4 and C4: 1.0000 C4 and Pz: 0.6366 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.3773 FC1 and C3: 0.1825 FC1 and Cz: 0.2066 FC1 and C4: 0.2045 FC1 and Pz: 0.2100 FC2 and FC2: 1.0000 FC2 and C3: 0.2091 FC2 and Cz: 0.2171 FC2 and C4: 0.2310 FC2 and Pz: 0.2293 C3 and C3: 1.0000 C3 and Cz: 0.8839 C3 and C4: 0.9213 C3 and Pz: 0.9136 Cz and Cz: 1.0000 Cz and C4: 0.8166 Cz and Pz: 0.9411 C4 and C4: 1.0000 C4 and Pz: 0.9071 Pz and Pz: 1.0000

Permutation test p-value: 0.6582

Cohen's d: 0.04

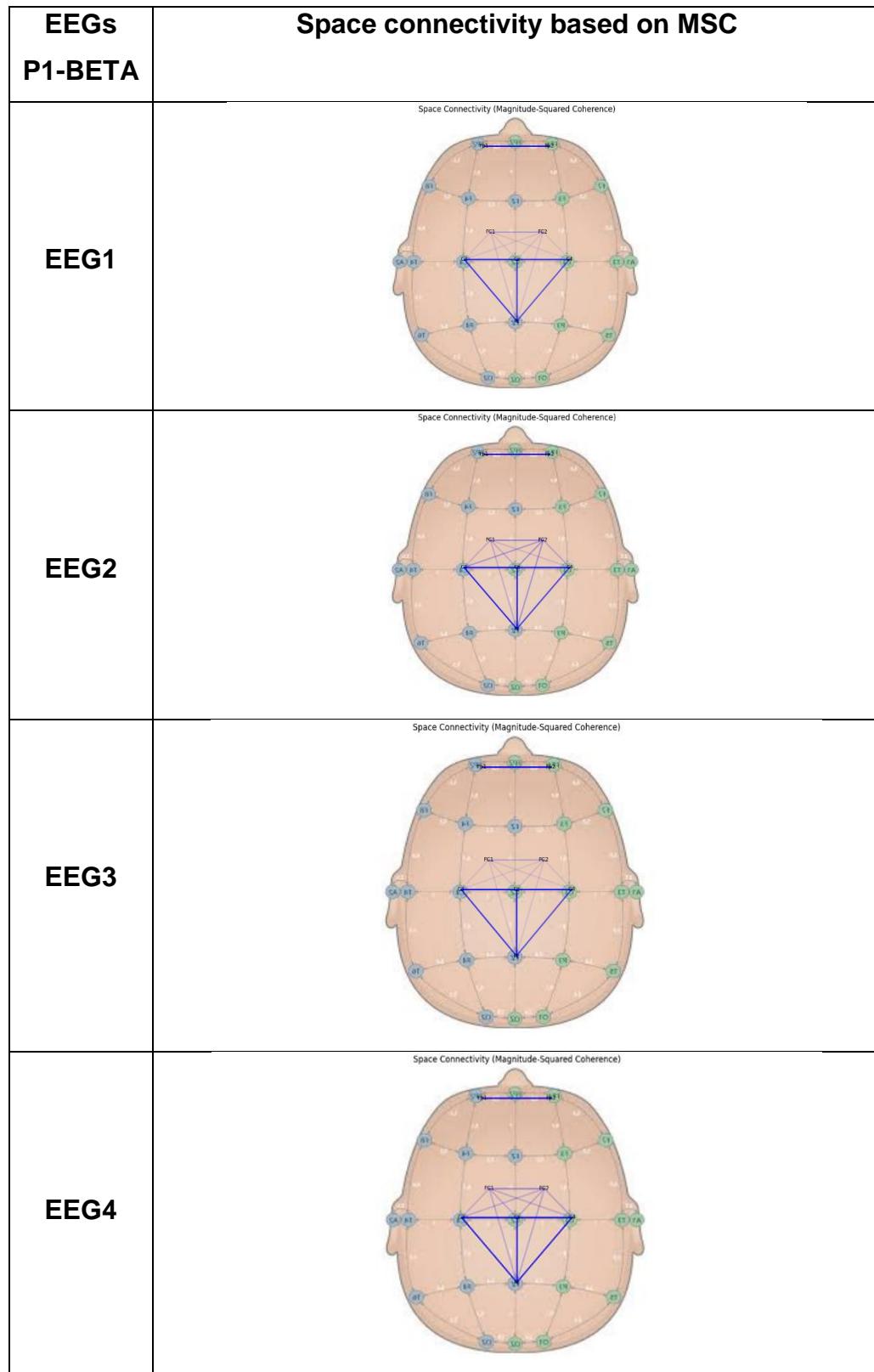
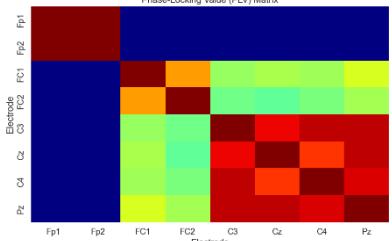
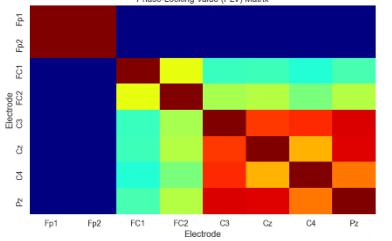
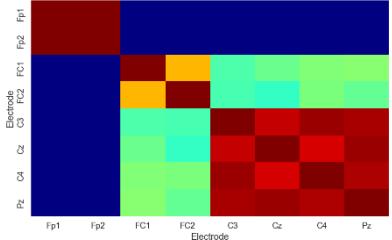
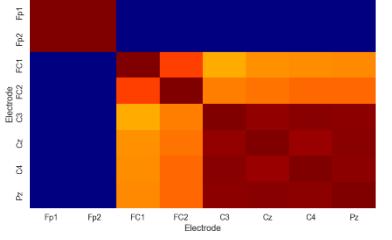


Fig 3. Space connectivity based on MSC – P1- Beta

Table 6. Phase Locking Values (PLV) between electrode pairs among phases for P1- Beta band

Phase locking Value (PLV)		P1-BETA							
EEG1		EEG2							
Overall Mean PLV within ROI: 0.7001		Overall Mean PLV within ROI: 0.6365							
 Electrode: Fp1, Fp2, FC1, FC2, C3, Cz, C4, Pz		 Electrode: Fp1, Fp2, FC1, FC2, C3, Cz, C4, Pz							
EEG3		EEG4							
Overall Mean PLV within ROI: 0.6811		Overall Mean PLV within ROI: 0.8615							
 Electrode: Fp1, Fp2, FC1, FC2, C3, Cz, C4, Pz		 Electrode: Fp1, Fp2, FC1, FC2, C3, Cz, C4, Pz							
EEG1	EEG2	EEG3	EEG4						
FC1 and FC1: 1.0000 FC1 and FC2: 0.7457 FC1 and C3: 0.5355 FC1 and Cz: 0.5580 FC1 and C4: 0.5445 FC1 and Pz: 0.6132 FC2 and FC2: 1.0000 FC2 and C3: 0.4863 FC2 and Cz: 0.4665 FC2 and C4: 0.4975 FC2 and Pz: 0.5496 C3 and C3: 1.0000 C3 and Cz: 0.9039 C3 and C4: 0.9431 C3 and Pz: 0.9446 Cz and Cz: 1.0000 Cz and C4: 0.8520 Cz and Pz: 0.9437 C4 and C4: 1.0000 C4 and Pz: 0.9186 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.6322 FC1 and C3: 0.4191 FC1 and Cz: 0.4262 FC1 and C4: 0.3930 FC1 and Pz: 0.4365 FC2 and FC2: 1.0000 FC2 and C3: 0.5513 FC2 and Cz: 0.5694 FC2 and C4: 0.4970 FC2 and Pz: 0.5671 C3 and C3: 1.0000 C3 and Cz: 0.8500 C3 and C4: 0.8656 C3 and Pz: 0.9181 Cz and Cz: 1.0000 Cz and C4: 0.7204 Cz and Pz: 0.9171 C4 and C4: 1.0000 C4 and Pz: 0.7846 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.7186 FC1 and C3: 0.4445 FC1 and Cz: 0.4800 FC1 and C4: 0.5055 FC1 and Pz: 0.5150 FC2 and FC2: 1.0000 FC2 and C3: 0.4368 FC2 and Cz: 0.4139 FC2 and C4: 0.4981 FC2 and Pz: 0.4718 C3 and C3: 1.0000 C3 and Cz: 0.9410 C3 and C4: 0.9740 C3 and Pz: 0.9615 Cz and Cz: 1.0000 Cz and C4: 0.9234 Cz and Pz: 0.9755 C4 and C4: 1.0000 C4 and Pz: 0.9577 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.8411 FC1 and C3: 0.7284 FC1 and Cz: 0.7544 FC1 and C4: 0.7596 FC1 and Pz: 0.7630 FC2 and FC2: 1.0000 FC2 and C3: 0.7754 FC2 and Cz: 0.7864 FC2 and C4: 0.8004 FC2 and Pz: 0.7987 C3 and C3: 1.0000 C3 and Cz: 0.9837 C3 and C4: 0.9899 C3 and Pz: 0.9874 Cz and Cz: 1.0000 Cz and C4: 0.9761 Cz and Pz: 0.9919 C4 and C4: 1.0000 C4 and Pz: 0.9862 Pz and Pz: 1.0000						

Permutation test p-value: 0.6654

Cohen's d: 0.25

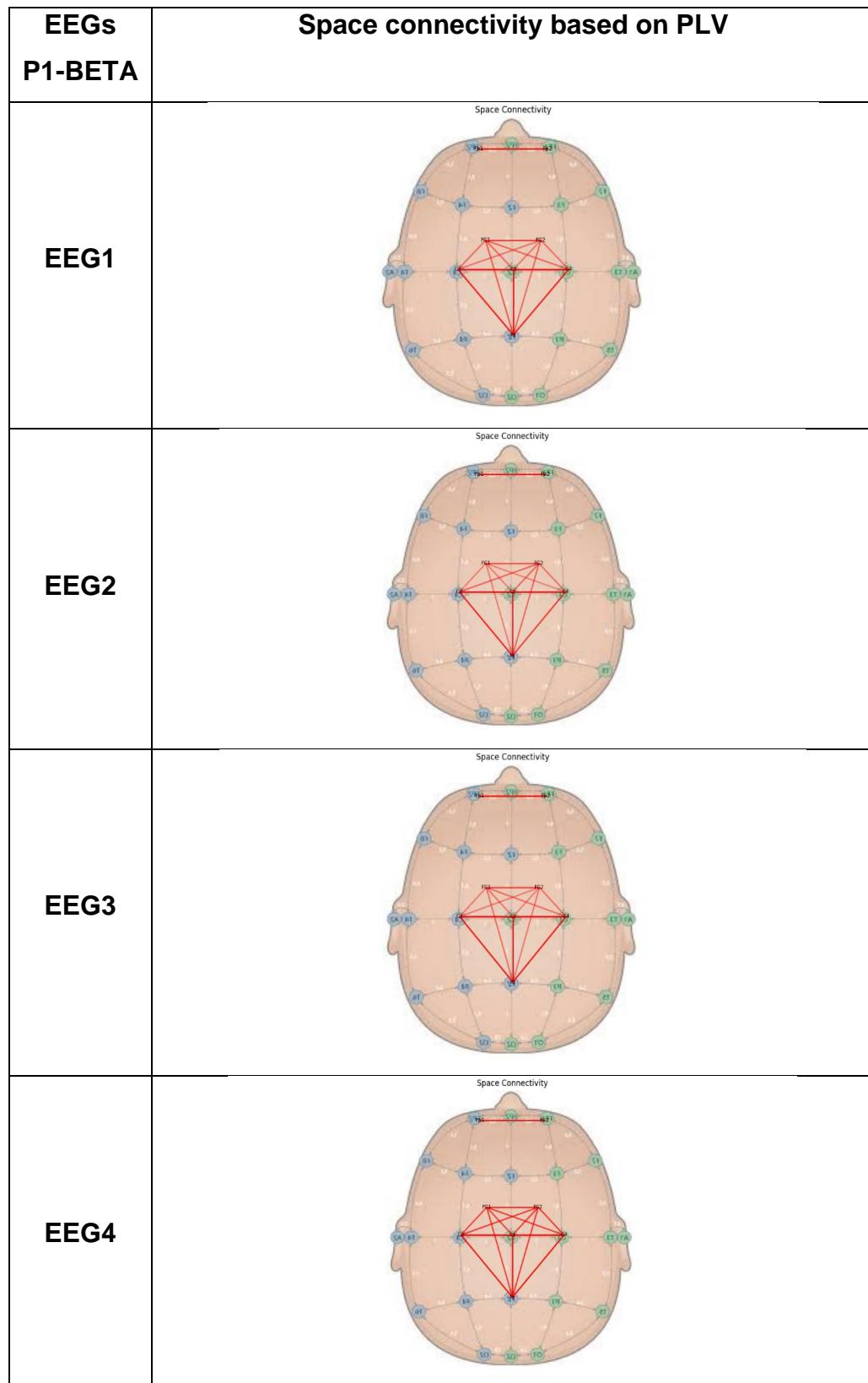
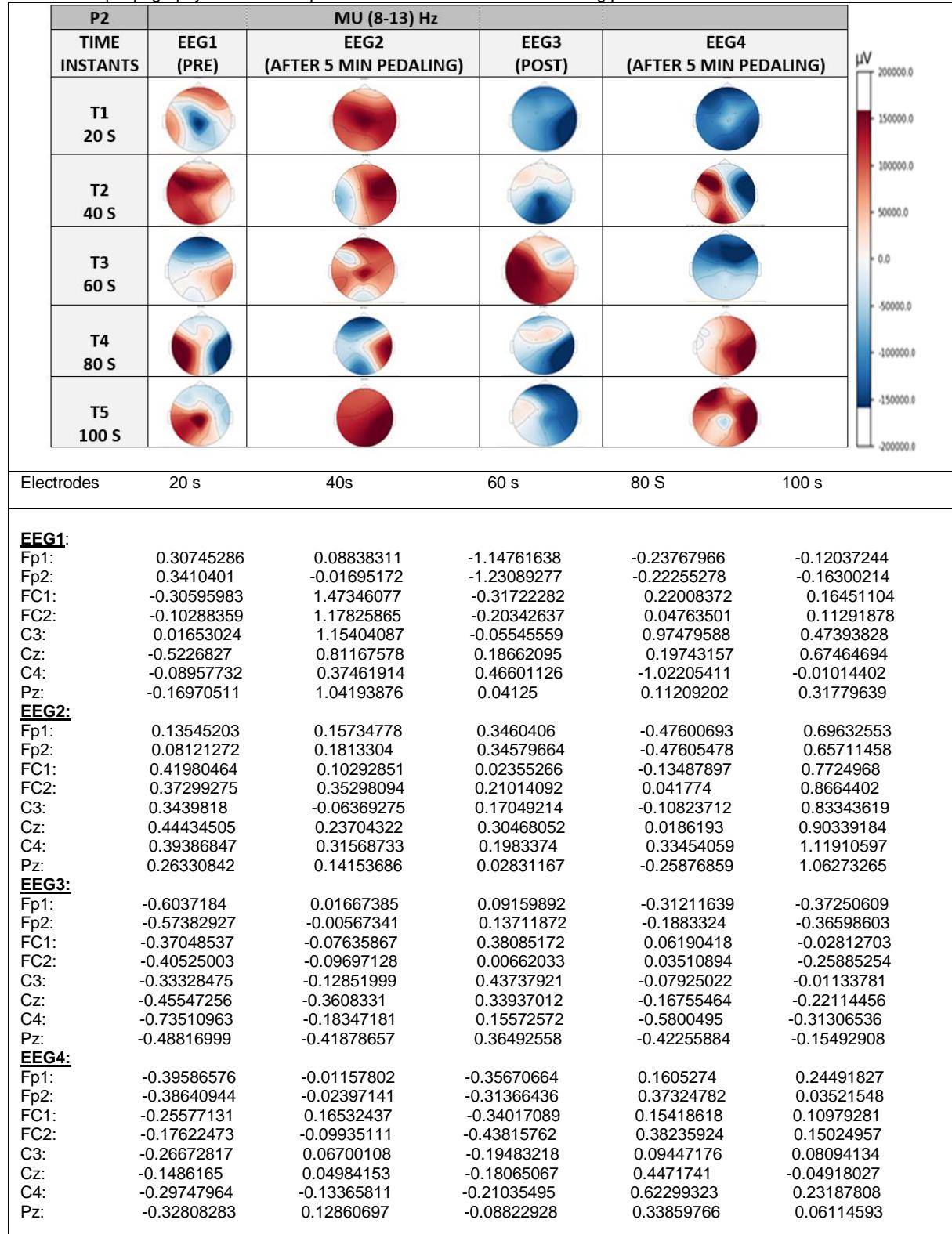


Fig 4. Space connectivity based on PLV – P1- Beta

Result of P2 – Mu band

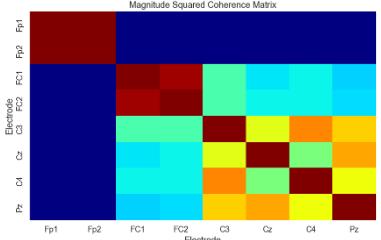
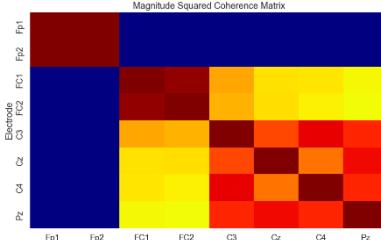
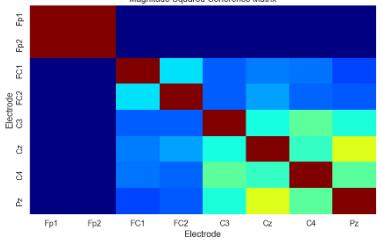
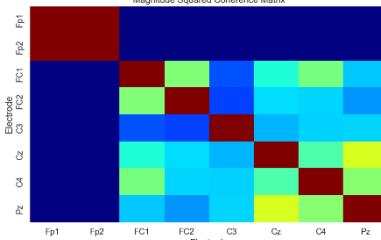
Table 7. Scalp topography and mean amplitude values for each electrode among phases and time instants for P2 - Mu band



Kruskal-Wallis test p-value: 0.0001

Cohen's d: -0.54

Table 8. Magnitude-Squared Coherence (MSC) between electrode pairs among phases for P2-Mu band

Magnitude-Squared Coherence (MSC) P2-MU			
EEG1 Overall Mean MSC within ROI: 0.5280859816598427	EEG2 Overall Mean MSC within ROI: 0.7702129930182824		
			
EEG3 Overall Mean MSC within ROI: 0.32603113546693374	EEG4 Overall Mean MSC within ROI: 0.372471026991359		
			
EEG1	EEG2	EEG3	EEG4
FC1 and FC1: 1.0000 FC1 and FC2: 0.9712 FC1 and C3: 0.4393 FC1 and Cz: 0.3503 FC1 and C4: 0.3670 FC1 and Pz: 0.3312 FC2 and FC2: 1.0000 FC2 and C3: 0.4400 FC2 and Cz: 0.3640 FC2 and C4: 0.3661 FC2 and Pz: 0.3418 C3 and C3: 1.0000 C3 and Cz: 0.6224 C3 and C4: 0.7667 C3 and Pz: 0.6899 Cz and Cz: 1.0000 Cz and C4: 0.4978 Cz and Pz: 0.7341 C4 and C4: 1.0000 C4 and Pz: 0.6395 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.9830 FC1 and C3: 0.7306 FC1 and Cz: 0.6681 FC1 and C4: 0.6665 FC1 and Pz: 0.6451 FC2 and FC2: 1.0000 FC2 and C3: 0.7201 FC2 and Cz: 0.6747 FC2 and C4: 0.6537 FC2 and Pz: 0.6442 C3 and C3: 1.0000 C3 and Cz: 0.8329 C3 and C4: 0.9082 C3 and Pz: 0.8705 Cz and Cz: 1.0000 Cz and C4: 0.7874 Cz and Pz: 0.8985 C4 and C4: 1.0000 C4 and Pz: 0.8697 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.3443 FC1 and C3: 0.2178 FC1 and Cz: 0.2468 FC1 and C4: 0.2408 FC1 and Pz: 0.1923 FC2 and FC2: 1.0000 FC2 and C3: 0.2159 FC2 and Cz: 0.2832 FC2 and C4: 0.2254 FC2 and Pz: 0.2125 C3 and C3: 1.0000 C3 and Cz: 0.3781 C3 and C4: 0.4633 C3 and Pz: 0.3839 Cz and Cz: 1.0000 Cz and C4: 0.4119 Cz and Pz: 0.6175 C4 and C4: 1.0000 C4 and Pz: 0.4571 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.5049 FC1 and C3: 0.2067 FC1 and Cz: 0.3879 FC1 and C4: 0.4935 FC1 and Pz: 0.3215 FC2 and FC2: 1.0000 FC2 and C3: 0.1904 FC2 and Cz: 0.3413 FC2 and C4: 0.3353 FC2 and Pz: 0.2700 C3 and C3: 1.0000 C3 and Cz: 0.3021 C3 and C4: 0.3306 C3 and Pz: 0.3321 Cz and Cz: 1.0000 Cz and C4: 0.4444 Cz and Pz: 0.6110 C4 and C4: 1.0000 C4 and Pz: 0.5154 Pz and Pz: 1.0000

Permutation test p-value: 0.3390

Cohen's d: -0.57

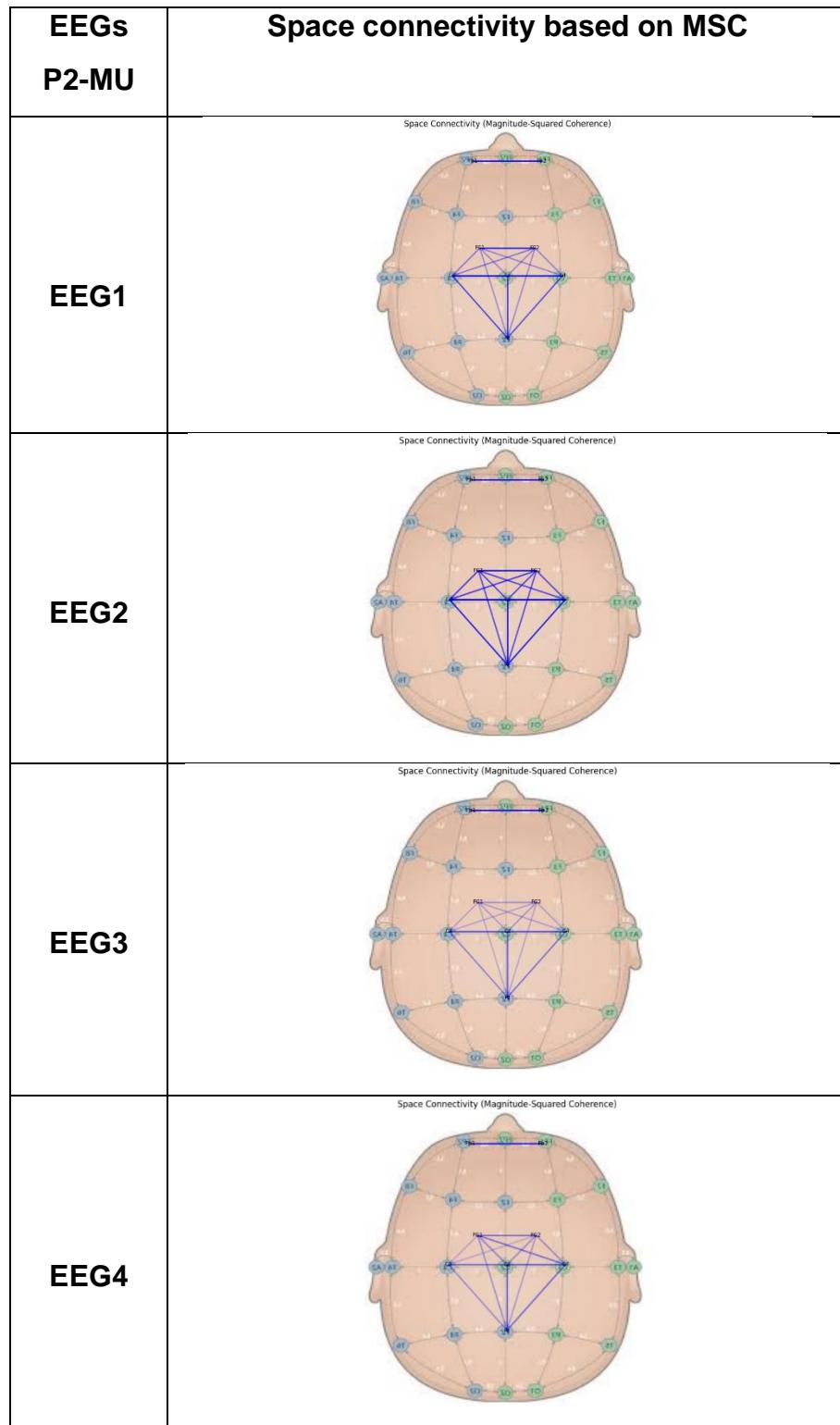
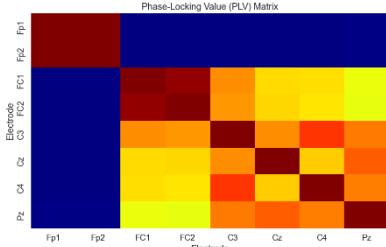
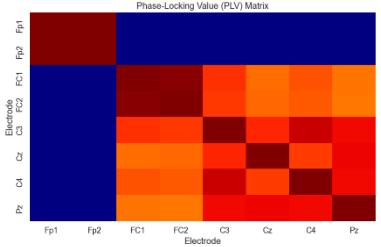
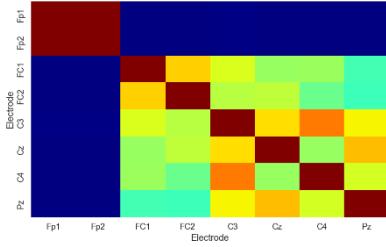
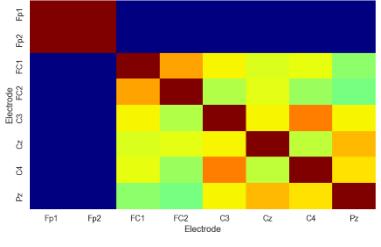


Fig 5. Space connectivity based on MSC – P2-MU

Table 9. Phase Locking Values (PLV) between electrode pairs among phases for P2- Mu band

Phase locking Value (PLV)		P2-MU	
EEG1	EEG2	EEG3	EEG4
Overall Mean PLV within ROI: 0.7422942396327536	Overall Mean PLV within ROI: 0.8570631547390496	Overall Mean PLV within ROI: 0.5881190912279016	Overall Mean PLV within ROI: 0.6283857099230812
			
EEG1	EEG2	EEG3	EEG4
FC1 and FC1: 1.0000 FC1 and FC2: 0.9843 FC1 and C3: 0.7585 FC1 and Cz: 0.6780 FC1 and C4: 0.6740 FC1 and Pz: 0.6343 FC2 and FC2: 1.0000 FC2 and C3: 0.7496 FC2 and Cz: 0.6817 FC2 and C4: 0.6653 FC2 and Pz: 0.6308 C3 and C3: 1.0000 C3 and Cz: 0.7606 C3 and C4: 0.8545 C3 and Pz: 0.7811 Cz and Cz: 1.0000 Cz and C4: 0.6952 Cz and Pz: 0.8126 C4 and C4: 1.0000 C4 and Pz: 0.7741 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.9902 FC1 and C3: 0.8577 FC1 and Cz: 0.7965 FC1 and C4: 0.8212 FC1 and Pz: 0.7857 FC2 and FC2: 1.0000 FC2 and C3: 0.8513 FC2 and Cz: 0.8006 FC2 and C4: 0.8129 FC2 and Pz: 0.7844 C3 and C3: 1.0000 C3 and Cz: 0.8693 C3 and C4: 0.9361 C3 and Pz: 0.9020 Cz and Cz: 1.0000 Cz and C4: 0.8456 Cz and Pz: 0.9036 C4 and C4: 1.0000 C4 and Pz: 0.8989 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.6901 FC1 and C3: 0.6142 FC1 and Cz: 0.5344 FC1 and C4: 0.5372 FC1 and Pz: 0.4332 FC2 and FC2: 1.0000 FC2 and C3: 0.5722 FC2 and Cz: 0.5795 FC2 and C4: 0.4771 FC2 and Pz: 0.4249 C3 and C3: 1.0000 C3 and Cz: 0.6754 C3 and C4: 0.7813 C3 and Pz: 0.6518 Cz and Cz: 1.0000 Cz and C4: 0.5334 Cz and Pz: 0.7110 C4 and C4: 1.0000 C4 and Pz: 0.6060 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.7379 FC1 and C3: 0.6509 FC1 and Cz: 0.6158 FC1 and C4: 0.6319 FC1 and Pz: 0.5234 FC2 and FC2: 1.0000 FC2 and C3: 0.5666 FC2 and Cz: 0.6257 FC2 and C4: 0.5359 FC2 and Pz: 0.4952 C3 and C3: 1.0000 C3 and Cz: 0.6501 C3 and C4: 0.7764 C3 and Pz: 0.6526 Cz and Cz: 1.0000 Cz and C4: 0.5808 Cz and Pz: 0.7120 C4 and C4: 1.0000 C4 and Pz: 0.6706 Pz and Pz: 1.0000

Permutation test p-value: 0.3372

Cohen's d: -0.6

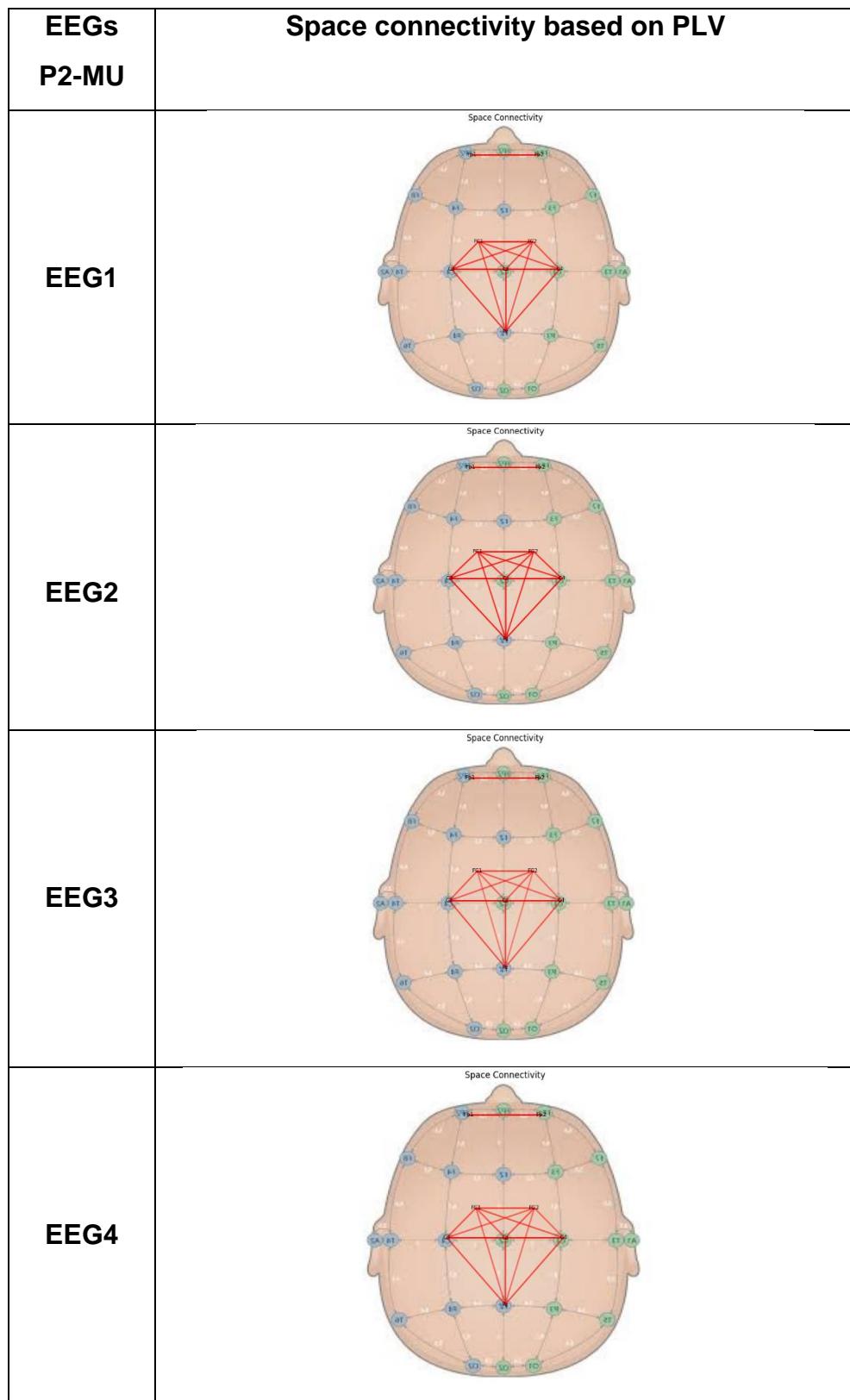
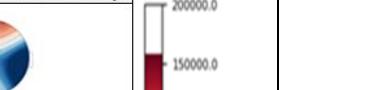
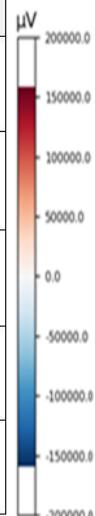
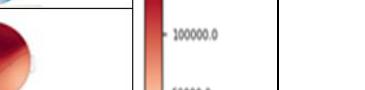
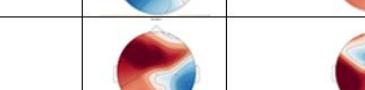
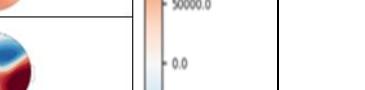
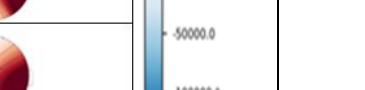
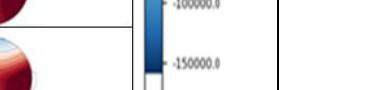
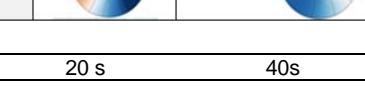


Fig 6. Space connectivity based on PLV – P2-MU

Results of P2 – Beta band

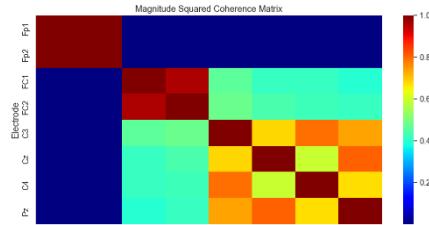
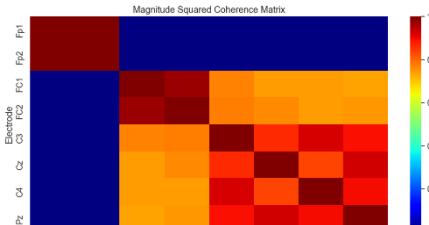
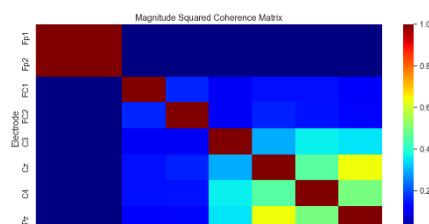
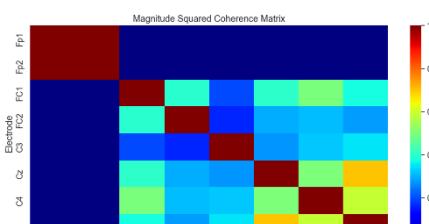
Table 10. Scalp topography and mean amplitude values for each electrode among phases and time instants for P2 - Beta band

P2	BETA (13-30) Hz				
TIME INSTANTS	EEG1 (PRE)	EEG2 (AFTER 5 MIN PEDALING)	EEG3 (POST)	EEG4 (AFTER 5 MIN PEDALING)	
T1 20 S					
T2 40 S					
T3 60 S					
T4 80 S					
T5 100 S					
Electrodes	20 s	40s	60 s	80 S	100 s
EEG1:					
Fp1:	2.32018773	0.8169361	2.50321519	3.17158579	-1.49337883
Fp2:	2.52324747	1.24186412	2.40991818	2.96342663	-1.26572811
FC1:	2.7151008	-0.68128808	2.27772982	1.3324633	-0.62874632
FC2:	2.8882813	0.25242595	2.0038315	0.91216091	-1.49969029
C3:	1.76959184	0.10925242	-0.43204051	3.05608678	1.00915379
Cz:	2.85451028	1.192208	2.24896427	1.62152684	-1.05355366
C4:	1.91105592	0.76628858	1.51744221	3.31043373	-3.51829128
Pz:	2.19195128	2.78788038	0.79756836	2.7800701	-1.81524613
EEG2:					
Fp1:	-1.66154509	-2.04193295	-3.41105216	-0.09615689	-0.15168438
Fp2:	-1.58520361	-1.98704265	-3.24968081	0.02762412	-0.19712751
FC1:	-1.4140202	-2.3046757	-3.09183561	0.97707992	0.01388541
FC2:	-1.45603224	-1.43327781	-2.48776887	0.23677942	0.57464885
C3:	-1.17148796	-2.48282092	-3.91719902	1.02473296	-0.33191889
Cz:	-0.87761811	-1.44509184	-3.20661631	0.59233957	-0.19110069
C4:	-0.69195865	-2.09187738	-3.21692362	-0.1155308	0.26206684
Pz:	-0.88902173	-2.25695842	-4.01355834	0.37831341	-0.35473532
EEG3:					
Fp1:	0.43504265	0.51301734	0.44109003	-0.18329572	-0.01205396
Fp2:	0.44212219	0.52130369	-0.08792534	-1.28759241	-0.78233085
FC1:	-0.36422239	0.06136448	0.86597579	0.41979814	-0.67272662
FC2:	-0.43503285	-0.60818447	0.65224433	0.69964324	-0.14815458
C3:	-1.06749502	-0.34770911	0.5436536	0.2950317	-0.89010793
Cz:	-0.59733642	-0.68918665	0.06898379	0.86090804	-0.02271524
C4:	-0.39693138	-0.17675844	-0.29605601	-0.22160325	-0.18804068
Pz:	-1.16485673	-0.35593607	0.41209215	0.28481046	-0.31439636
EEG4:					
Fp1:	0.41344865	1.39308772	0.43673349	-0.36943281	-0.10296005
Fp2:	0.8134822	1.17383959	-0.13207252	0.15582779	-0.29980961
FC1:	-0.03069851	0.85196844	-0.17263993	0.57510677	0.48938358
FC2:	-0.36387576	1.25976616	-0.57065047	1.13629718	0.58784914
C3:	-0.66584683	0.78831499	1.06446952	1.23792193	0.02839474
Cz:	-0.73598217	0.9985718	0.53578996	1.25682995	0.61340546
C4:	-1.37823852	0.73983226	0.90501182	1.87554551	0.93206944
Pz:	-0.32607938	0.6938800	0.46120106	1.55384429	0.49762091

Kruskal-Wallis test p-value: 0.4949

Cohen's d: 0.12

Table 11. Magnitude-Squared Coherence (MSC) between electrode pairs and among phases for P2-Beta band

Magnitude-Squared Coherence (MSC)		P2-BETA			
EEG1	EEG2				
Overall Mean MSC within ROI: 0.5793142097937065	Overall Mean MSC within ROI: 0.8235048628887519				
					
EEG3	EEG4				
Overall Mean MSC within ROI: 0.252750921560734	Overall Mean MSC within ROI: 0.37719554237701913				
					
EEG1	EEG2	EEG3	EEG4		
FC1 and FC1: 1.0000 FC1 and FC2: 0.9574 FC1 and C3: 0.4644 FC1 and Cz: 0.4150 FC1 and C4: 0.4161 FC1 and Pz: 0.3948 FC2 and FC2: 1.0000 FC2 and C3: 0.4779 FC2 and Cz: 0.4409 FC2 and C4: 0.4240 FC2 and Pz: 0.4175 C3 and C3: 1.0000 C3 and Cz: 0.6828 C3 and C4: 0.7915 C3 and Pz: 0.7365 Cz and Cz: 1.0000 Cz and C4: 0.5906 Cz and Cz: 0.8079 C4 and C4: 1.0000 C4 and Pz: 0.6725 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.9753 FC1 and C3: 0.7727 FC1 and Cz: 0.7456 FC1 and C4: 0.7452 FC1 and Pz: 0.7381 FC2 and FC2: 1.0000 FC2 and C3: 0.7737 FC2 and Cz: 0.7648 FC2 and C4: 0.7432 FC2 and Pz: 0.7485 C3 and C3: 1.0000 C3 and Cz: 0.8635 C3 and C4: 0.9227 C3 and Pz: 0.8927 Cz and Cz: 1.0000 Cz and C4: 0.8396 Cz and Pz: 0.9295 C4 and C4: 1.0000 C4 and Pz: 0.8977 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.1636 FC1 and C3: 0.1027 FC1 and Cz: 0.1396 FC1 and C4: 0.1393 FC1 and Pz: 0.1156 FC2 and FC2: 1.0000 FC2 and C3: 0.1052 FC2 and Cz: 0.1588 FC2 and C4: 0.1445 FC2 and Pz: 0.1326 C3 and C3: 1.0000 C3 and Cz: 0.2936 C3 and C4: 0.3620 C3 and Pz: 0.3485 Cz and Cz: 1.0000 Cz and C4: 0.4536 Cz and Pz: 0.6374 C4 and C4: 1.0000 C4 and Pz: 0.4941 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.4023 FC1 and C3: 0.1959 FC1 and Cz: 0.4027 FC1 and C4: 0.4983 FC1 and Pz: 0.3756 FC2 and FC2: 1.0000 FC2 and C3: 0.1623 FC2 and Cz: 0.2942 FC2 and C4: 0.3106 FC2 and Pz: 0.2790 C3 and C3: 1.0000 C3 and Cz: 0.2727 C3 and C4: 0.3236 C3 and Pz: 0.3492 Cz and Cz: 1.0000 Cz and C4: 0.5036 Cz and Pz: 0.7014 C4 and C4: 1.0000 C4 and Pz: 0.5864 Pz and Pz: 1.0000		

Permutation test p-value: 0.3263

Cohen's d: -0.71

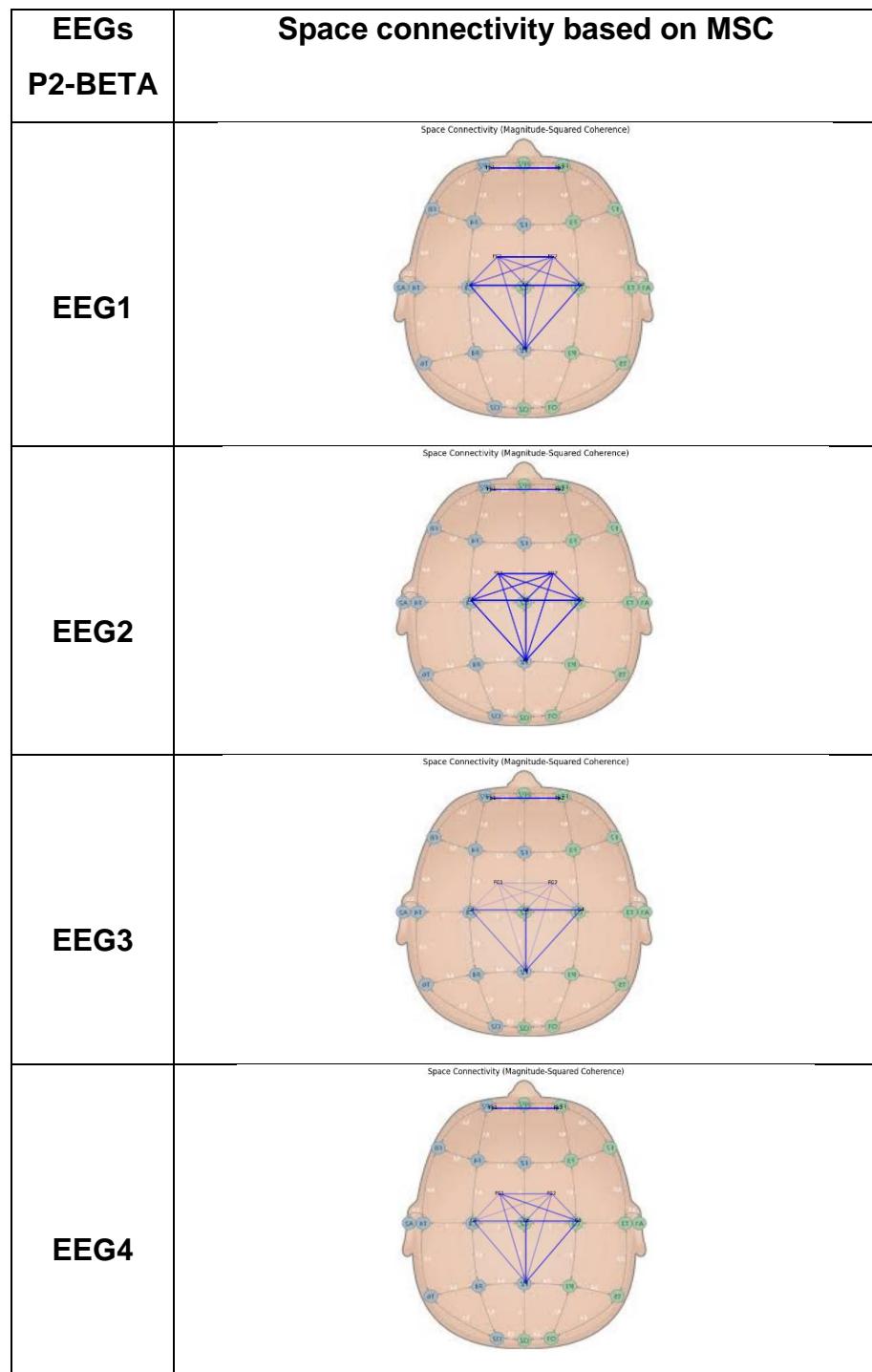
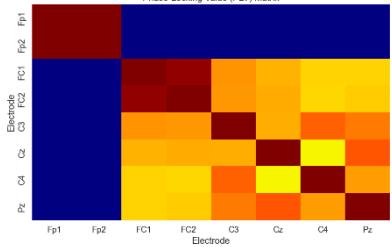
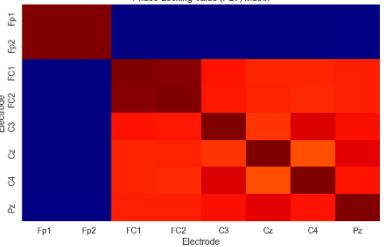
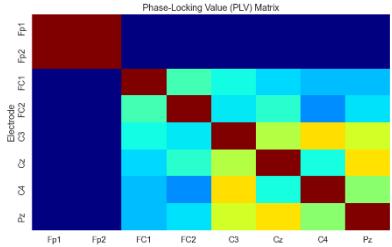
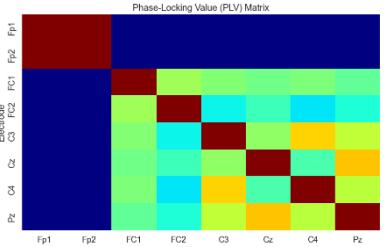


Fig 7. Space connectivity based on MSC – P2-BETA

Table 12. Phase Locking Values (PLV) between electrode pairs and among phases for P2- Beta band

Phase locking Value (PLV)		P2-BETA					
<u>EEG1</u>		<u>EEG2</u>					
Overall Mean PLV within ROI: 0.7466786655081913		Overall Mean PLV within ROI: 0.8862999480214027					
 <p>Phase-Locking Value (PLV) Matrix</p> <p>Electrode</p> <p>Fp1 Fp2 FC1 FC2 C3 Cz C4 Pz</p> <p>Fp1 Fp2 FC1 FC2 C3 Cz C4 Pz</p>		 <p>Phase-Locking Value (PLV) Matrix</p> <p>Electrode</p> <p>Fp1 Fp2 FC1 FC2 C3 Cz C4 Pz</p> <p>Fp1 Fp2 FC1 FC2 C3 Cz C4 Pz</p>					
<u>EEG3</u>		<u>EEG4</u>					
Overall Mean PLV within ROI: 0.43636866832689597		Overall Mean PLV within ROI: 0.5036730311329363					
 <p>Phase-Locking Value (PLV) Matrix</p> <p>Electrode</p> <p>Fp1 Fp2 FC1 FC2 C3 Cz C4 Pz</p> <p>Fp1 Fp2 FC1 FC2 C3 Cz C4 Pz</p>		 <p>Phase-Locking Value (PLV) Matrix</p> <p>Electrode</p> <p>Fp1 Fp2 FC1 FC2 C3 Cz C4 Pz</p> <p>Fp1 Fp2 FC1 FC2 C3 Cz C4 Pz</p>					
EEG1	EEG2	EEG3	EEG4				
FC1 and FC1: 1.0000 FC1 and FC2: 0.9806 FC1 and C3: 0.7515 FC1 and Cz: 0.7194 FC1 and C4: 0.6880 FC1 and Pz: 0.6858 FC2 and FC2: 1.0000 FC2 and C3: 0.7483 FC2 and Cz: 0.7297 FC2 and C4: 0.6834 FC2 and Pz: 0.6936 C3 and C3: 1.0000 C3 and Cz: 0.7240 C3 and C4: 0.8052 C3 and Pz: 0.7782 Cz and Cz: 1.0000 Cz and C4: 0.6505 Cz and Pz: 0.8172 C4 and C4: 1.0000 C4 and Pz: 0.7449 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.9891 FC1 and C3: 0.8898 FC1 and Cz: 0.8699 FC1 and C4: 0.8688 FC1 and Pz: 0.8779 FC2 and FC2: 1.0000 FC2 and C3: 0.8845 FC2 and Cz: 0.8742 FC2 and C4: 0.8640 FC2 and Pz: 0.8783 C3 and C3: 1.0000 C3 and Cz: 0.8534 C3 and C4: 0.9197 C3 and Pz: 0.8940 Cz and Cz: 1.0000 Cz and C4: 0.8273 Cz and Pz: 0.9138 C4 and C4: 1.0000 C4 and Pz: 0.8898 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.4312 FC1 and C3: 0.3737 FC1 and Cz: 0.3382 FC1 and C4: 0.3101 FC1 and Pz: 0.3131 FC2 and FC2: 1.0000 FC2 and C3: 0.3527 FC2 and Cz: 0.4020 FC2 and C4: 0.2660 FC2 and Pz: 0.3456 C3 and C3: 1.0000 C3 and Cz: 0.5679 C3 and C4: 0.6757 C3 and Pz: 0.6022 Cz and Cz: 1.0000 Cz and C4: 0.3795 Cz and Pz: 0.6697 C4 and C4: 1.0000 C4 and Pz: 0.5179 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.5459 FC1 and C3: 0.5107 FC1 and Cz: 0.4865 FC1 and C4: 0.5029 FC1 and Pz: 0.4658 FC2 and FC2: 1.0000 FC2 and C3: 0.3654 FC2 and Cz: 0.4233 FC2 and C4: 0.3490 FC2 and Pz: 0.3906 C3 and C3: 1.0000 C3 and Cz: 0.5275 C3 and C4: 0.6859 C3 and Pz: 0.5849 Cz and Cz: 1.0000 Cz and C4: 0.4394 Cz and Pz: 0.7014 C4 and C4: 1.0000 C4 and Pz: 0.5757 Pz and Pz: 1.0000				

Permutation test p-value: 0.3360

Cohen's d: -0.88

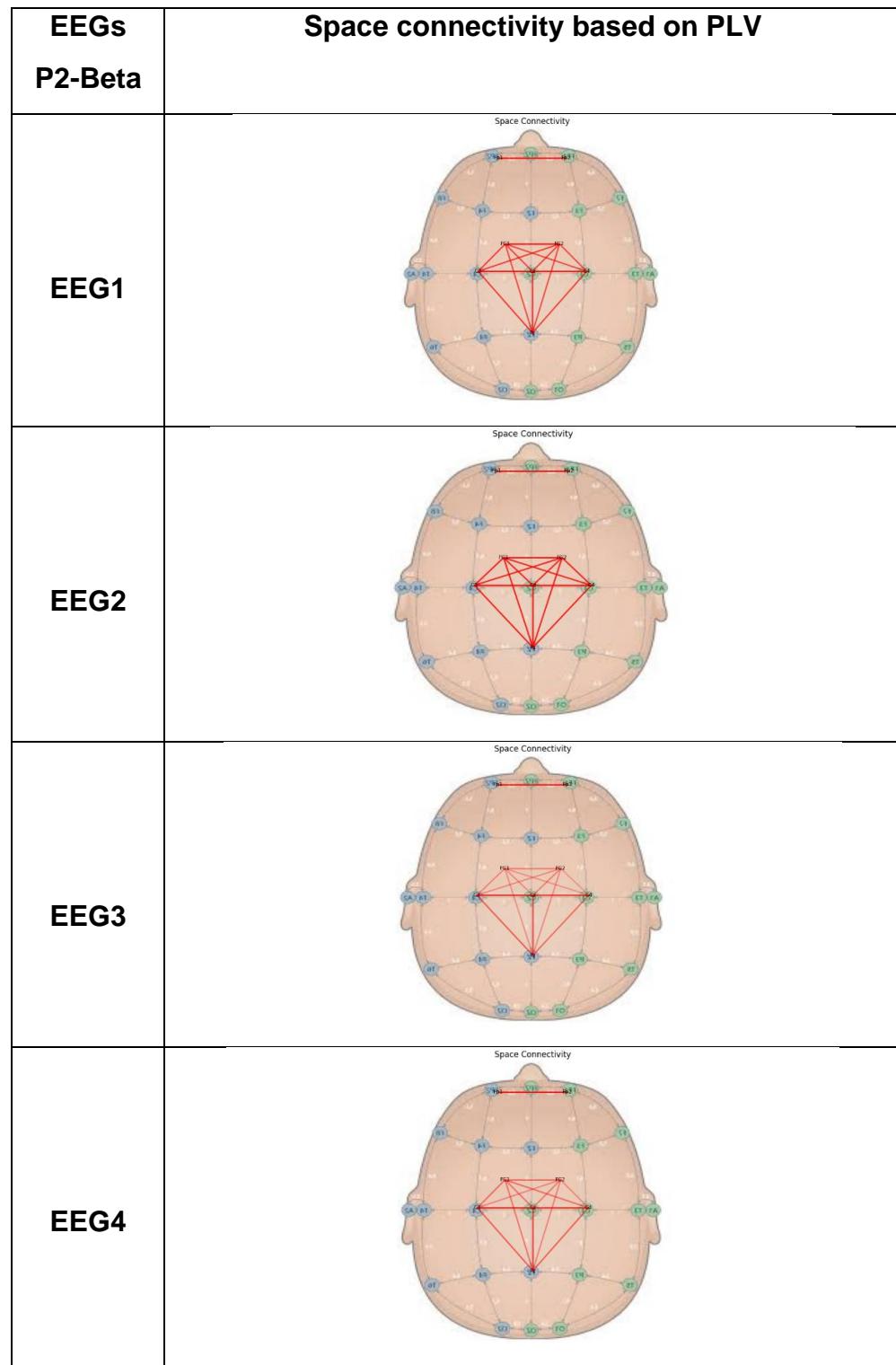
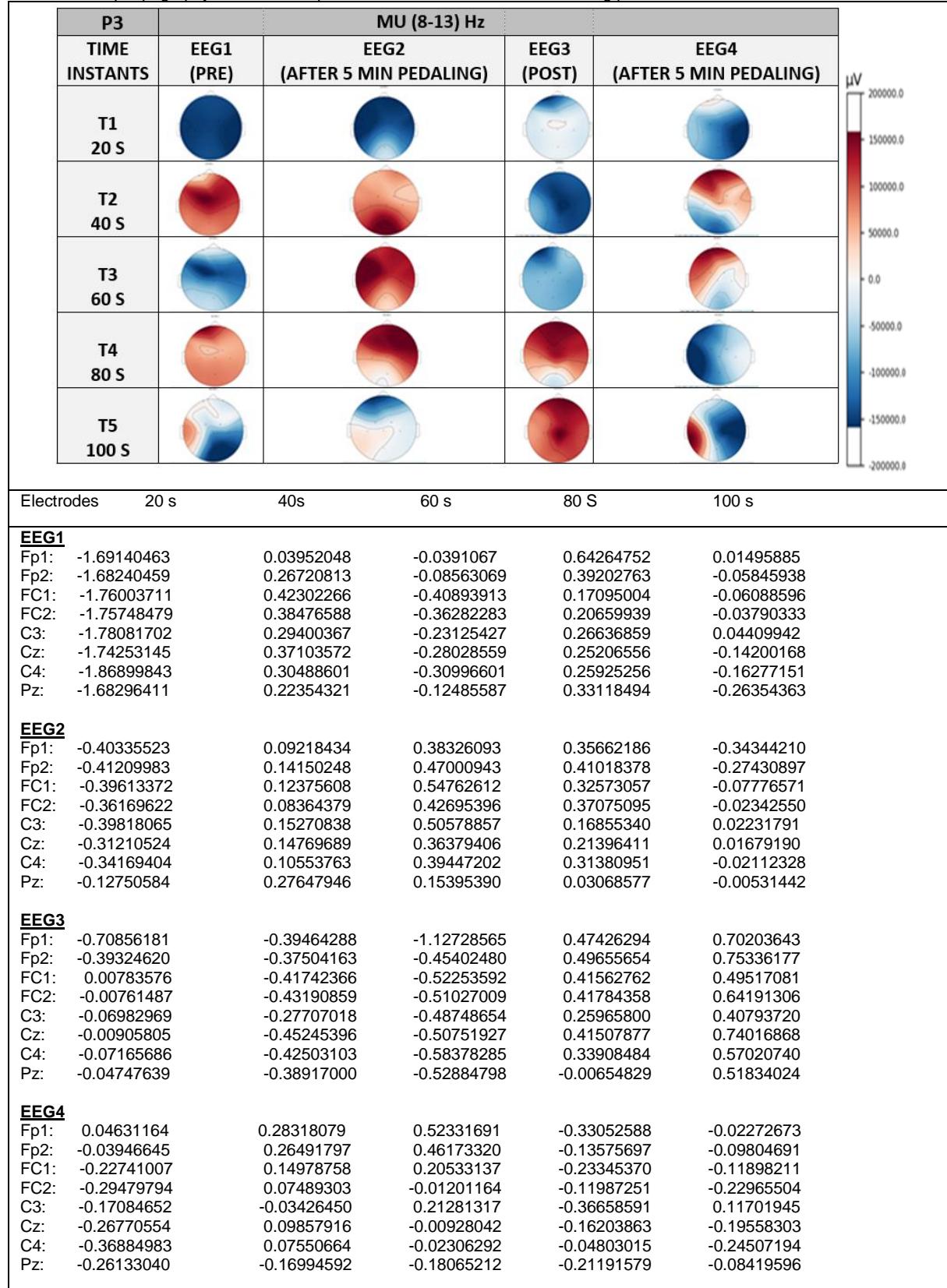


Fig 8. Space connectivity based on PLV – P2-BETA

Results of P3 – Mu band

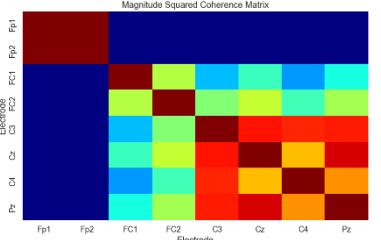
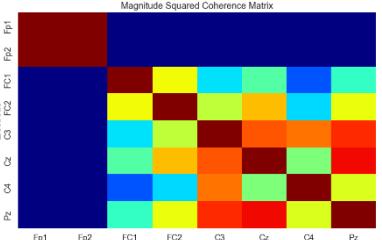
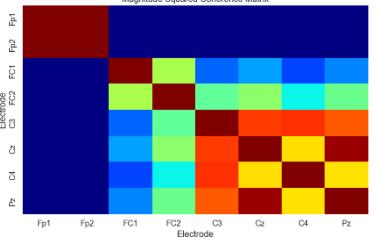
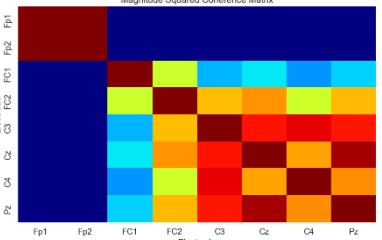
Table 13. Scalp topography and mean amplitude values for each electrode among phases and time instants for P3 - Mu band



Kruskal-Wallis test p-value: 0.2600

Cohen's d: 0.08

Table 14. Magnitude-Squared Coherence (MSC) between electrode pairs and among phases for P3-Mu band

Magnitude-Squared Coherence (MSC)		P3-MU																																																																																																																																																																			
EEG1		EEG2																																																																																																																																																																			
Overall Mean MSC within ROI: 0.6038641456564763		Overall Mean MSC within ROI: 0.5875992690099435																																																																																																																																																																			
 <p>Magnitude Squared Coherence Matrix</p> <table border="1"> <tr><th></th><th>Fp1</th><th>Fp2</th><th>FC1</th><th>FC2</th><th>C3</th><th>Cz</th><th>C4</th><th>Pz</th></tr> <tr><th>Fp1</th><td>1.0</td><td>~0.5</td><td>~0.4</td><td>~0.3</td><td>~0.2</td><td>~0.1</td><td>~0.1</td><td>~0.1</td></tr> <tr><th>Fp2</th><td>~0.5</td><td>1.0</td><td>~0.4</td><td>~0.3</td><td>~0.2</td><td>~0.1</td><td>~0.1</td><td>~0.1</td></tr> <tr><th>FC1</th><td>~0.4</td><td>~0.4</td><td>1.0</td><td>~0.3</td><td>~0.2</td><td>~0.1</td><td>~0.1</td><td>~0.1</td></tr> <tr><th>FC2</th><td>~0.3</td><td>~0.3</td><td>~0.3</td><td>1.0</td><td>~0.2</td><td>~0.1</td><td>~0.1</td><td>~0.1</td></tr> <tr><th>C3</th><td>~0.2</td><td>~0.2</td><td>~0.2</td><td>~0.2</td><td>1.0</td><td>~0.1</td><td>~0.1</td><td>~0.1</td></tr> <tr><th>Cz</th><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>1.0</td><td>~0.1</td><td>~0.1</td></tr> <tr><th>C4</th><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>1.0</td><td>~0.1</td></tr> <tr><th>Pz</th><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>1.0</td></tr> </table>			Fp1	Fp2	FC1	FC2	C3	Cz	C4	Pz	Fp1	1.0	~0.5	~0.4	~0.3	~0.2	~0.1	~0.1	~0.1	Fp2	~0.5	1.0	~0.4	~0.3	~0.2	~0.1	~0.1	~0.1	FC1	~0.4	~0.4	1.0	~0.3	~0.2	~0.1	~0.1	~0.1	FC2	~0.3	~0.3	~0.3	1.0	~0.2	~0.1	~0.1	~0.1	C3	~0.2	~0.2	~0.2	~0.2	1.0	~0.1	~0.1	~0.1	Cz	~0.1	~0.1	~0.1	~0.1	~0.1	1.0	~0.1	~0.1	C4	~0.1	~0.1	~0.1	~0.1	~0.1	~0.1	1.0	~0.1	Pz	~0.1	~0.1	~0.1	~0.1	~0.1	~0.1	~0.1	1.0	 <p>Magnitude Squared Coherence Matrix</p> <table border="1"> <tr><th></th><th>Fp1</th><th>Fp2</th><th>FC1</th><th>FC2</th><th>C3</th><th>Cz</th><th>C4</th><th>Pz</th></tr> <tr><th>Fp1</th><td>1.0</td><td>~0.5</td><td>~0.4</td><td>~0.3</td><td>~0.2</td><td>~0.1</td><td>~0.1</td><td>~0.1</td></tr> <tr><th>Fp2</th><td>~0.5</td><td>1.0</td><td>~0.4</td><td>~0.3</td><td>~0.2</td><td>~0.1</td><td>~0.1</td><td>~0.1</td></tr> <tr><th>FC1</th><td>~0.4</td><td>~0.4</td><td>1.0</td><td>~0.3</td><td>~0.2</td><td>~0.1</td><td>~0.1</td><td>~0.1</td></tr> <tr><th>FC2</th><td>~0.3</td><td>~0.3</td><td>~0.3</td><td>1.0</td><td>~0.2</td><td>~0.1</td><td>~0.1</td><td>~0.1</td></tr> <tr><th>C3</th><td>~0.2</td><td>~0.2</td><td>~0.2</td><td>~0.2</td><td>1.0</td><td>~0.1</td><td>~0.1</td><td>~0.1</td></tr> <tr><th>Cz</th><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>1.0</td><td>~0.1</td><td>~0.1</td></tr> <tr><th>C4</th><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>1.0</td><td>~0.1</td></tr> <tr><th>Pz</th><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>~0.1</td><td>1.0</td></tr> </table>			Fp1	Fp2	FC1	FC2	C3	Cz	C4	Pz	Fp1	1.0	~0.5	~0.4	~0.3	~0.2	~0.1	~0.1	~0.1	Fp2	~0.5	1.0	~0.4	~0.3	~0.2	~0.1	~0.1	~0.1	FC1	~0.4	~0.4	1.0	~0.3	~0.2	~0.1	~0.1	~0.1	FC2	~0.3	~0.3	~0.3	1.0	~0.2	~0.1	~0.1	~0.1	C3	~0.2	~0.2	~0.2	~0.2	1.0	~0.1	~0.1	~0.1	Cz	~0.1	~0.1	~0.1	~0.1	~0.1	1.0	~0.1	~0.1	C4	~0.1	~0.1	~0.1	~0.1	~0.1	~0.1	1.0	~0.1	Pz	~0.1	~0.1	~0.1	~0.1	~0.1	~0.1	~0.1	1.0
	Fp1	Fp2	FC1	FC2	C3	Cz	C4	Pz																																																																																																																																																													
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EEG3		EEG4																																																																																																																																																																			
Overall Mean MSC within ROI: 0.5450041366818376		Overall Mean MSC within ROI: 0.6515782173746286																																																																																																																																																																			
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	Fp1	Fp2	FC1	FC2	C3	Cz	C4	Pz																																																																																																																																																													
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FC2	~0.3	~0.3	~0.3	1.0	~0.2	~0.1	~0.1	~0.1																																																																																																																																																													
C3	~0.2	~0.2	~0.2	~0.2	1.0	~0.1	~0.1	~0.1																																																																																																																																																													
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C4	~0.1	~0.1	~0.1	~0.1	~0.1	~0.1	1.0	~0.1																																																																																																																																																													
Pz	~0.1	~0.1	~0.1	~0.1	~0.1	~0.1	~0.1	1.0																																																																																																																																																													
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EEG1	EEG2	EEG3	EEG4																																																																																																																																																																		
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Permutation test p-value: 1.0
Cohen's d: 0.005

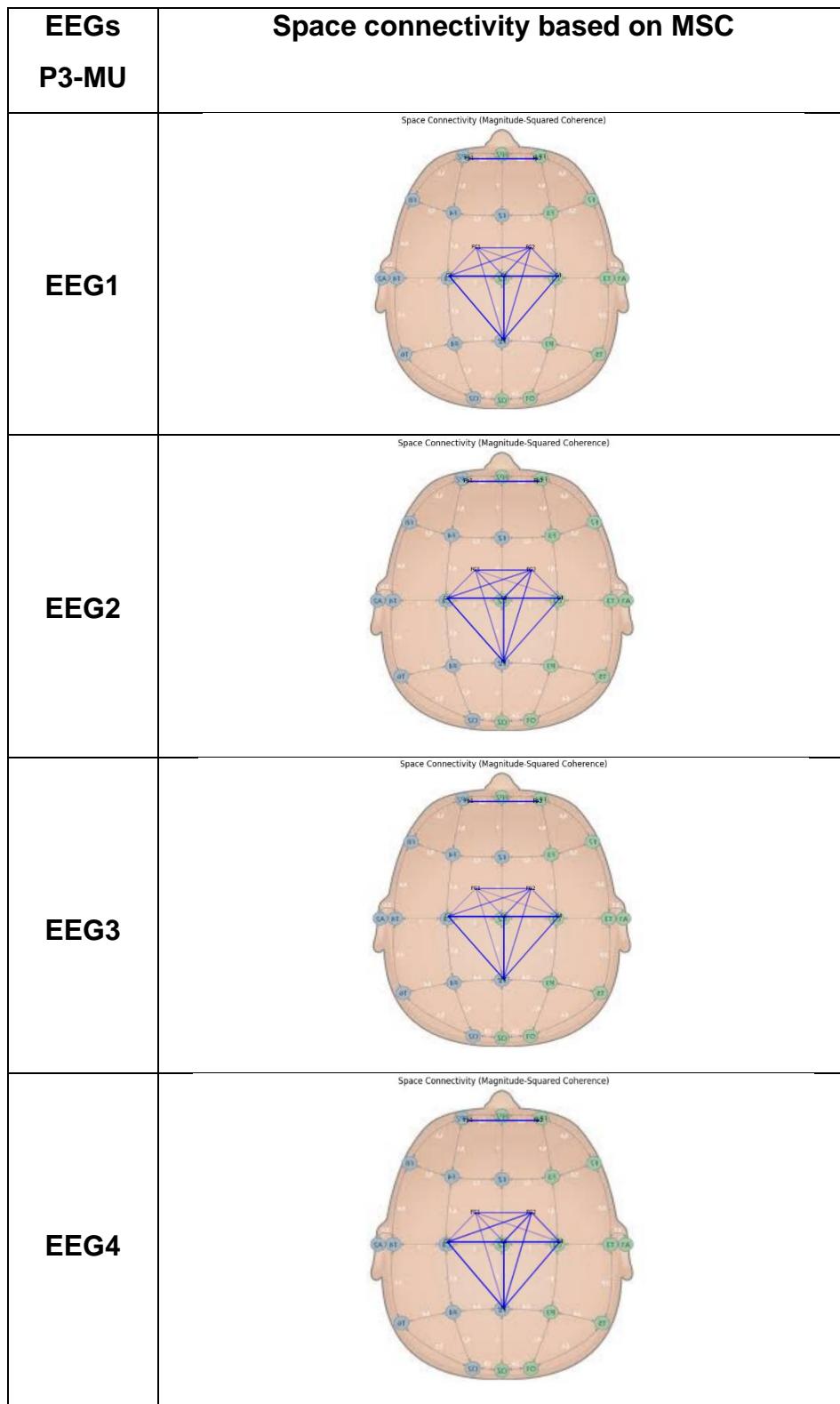
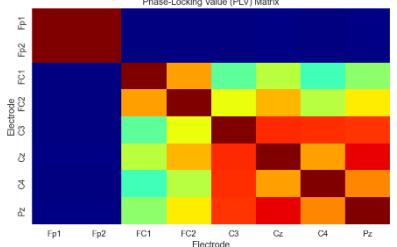
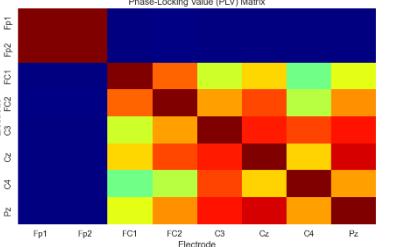
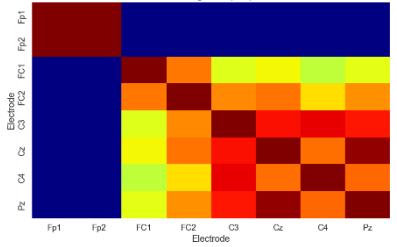
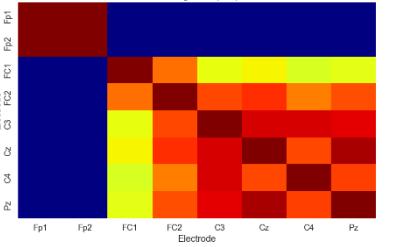


Fig 9. Space connectivity based on MSC – P3-MU

Table 15. Phase Locking Values (PLV) between electrode pairs and among phases for P3- Mu band

Phase locking Value (PLV)		P3-MU	
EEG1	EEG2	EEG3	EEG4
Overall Mean PLV within ROI: 0.6869802267492535	Overall Mean PLV within ROI: 0.7376757977260741	Overall Mean PLV within ROI: 0.7663163889962542	Overall Mean PLV within ROI: 0.800300548072783
			
EEG1	EEG2	EEG3	EEG4
FC1 and FC1: 1.0000 FC1 and FC2: 0.7386 FC1 and C3: 0.4646 FC1 and Cz: 0.5748 FC1 and C4: 0.4294 FC1 and Pz: 0.5208 FC2 and FC2: 1.0000 FC2 and C3: 0.6356 FC2 and Cz: 0.7173 FC2 and C4: 0.5734 FC2 and Pz: 0.6571 C3 and C3: 1.0000 C3 and Cz: 0.8647 C3 and C4: 0.8627 C3 and Pz: 0.8520 Cz and Cz: 1.0000 Cz and C4: 0.7400 Cz and Pz: 0.9067 C4 and C4: 1.0000 C4 and Pz: 0.7670 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.8043 FC1 and C3: 0.5998 FC1 and Cz: 0.6827 FC1 and C4: 0.4886 FC1 and Pz: 0.6270 FC2 and FC2: 1.0000 FC2 and C3: 0.7407 FC2 and Cz: 0.8350 FC2 and C4: 0.5716 FC2 and Pz: 0.7544 C3 and C3: 1.0000 C3 and Cz: 0.8798 C3 and C4: 0.8398 C3 and Pz: 0.8899 Cz and Cz: 1.0000 Cz and C4: 0.6861 Cz and Pz: 0.9234 C4 and C4: 1.0000 C4 and Pz: 0.7419 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.7821 FC1 and C3: 0.6201 FC1 and Cz: 0.6474 FC1 and C4: 0.5795 FC1 and Pz: 0.6281 FC2 and FC2: 1.0000 FC2 and C3: 0.7627 FC2 and Cz: 0.7890 FC2 and C4: 0.6728 FC2 and Pz: 0.7563 C3 and C3: 1.0000 C3 and Cz: 0.8915 C3 and C4: 0.9089 C3 and Pz: 0.8853 Cz and Cz: 1.0000 Cz and C4: 0.7896 Cz and Pz: 0.9824 C4 and C4: 1.0000 C4 and Pz: 0.7989 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.7913 FC1 and C3: 0.6296 FC1 and Cz: 0.6519 FC1 and C4: 0.6128 FC1 and Pz: 0.6288 FC2 and FC2: 1.0000 FC2 and C3: 0.8324 FC2 and Cz: 0.8599 FC2 and C4: 0.7765 FC2 and Pz: 0.8258 C3 and C3: 1.0000 C3 and Cz: 0.9232 C3 and C4: 0.9233 C3 and Pz: 0.9107 Cz and Cz: 1.0000 Cz and C4: 0.8332 Cz and Pz: 0.9641 C4 and C4: 1.0000 C4 and Pz: 0.8409 Pz and Pz: 1.0000

Permutation test p-value: 0.3338
 Cohen's d: 0.23

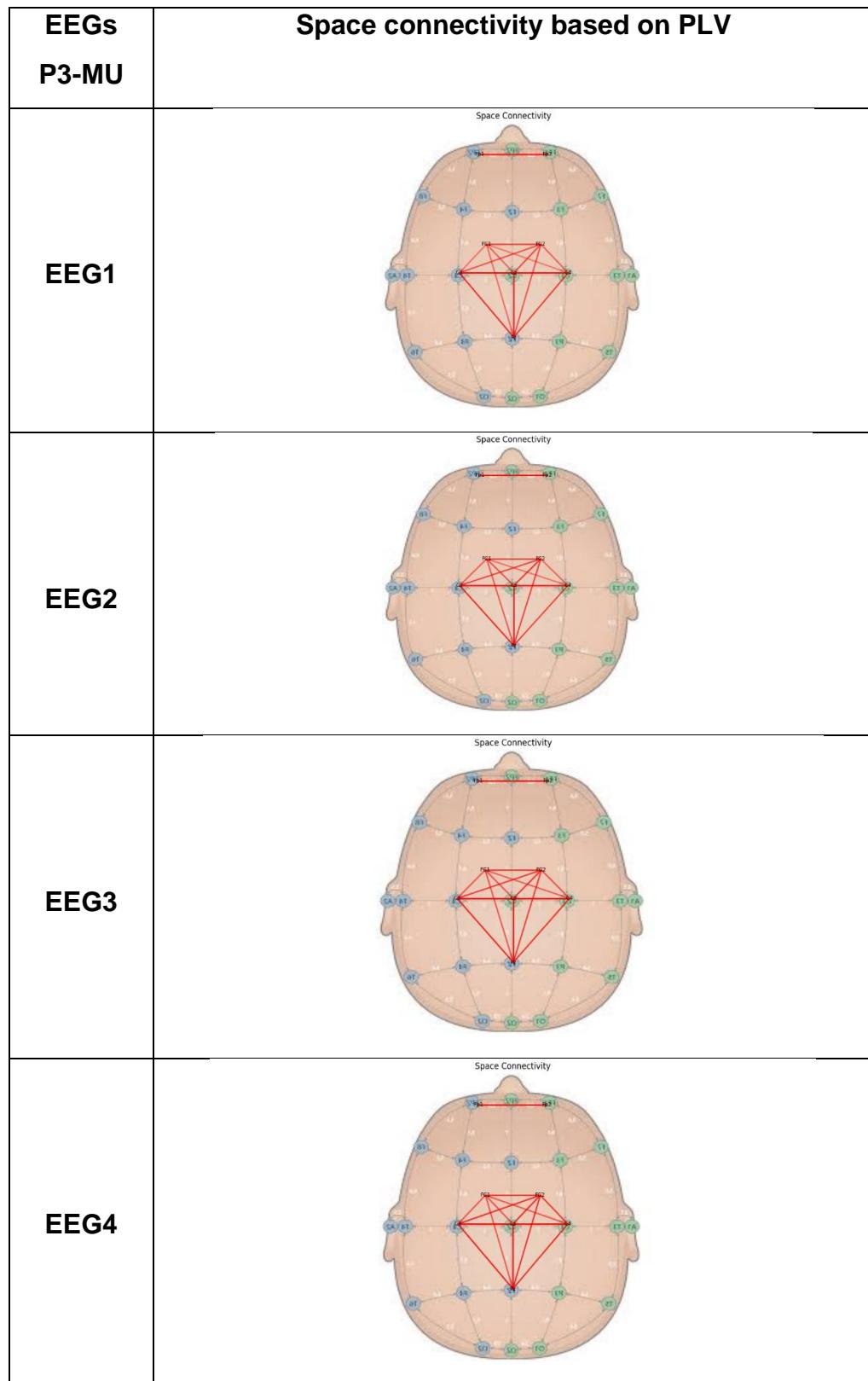
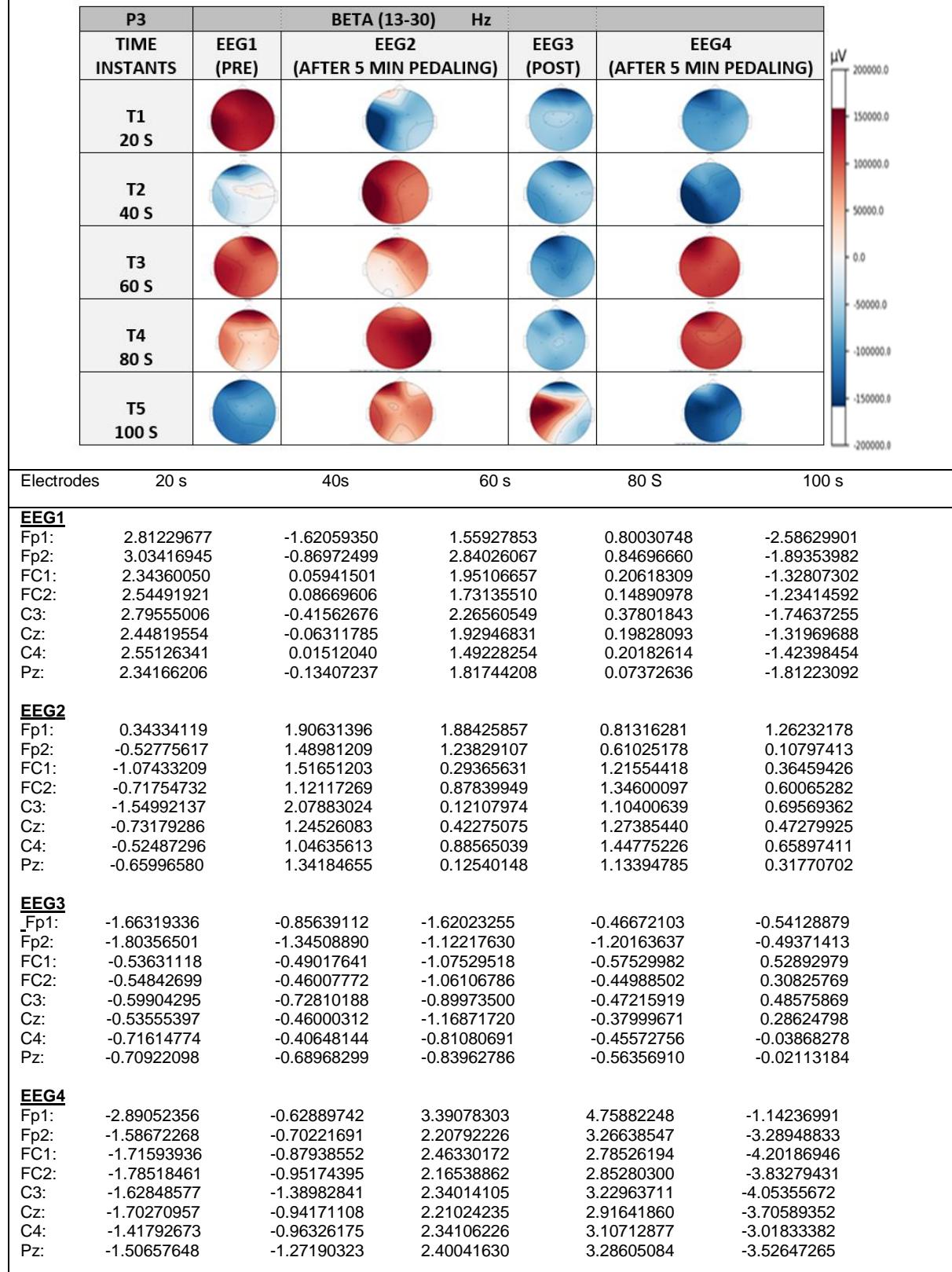


Fig 10. Space connectivity based on PLV – P3-MU

Results of P3– Beta band

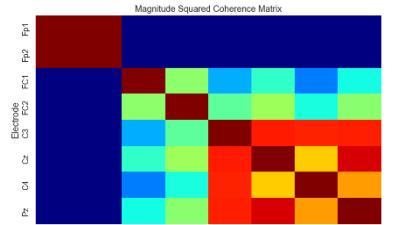
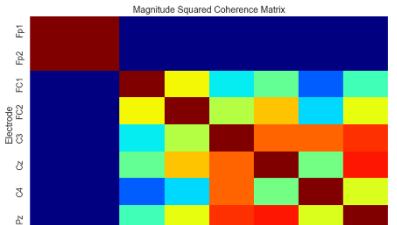
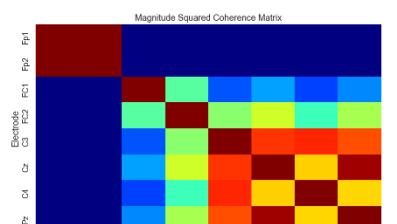
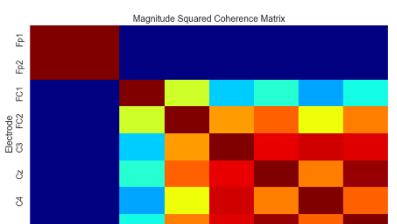
Table 16. Scalp topography and mean amplitude values for each electrode among phases and time instants for P3 - Beta band



Kruskal-Wallis test p-value: 0.0002

Cohen's d: -0.42

Table 17. Magnitude-Squared Coherence (MSC) between electrode pairs and among phases for P3-Beta band

Magnitude-Squared Coherence (MSC)		P3-BETA																																																																																																																																																	
EEG1		EEG2																																																																																																																																																	
Overall Mean MSC within ROI: 0.5827065899603788		Overall Mean MSC within ROI: 0.5873286467035784																																																																																																																																																	
 <p>Magnitude Squared Coherence Matrix</p> <table border="1"> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>Cz</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>0.5827065899603788</td><td>0.5195</td><td>0.2943</td><td>0.4082</td><td>0.2494</td><td>0.3748</td><td>0.0000</td></tr> <tr><td>Fp2</td><td>0.5195</td><td>0.6452</td><td>0.3581</td><td>0.4694</td><td>0.2173</td><td>0.4276</td><td>0.4644</td></tr> <tr><td>FC1</td><td>0.2943</td><td>0.3581</td><td>0.1000</td><td>0.5694</td><td>0.7023</td><td>0.3372</td><td>0.5408</td></tr> <tr><td>FC2</td><td>0.4082</td><td>0.4694</td><td>0.1000</td><td>0.8033</td><td>0.8734</td><td>0.5168</td><td>0.3799</td></tr> <tr><td>C3</td><td>0.2494</td><td>0.2173</td><td>0.5694</td><td>0.8033</td><td>0.8772</td><td>0.8772</td><td>0.8809</td></tr> <tr><td>Cz</td><td>0.3748</td><td>0.4276</td><td>0.7023</td><td>0.8734</td><td>1.0000</td><td>0.8772</td><td>0.8809</td></tr> <tr><td>C4</td><td>0.0000</td><td>0.4644</td><td>0.3372</td><td>0.5168</td><td>0.8772</td><td>1.0000</td><td>0.8734</td></tr> <tr><td>Pz</td><td>0.4644</td><td>0.4644</td><td>0.5408</td><td>0.3799</td><td>0.8809</td><td>0.8809</td><td>1.0000</td></tr> </table>		Fp1	Fp2	FC1	FC2	C3	Cz	C4	Pz	Fp1	0.5827065899603788	0.5195	0.2943	0.4082	0.2494	0.3748	0.0000	Fp2	0.5195	0.6452	0.3581	0.4694	0.2173	0.4276	0.4644	FC1	0.2943	0.3581	0.1000	0.5694	0.7023	0.3372	0.5408	FC2	0.4082	0.4694	0.1000	0.8033	0.8734	0.5168	0.3799	C3	0.2494	0.2173	0.5694	0.8033	0.8772	0.8772	0.8809	Cz	0.3748	0.4276	0.7023	0.8734	1.0000	0.8772	0.8809	C4	0.0000	0.4644	0.3372	0.5168	0.8772	1.0000	0.8734	Pz	0.4644	0.4644	0.5408	0.3799	0.8809	0.8809	1.0000	 <p>Magnitude Squared Coherence Matrix</p> <table border="1"> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>Cz</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>0.5873286467035784</td><td>0.5990</td><td>0.3251</td><td>0.3953</td><td>0.2856</td><td>0.3730</td><td>0.0000</td></tr> <tr><td>Fp2</td><td>0.5990</td><td>0.6452</td><td>0.4557</td><td>0.2090</td><td>0.1901</td><td>0.2606</td><td>0.5990</td></tr> <tr><td>FC1</td><td>0.3251</td><td>0.4557</td><td>0.1000</td><td>0.5167</td><td>0.7425</td><td>0.8052</td><td>0.7425</td></tr> <tr><td>FC2</td><td>0.3953</td><td>0.2090</td><td>0.1000</td><td>0.5981</td><td>0.4258</td><td>0.6376</td><td>0.4258</td></tr> <tr><td>C3</td><td>0.2856</td><td>0.1901</td><td>0.5167</td><td>0.8693</td><td>0.5528</td><td>0.7741</td><td>0.8693</td></tr> <tr><td>Cz</td><td>0.3730</td><td>0.2606</td><td>0.7425</td><td>0.4258</td><td>0.5528</td><td>1.0000</td><td>0.9082</td></tr> <tr><td>C4</td><td>0.0000</td><td>0.5990</td><td>0.8052</td><td>0.4258</td><td>0.5528</td><td>0.9082</td><td>1.0000</td></tr> <tr><td>Pz</td><td>0.5990</td><td>0.7425</td><td>0.4258</td><td>0.6376</td><td>0.7741</td><td>0.9082</td><td>1.0000</td></tr> </table>		Fp1	Fp2	FC1	FC2	C3	Cz	C4	Pz	Fp1	0.5873286467035784	0.5990	0.3251	0.3953	0.2856	0.3730	0.0000	Fp2	0.5990	0.6452	0.4557	0.2090	0.1901	0.2606	0.5990	FC1	0.3251	0.4557	0.1000	0.5167	0.7425	0.8052	0.7425	FC2	0.3953	0.2090	0.1000	0.5981	0.4258	0.6376	0.4258	C3	0.2856	0.1901	0.5167	0.8693	0.5528	0.7741	0.8693	Cz	0.3730	0.2606	0.7425	0.4258	0.5528	1.0000	0.9082	C4	0.0000	0.5990	0.8052	0.4258	0.5528	0.9082	1.0000	Pz	0.5990	0.7425	0.4258	0.6376	0.7741	0.9082	1.0000
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Pz	0.4644	0.4644	0.7425	0.6376	0.7741	0.9082	1.0000																																																																																																																																												
EEG1	EEG2	EEG3	EEG4																																																																																																																																																
FC1 and FC1: 1.0000 FC1 and FC2: 0.5195 FC1 and C3: 0.2943 FC1 and Cz: 0.4082 FC1 and C4: 0.2494 FC1 and Pz: 0.3748 FC2 and FC2: 1.0000 FC2 and C3: 0.4644 FC2 and Cz: 0.5408 FC2 and C4: 0.3799 FC2 and Pz: 0.5168 C3 and C3: 1.0000 C3 and Cz: 0.8809 C3 and C4: 0.8734 C3 and Pz: 0.8772 Cz and Cz: 1.0000 Cz and C4: 0.6948 Cz and Pz: 0.9227 C4 and C4: 1.0000 C4 and Pz: 0.7436 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.6452 FC1 and C3: 0.3581 FC1 and Cz: 0.4694 FC1 and C4: 0.2173 FC1 and Pz: 0.4276 FC2 and FC2: 1.0000 FC2 and C3: 0.5694 FC2 and Cz: 0.5981 FC2 and C4: 0.3372 FC2 and Pz: 0.6292 C3 and C3: 1.0000 C3 and Cz: 0.8021 C3 and C4: 0.8033 C3 and Pz: 0.8591 Cz and Cz: 1.0000 Cz and C4: 0.4917 Cz and Pz: 0.8844 C4 and C4: 1.0000 C4 and Pz: 0.6137 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.4557 FC1 and C3: 0.2090 FC1 and Cz: 0.2828 FC1 and C4: 0.1901 FC1 and Pz: 0.2606 FC2 and FC2: 1.0000 FC2 and C3: 0.5167 FC2 and Cz: 0.5981 FC2 and C4: 0.4258 FC2 and Pz: 0.5528 C3 and C3: 1.0000 C3 and Cz: 0.8552 C3 and C4: 0.8693 C3 and Pz: 0.8277 Cz and Cz: 1.0000 Cz and C4: 0.6890 Cz and Pz: 0.9715 C4 and C4: 1.0000 C4 and Pz: 0.6810 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.5990 FC1 and C3: 0.3251 FC1 and Cz: 0.3953 FC1 and C4: 0.2856 FC1 and Pz: 0.3730 FC2 and FC2: 1.0000 FC2 and C3: 0.7425 FC2 and Cz: 0.8052 FC2 and C4: 0.6376 FC2 and Pz: 0.7741 C3 and C3: 1.0000 C3 and Cz: 0.9082 C3 and C4: 0.9295 C3 and Pz: 0.9165 Cz and Cz: 1.0000 Cz and C4: 0.7756 Cz and Pz: 0.9785 C4 and C4: 1.0000 C4 and Pz: 0.8066 Pz and Pz: 1.0000																																																																																																																																																

Permutation test p-value: 1.0

Cohen's d: 0.07

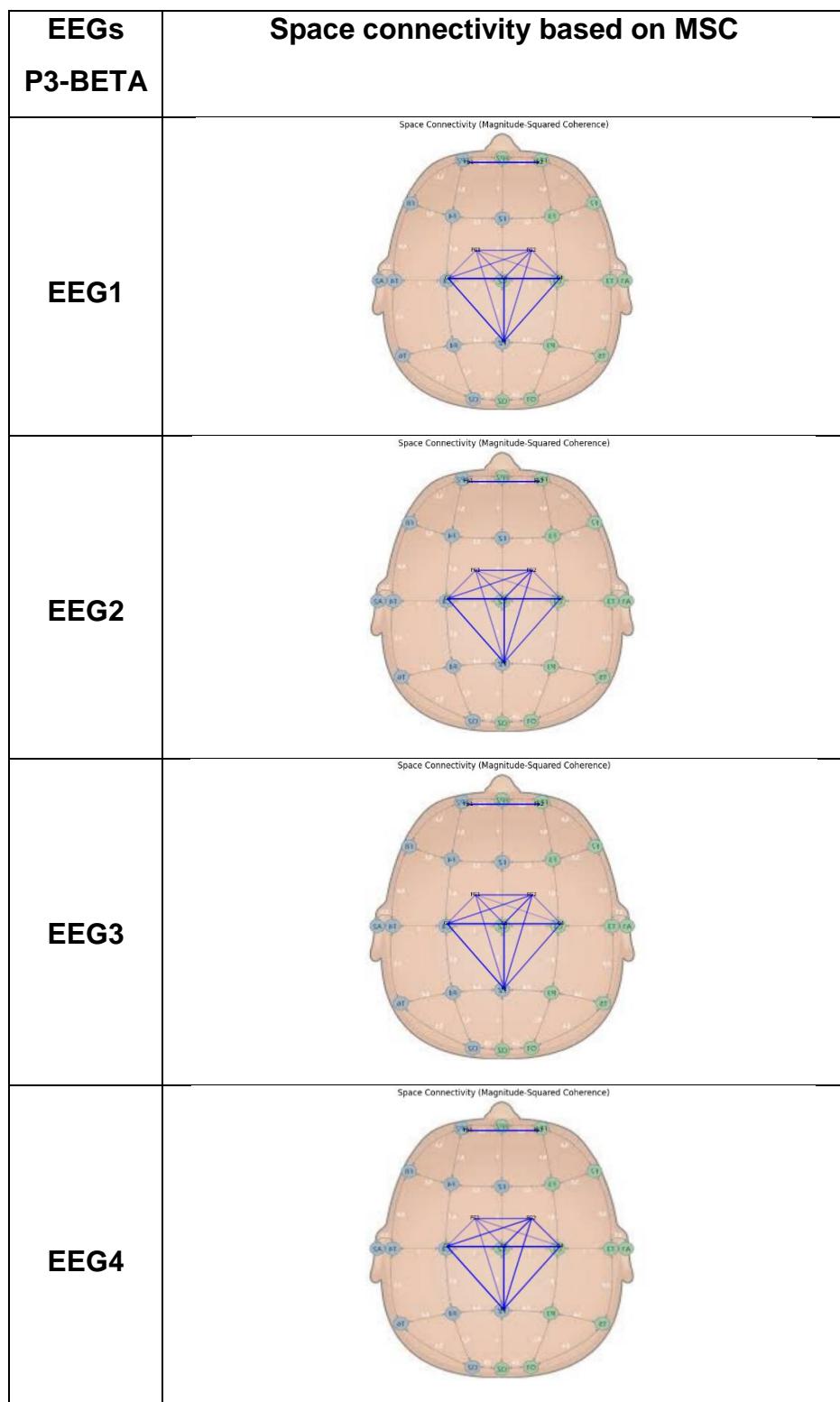
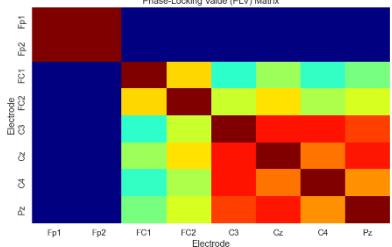
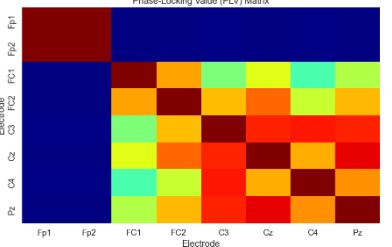
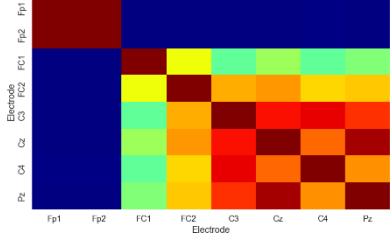
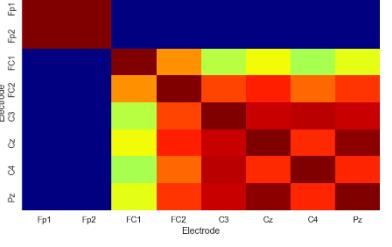


Fig 11. Space connectivity based on MSC – P3-BETA

Table 18. Phase Locking Values (PLVs) between electrode pairs and among phases for P3- Beta band

Phase locking Value (PLV)		P3-BETA	
EEG1		EEG2	
Overall Mean PLV within ROI: 0.6682498055242531		Overall Mean PLV within ROI: 0.7134267608296555	
			
EEG3		EEG4	
Overall Mean PLV within ROI: 0.709888175078866		Overall Mean PLV within ROI: 0.8035552489325624	
			
EEG1	EEG2	EEG3	EEG4
FC1 and FC1: 1.0000 FC1 and FC2: 0.6805 FC1 and C3: 0.4044 FC1 and Cz: 0.5417 FC1 and C4: 0.4139 FC1 and Pz: 0.4939 FC2 and FC2: 1.0000 FC2 and C3: 0.5965 FC2 and Cz: 0.6714 FC2 and C4: 0.5604 FC2 and Pz: 0.6104 C3 and C3: 1.0000 C3 and Cz: 0.8903 C3 and C4: 0.8897 C3 and Pz: 0.8411 Cz and Cz: 1.0000 Cz and C4: 0.7870 Cz and Pz: 0.8849 C4 and C4: 1.0000 C4 and Pz: 0.7576 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.7351 FC1 and C3: 0.5029 FC1 and Cz: 0.6248 FC1 and C4: 0.4400 FC1 and Pz: 0.5653 FC2 and FC2: 1.0000 FC2 and C3: 0.7073 FC2 and Cz: 0.7978 FC2 and C4: 0.5936 FC2 and Pz: 0.7150 C3 and C3: 1.0000 C3 and Cz: 0.8750 C3 and C4: 0.8844 C3 and Pz: 0.8720 Cz and Cz: 1.0000 Cz and C4: 0.7258 Cz and Pz: 0.9083 C4 and C4: 1.0000 C4 and Pz: 0.7542 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.6370 FC1 and C3: 0.4668 FC1 and Cz: 0.5411 FC1 and C4: 0.4681 FC1 and Pz: 0.5064 FC2 and FC2: 1.0000 FC2 and C3: 0.7244 FC2 and Cz: 0.7498 FC2 and C4: 0.6825 FC2 and Pz: 0.6957 C3 and C3: 1.0000 C3 and Cz: 0.8926 C3 and C4: 0.9069 C3 and Pz: 0.8584 Cz and Cz: 1.0000 Cz and C4: 0.7971 Cz and Pz: 0.9667 C4 and C4: 1.0000 C4 and Pz: 0.7548 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.7545 FC1 and C3: 0.5712 FC1 and Cz: 0.6444 FC1 and C4: 0.5536 FC1 and Pz: 0.6273 FC2 and FC2: 1.0000 FC2 and C3: 0.8377 FC2 and Cz: 0.8763 FC2 and C4: 0.7971 FC2 and Pz: 0.8549 C3 and C3: 1.0000 C3 and Cz: 0.9342 C3 and C4: 0.9466 C3 and Pz: 0.9346 Cz and Cz: 1.0000 Cz and C4: 0.8655 Cz and Pz: 0.9851 C4 and C4: 1.0000 C4 and Pz: 0.8704 Pz and Pz: 1.0000

Permutation test p-value: 0.6642

Cohen's d: 0.18

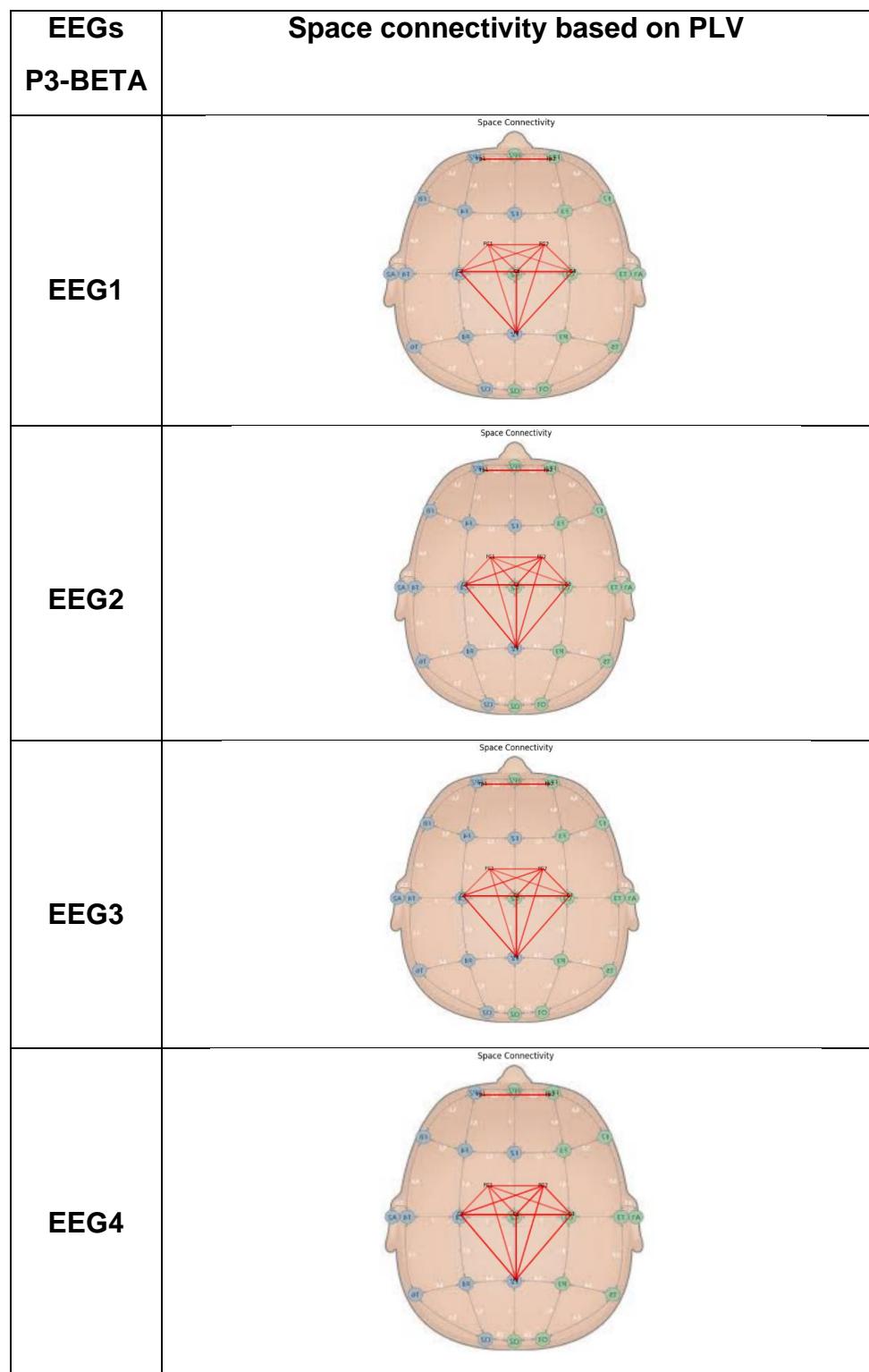
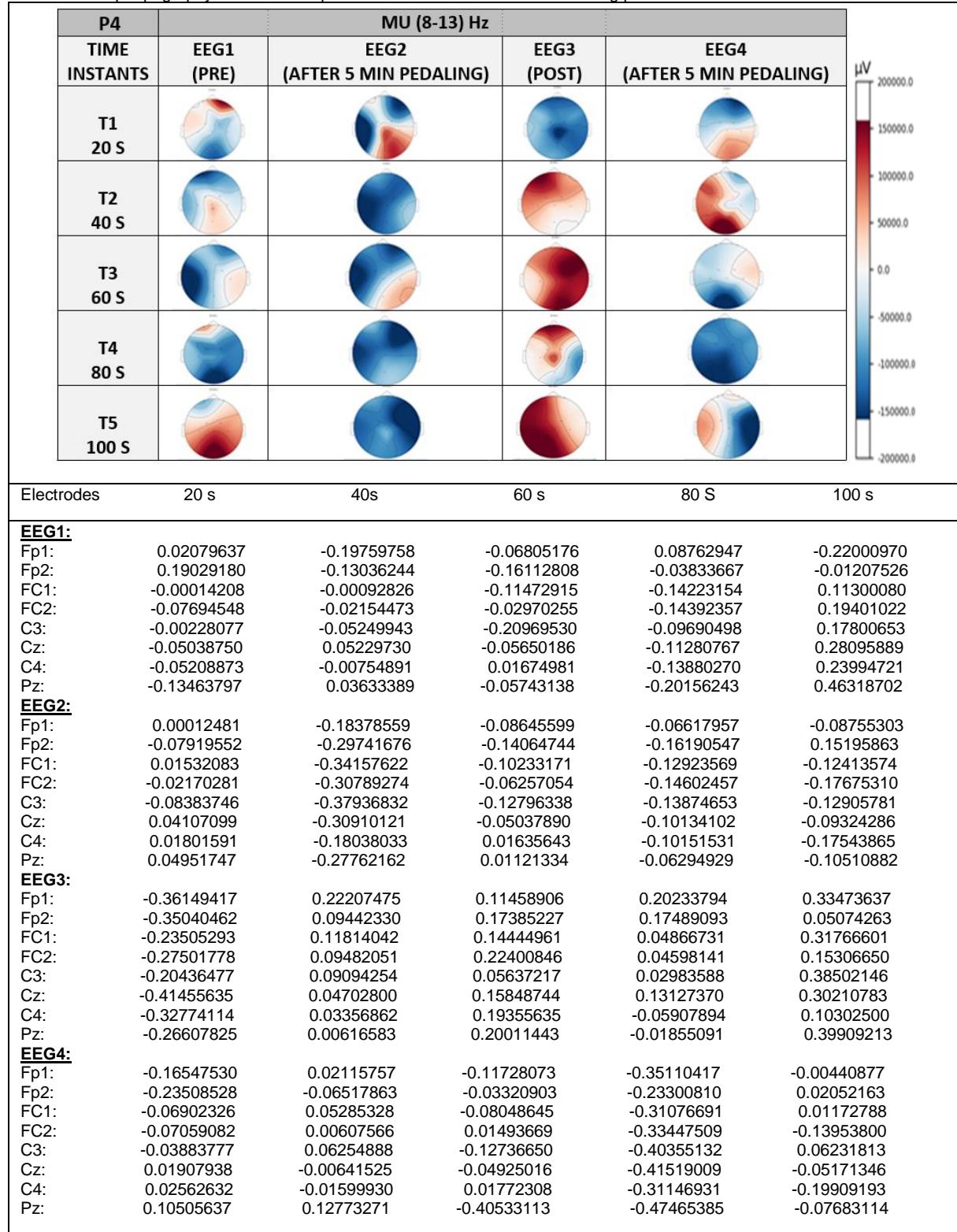


Fig 12. Space connectivity based on PLV – P3-BETA

Results of de P4 – Mu band

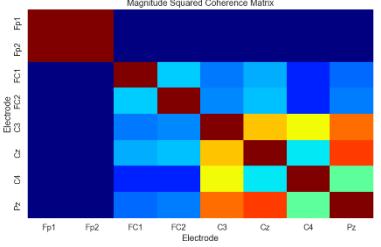
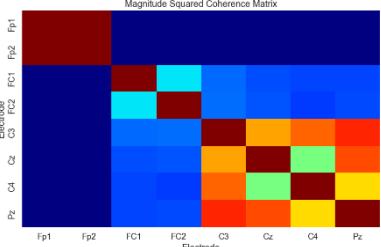
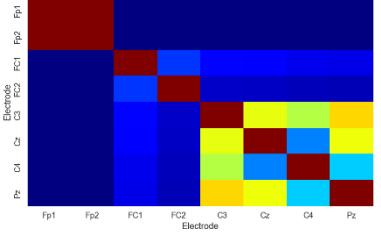
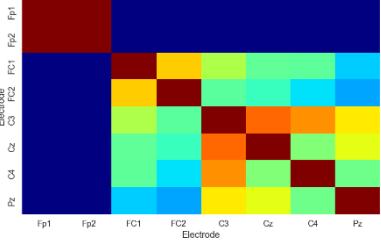
Table 19. Scalp topography and mean amplitude values for each electrode among phases and time instants for P4 - Mu band



Kruskal-Wallis test p-value: 0.0106

Cohen's d: 0.17

Table 20. Magnitude-Squared Coherence (MSC) between electrode pairs and among phases for P4-Mu band

Magnitude-Squared Coherence (MSC)		P4-MU	
EEG1		EEG2	
Overall Mean MSC within ROI: 0.4021446983317417		Overall Mean MSC within ROI: 0.4263227622404575	
 <p>Magnitude Squared Coherence Matrix</p> <p>Electrode: Fp1, Fp2, FC1, FC2, C3, Cz, C4, Pz</p>		 <p>Magnitude Squared Coherence Matrix</p> <p>Electrode: Fp1, Fp2, FC1, FC2, C3, Cz, C4, Pz</p>	
EEG3		EEG4	
Overall Mean MSC within ROI: 0.2621672156332104		Overall Mean MSC within ROI: 0.5244233565334319	
 <p>Magnitude Squared Coherence Matrix</p> <p>Electrode: Fp1, Fp2, FC1, FC2, C3, Cz, C4, Pz</p>		 <p>Magnitude Squared Coherence Matrix</p> <p>Electrode: Fp1, Fp2, FC1, FC2, C3, Cz, C4, Pz</p>	
EEG1	EEG2	EEG3	EEG4
FC1 and FC1: 1.0000 FC1 and FC2: 0.3265 FC1 and C3: 0.2454 FC1 and Cz: 0.2943 FC1 and C4: 0.1597 FC1 and Pz: 0.2279 FC2 and FC2: 1.0000 FC2 and C3: 0.2583 FC2 and Cz: 0.3162 FC2 and C4: 0.1566 FC2 and Pz: 0.2487 C3 and C3: 1.0000 C3 and Cz: 0.6999 C3 and C4: 0.6440 C3 and Pz: 0.7950 Cz and Cz: 1.0000 Cz and C4: 0.3518 Cz and Pz: 0.8442 C4 and C4: 1.0000 C4 and Pz: 0.4637 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.3491 FC1 and C3: 0.2279 FC1 and Cz: 0.2031 FC1 and C4: 0.1919 FC1 and Pz: 0.1919 FC2 and FC2: 1.0000 FC2 and C3: 0.2327 FC2 and Cz: 0.2094 FC2 and C4: 0.1814 FC2 and Pz: 0.1971 C3 and C3: 1.0000 C3 and Cz: 0.7357 C3 and C4: 0.8034 C3 and Pz: 0.8679 Cz and Cz: 1.0000 Cz and C4: 0.4950 Cz and Pz: 0.8308 C4 and C4: 1.0000 C4 and Pz: 0.6778 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.1764 FC1 and C3: 0.1275 FC1 and Cz: 0.1190 FC1 and C4: 0.0955 FC1 and Pz: 0.0937 FC2 and FC2: 1.0000 FC2 and C3: 0.0663 FC2 and Cz: 0.0596 FC2 and C4: 0.0530 FC2 and Pz: 0.0483 C3 and C3: 1.0000 C3 and Cz: 0.6291 C3 and C4: 0.5697 C3 and Pz: 0.6819 Cz and Cz: 1.0000 Cz and C4: 0.2505 Cz and Pz: 0.6372 C4 and C4: 1.0000 C4 and Pz: 0.3250 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.6952 FC1 and C3: 0.5619 FC1 and Cz: 0.4671 FC1 and C4: 0.4624 FC1 and Pz: 0.3273 FC2 and FC2: 1.0000 FC2 and C3: 0.4607 FC2 and Cz: 0.4217 FC2 and C4: 0.3470 FC2 and Pz: 0.2885 C3 and C3: 1.0000 C3 and Cz: 0.7972 C3 and C4: 0.7560 C3 and Pz: 0.6639 Cz and Cz: 1.0000 Cz and C4: 0.5078 Cz and Pz: 0.6268 C4 and C4: 1.0000 C4 and Pz: 0.4828 Pz and Pz: 1.0000

Permutation test p-value: 1.0

Cohen's d: -0.03

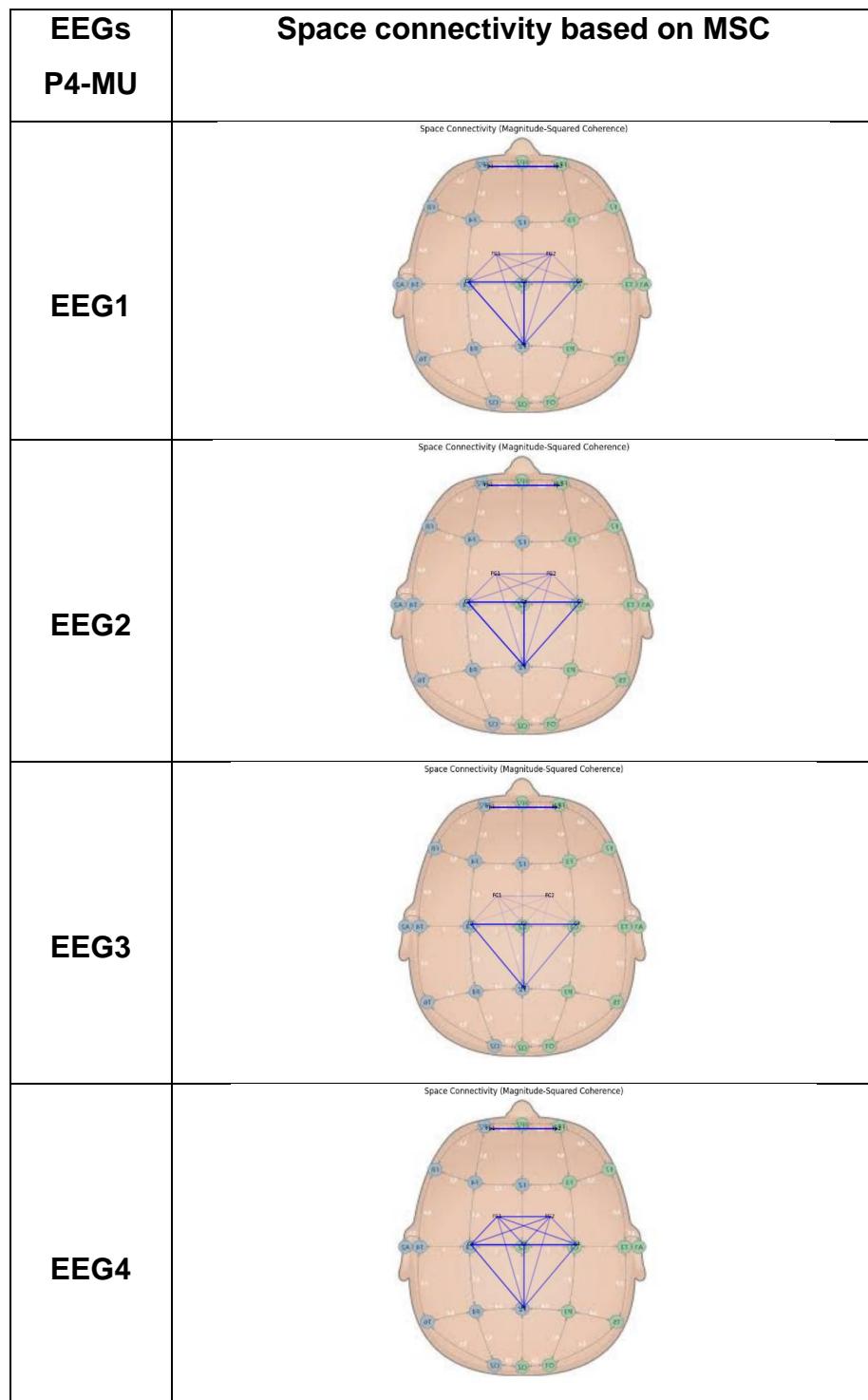
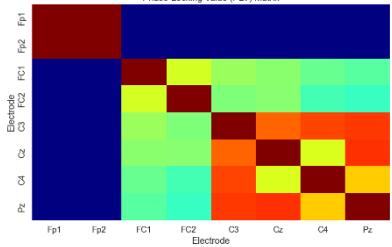
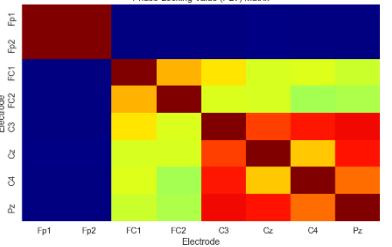
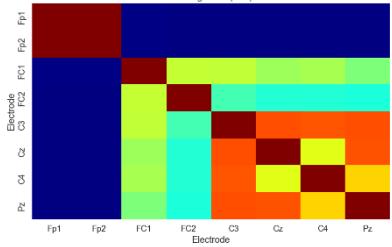
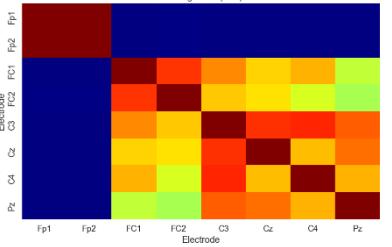


Fig 13. Space connectivity based on MSC – P4-MU

Table 21. Phase Locking Values (PLV) between electrode pairs and among phases for P4- Mu band

Phase locking Value (PLV)		P4-MU					
EEG1	EEG2						
Overall Mean PLV within ROI: 0.6084546464823342	Overall Mean PLV within ROI: 0.7039807105636441						
							
EEG3	EEG4						
Overall Mean PLV within ROI: 0.5984083573746201	Overall Mean PLV within ROI: 0.7266653185624651						
							
EEG1	EEG2	EEG3	EEG4				
FC1 and FC1: 1.0000 FC1 and FC2: 0.6083 FC1 and C3: 0.5365 FC1 and Cz: 0.5188 FC1 and C4: 0.4771 FC1 and Pz: 0.4570 FC2 and FC2: 1.0000 FC2 and C3: 0.5036 FC2 and Cz: 0.5134 FC2 and C4: 0.4324 FC2 and Pz: 0.4187 C3 and C3: 1.0000 C3 and Cz: 0.8016 C3 and C4: 0.8381 C3 and Pz: 0.8502 Cz and Cz: 1.0000 Cz and C4: 0.6179 Cz and Pz: 0.8594 C4 and C4: 1.0000 C4 and Pz: 0.6939 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.7226 FC1 and C3: 0.6644 FC1 and Cz: 0.6133 FC1 and C4: 0.6203 FC1 and Pz: 0.5978 FC2 and FC2: 1.0000 FC2 and C3: 0.6152 FC2 and Cz: 0.6118 FC2 and C4: 0.5506 FC2 and Pz: 0.5596 C3 and C3: 1.0000 C3 and Cz: 0.8411 C3 and C4: 0.8840 C3 and Pz: 0.8995 Cz and Cz: 1.0000 Cz and C4: 0.6963 Cz and Pz: 0.8868 C4 and C4: 1.0000 C4 and Pz: 0.7965 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.5871 FC1 and C3: 0.5837 FC1 and Cz: 0.5432 FC1 and C4: 0.5524 FC1 and Pz: 0.5042 FC2 and FC2: 1.0000 FC2 and C3: 0.4314 FC2 and Cz: 0.3918 FC2 and C4: 0.3949 FC2 and Pz: 0.3847 C3 and C3: 1.0000 C3 and Cz: 0.8254 C3 and C4: 0.8175 C3 and Pz: 0.8277 Cz and Cz: 1.0000 Cz and C4: 0.6249 Cz and Pz: 0.8212 C4 and C4: 1.0000 C4 and Pz: 0.6860 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.8538 FC1 and C3: 0.7630 FC1 and Cz: 0.6869 FC1 and C4: 0.7198 FC1 and Pz: 0.5833 FC2 and FC2: 1.0000 FC2 and C3: 0.6973 FC2 and Cz: 0.6682 FC2 and C4: 0.6111 FC2 and Pz: 0.5541 C3 and C3: 1.0000 C3 and Cz: 0.8573 C3 and C4: 0.8706 C3 and Pz: 0.8123 Cz and Cz: 1.0000 Cz and C4: 0.7105 Cz and Pz: 0.7912 C4 and C4: 1.0000 C4 and Pz: 0.7205 Pz and Pz: 1.0000				

Permutation test p-value: 1.0

Cohen's d: 0.01

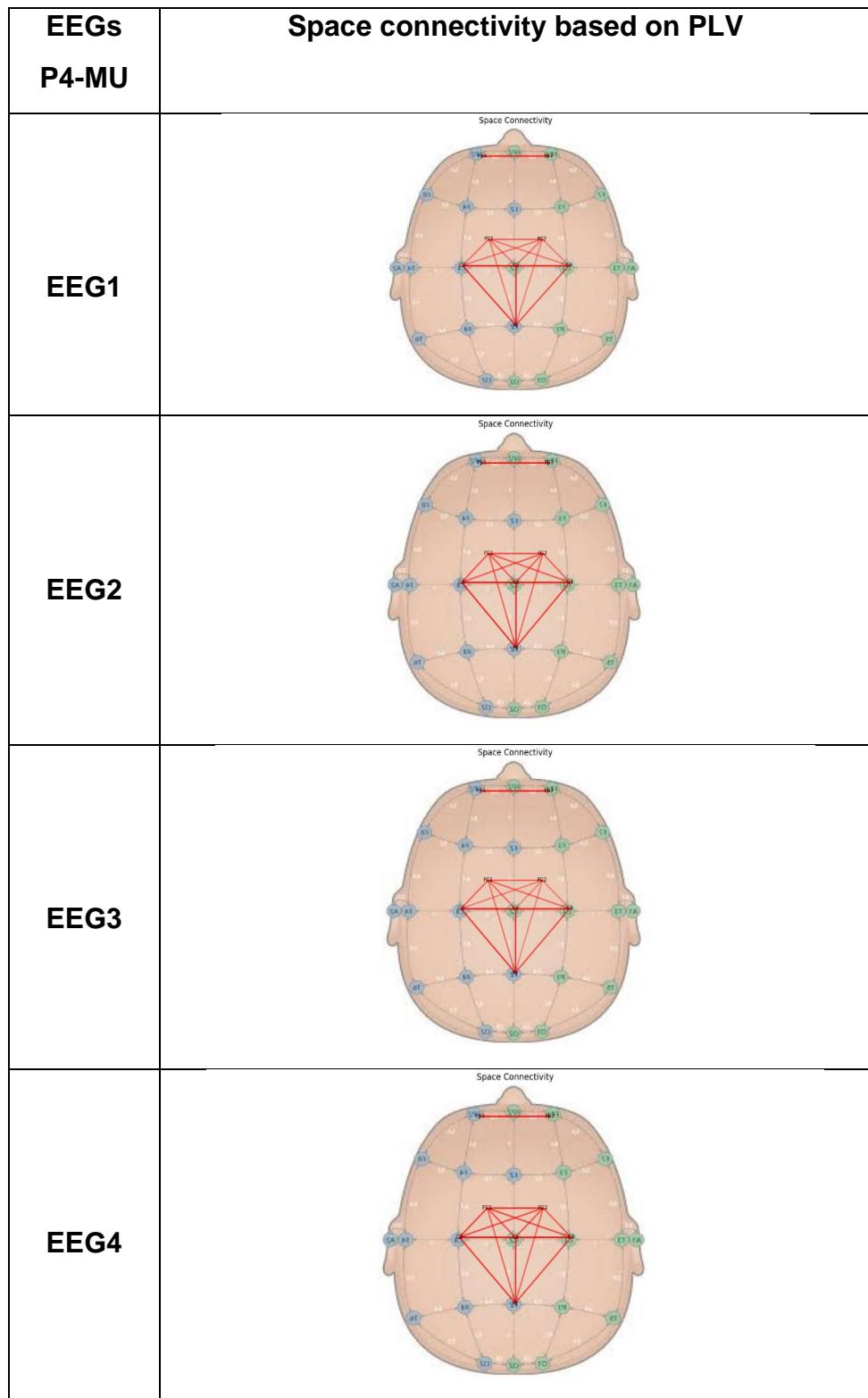
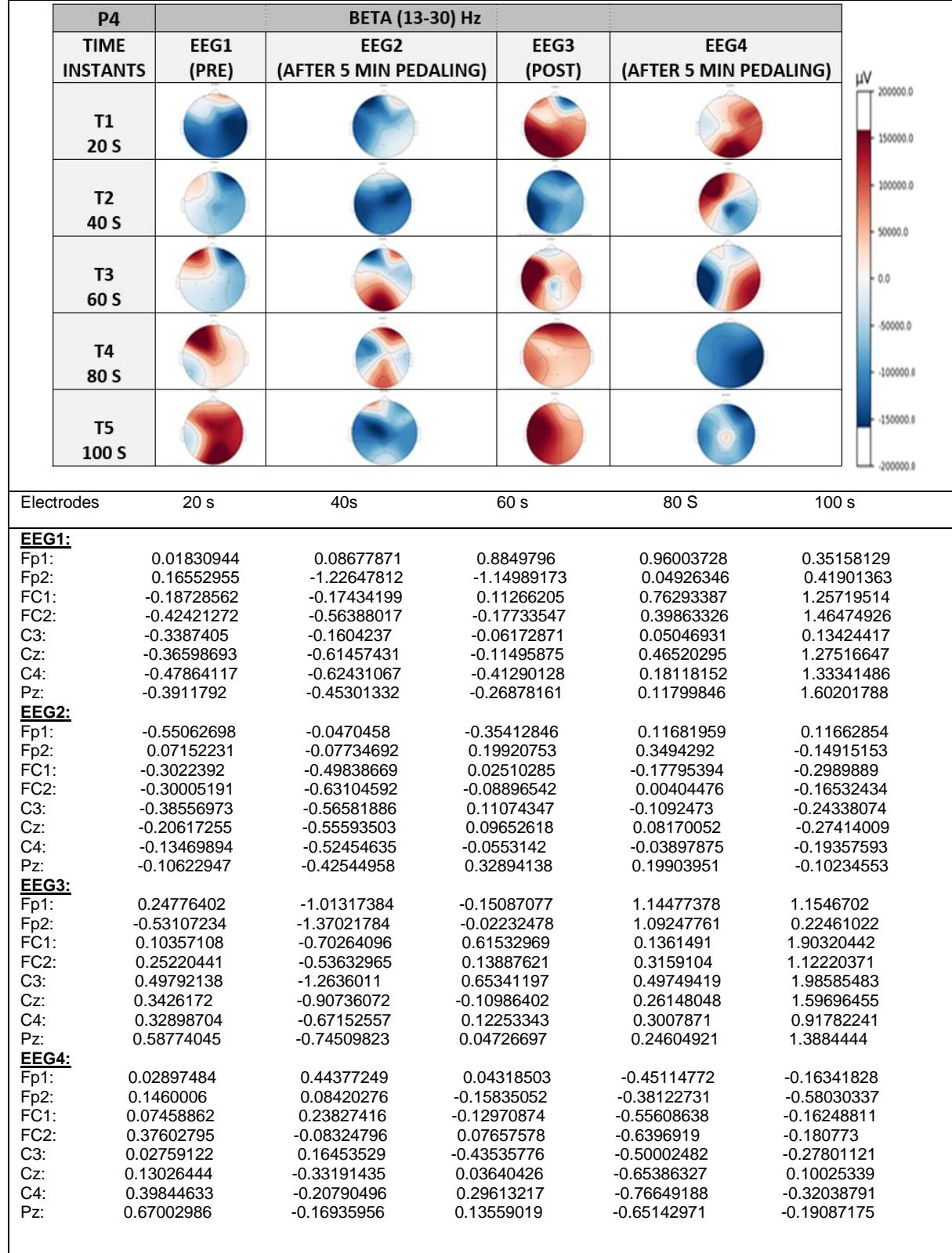


Fig 14. Space connectivity based on PLV – P4-MU

Results of P4 – Beta band

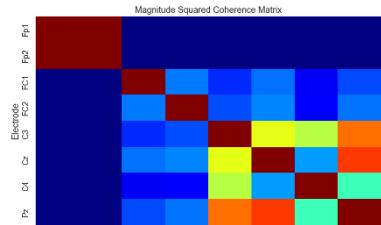
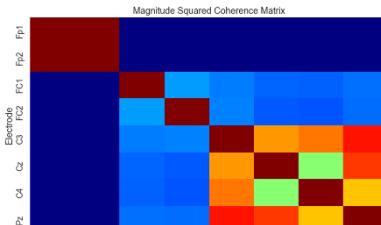
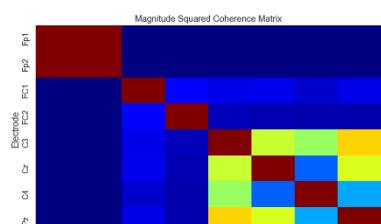
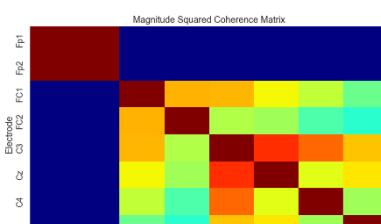
Table 22. Scalp topography and mean amplitude values for each electrode among phases and time instants for P4 - Beta band



Kruskal-Wallis test p-value: 0.1722

Cohen's d: 0.12

Table 23. Magnitude-Squared Coherence (MSC) between electrode pairs and among phases for P4-Beta band

Magnitude-Squared Coherence (MSC)		P4-BETA	
EEG1 Overall Mean MSC within ROI: 0.3534163457221729		EEG2 Overall Mean MSC within ROI: 0.440112870285297	
			
EEG3 Overall Mean MSC within ROI: 0.23970457962164182		EEG4 Overall Mean MSC within ROI: 0.6195267841629672	
			
EEG1	EEG2	EEG3	EEG4
FC1 and FC1: 1.0000 FC1 and FC2: 0.2440 FC1 and C3: 0.1672 FC1 and Cz: 0.2380 FC1 and C4: 0.1018 FC1 and Pz: 0.1982 FC2 and FC2: 1.0000 FC2 and C3: 0.2004 FC2 and Cz: 0.2569 FC2 and C4: 0.1160 FC2 and Pz: 0.2394 C3 and C3: 1.0000 C3 and Cz: 0.6253 C3 and C4: 0.5715 C3 and Pz: 0.7895 Cz and Cz: 1.0000 Cz and C4: 0.2807 Cz and Pz: 0.8502 C4 and C4: 1.0000 C4 and Pz: 0.4222 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.2804 FC1 and C3: 0.2488 FC1 and Cz: 0.2243 FC1 and C4: 0.2188 FC1 and Pz: 0.2373 FC2 and FC2: 1.0000 FC2 and C3: 0.2520 FC2 and Cz: 0.2116 FC2 and C4: 0.2088 FC2 and Pz: 0.2326 C3 and C3: 1.0000 C3 and Cz: 0.7481 C3 and C4: 0.7847 C3 and Pz: 0.8888 Cz and Cz: 1.0000 Cz and C4: 0.5135 Cz and Pz: 0.8501 C4 and C4: 1.0000 C4 and Pz: 0.7017 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.1326 FC1 and C3: 0.0924 FC1 and Cz: 0.0954 FC1 and C4: 0.0681 FC1 and Pz: 0.0921 FC2 and FC2: 1.0000 FC2 and C3: 0.0523 FC2 and Cz: 0.0445 FC2 and C4: 0.0421 FC2 and Pz: 0.0415 C3 and C3: 1.0000 C3 and Cz: 0.5916 C3 and C4: 0.5319 C3 and Pz: 0.6847 Cz and Cz: 1.0000 Cz and C4: 0.2203 Cz and Pz: 0.6141 C4 and C4: 1.0000 C4 and Pz: 0.2919 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.7205 FC1 and C3: 0.7180 FC1 and Cz: 0.6447 FC1 and C4: 0.5826 FC1 and Pz: 0.4791 FC2 and FC2: 1.0000 FC2 and C3: 0.5661 FC2 and Cz: 0.5439 FC2 and C4: 0.4420 FC2 and Pz: 0.3992 C3 and C3: 1.0000 C3 and Cz: 0.8620 C3 and C4: 0.8002 C3 and Pz: 0.7014 Cz and Cz: 1.0000 Cz and C4: 0.6217 Cz and Pz: 0.6670 C4 and C4: 1.0000 C4 and Pz: 0.5446 Pz and Pz: 1.0000

Permutation test p-value: 1.0

Cohen's d: 0.05

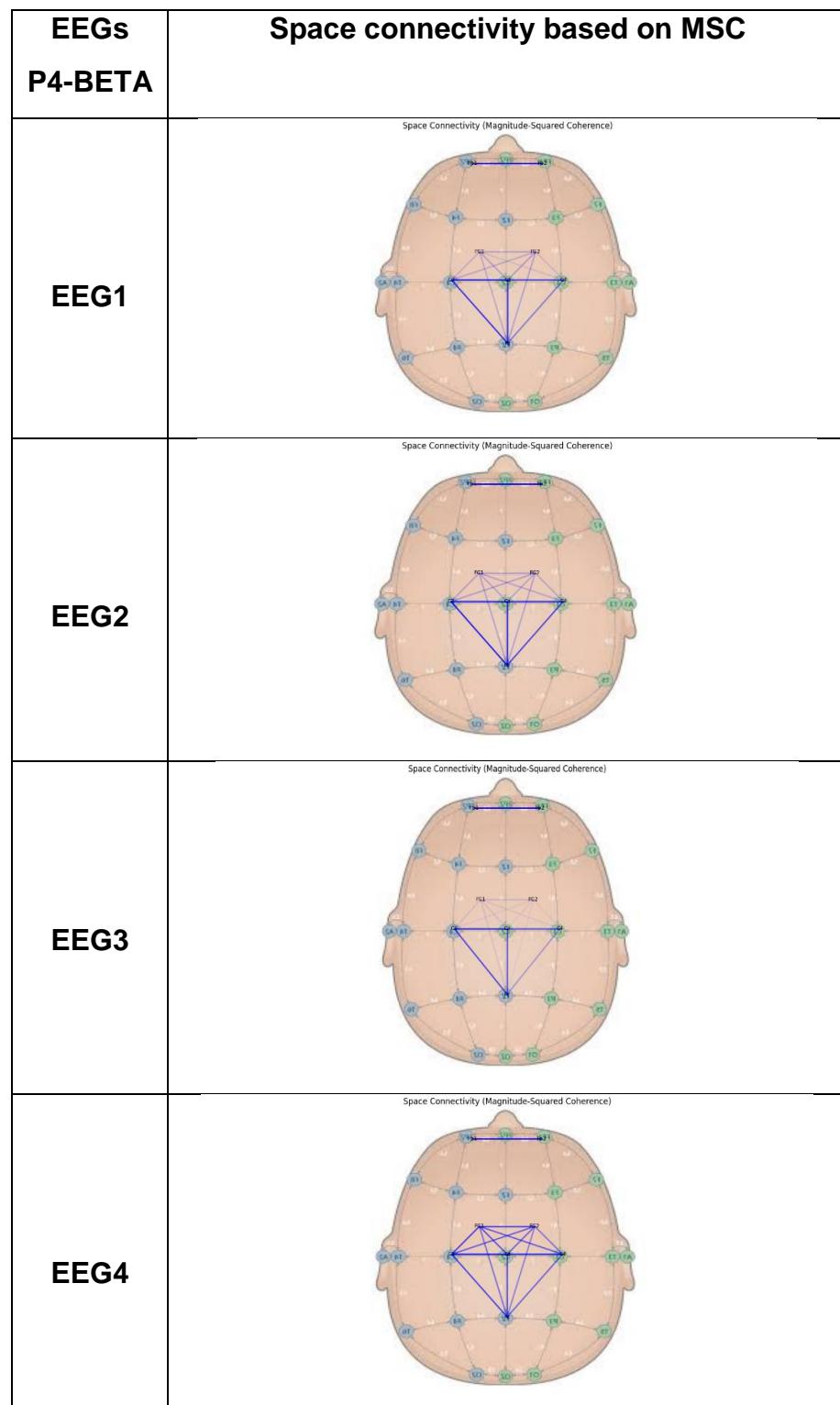
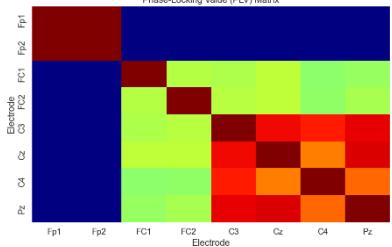
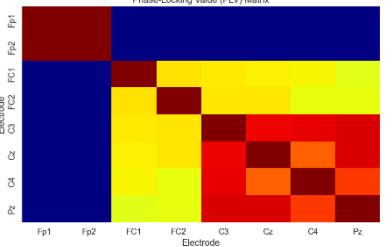
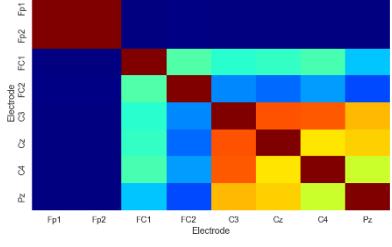
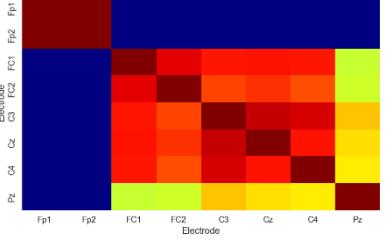


Fig 15. Space connectivity based on PLV – P4-BETA

Table 24. Phase Locking Value (PLV) between electrode pairs and among phases for P4- Beta band

Phase locking Value (PLV)		P4-BETA					
EEG1	EEG2						
Overall Mean PLV within ROI: 0.6784075490221757	Overall Mean PLV within ROI: 0.7438068333510655						
							
EEG3	EEG4						
Overall Mean PLV within ROI: 0.4864762137857738	Overall Mean PLV within ROI: 0.8049588368402394						
							
EEG1	EEG2	EEG3	EEG4				
FC1 and FC1: 1.0000 FC1 and FC2: 0.5695 FC1 and C3: 0.5608 FC1 and Cz: 0.5813 FC1 and C4: 0.5222 FC1 and Pz: 0.5331 FC2 and FC2: 1.0000 FC2 and C3: 0.5720 FC2 and Cz: 0.5819 FC2 and C4: 0.5243 FC2 and Pz: 0.5519 C3 and C3: 1.0000 C3 and Cz: 0.9019 C3 and C4: 0.8796 C3 and Pz: 0.9070 Cz and Cz: 1.0000 Cz and C4: 0.7741 Cz and Pz: 0.9187 C4 and C4: 1.0000 C4 and Pz: 0.7978 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.6709 FC1 and C3: 0.6636 FC1 and Cz: 0.6532 FC1 and C4: 0.6493 FC1 and Pz: 0.6219 FC2 and FC2: 1.0000 FC2 and C3: 0.6648 FC2 and Cz: 0.6649 FC2 and C4: 0.6326 FC2 and Pz: 0.6309 C3 and C3: 1.0000 C3 and Cz: 0.9034 C3 and C4: 0.9074 C3 and Pz: 0.9189 Cz and Cz: 1.0000 Cz and C4: 0.8060 Cz and Pz: 0.9208 C4 and C4: 1.0000 C4 and Pz: 0.8486 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.4473 FC1 and C3: 0.4023 FC1 and Cz: 0.4138 FC1 and C4: 0.4356 FC1 and Pz: 0.3213 FC2 and FC2: 1.0000 FC2 and C3: 0.2612 FC2 and Cz: 0.2302 FC2 and C4: 0.2827 FC2 and Pz: 0.2006 C3 and C3: 1.0000 C3 and Cz: 0.8216 C3 and C4: 0.8161 C3 and Pz: 0.7123 Cz and Cz: 1.0000 Cz and C4: 0.6648 Cz and Pz: 0.6912 C4 and C4: 1.0000 C4 and Pz: 0.5960 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.9137 FC1 and C3: 0.8832 FC1 and Cz: 0.8879 FC1 and C4: 0.8830 FC1 and Pz: 0.5936 FC2 and FC2: 1.0000 FC2 and C3: 0.8371 FC2 and Cz: 0.8594 FC2 and C4: 0.8257 FC2 and Pz: 0.6004 C3 and C3: 1.0000 C3 and Cz: 0.9405 C3 and C4: 0.9259 C3 and Pz: 0.7030 Cz and Cz: 1.0000 Cz and C4: 0.8885 Cz and Pz: 0.6749 C4 and C4: 1.0000 C4 and Pz: 0.6576 Pz and Pz: 1.0000				

Permutation test p-value: 1.0

Cohen's d: -0.16

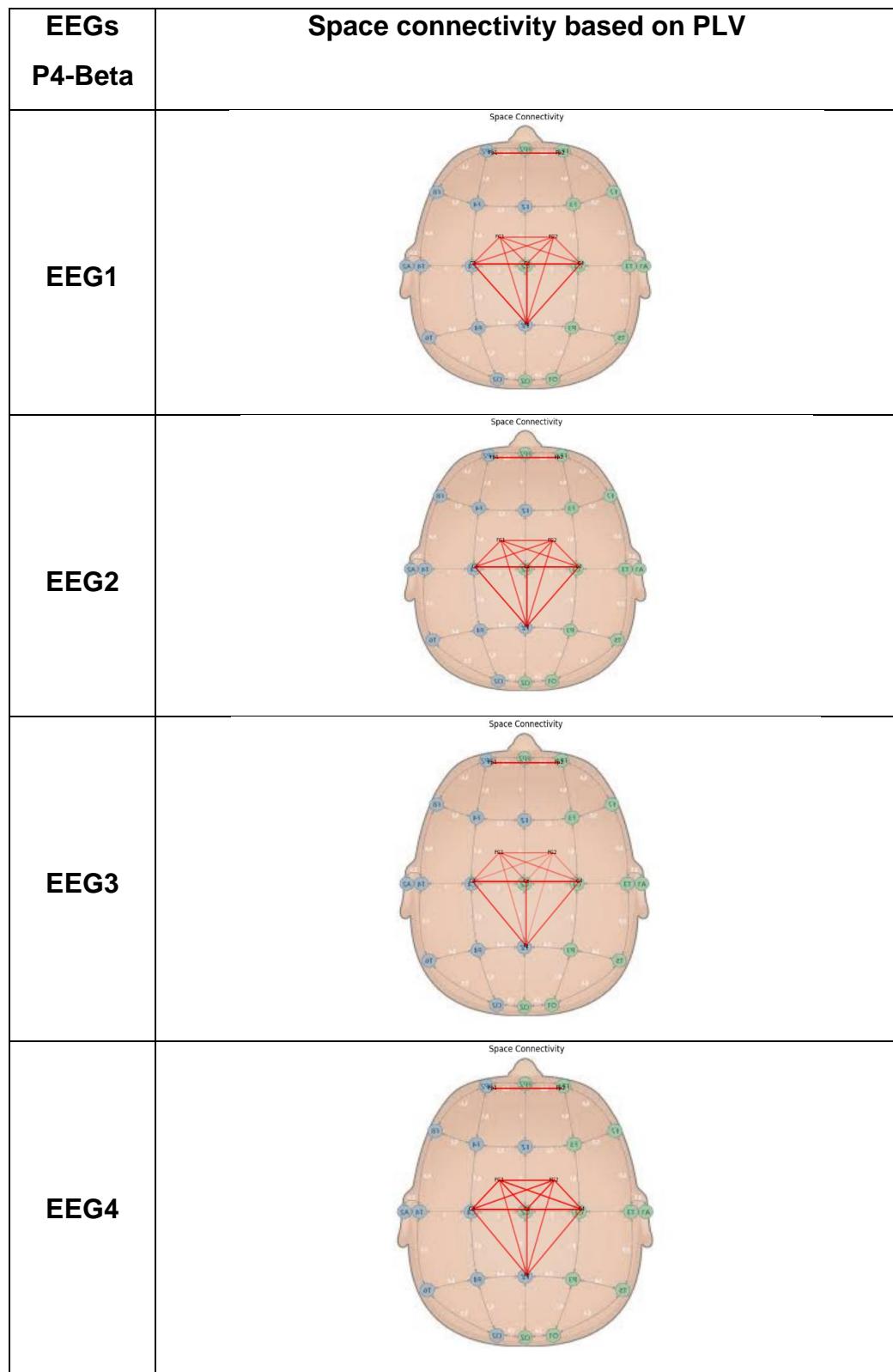
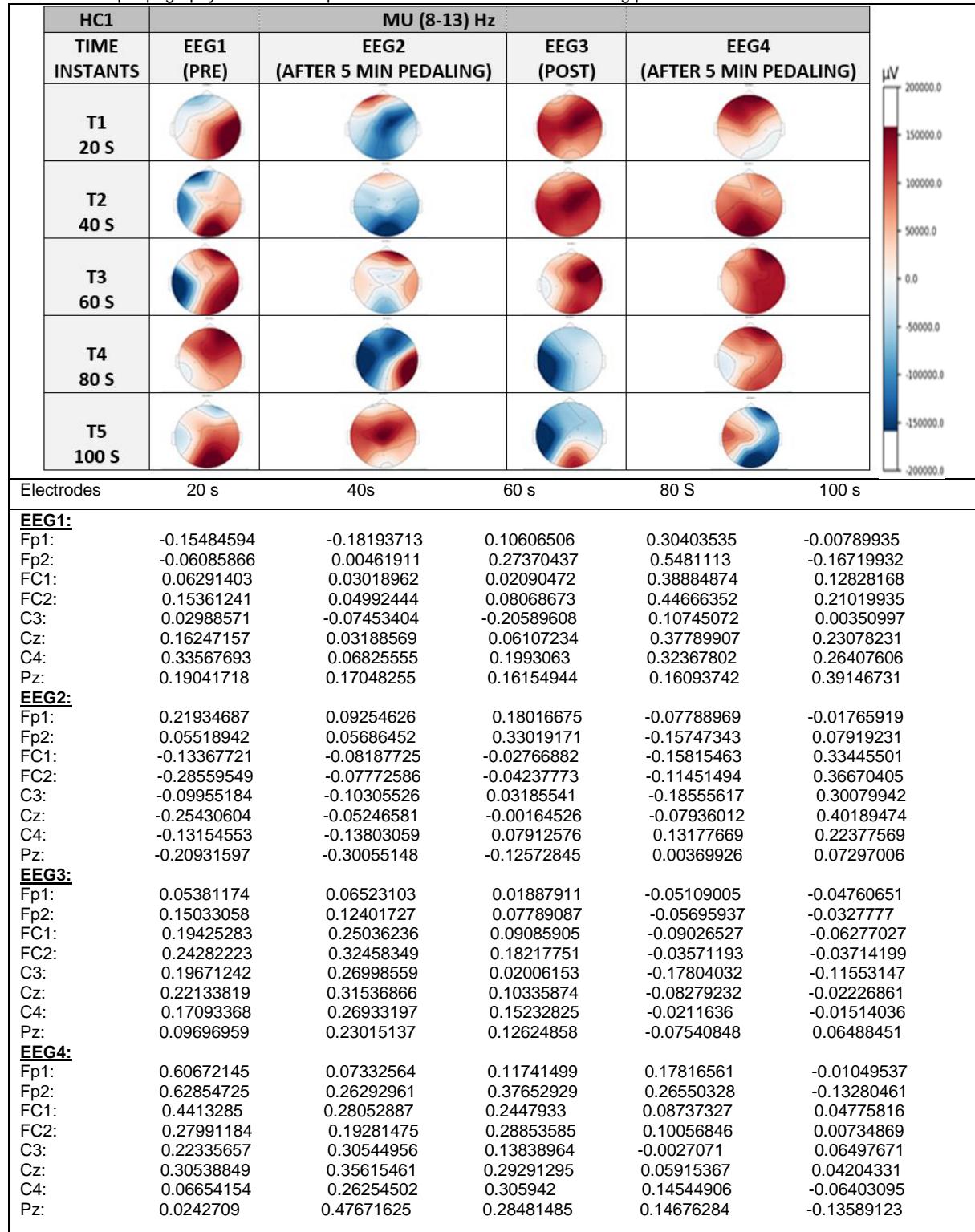


Fig 16. Space connectivity based on PLV – P4-BETA

Results of HC1 - Mu band

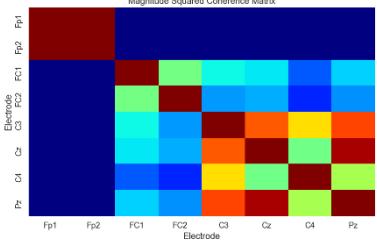
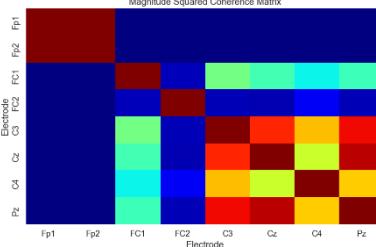
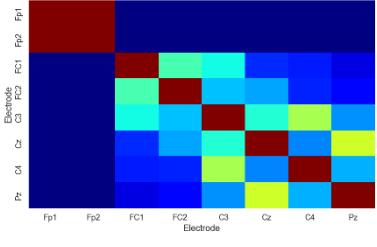
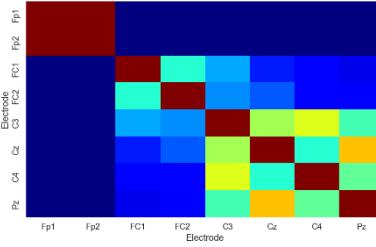
Table 25. Scalp topography and mean amplitude values for each electrode among phases and time instants for HC1 - Mu band



Kruskal-Wallis test p-value: 0.0228

Cohen's d: 0.3

Table 26. Magnitude-Squared Coherence (MSC) between electrode pairs and among phases for HC1-Mu band

Magnitude-Squared Coherence (MSC) HC1-MU			
EEG1 Overall Mean MSC within ROI: 0.4726	EEG2 Overall Mean MSC within ROI: 0.4488		
 <p>Magnitude Squared Coherence Matrix</p>	 <p>Magnitude Squared Coherence Matrix</p>		
EEG3 Overall Mean MSC within ROI: 0.2986	EEG4 Overall Mean MSC within ROI: 0.3303		
 <p>Magnitude Squared Coherence Matrix</p>	 <p>Magnitude Squared Coherence Matrix</p>		
EEG1	EEG2	EEG3	EEG4
FC1 and FC1: 1.0000 FC1 and FC2: 0.4895 FC1 and C3: 0.3708 FC1 and Cz: 0.3541 FC1 and C4: 0.2141 FC1 and Pz: 0.3309 FC2 and FC2: 1.0000 FC2 and C3: 0.2756 FC2 and Cz: 0.2942 FC2 and C4: 0.1616 FC2 and Pz: 0.2674 C3 and C3: 1.0000 C3 and Cz: 0.8147 C3 and C4: 0.6747 C3 and Pz: 0.8394 Cz and Cz: 1.0000 Cz and C4: 0.4848 Cz and Pz: 0.9632 C4 and C4: 1.0000 C4 and Pz: 0.5546 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.0536 FC1 and C3: 0.4920 FC1 and Cz: 0.4322 FC1 and C4: 0.3647 FC1 and Pz: 0.4251 FC2 and FC2: 1.0000 FC2 and C3: 0.0472 FC2 and Cz: 0.0460 FC2 and C4: 0.1049 FC2 and Pz: 0.0487 C3 and C3: 1.0000 C3 and Cz: 0.8677 C3 and C4: 0.7098 C3 and Pz: 0.9013 Cz and Cz: 1.0000 Cz and C4: 0.5960 Cz and Pz: 0.9480 C4 and C4: 1.0000 C4 and Pz: 0.6950 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.4372 FC1 and C3: 0.3733 FC1 and Cz: 0.1656 FC1 and C4: 0.1522 FC1 and Pz: 0.0895 FC2 and FC2: 1.0000 FC2 and C3: 0.3151 FC2 and Cz: 0.2870 FC2 and C4: 0.1589 FC2 and Pz: 0.1308 C3 and C3: 1.0000 C3 and Cz: 0.3943 C3 and C4: 0.5522 C3 and Pz: 0.2662 Cz and Cz: 1.0000 Cz and C4: 0.2558 Cz and Pz: 0.6010 C4 and C4: 1.0000 C4 and Pz: 0.3006 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.3972 FC1 and C3: 0.2905 FC1 and Cz: 0.1496 FC1 and C4: 0.1287 FC1 and Pz: 0.0962 FC2 and FC2: 1.0000 FC2 and C3: 0.2638 FC2 and Cz: 0.2127 FC2 and C4: 0.1285 FC2 and Pz: 0.1186 C3 and C3: 1.0000 C3 and Cz: 0.5474 C3 and C4: 0.6192 C3 and Pz: 0.4328 Cz and Cz: 1.0000 Cz and C4: 0.3967 Cz and Pz: 0.7061 C4 and C4: 1.0000 C4 and Pz: 0.4667 Pz and Pz: 1.0000

Permutation test p-value: 0.3373

Cohen's d: -0.21

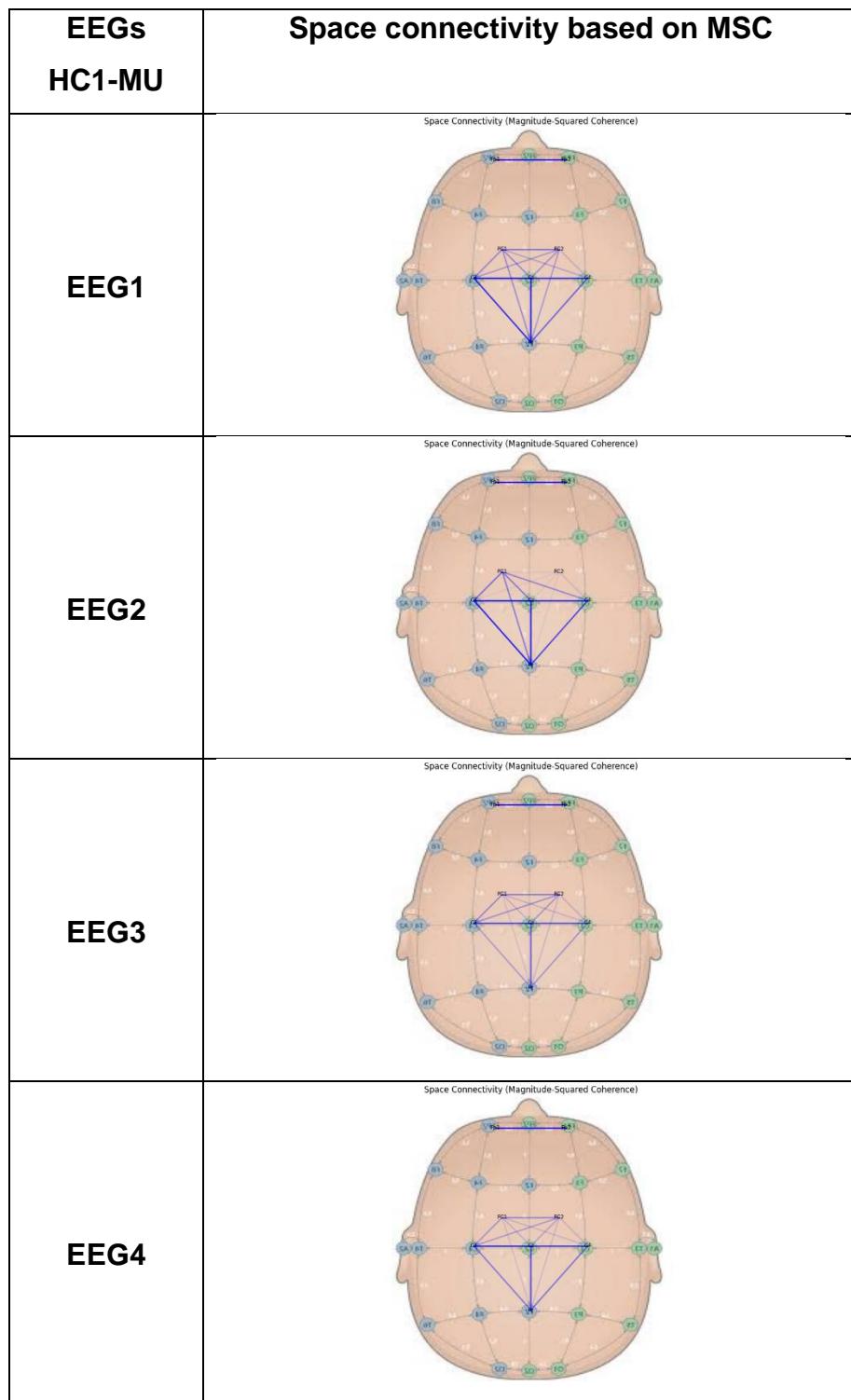
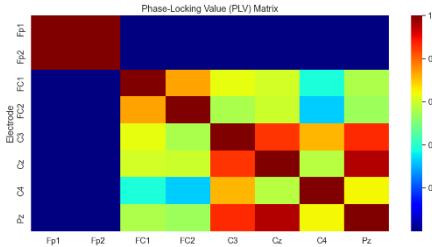
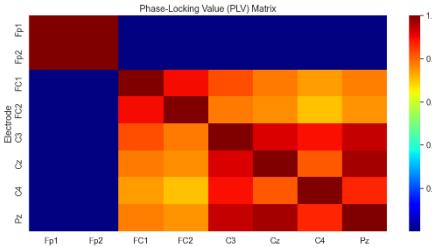
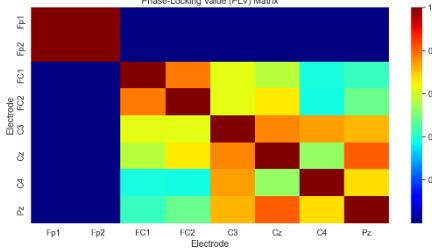
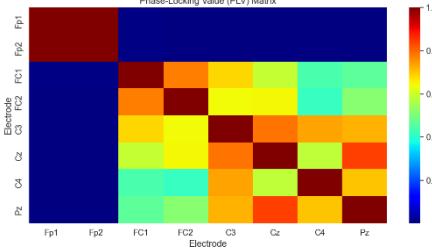


Fig 17. Space connectivity based on PLV – HC1- Mu

Table 27. Phase Locking Value (PLV) between electrode pairs and among phases for HC1- Mu band

Phase locking Value (PLV)		HC1-MU							
EEG1 Overall Mean PLV within ROI: 0.6362		EEG2 Overall Mean PLV within ROI: 0.8284							
 <p>Phase-Locking Value (PLV) Matrix</p> <p>Electrode: Fp1, Fp2, FC1, FC2, C3, Cz, C4, Pz</p>		 <p>Phase-Locking Value (PLV) Matrix</p> <p>Electrode: Fp1, Fp2, FC1, FC2, C3, Cz, C4, Pz</p>							
EEG3 Overall Mean PLV within ROI: 0.6106		EEG4 Overall Mean PLV within ROI: 0.6356							
 <p>Phase-Locking Value (PLV) Matrix</p> <p>Electrode: Fp1, Fp2, FC1, FC2, C3, Cz, C4, Pz</p>		 <p>Phase-Locking Value (PLV) Matrix</p> <p>Electrode: Fp1, Fp2, FC1, FC2, C3, Cz, C4, Pz</p>							
EEG1	EEG2	EEG3	EEG4						
FC1 and FC1: 1.0000 FC1 and FC2: 0.7363 FC1 and C3: 0.6325 FC1 and Cz: 0.6037 FC1 and C4: 0.3832 FC1 and Pz: 0.5618 FC2 and FC2: 1.0000 FC2 and C3: 0.5563 FC2 and Cz: 0.5946 FC2 and C4: 0.3264 FC2 and Pz: 0.5430 C3 and C3: 1.0000 C3 and Cz: 0.8526 C3 and C4: 0.7156 C3 and Pz: 0.8648 Cz and Cz: 1.0000 Cz and C4: 0.5725 Cz and Pz: 0.9551 C4 and C4: 1.0000 C4 and Pz: 0.6455 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.8953 FC1 and C3: 0.8267 FC1 and Cz: 0.7782 FC1 and C4: 0.7449 FC1 and Pz: 0.7769 FC2 and FC2: 1.0000 FC2 and C3: 0.7814 FC2 and Cz: 0.7618 FC2 and C4: 0.7039 FC2 and Pz: 0.7531 C3 and C3: 1.0000 C3 and Cz: 0.9218 C3 and C4: 0.8907 C3 and Pz: 0.9390 Cz and Cz: 1.0000 Cz and C4: 0.8162 Cz and Pz: 0.9665 C4 and C4: 1.0000 C4 and Pz: 0.8706 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.7781 FC1 and C3: 0.6281 FC1 and Cz: 0.5770 FC1 and C4: 0.3794 FC1 and Pz: 0.4221 FC2 and FC2: 1.0000 FC2 and C3: 0.6256 FC2 and Cz: 0.6613 FC2 and C4: 0.3719 FC2 and Pz: 0.4780 C3 and C3: 1.0000 C3 and Cz: 0.7669 C3 and C4: 0.7411 C3 and Pz: 0.7175 Cz and Cz: 1.0000 Cz and C4: 0.5296 Cz and Pz: 0.8089 C4 and C4: 1.0000 C4 and Pz: 0.6745 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.7757 FC1 and C3: 0.6813 FC1 and Cz: 0.5895 FC1 and C4: 0.4390 FC1 and Pz: 0.4619 FC2 and FC2: 1.0000 FC2 and C3: 0.6445 FC2 and Cz: 0.6472 FC2 and C4: 0.4174 FC2 and Pz: 0.5135 C3 and C3: 1.0000 C3 and Cz: 0.7883 C3 and C4: 0.7354 C3 and Pz: 0.7193 Cz and Cz: 1.0000 Cz and C4: 0.5804 Cz and Pz: 0.8411 C4 and C4: 1.0000 C4 and Pz: 0.7003 Pz and Pz: 1.0000						

Permutation test p-value: 0.3411

Cohen's d: -0.29

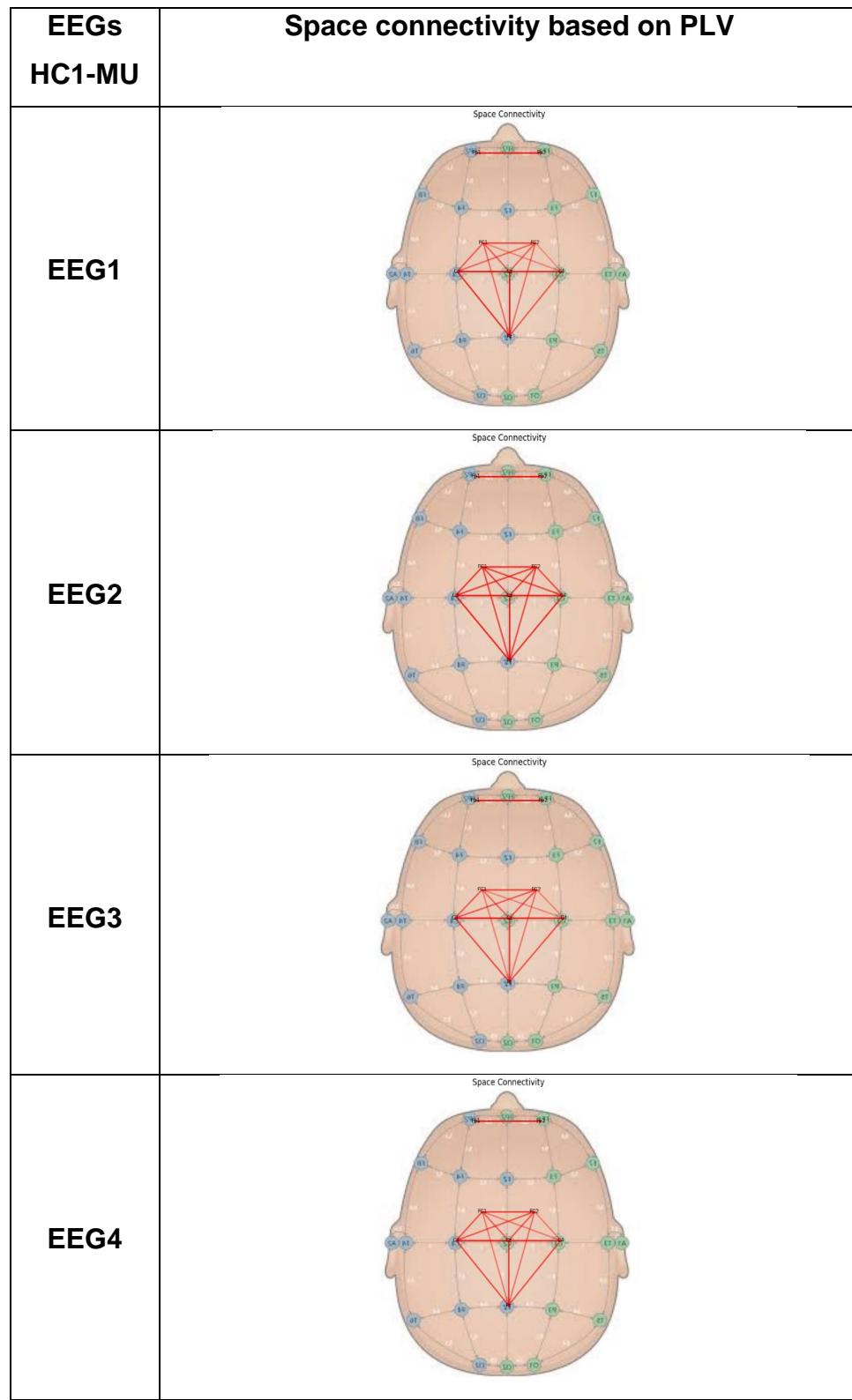
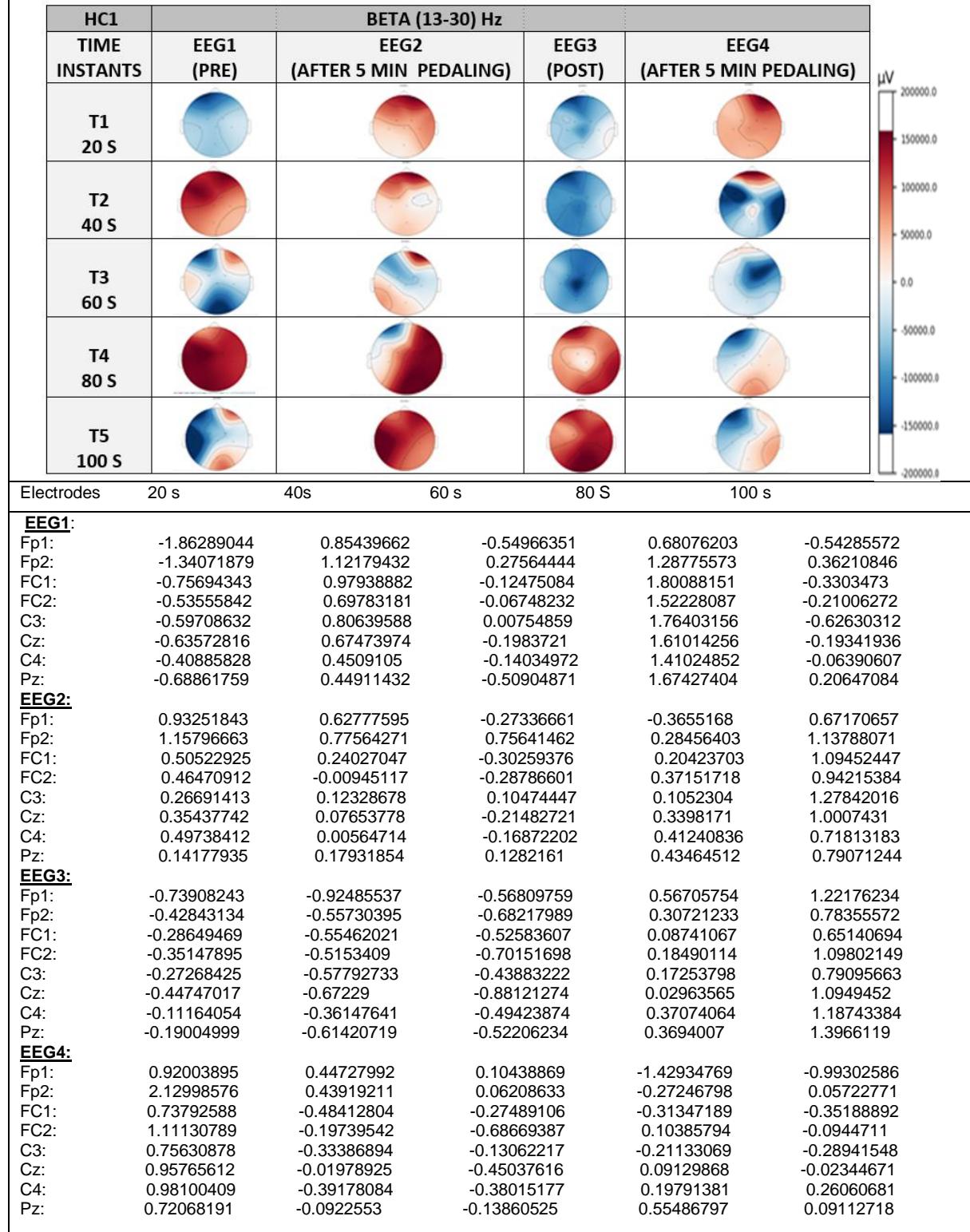


Fig 18. Space connectivity based on PLV – HC1- Mu

Results of HC1 - Beta band

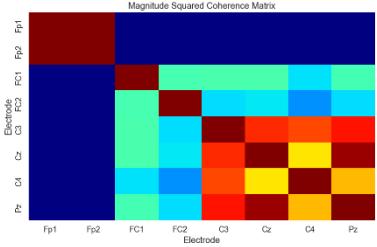
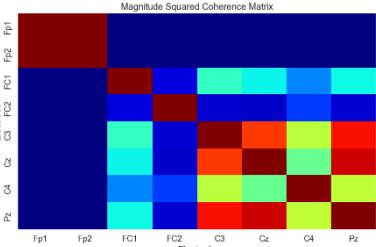
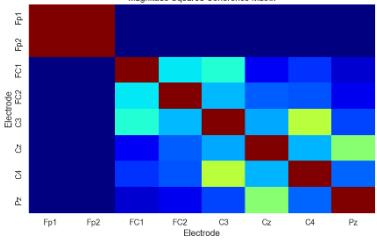
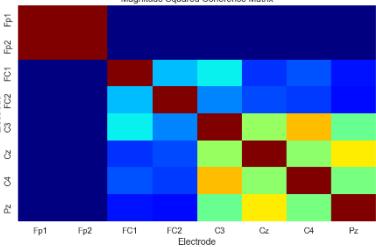
Table 28. Scalp topography and mean amplitude values for each electrode among phases and time instants for HC1 - Beta band



Kruskal-Wallis test p-value: 0.0029

Cohen's d: -0.30

Table 29. Magnitude-Squared Coherence (MSC) between electrode pairs and among phases for HC1-Beta band

Magnitude-Squared Coherence (MSC) HC1-BETA																																																																																																																																	
EEG1 Overall Mean MSC within ROI: 0.556	EEG2 Overall Mean MSC within ROI: 0.4126																																																																																																																																
EEG1  <p>Magnitude Squared Coherence Matrix</p> <table border="1"> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> </table>	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	EEG2  <p>Magnitude Squared Coherence Matrix</p> <table border="1"> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> </table>	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz
Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz																																																																																																																										
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EEG3 Overall Mean MSC within ROI: 0.2689	EEG4 Overall Mean MSC within ROI: 0.3571																																																																																																																																
EEG3  <p>Magnitude Squared Coherence Matrix</p> <table border="1"> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> </table>	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	EEG4  <p>Magnitude Squared Coherence Matrix</p> <table border="1"> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> <tr><td>Fp1</td><td>Fp2</td><td>FC1</td><td>FC2</td><td>C3</td><td>C2</td><td>C4</td><td>Pz</td></tr> </table>	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz	Fp1	Fp2	FC1	FC2	C3	C2	C4	Pz
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EEG1	EEG2	EEG3	EEG4																																																																																																																														
FC1 and FC1: 1.0000 FC1 and FC2: 0.4358 FC1 and C3: 0.4412 FC1 and Cz: 0.4407 FC1 and C4: 0.3459 FC1 and Pz: 0.4306 FC2 and FC2: 1.0000 FC2 and C3: 0.3425 FC2 and Cz: 0.3538 FC2 and C4: 0.2695 FC2 and Pz: 0.3433 C3 and C3: 1.0000 C3 and Cz: 0.8644 C3 and C4: 0.8343 C3 and Pz: 0.8872 Cz and Cz: 1.0000 Cz and C4: 0.6662 Cz and Pz: 0.9757 C4 and C4: 1.0000 C4 and Pz: 0.7147 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.0846 FC1 and C3: 0.4132 FC1 and Cz: 0.3665 FC1 and C4: 0.2563 FC1 and Pz: 0.3687 FC2 and FC2: 1.0000 FC2 and C3: 0.0721 FC2 and Cz: 0.0664 FC2 and C4: 0.1825 FC2 and Pz: 0.0707 C3 and C3: 1.0000 C3 and Cz: 0.8487 C3 and C4: 0.5774 C3 and Pz: 0.8940 Cz and Cz: 1.0000 Cz and C4: 0.4732 Cz and Pz: 0.9302 C4 and C4: 1.0000 C4 and Pz: 0.5858 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.3554 FC1 and C3: 0.3926 FC1 and Cz: 0.1022 FC1 and C4: 0.1724 FC1 and Pz: 0.0739 FC2 and FC2: 1.0000 FC2 and C3: 0.3083 FC2 and Cz: 0.2188 FC2 and C4: 0.2088 FC2 and Pz: 0.0986 C3 and C3: 1.0000 C3 and Cz: 0.2927 C3 and C4: 0.5781 C3 and Pz: 0.1934 Cz and Cz: 1.0000 Cz and C4: 0.3015 Cz and Pz: 0.5147 C4 and C4: 1.0000 C4 and Pz: 0.2234 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.3118 FC1 and C3: 0.3605 FC1 and Cz: 0.1737 FC1 and C4: 0.2060 FC1 and Pz: 0.1430 FC2 and FC2: 1.0000 FC2 and C3: 0.2544 FC2 and Cz: 0.1957 FC2 and C4: 0.1814 FC2 and Pz: 0.1367 C3 and C3: 1.0000 C3 and Cz: 0.5338 C3 and C4: 0.7101 C3 and Pz: 0.4753 Cz and Cz: 1.0000 Cz and C4: 0.5229 Cz and Pz: 0.6593 C4 and C4: 1.0000 C4 and Pz: 0.4927 Pz and Pz: 1.0000																																																																																																																														

Permutation test p-value: 0.3294

Cohen's d: -0.26

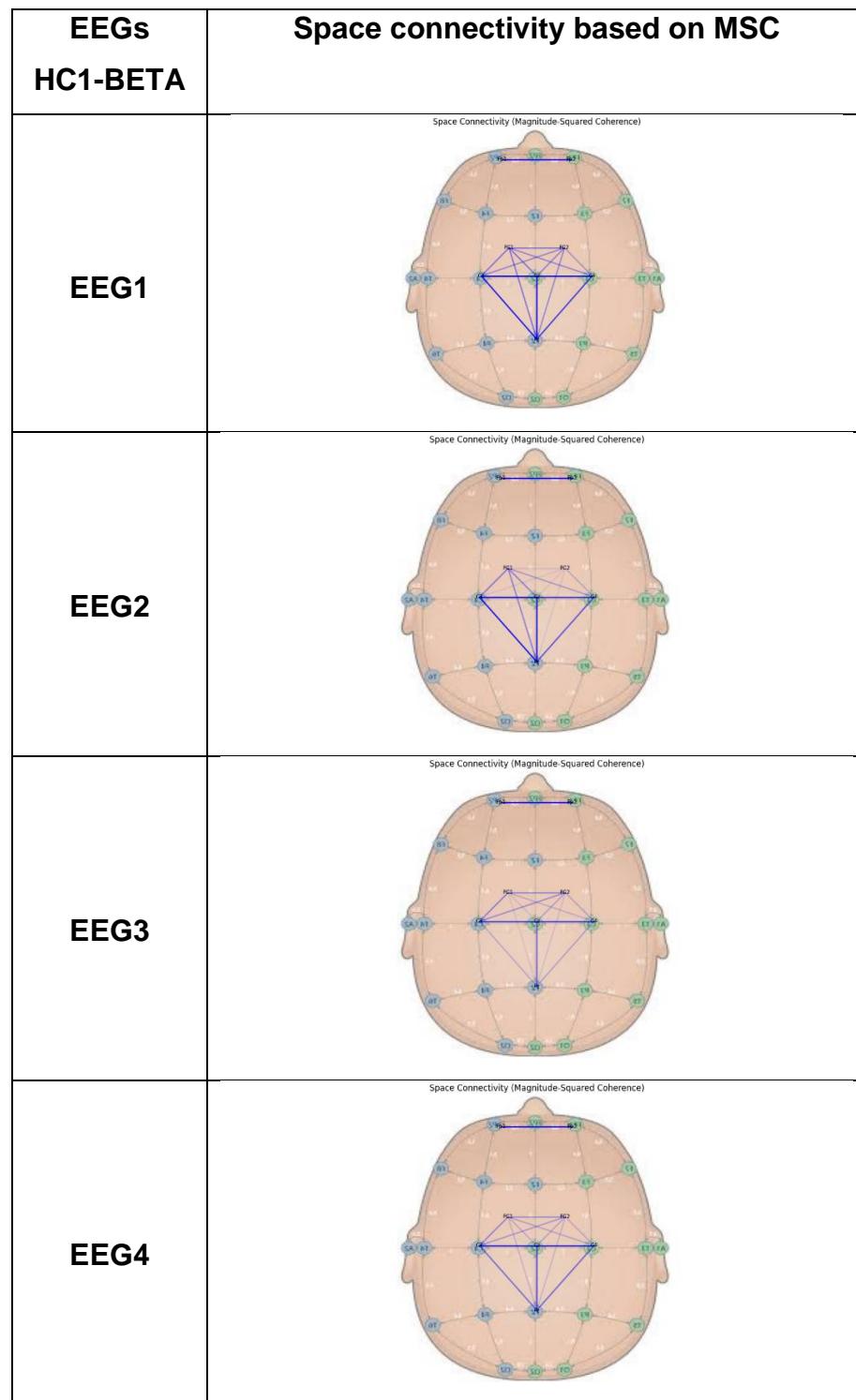
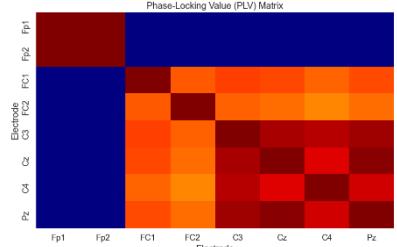
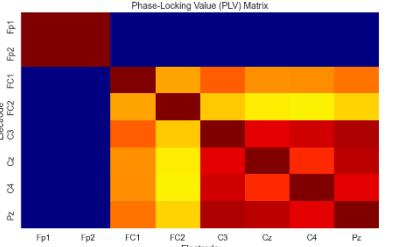
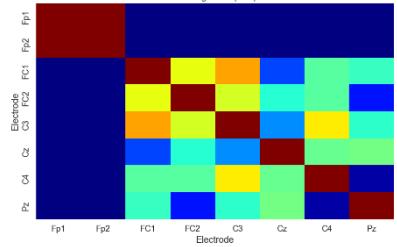
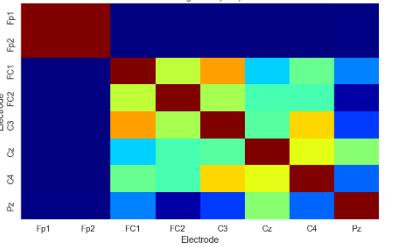


Fig 19. Space connectivity based on MSC – HC1- Beta

Table 30. Phase Locking Value (PLV) between electrode pairs and among phases for HC1- Beta band

Phase locking Value (PLV)		HC1-BETA	
EEG1	EEG2	EEG3	EEG4
Overall Mean PLV within ROI: 0.8676	Overall Mean PLV within ROI: 0.8047	Overall Mean PLV within ROI: 0.4240	Overall Mean PLV within ROI: 0.4351
			
<p>EEG1</p> <p>FC1 and FC1: 1.0000 FC1 and FC2: 0.8129 FC1 and C3: 0.8435 FC1 and Cz: 0.8336 FC1 and C4: 0.8013 FC1 and Pz: 0.8321 FC2 and FC2: 1.0000 FC2 and C3: 0.8081 FC2 and Cz: 0.7968 FC2 and C4: 0.7687 FC2 and Pz: 0.7969 C3 and C3: 1.0000 C3 and Cz: 0.9641 C3 and C4: 0.9518 C3 and Pz: 0.9703 Cz and Cz: 1.0000 Cz and C4: 0.9142 Cz and Pz: 0.9908 C4 and C4: 1.0000 C4 and Pz: 0.9293 Pz and Pz: 1.0000</p>	<p>EEG2</p> <p>FC1 and FC1: 1.0000 FC1 and FC2: 0.7372 FC1 and C3: 0.8090 FC1 and Cz: 0.7561 FC1 and C4: 0.7584 FC1 and Pz: 0.7866 FC2 and FC2: 1.0000 FC2 and C3: 0.6971 FC2 and Cz: 0.6584 FC2 and C4: 0.6561 FC2 and Pz: 0.6851 C3 and C3: 1.0000 C3 and Cz: 0.9122 C3 and C4: 0.9296 C3 and Pz: 0.9598 Cz and Cz: 1.0000 Cz and C4: 0.8641 Cz and Pz: 0.9481 C4 and C4: 1.0000 C4 and Pz: 0.9136 Pz and Pz: 1.0000</p>	<p>EEG3</p> <p>FC1 and FC1: 1.0000 FC1 and FC2: 0.6298 FC1 and C3: 0.7378 FC1 and Cz: 0.1947 FC1 and C4: 0.4553 FC1 and Pz: 0.4169 FC2 and FC2: 1.0000 FC2 and C3: 0.6075 FC2 and Cz: 0.3956 FC2 and C4: 0.4548 FC2 and Pz: 0.1428 C3 and C3: 1.0000 C3 and Cz: 0.2626 C3 and C4: 0.6570 C3 and Pz: 0.4066 Cz and Cz: 1.0000 Cz and C4: 0.4736 Cz and Pz: 0.4908 C4 and C4: 1.0000 C4 and Pz: 0.0350 Pz and Pz: 1.0000</p>	<p>EEG4</p> <p>FC1 and FC1: 1.0000 FC1 and FC2: 0.5800 FC1 and C3: 0.7388 FC1 and Cz: 0.3314 FC1 and C4: 0.4737 FC1 and Pz: 0.2533 FC2 and FC2: 1.0000 FC2 and C3: 0.5528 FC2 and Cz: 0.4372 FC2 and C4: 0.4359 FC2 and Pz: 0.0337 C3 and C3: 1.0000 C3 and Cz: 0.4565 C3 and C4: 0.6812 C3 and Pz: 0.1840 Cz and Cz: 1.0000 Cz and C4: 0.6288 Cz and Pz: 0.5129 C4 and C4: 1.0000 C4 and Pz: 0.2271 Pz and Pz: 1.0000</p>

Permutation test p-value: 0.3290

Cohen's d: -0.90

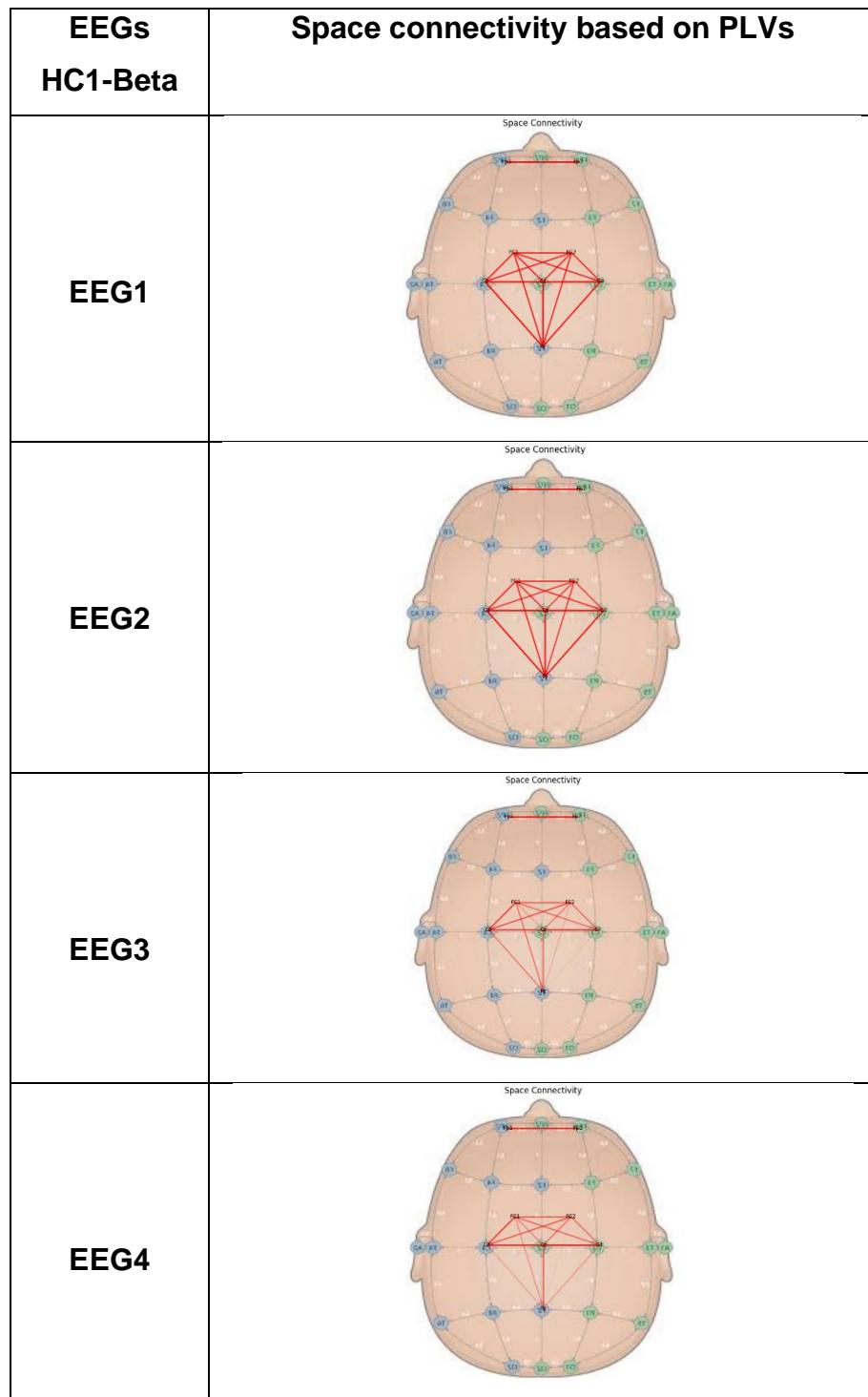
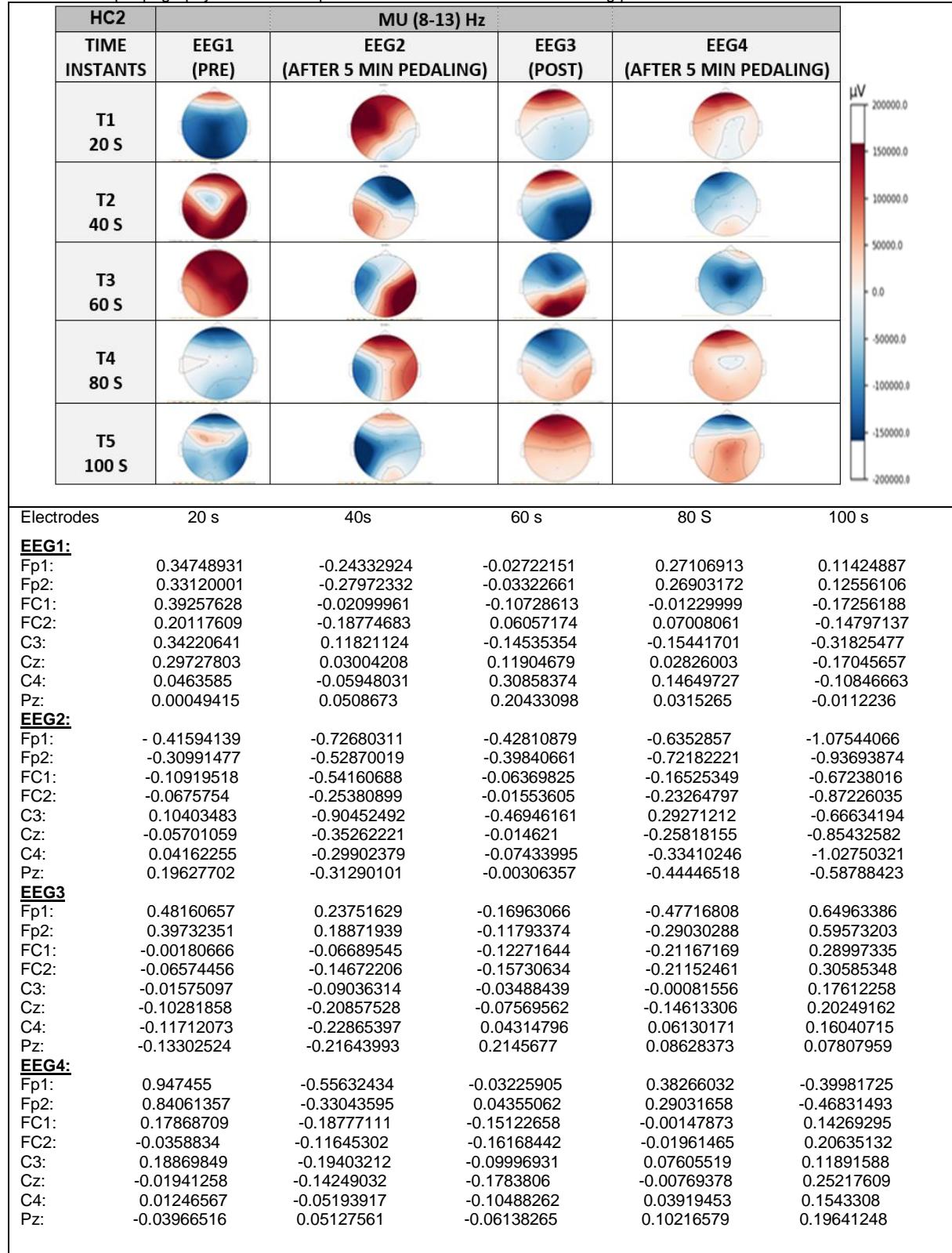


Fig 20. Space connectivity based on PLV – HC1- Beta

Results of HC2 – Mu band

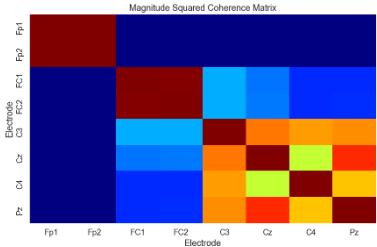
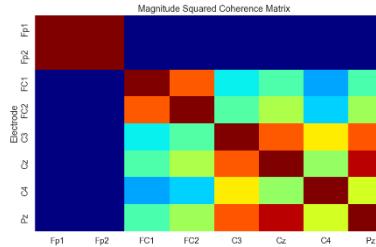
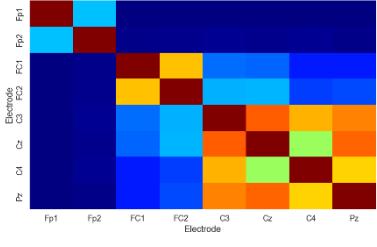
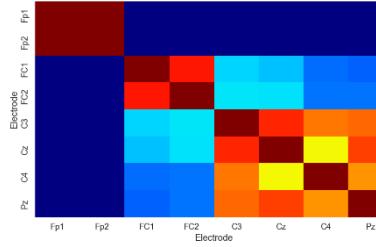
Table 31. Scalp topography and mean amplitude values for each electrode among phases and time instants for HC2 - Mu band



Kruskal-Wallis test p-value: 0.0049

Cohen's d: -0.064

Table 32. Magnitude-Squared Coherence (MSC) between electrode pairs and among phases for HC2-Mu band

Magnitude-Squared Coherence (MSC) HC2-MU			
EEG1	EEG2		
Overall Mean MSC within ROI: 0.4783404096699029	Overall Mean MSC within ROI: 0.5741175746975894		
			
EEG3	EEG4		
MSC within ROI: 0.45224359619059046	Overall Mean MSC within ROI: 0.5238659457069383		
			
EEG1	EEG2	EEG3	EEG4
FC1 and FC1: 1.0000 FC1 and FC2: 0.9952 FC1 and C3: 0.2955 FC1 and Cz: 0.2394 FC1 and C4: 0.1659 FC1 and Pz: 0.1679 FC2 and FC2: 1.0000 FC2 and C3: 0.2952 FC2 and Cz: 0.2434 FC2 and C4: 0.1654 FC2 and Pz: 0.1693 C3 and C3: 1.0000 C3 and Cz: 0.7834 C3 and C4: 0.7433 C3 and Pz: 0.7578 Cz and Cz: 1.0000 Cz and C4: 0.5879 Cz and Pz: 0.8636 C4 and C4: 1.0000 C4 and Pz: 0.7019 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.8148 FC1 and C3: 0.3628 FC1 and Cz: 0.4425 FC1 and C4: 0.2884 FC1 and Pz: 0.4409 FC2 and FC2: 1.0000 FC2 and C3: 0.4531 FC2 and Cz: 0.5614 FC2 and C4: 0.3301 FC2 and Pz: 0.5433 C3 and C3: 1.0000 C3 and Cz: 0.8154 C3 and C4: 0.6563 C3 and Pz: 0.8177 Cz and Cz: 1.0000 Cz and C4: 0.5285 Cz and Pz: 0.9489 C4 and C4: 1.0000 C4 and Pz: 0.6078 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.7042 FC1 and C3: 0.2334 FC1 and Cz: 0.2263 FC1 and C4: 0.1519 FC1 and Pz: 0.1492 FC2 and FC2: 1.0000 FC2 and C3: 0.2992 FC2 and Cz: 0.3037 FC2 and C4: 0.1855 FC2 and Pz: 0.1986 C3 and C3: 1.0000 C3 and Cz: 0.8124 C3 and C4: 0.7211 C3 and Pz: 0.7696 Cz and Cz: 1.0000 Cz and C4: 0.5378 Cz and Pz: 0.8046 C4 and C4: 1.0000 C4 and Pz: 0.6861 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.8846 FC1 and C3: 0.3339 FC1 and Cz: 0.3128 FC1 and C4: 0.2343 FC1 and Pz: 0.2221 FC2 and FC2: 1.0000 FC2 and C3: 0.3494 FC2 and Cz: 0.3466 FC2 and C4: 0.2418 FC2 and Pz: 0.2407 C3 and C3: 1.0000 C3 and Cz: 0.8707 C3 and C4: 0.7814 C3 and Pz: 0.8002 Cz and Cz: 1.0000 Cz and C4: 0.6463 Cz and Pz: 0.8418 C4 and C4: 1.0000 C4 and Pz: 0.7515 Pz and Pz: 1.0000

Permutation test p-value: 0.6668

Cohen's d: -0.06

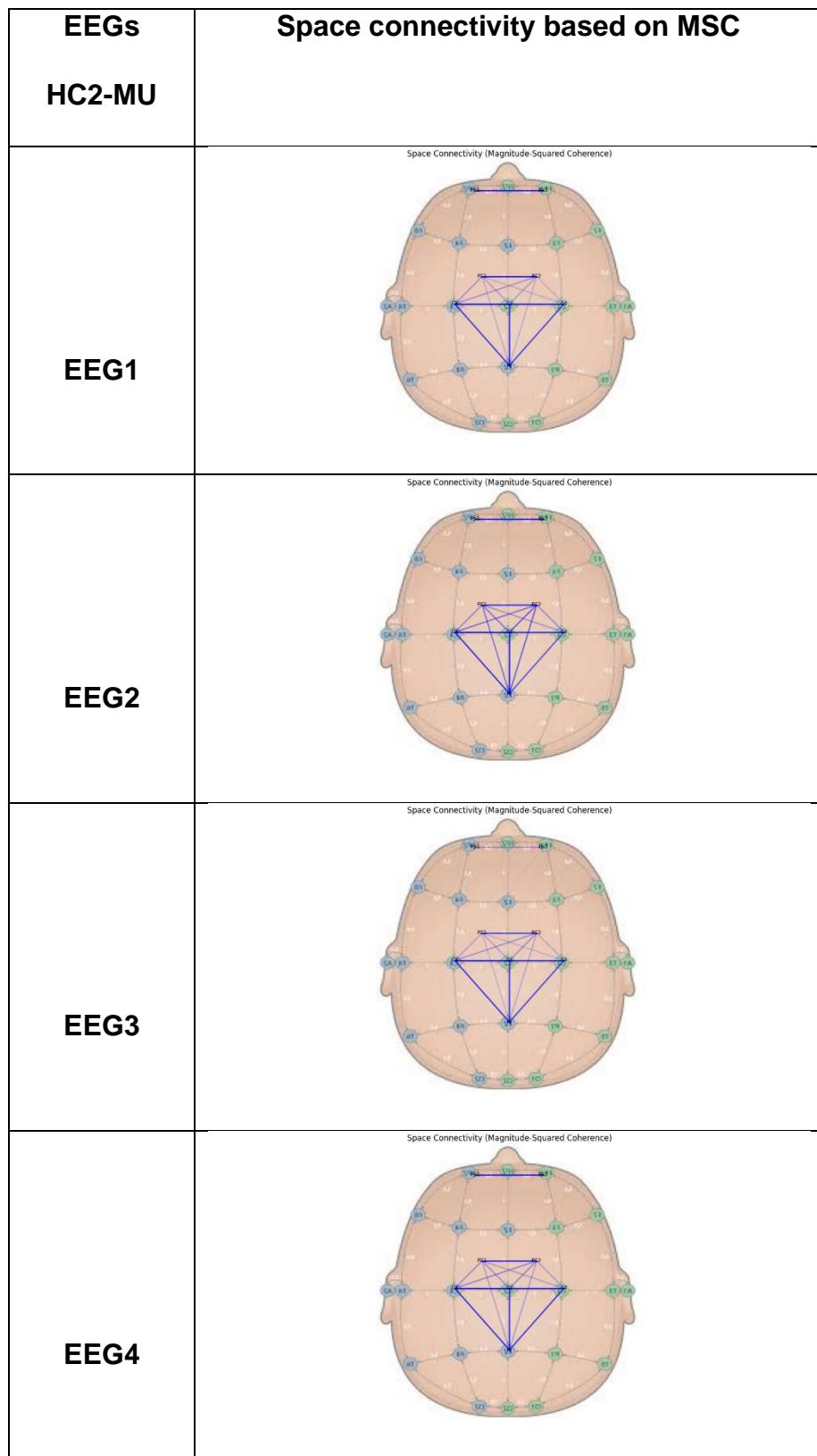
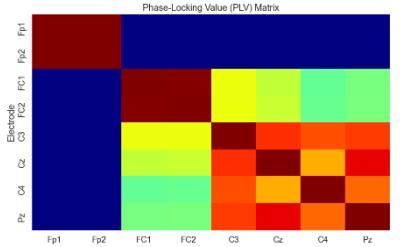
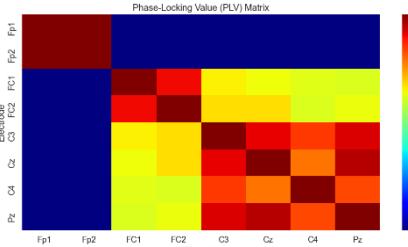
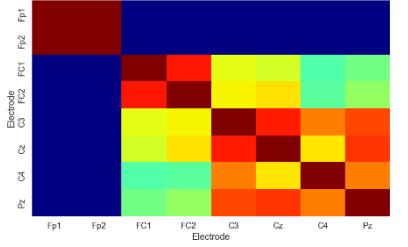
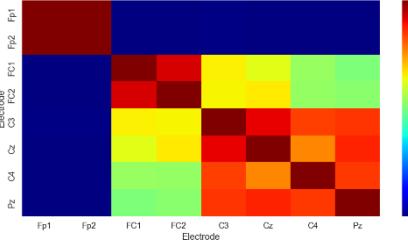


Fig 21. Space connectivity based on MSC – HC2-MU

Table 33. Phase Locking Value (PLV) between electrode pairs and among phases for HC2- Mu band

Phase locking Value (PLV)		HC2-MU	
EEG1		EEG2	
Overall Mean PLV of the ROI: 0.6901944387421566		Overall Mean PLV of the ROI: 0.7520920710205861	
			
EEG3		EEG4	
Overall Mean PLV of the ROI: 0.6764730733897699		Overall Mean PLV of the ROI: 0.7125047743646366	
			
EEG1	EEG2	EEG3	EEG4
FC1 and FC1: 1.0000 FC1 and FC2: 0.9956 FC1 and C3: 0.6361 FC1 and Cz: 0.5854 FC1 and C4: 0.4727 FC1 and Pz: 0.4945 FC2 and FC2: 1.0000 FC2 and C3: 0.6372 FC2 and Cz: 0.5930 FC2 and C4: 0.4735 FC2 and Pz: 0.5004 C3 and C3: 1.0000 C3 and Cz: 0.8629 C3 and C4: 0.8258 C3 and Pz: 0.8443 Cz and Cz: 1.0000 Cz and C4: 0.7261 Cz and Pz: 0.9082 C4 and C4: 1.0000 C4 and Pz: 0.7973 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.9008 FC1 and C3: 0.6544 FC1 and Cz: 0.6398 FC1 and C4: 0.6221 FC1 and Pz: 0.6164 FC2 and FC2: 1.0000 FC2 and C3: 0.6729 FC2 and Cz: 0.6741 FC2 and C4: 0.6159 FC2 and Pz: 0.6368 C3 and C3: 1.0000 C3 and Cz: 0.9080 C3 and C4: 0.8505 C3 and Pz: 0.9186 Cz and Cz: 1.0000 Cz and C4: 0.7874 Cz and Pz: 0.9494 C4 and C4: 1.0000 C4 and Pz: 0.8342 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.8852 FC1 and C3: 0.6273 FC1 and Cz: 0.6042 FC1 and C4: 0.4482 FC1 and Pz: 0.4893 FC2 and FC2: 1.0000 FC2 and C3: 0.6490 FC2 and Cz: 0.6710 FC2 and C4: 0.4578 FC2 and Pz: 0.5286 C3 and C3: 1.0000 C3 and Cz: 0.8791 C3 and C4: 0.7747 C3 and Pz: 0.8354 Cz and Cz: 1.0000 Cz and C4: 0.6662 Cz and Pz: 0.8550 C4 and C4: 1.0000 C4 and Pz: 0.7761 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.9246 FC1 and C3: 0.6527 FC1 and Cz: 0.6217 FC1 and C4: 0.5350 FC1 and Pz: 0.5011 FC2 and FC2: 1.0000 FC2 and C3: 0.6505 FC2 and Cz: 0.6612 FC2 and C4: 0.5284 FC2 and Pz: 0.5181 C3 and C3: 1.0000 C3 and Cz: 0.9075 C3 and C4: 0.8414 C3 and Pz: 0.8545 Cz and Cz: 1.0000 Cz and C4: 0.7691 Cz and Pz: 0.8733 C4 and C4: 1.0000 C4 and Pz: 0.8486 Pz and Pz: 1.0000

Permutation test p-value: 0.6652

Cohen's d: -0.07

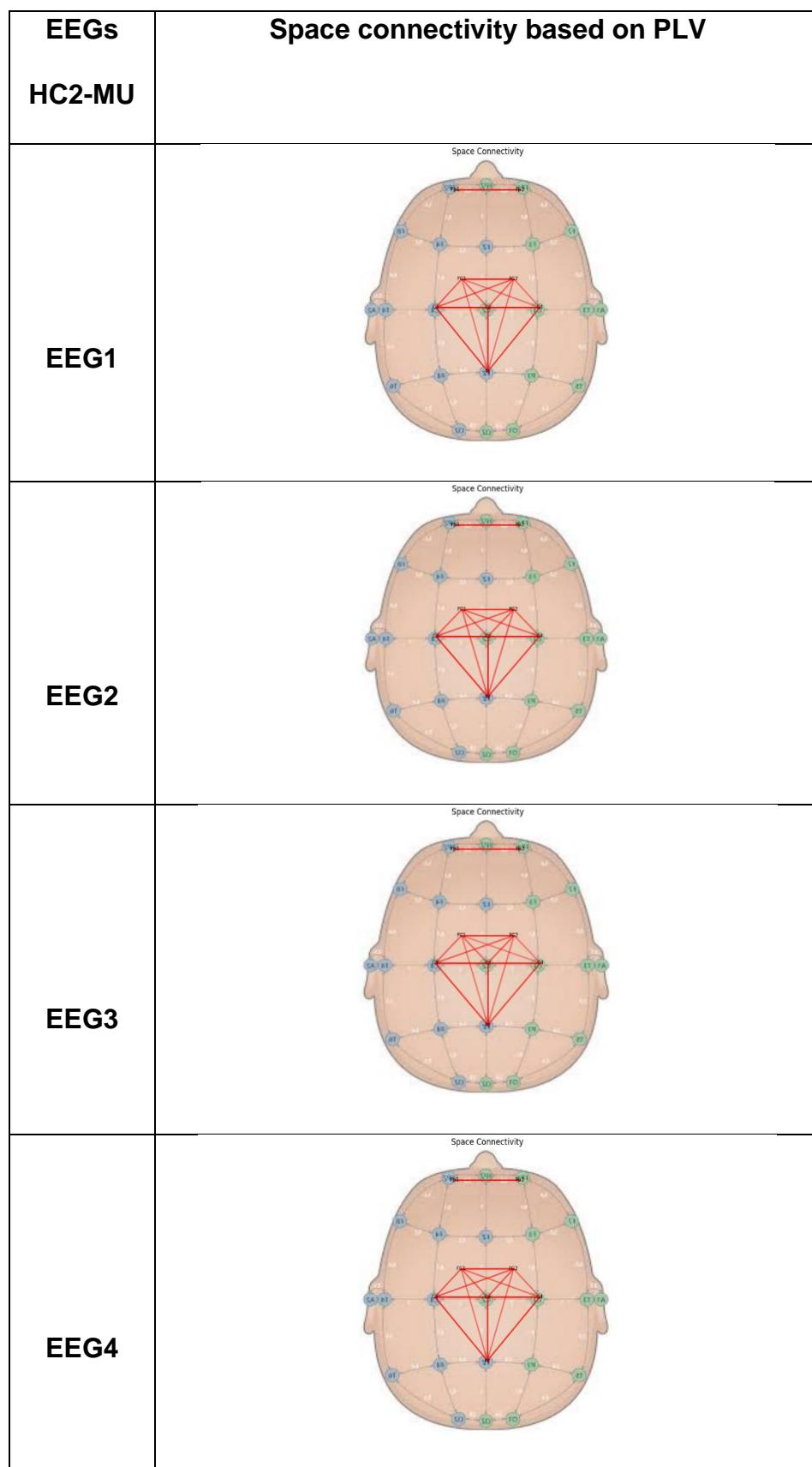


Fig 22. Space connectivity based on PLV – HC2-MU

Results of HC2 – Beta band

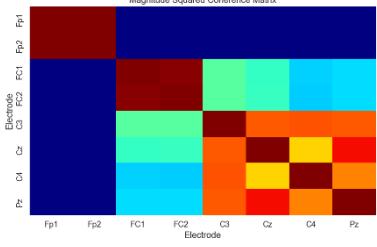
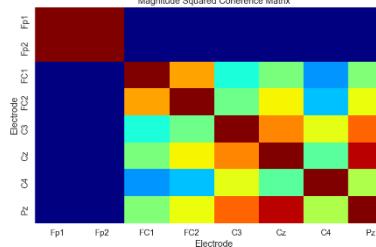
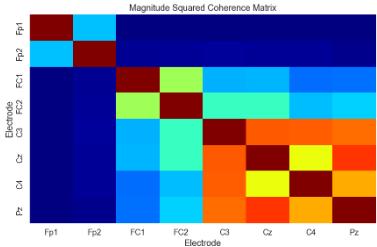
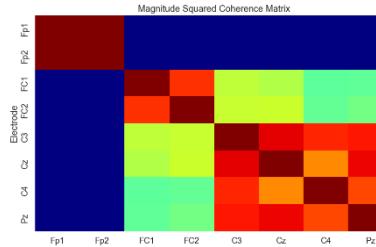
Table 34. Scalp topography and mean amplitude values for each electrode among phases and time instants for HC2 - Beta band

HC2	BETA (13-30)Hz				μV
	TIME INSTANTS	EEG1 (PRE)	EEG2 (AFTER 5 MIN PEDALING)	EEG3 (POST)	
T1 20 S					
T2 40 S					
T3 60 S					
T4 80 S					
T5 100 S					
Electrodes	20 s	40s	60 s	80 S	100 s
EEG1:					
Fp1:	0.04321886	0.32404532	-0.28727851	-0.00561336	0.26040494
Fp2:	0.0649371	0.29284667	-0.31817442	-0.01283112	0.26899198
FC1:	0.59940949	0.41449694	-0.6166776	-0.27813757	-0.30761703
FC2:	0.94574073	0.62359327	-0.4944949	0.00792937	-0.42798454
C3:	0.54502956	0.56313273	-0.71725562	-0.40276427	-0.3615633
Cz:	1.01456835	0.81275928	-0.6268516	-0.10709331	-0.390445
C4:	0.89881205	0.9663438	-0.24040363	-0.127123	-0.6061095
Pz:	0.26070402	1.01365841	-0.63641179	-0.31408955	-0.65019915
EEG2:					
Fp1:	-0.65621086	-1.5327798	0.81817913	1.82778208	-0.61524951
Fp2:	-0.40132617	-0.93716694	0.49661033	1.82206224	-0.5966977
FC1:	-0.64658898	-0.53090169	0.56540035	2.42075256	-0.47818822
FC2:	-0.70864823	-0.81467273	0.71990714	2.33473306	0.57992544
C3:	-0.14110633	-0.62627979	0.73649886	3.24459814	-0.79129223
Cz:	-0.62803961	-0.75120495	0.38637911	1.96208815	-0.00619154
C4:	-0.62037621	-0.67101559	0.92702898	2.80423876	1.29107981
Pz:	-0.02016507	-0.56372943	0.66281881	0.77820535	0.00944308
EEG3:					
Fp1:	0.40268638	0.07912914	-0.31406042	-0.71001979	0.66193396
Fp2:	0.48094048	-0.03679649	0.11905465	-1.30436068	0.67915123
FC1:	0.0253323	0.20167617	0.3194221	-0.55109904	0.15453875
FC2:	0.42317499	-0.14157039	0.0300703	-0.71707419	-0.09531672
C3:	-0.12001501	0.07059851	0.3938419	-0.43524696	-0.15004381
Cz:	0.046896	-0.06013648	0.27530802	-0.502389	0.14510658
C4:	0.2681108	-0.27921727	-0.15172356	-0.91662925	-0.15214498
Pz:	-0.20695221	-0.12756057	0.29845608	-0.54839423	-0.16493368
EEG4:					
Fp1:	-1.27587051	-0.15926914	0.09045003	-0.38799251	-0.77870295
Fp2:	-1.15320327	-0.05238515	0.22593299	-0.25605973	-0.45132244
FC1:	-1.06136774	-0.07975466	-0.13775216	-0.0692266	-0.0040546
FC2:	-1.45047853	0.0563341	-0.2331506	-0.11624122	0.09905881
C3:	-0.88986639	0.43975393	-0.38586164	-0.03367145	-0.09435352
Cz:	-1.41605774	0.1247531	-0.36711822	-0.09344121	0.02552235
C4:	-1.70463973	0.25568279	-0.47467187	-0.22910729	0.22196662
Pz:	-1.36157054	0.49025199	-0.67002356	-0.23295926	0.23419282

Kruskal-Wallis test p-value: 0.0800

Cohen's d: -0.36

Table 35. Magnitude-Squared Coherence (MSC) between electrode pairs and among phases for HC2-Beta band

Magnitude-Squared Coherence (MSC) HC2-BETA			
EEG1	EEG2		
Overall Mean MSC within ROI: 0.591462849531059	Overall Mean MSC within ROI: 0.5760041806776398		
			
EEG3	EEG4		
Overall Mean MSC within ROI: 0.5149433278352524	Overall Mean MSC within ROI: 0.6826154418547649		
			
EEG1	EEG2	EEG3	EEG4
FC1 and FC1: 1.0000 FC1 and FC2: 0.9917 FC1 and C3: 0.4545 FC1 and Cz: 0.4131 FC1 and C4: 0.3290 FC1 and Pz: 0.3408 FC2 and FC2: 1.0000 FC2 and C3: 0.4538 FC2 and Cz: 0.4171 FC2 and C4: 0.3281 FC2 and Pz: 0.3421 C3 and C3: 1.0000 C3 and Cz: 0.8132 C3 and C4: 0.8211 C3 and Pz: 0.8151 Cz and Cz: 1.0000 Cz and C4: 0.6868 Cz and Pz: 0.8949 C4 and C4: 1.0000 C4 and Pz: 0.7708 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.7373 FC1 and C3: 0.3852 FC1 and Cz: 0.4962 FC1 and C4: 0.2702 FC1 and Pz: 0.5074 FC2 and FC2: 1.0000 FC2 and C3: 0.4828 FC2 and Cz: 0.6487 FC2 and C4: 0.3138 FC2 and Pz: 0.6339 C3 and C3: 1.0000 C3 and Cz: 0.7680 C3 and C4: 0.6277 C3 and Pz: 0.8028 Cz and Cz: 1.0000 Cz and C4: 0.4599 Cz and Pz: 0.9454 C4 and C4: 1.0000 C4 and Pz: 0.5609 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.5434 FC1 and C3: 0.3003 FC1 and Cz: 0.3023 FC1 and C4: 0.2331 FC1 and Pz: 0.2379 FC2 and FC2: 1.0000 FC2 and C3: 0.4169 FC2 and Cz: 0.4146 FC2 and C4: 0.3086 FC2 and Pz: 0.3297 C3 and C3: 1.0000 C3 and Cz: 0.8131 C3 and C4: 0.8108 C3 and Pz: 0.7963 Cz and Cz: 1.0000 Cz and C4: 0.6364 Cz and Pz: 0.8516 C4 and C4: 1.0000 C4 and Pz: 0.7290 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.8561 FC1 and C3: 0.5795 FC1 and Cz: 0.5633 FC1 and C4: 0.4637 FC1 and Pz: 0.4651 FC2 and FC2: 1.0000 FC2 and C3: 0.5922 FC2 and Cz: 0.5944 FC2 and C4: 0.4714 FC2 and Pz: 0.4893 C3 and C3: 1.0000 C3 and Cz: 0.9121 C3 and C4: 0.8682 C3 and Pz: 0.8856 Cz and Cz: 1.0000 Cz and C4: 0.7635 Cz and Pz: 0.9025 C4 and C4: 1.0000 C4 and Pz: 0.8322 Pz and Pz: 1.0000

Permutation test p-value: 1.0

Cohen's d: -0.03

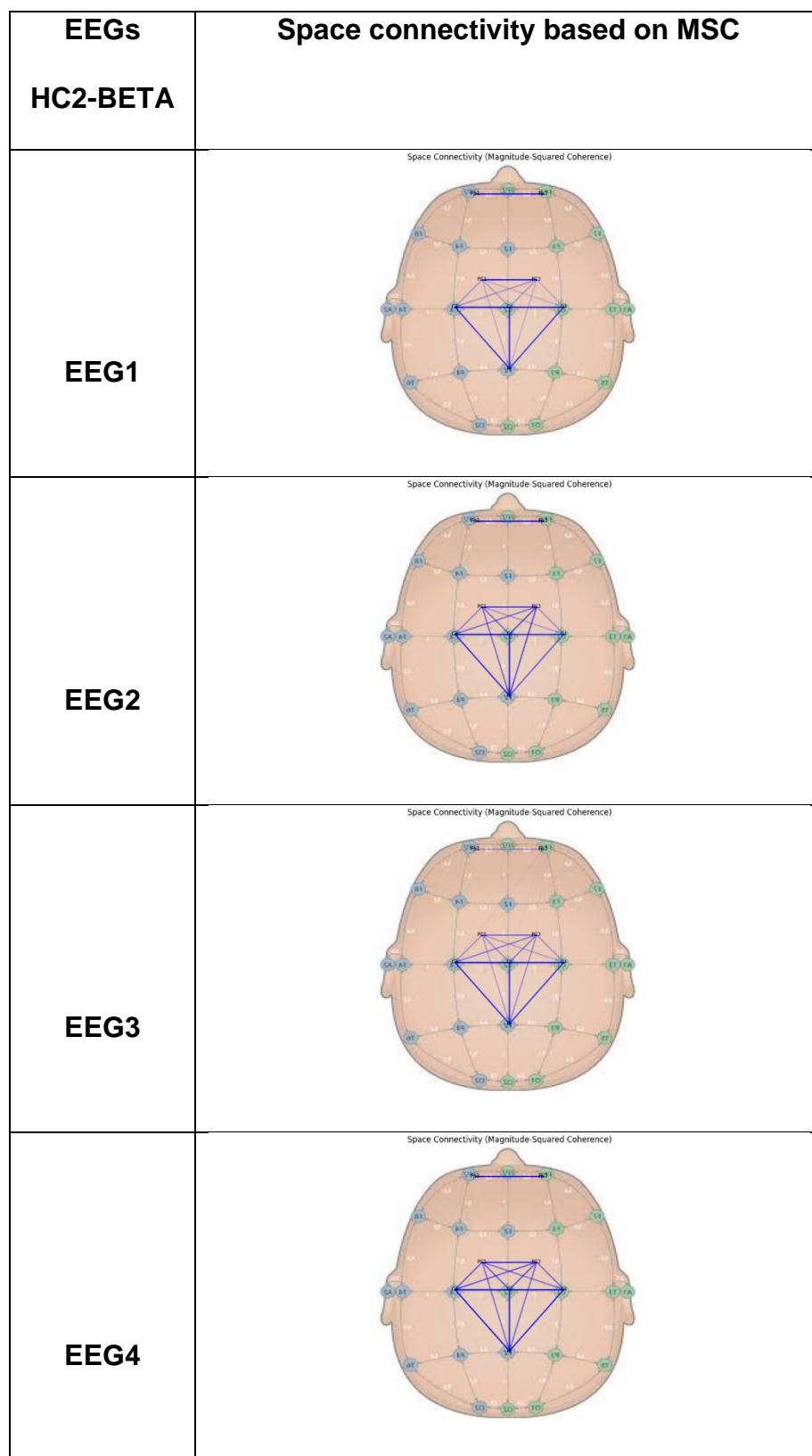
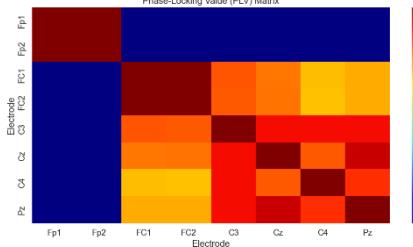
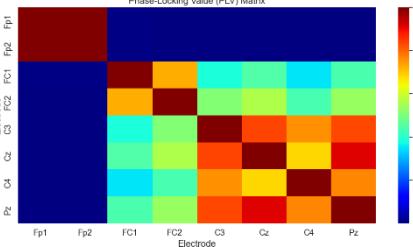
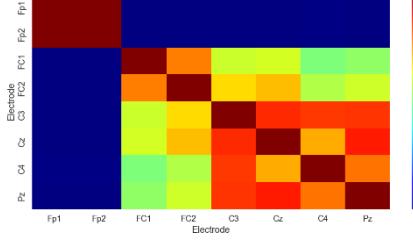
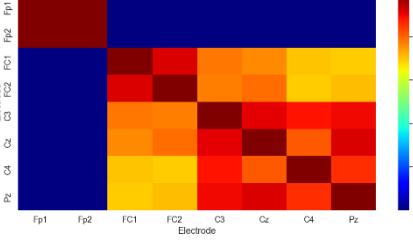


Fig 23. Space connectivity based on MSC – HC2-BETA

Table 36. Phase Locking Value (PLV) between electrode pairs and among phases for HC2- Beta band

Phase locking Value (PLV)		HC2-BETA					
EEG1		EEG2					
Overall Mean PLV of the ROI: 0.8254839828384432		Overall Mean PLV of the ROI: 0.6122238158755725					
							
Overall Mean PLV of the ROI: 0.701780149523485		Overall Mean PLV of the ROI: 0.8083667616170127					
							
EEG1	EEG2	EEG3	EEG4				
FC1 and FC1: 1.0000 FC1 and FC2: 0.9972 FC1 and C3: 0.8181 FC1 and Cz: 0.7849 FC1 and C4: 0.7101 FC1 and Pz: 0.7288 FC2 and FC2: 1.0000 FC2 and C3: 0.8150 FC2 and Cz: 0.7876 FC2 and C4: 0.7070 FC2 and Pz: 0.7299 C3 and C3: 1.0000 C3 and Cz: 0.8979 C3 and C4: 0.8957 C3 and Pz: 0.8955 Cz and Cz: 1.0000 Cz and C4: 0.8157 Cz and Pz: 0.9366 C4 and C4: 1.0000 C4 and Pz: 0.8622 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.7237 FC1 and C3: 0.3832 FC1 and Cz: 0.4485 FC1 and C4: 0.3509 FC1 and Pz: 0.4399 FC2 and FC2: 1.0000 FC2 and C3: 0.5115 FC2 and Cz: 0.5620 FC2 and C4: 0.4339 FC2 and Pz: 0.5342 C3 and C3: 1.0000 C3 and Cz: 0.8388 C3 and C4: 0.7571 C3 and Pz: 0.8327 Cz and Cz: 1.0000 Cz and C4: 0.6824 Cz and Pz: 0.9154 C4 and C4: 1.0000 C4 and Pz: 0.7691 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.7754 FC1 and C3: 0.5969 FC1 and Cz: 0.6067 FC1 and C4: 0.5040 FC1 and Pz: 0.5244 FC2 and FC2: 1.0000 FC2 and C3: 0.6793 FC2 and Cz: 0.7081 FC2 and C4: 0.5647 FC2 and Pz: 0.6012 C3 and C3: 1.0000 C3 and Cz: 0.8670 C3 and C4: 0.8480 C3 and Pz: 0.8521 Cz and Cz: 1.0000 Cz and C4: 0.7269 Cz and Pz: 0.8828 C4 and C4: 1.0000 C4 and Pz: 0.7890 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.9191 FC1 and C3: 0.7828 FC1 and Cz: 0.7651 FC1 and C4: 0.6994 FC1 and Pz: 0.6936 FC2 and FC2: 1.0000 FC2 and C3: 0.7746 FC2 and Cz: 0.7939 FC2 and C4: 0.6924 FC2 and Pz: 0.7078 C3 and C3: 1.0000 C3 and Cz: 0.9119 C3 and C4: 0.8889 C3 and Pz: 0.9020 Cz and Cz: 1.0000 Cz and C4: 0.8136 Cz and Pz: 0.9182 C4 and C4: 1.0000 C4 and Pz: 0.8621 Pz and Pz: 1.0000				

Permutation test p-value: 1.0

Cohen's d: 0.11

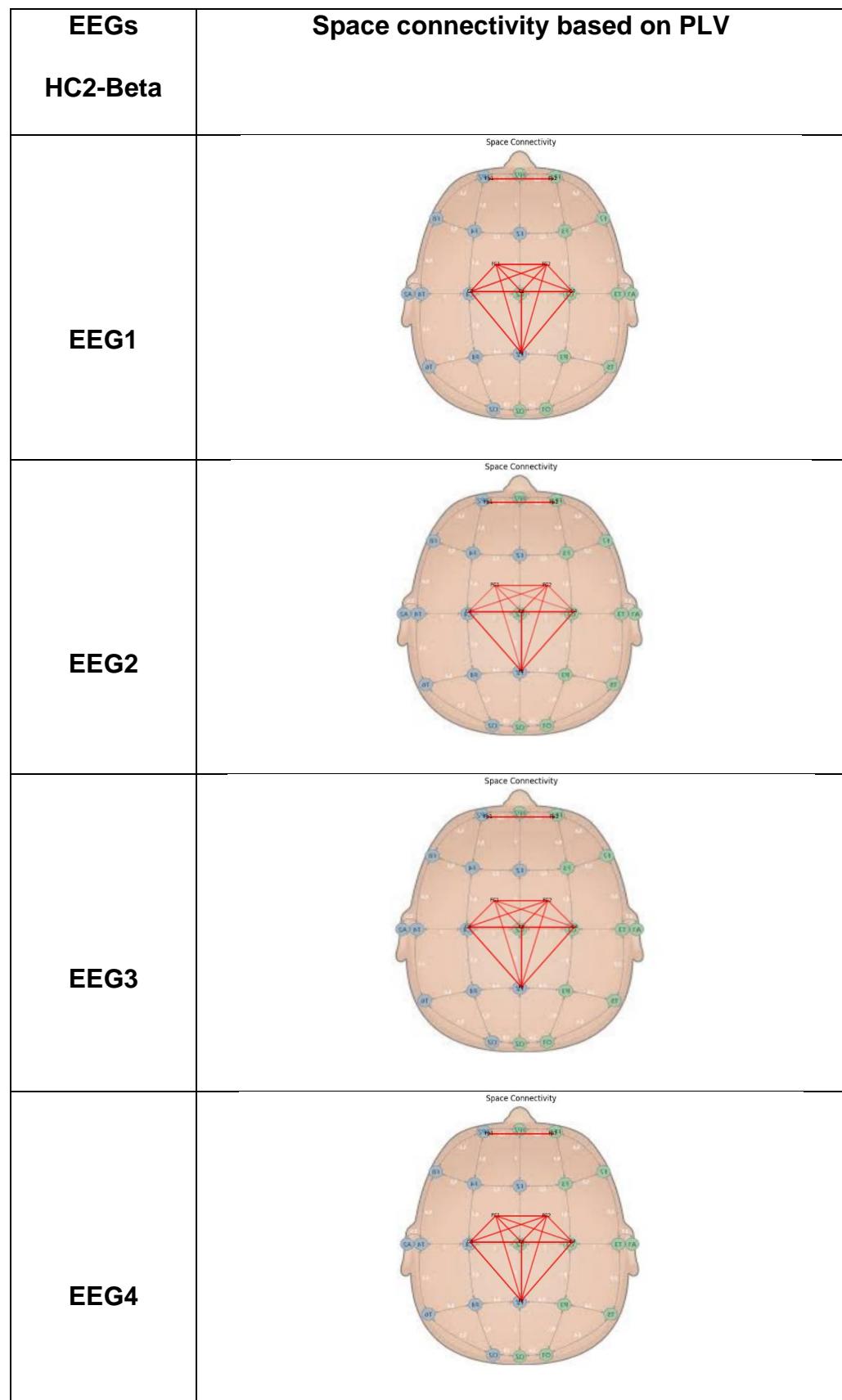
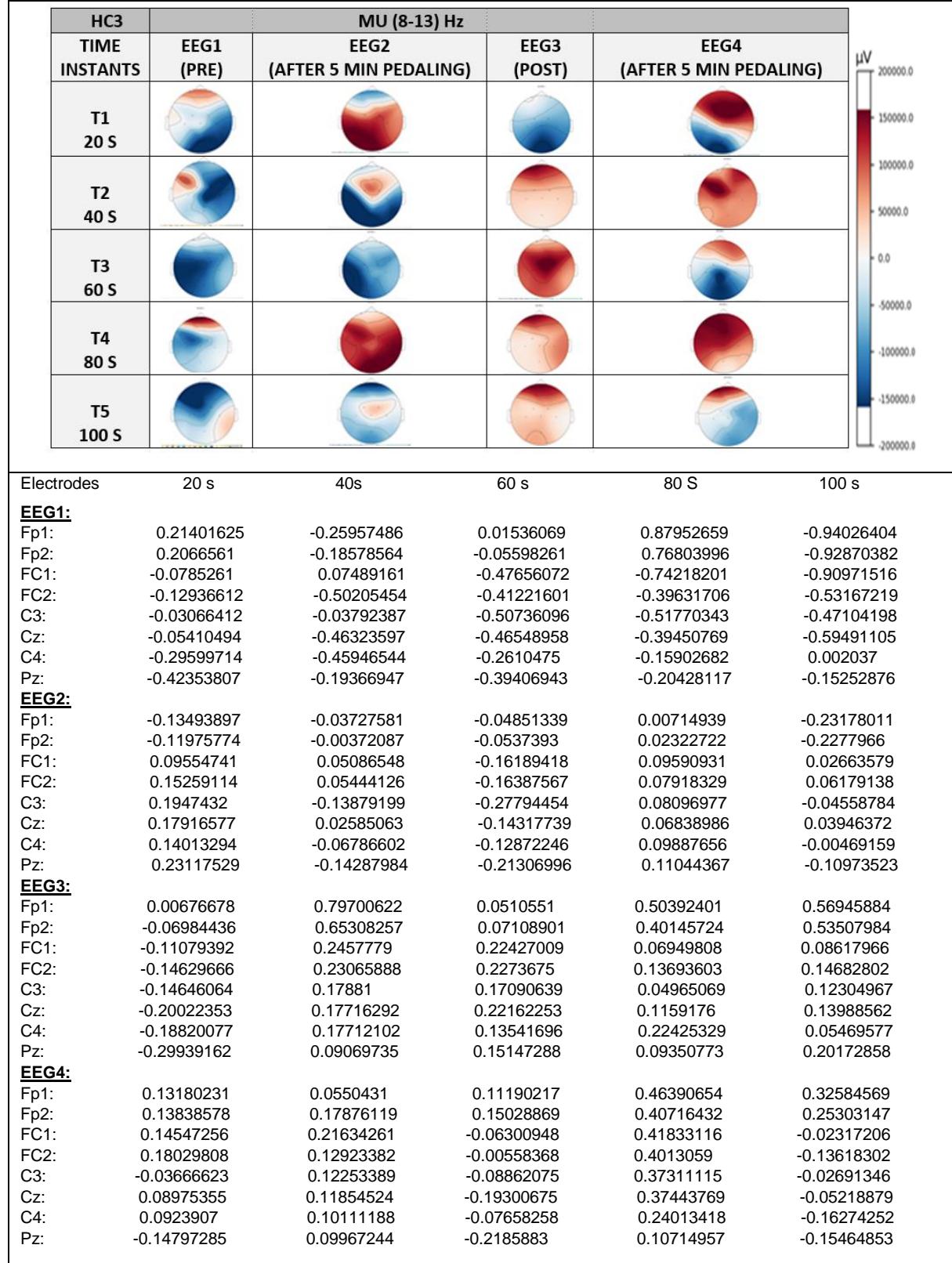


Fig 24. Space connectivity based on PLV – HC2-BETA

Results of HC3 – Mu band

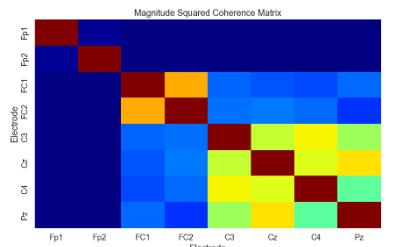
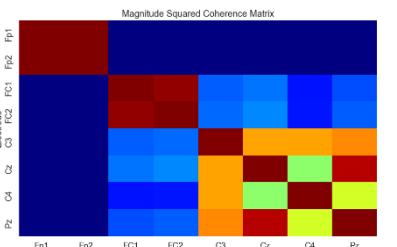
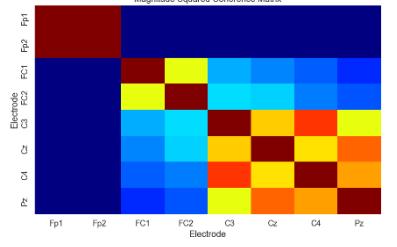
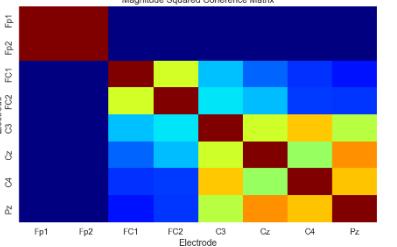
Table 37. Scalp topography and mean amplitude values for each electrode among phases and time points for HC3 - Mu band



Kruskal-Wallis test p-value: 0.000029

Cohen's d: 0.71

Table 38. Magnitude-Squared Coherence (MSC) between electrode pairs and among phases for HC3-Mu band

Magnitude-Squared Coherence (MSC) HC3-MU			
EEG1	EEG2		
Overall Mean MSC within ROI: 0.40022997642306907	Overall Mean MSC within ROI: 0.463302898179431		
			
EEG3	EEG4		
Overall Mean MSC within ROI: 0.47213145749852736	Overall Mean MSC within ROI: 0.4226253976791355		
			
EEG1	EEG2	EEG3	EEG4
FC1 and FC1: 1.0000 FC1 and FC2: 0.7297 FC1 and C3: 0.2236 FC1 and Cz: 0.2091 FC1 and C4: 0.1987 FC1 and Pz: 0.2278 FC2 and FC2: 1.0000 FC2 and C3: 0.2367 FC2 and Cz: 0.2457 FC2 and C4: 0.2282 FC2 and Pz: 0.1726 C3 and C3: 1.0000 C3 and Cz: 0.5881 C3 and C4: 0.6488 C3 and Pz: 0.5395 Cz and Cz: 1.0000 Cz and C4: 0.6207 Cz and Pz: 0.6714 C4 and C4: 1.0000 C4 and Pz: 0.4627 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.9809 FC1 and C3: 0.2166 FC1 and Cz: 0.2384 FC1 and C4: 0.1424 FC1 and Pz: 0.2023 FC2 and FC2: 1.0000 FC2 and C3: 0.2280 FC2 and Cz: 0.2586 FC2 and C4: 0.1474 FC2 and Pz: 0.2188 C3 and C3: 1.0000 C3 and Cz: 0.7371 C3 and C4: 0.7375 C3 and Pz: 0.7650 Cz and Cz: 1.0000 Cz and C4: 0.5223 Cz and Pz: 0.9523 C4 and C4: 1.0000 C4 and Pz: 0.6018 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.6324 FC1 and C3: 0.2938 FC1 and Cz: 0.2566 FC1 and C4: 0.2150 FC1 and Pz: 0.1660 FC2 and FC2: 1.0000 FC2 and C3: 0.3414 FC2 and Cz: 0.3317 FC2 and C4: 0.2478 FC2 and Pz: 0.2090 C3 and C3: 1.0000 C3 and Cz: 0.6925 C3 and C4: 0.8524 C3 and Pz: 0.6321 Cz and Cz: 1.0000 Cz and C4: 0.6683 Cz and Pz: 0.8009 C4 and C4: 1.0000 C4 and Pz: 0.7421 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.6042 FC1 and C3: 0.3157 FC1 and Cz: 0.2243 FC1 and C4: 0.1721 FC1 and Pz: 0.1411 FC2 and FC2: 1.0000 FC2 and C3: 0.3494 FC2 and Cz: 0.3116 FC2 and C4: 0.1830 FC2 and Pz: 0.1796 C3 and C3: 1.0000 C3 and Cz: 0.6001 C3 and C4: 0.6971 C3 and Pz: 0.5722 Cz and Cz: 1.0000 Cz and C4: 0.5325 Cz and Pz: 0.7561 C4 and C4: 1.0000 C4 and Pz: 0.7002 Pz and Pz: 1.0000

Permutation test p-value: 0.6633

Cohen's d: -0.06

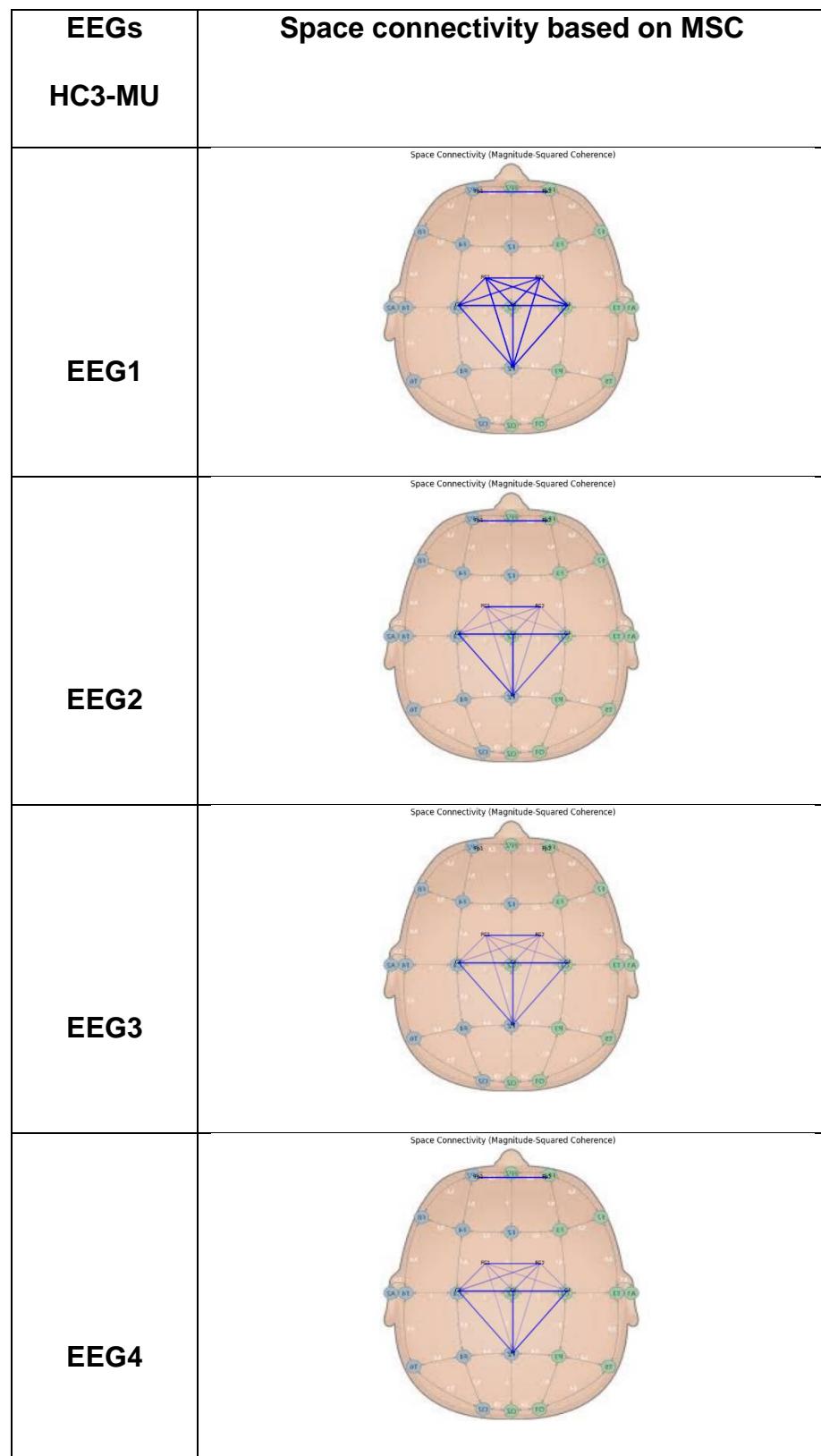
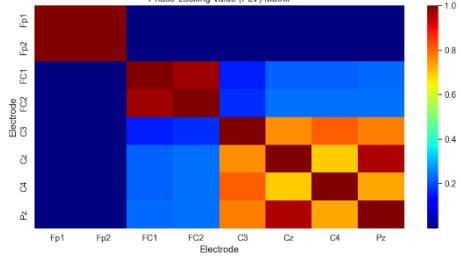
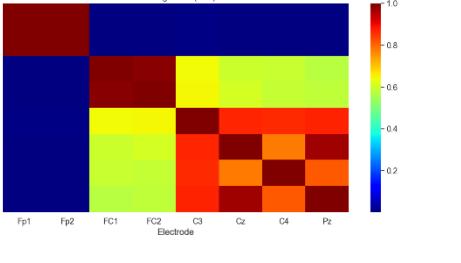
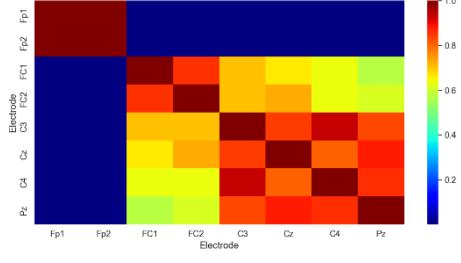
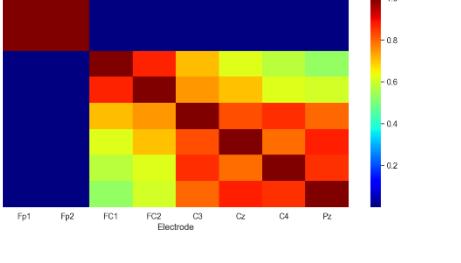


Fig 25. Space connectivity based on MSC – HC3-MU

Table 39. Phase Locking Value (PLV) between electrode pairs and among phases for HC- Mu band

Phase locking Value (PLV)		HC3-MU	
EEG1	EEG2	EEG3	EEG4
Overall Mean PLV within ROI: 0.49362820719559963	Overall Mean PLV within ROI: 0.7328223325873214		
			
Overall Mean PLV within ROI: 0.7520443002032497	Overall Mean PLV within ROI: 0.7335550474649158		
			
EEG1	EEG2	EEG3	EEG4
FC1 and FC1: 1.0000 FC1 and FC2: 0.9849 FC1 and C3: 0.5633 FC1 and Cz: 0.5675 FC1 and C4: 0.5235 FC1 and Pz: 0.5519 FC2 and FC2: 1.0000 FC2 and C3: 0.5776 FC2 and Cz: 0.5843 FC2 and C4: 0.5298 FC2 and Pz: 0.5664 C3 and C3: 1.0000 C3 and Cz: 0.8701 C3 and C4: 0.8559 C3 and Pz: 0.8675 Cz and Cz: 1.0000 Cz and C4: 0.7519 Cz and Pz: 0.9793 C4 and C4: 1.0000 C4 and Pz: 0.7775 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.9909 FC1 and C3: 0.6439 FC1 and Cz: 0.5965 FC1 and C4: 0.5925 FC1 and Pz: 0.5710 FC2 and FC2: 1.0000 FC2 and C3: 0.6459 FC2 and Cz: 0.6084 FC2 and C4: 0.5890 FC2 and Pz: 0.5819 C3 and C3: 1.0000 C3 and Cz: 0.8689 C3 and C4: 0.8672 C3 and Pz: 0.8742 Cz and Cz: 1.0000 Cz and C4: 0.7787 Cz and Pz: 0.9703 C4 and C4: 1.0000 C4 and Pz: 0.8128 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.8558 FC1 and C3: 0.7042 FC1 and Cz: 0.6638 FC1 and C4: 0.6350 FC1 and Pz: 0.5716 FC2 and FC2: 1.0000 FC2 and C3: 0.7047 FC2 and Cz: 0.7287 FC2 and C4: 0.6337 FC2 and Pz: 0.6112 C3 and C3: 1.0000 C3 and Cz: 0.8471 C3 and C4: 0.9408 C3 and Pz: 0.8350 Cz and Cz: 1.0000 Cz and C4: 0.8049 Cz and Pz: 0.8814 C4 and C4: 1.0000 C4 and Pz: 0.8629 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.8735 FC1 and C3: 0.7109 FC1 and Cz: 0.6212 FC1 and C4: 0.5782 FC1 and Pz: 0.5302 FC2 and FC2: 1.0000 FC2 and C3: 0.7479 FC2 and Cz: 0.7034 FC2 and C4: 0.6192 FC2 and Pz: 0.6034 C3 and C3: 1.0000 C3 and Cz: 0.8268 C3 and C4: 0.8604 C3 and Pz: 0.7986 Cz and Cz: 1.0000 Cz and C4: 0.7962 Cz and Pz: 0.8770 C4 and C4: 1.0000 C4 and Pz: 0.8562 Pz and Pz: 1.0000

Permutation test p-value: 0.3369

Cohen's d: 0.07

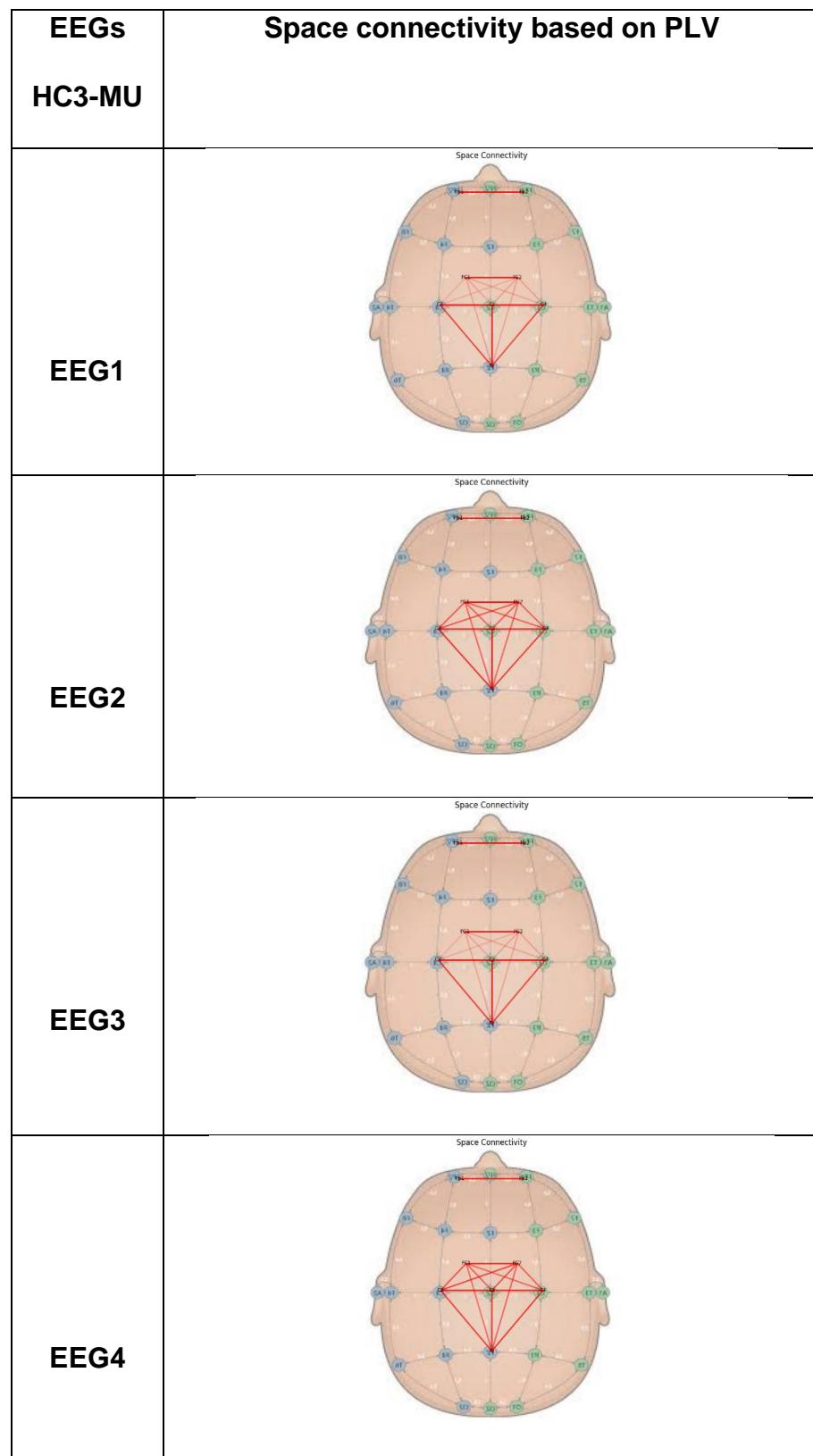
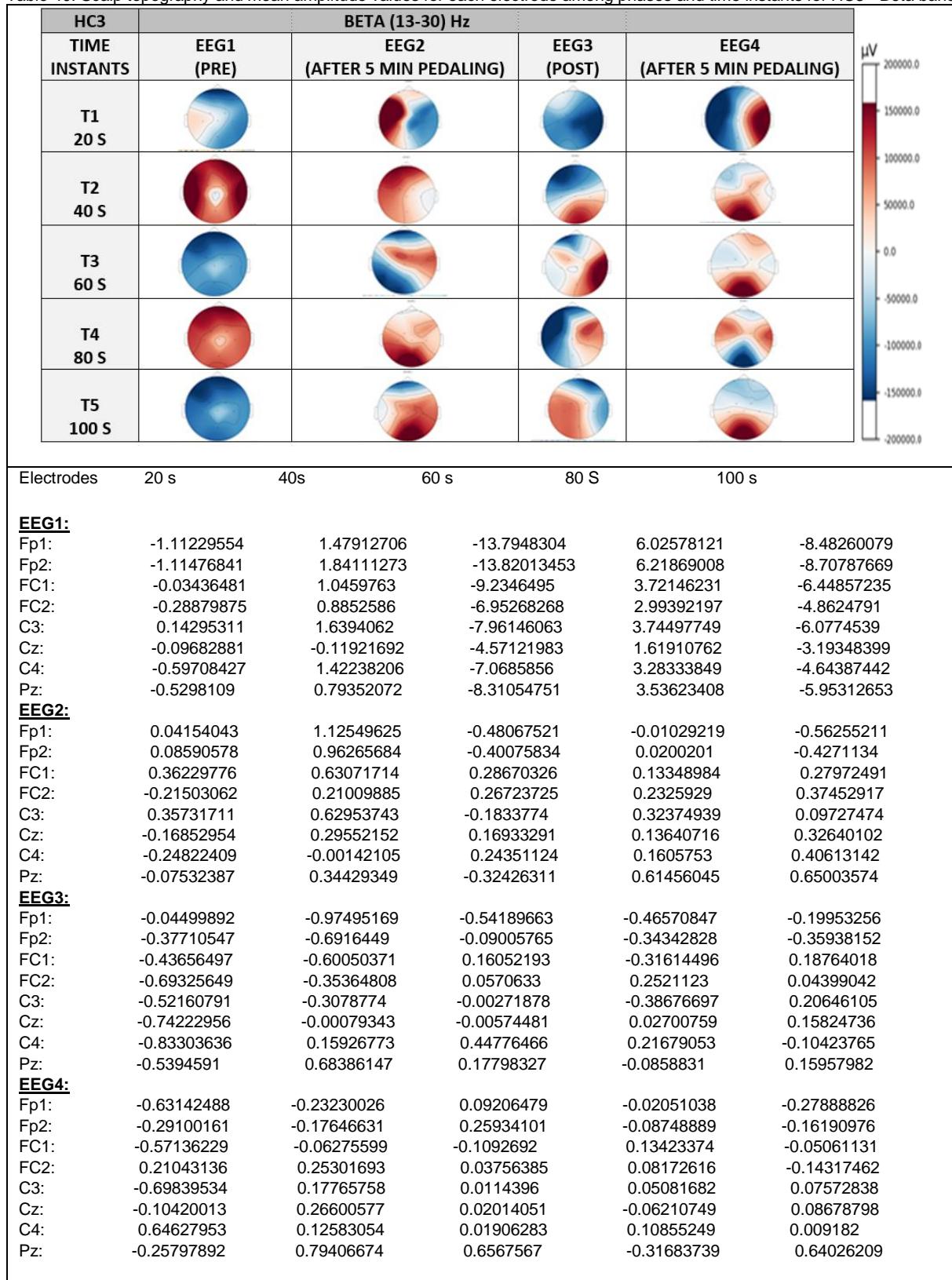


Fig 26. Space connectivity based on PLV – HC3-MU

Results of HC3 – Beta band

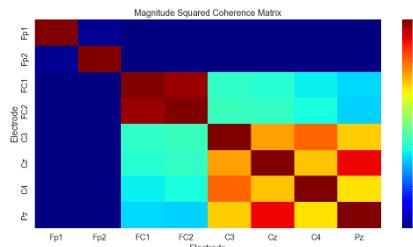
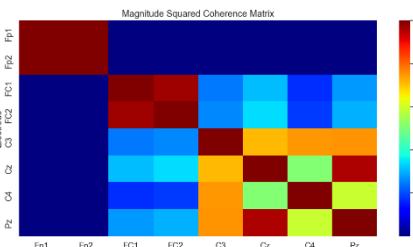
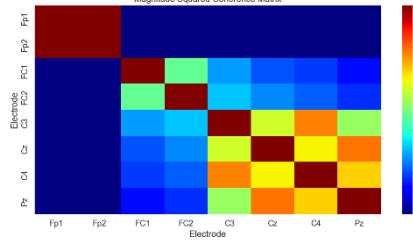
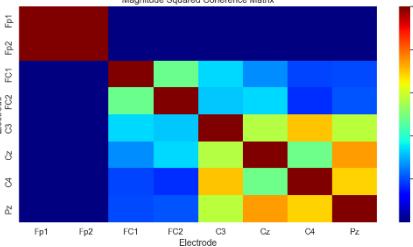
Table 40. Scalp topography and mean amplitude values for each electrode among phases and time instants for HC3 - Beta band



Kruskal-Wallis test p-value: 0.1349

Cohen's d: 0.24

Table 41. Magnitude-Squared Coherence (MSC) between electrode pairs and among phases for HC3-Beta band

Magnitude-Squared Coherence (MSC) HC3-BETA			
EEG1	EEG2		
Overall Mean MSC within ROI: 0.5687534057822181	Overall Mean MSC within ROI: 0.488457011616652		
			
EEG3	EEG4		
Overall Mean MSC within ROI: 0.41804915047581354	Overall Mean MSC within ROI: 0.41773650880682		
			
EEG1	EEG2	EEG3	EEG4
FC1 and FC1: 1.0000 FC1 and FC2: 0.9731 FC1 and C3: 0.4093 FC1 and Cz: 0.3955 FC1 and C4: 0.3629 FC1 and Pz: 0.3361 FC2 and FC2: 1.0000 FC2 and C3: 0.4203 FC2 and Cz: 0.4139 FC2 and C4: 0.3793 FC2 and Pz: 0.3317 C3 and C3: 1.0000 C3 and Cz: 0.7386 C3 and C4: 0.8010 C3 and Pz: 0.6923 Cz and Cz: 1.0000 Cz and C4: 0.6997 Cz and Pz: 0.9061 C4 and C4: 1.0000 C4 and Pz: 0.6716 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.9709 FC1 and C3: 0.2431 FC1 and Cz: 0.3114 FC1 and C4: 0.1709 FC1 and Pz: 0.2772 FC2 and FC2: 1.0000 FC2 and C3: 0.2611 FC2 and Cz: 0.3402 FC2 and C4: 0.1804 FC2 and Pz: 0.3007 C3 and C3: 1.0000 C3 and Cz: 0.7115 C3 and C4: 0.7492 C3 and Pz: 0.7515 Cz and Cz: 1.0000 Cz and C4: 0.5112 Cz and Pz: 0.9571 C4 and C4: 1.0000 C4 and Pz: 0.5905 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.4713 FC1 and C3: 0.2812 FC1 and Cz: 0.2054 FC1 and C4: 0.1807 FC1 and Pz: 0.1338 FC2 and FC2: 1.0000 FC2 and C3: 0.3183 FC2 and Cz: 0.2608 FC2 and C4: 0.2162 FC2 and Pz: 0.1695 C3 and C3: 1.0000 C3 and Cz: 0.6002 C3 and C4: 0.7714 C3 and Pz: 0.5349 Cz and Cz: 1.0000 Cz and C4: 0.6500 Cz and Pz: 0.7860 C4 and C4: 1.0000 C4 and Pz: 0.6911 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.4787 FC1 and C3: 0.3364 FC1 and Cz: 0.2636 FC1 and C4: 0.1930 FC1 and Pz: 0.1959 FC2 and FC2: 1.0000 FC2 and C3: 0.3210 FC2 and Cz: 0.3378 FC2 and C4: 0.1706 FC2 and Pz: 0.2090 C3 and C3: 1.0000 C3 and Cz: 0.5682 C3 and C4: 0.7031 C3 and Pz: 0.5762 Cz and Cz: 1.0000 Cz and C4: 0.4805 Cz and Pz: 0.7451 C4 and C4: 1.0000 C4 and Pz: 0.6869 Pz and Pz: 1.0000

Permutation test p-value: 0.3483

Cohen's d: -0.18

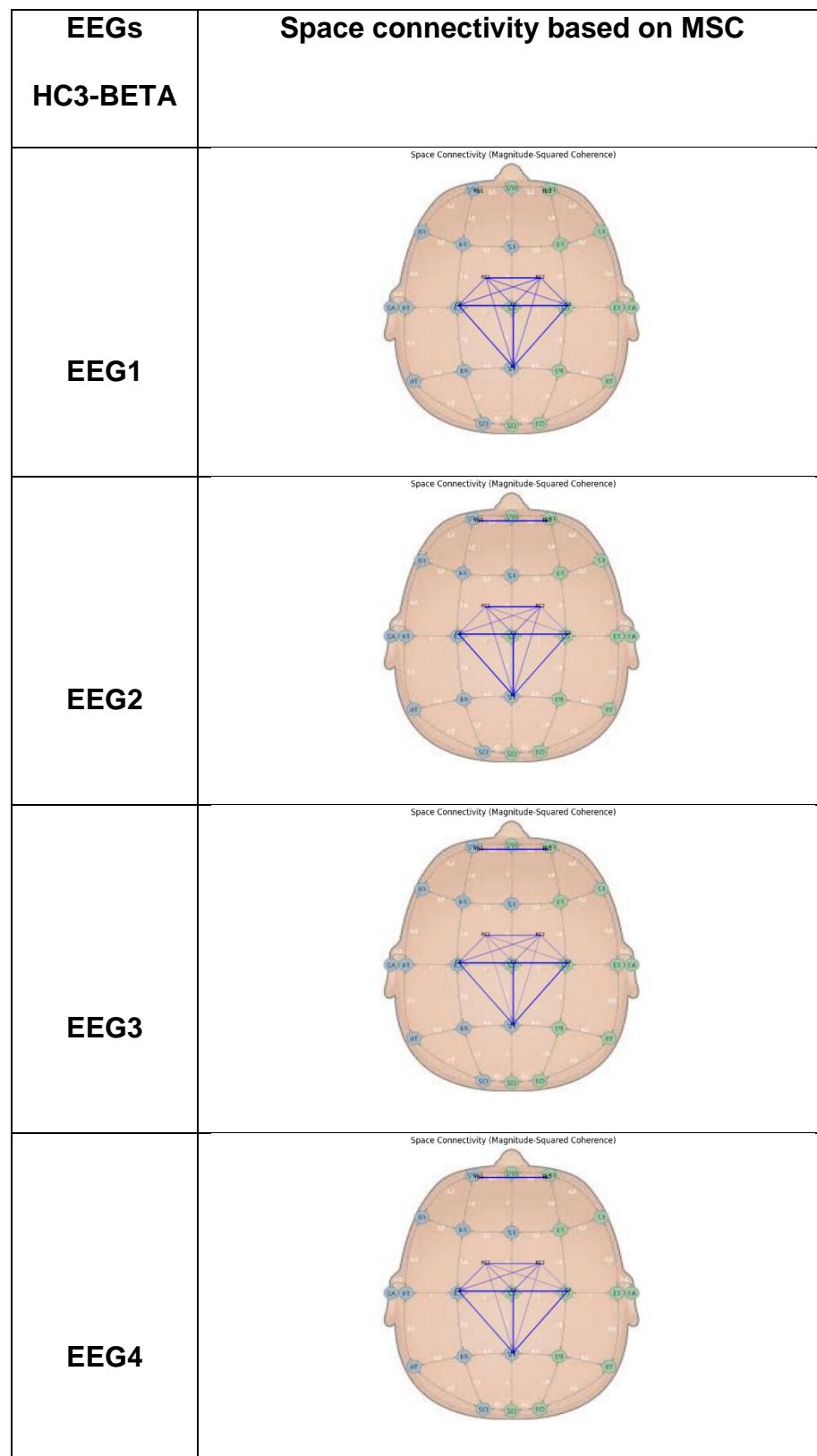
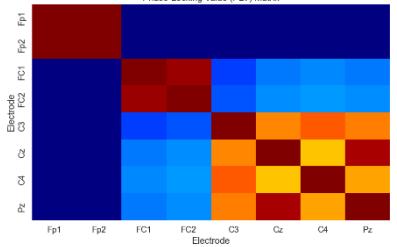
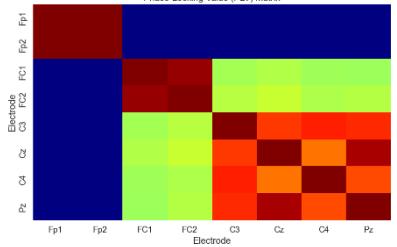
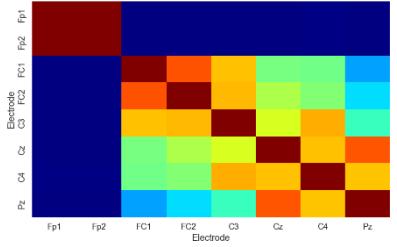
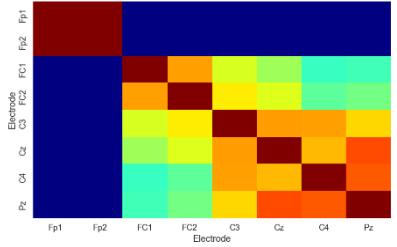


Fig 27. Space connectivity based on MSC – HC3-BETA

Table 42. Phase Locking Value (PLV) between electrode pairs and among phases for HC3- Beta band

Phase locking Value (PLV)		HC3-BETA	
EEG1 Overall Mean PLV within ROI: 0.512383234701766		EEG2 Overall Mean PLV within ROI: 0.71004276200953	
			
EEG3 Overall Mean PLV within ROI: 0.5928304965778661		EEG4 Overall Mean PLV within ROI: 0.6334195184117932	
			
EEG1	EEG2	EEG3	EEG4
FC1 and FC1: 1.0000 FC1 and FC2: 0.9750 FC1 and C3: 0.1863 FC1 and Cz: 0.2446 FC1 and C4: 0.2586 FC1 and Pz: 0.2438 FC2 and FC2: 1.0000 FC2 and C3: 0.2110 FC2 and Cz: 0.2635 FC2 and C4: 0.2773 FC2 and Pz: 0.2628 C3 and C3: 1.0000 C3 and Cz: 0.7689 C3 and C4: 0.8147 C3 and Pz: 0.7768 Cz and Cz: 1.0000 Cz and C4: 0.7027 Cz and Pz: 0.9633 C4 and C4: 1.0000 C4 and Pz: 0.7365 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.9791 FC1 and C3: 0.5487 FC1 and Cz: 0.5653 FC1 and C4: 0.5443 FC1 and Pz: 0.5429 FC2 and FC2: 1.0000 FC2 and C3: 0.5735 FC2 and Cz: 0.5938 FC2 and C4: 0.5609 FC2 and Pz: 0.5680 C3 and C3: 1.0000 C3 and Cz: 0.8490 C3 and C4: 0.8764 C3 and Pz: 0.8663 Cz and Cz: 1.0000 Cz and C4: 0.7886 Cz and Pz: 0.9627 C4 and C4: 1.0000 C4 and Pz: 0.8311 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.8217 FC1 and C3: 0.7055 FC1 and Cz: 0.4955 FC1 and C4: 0.4859 FC1 and Pz: 0.2826 FC2 and FC2: 1.0000 FC2 and C3: 0.7115 FC2 and Cz: 0.5608 FC2 and C4: 0.5084 FC2 and Pz: 0.3416 C3 and C3: 1.0000 C3 and Cz: 0.6117 C3 and C4: 0.7240 C3 and Pz: 0.4191 Cz and Cz: 1.0000 Cz and C4: 0.7061 Cz and Pz: 0.8173 C4 and C4: 1.0000 C4 and Pz: 0.7006 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.7405 FC1 and C3: 0.6107 FC1 and Cz: 0.5435 FC1 and C4: 0.4154 FC1 and Pz: 0.4292 FC2 and FC2: 1.0000 FC2 and C3: 0.6600 FC2 and Cz: 0.6203 FC2 and C4: 0.4652 FC2 and Pz: 0.4916 C3 and C3: 1.0000 C3 and Cz: 0.7448 C3 and C4: 0.7420 C3 and Pz: 0.6810 Cz and Cz: 1.0000 Cz and C4: 0.7114 Cz and Pz: 0.8298 C4 and C4: 1.0000 C4 and Pz: 0.8160 Pz and Pz: 1.0000

Permutation test p-value: 1.0

Cohen's d: 0.004

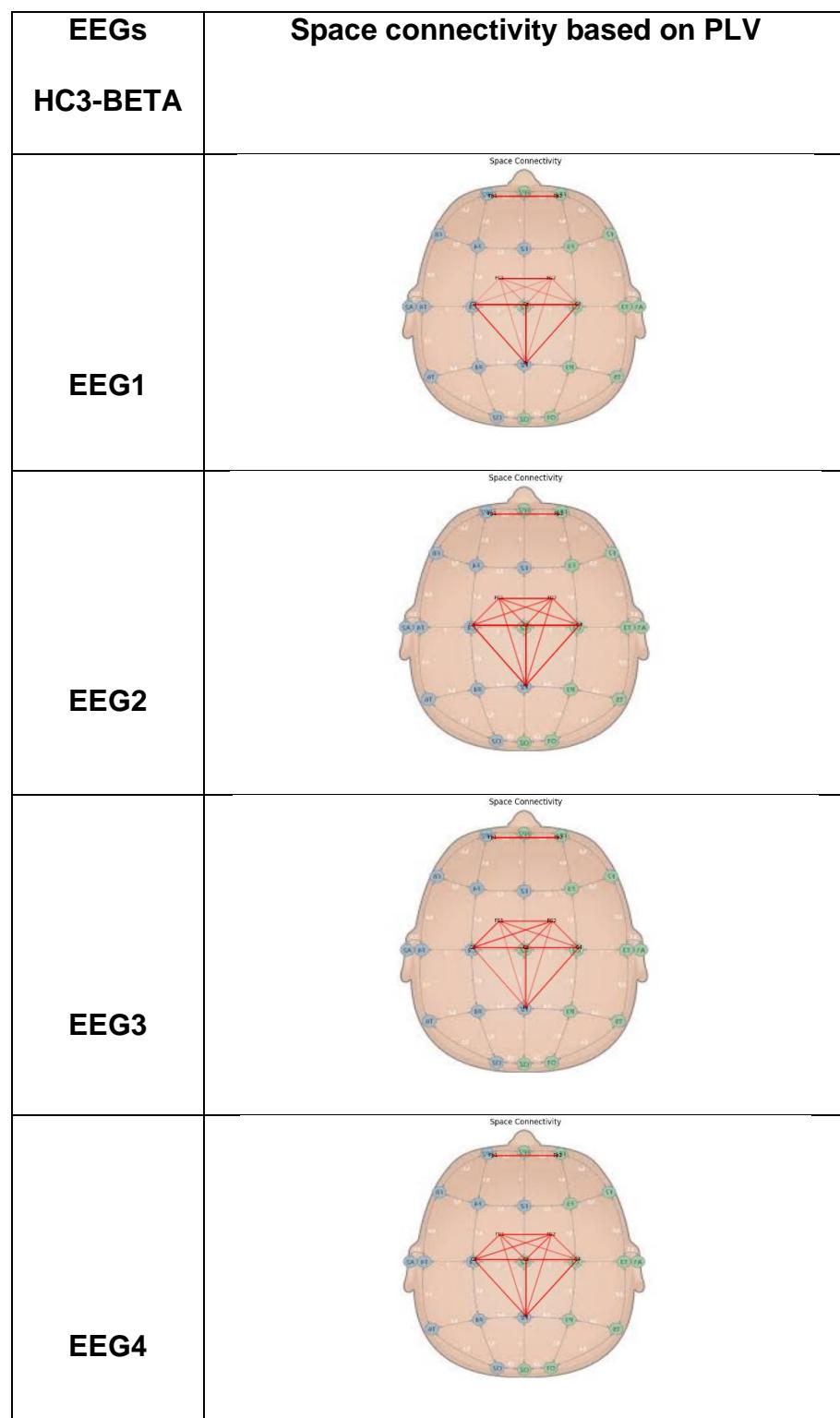
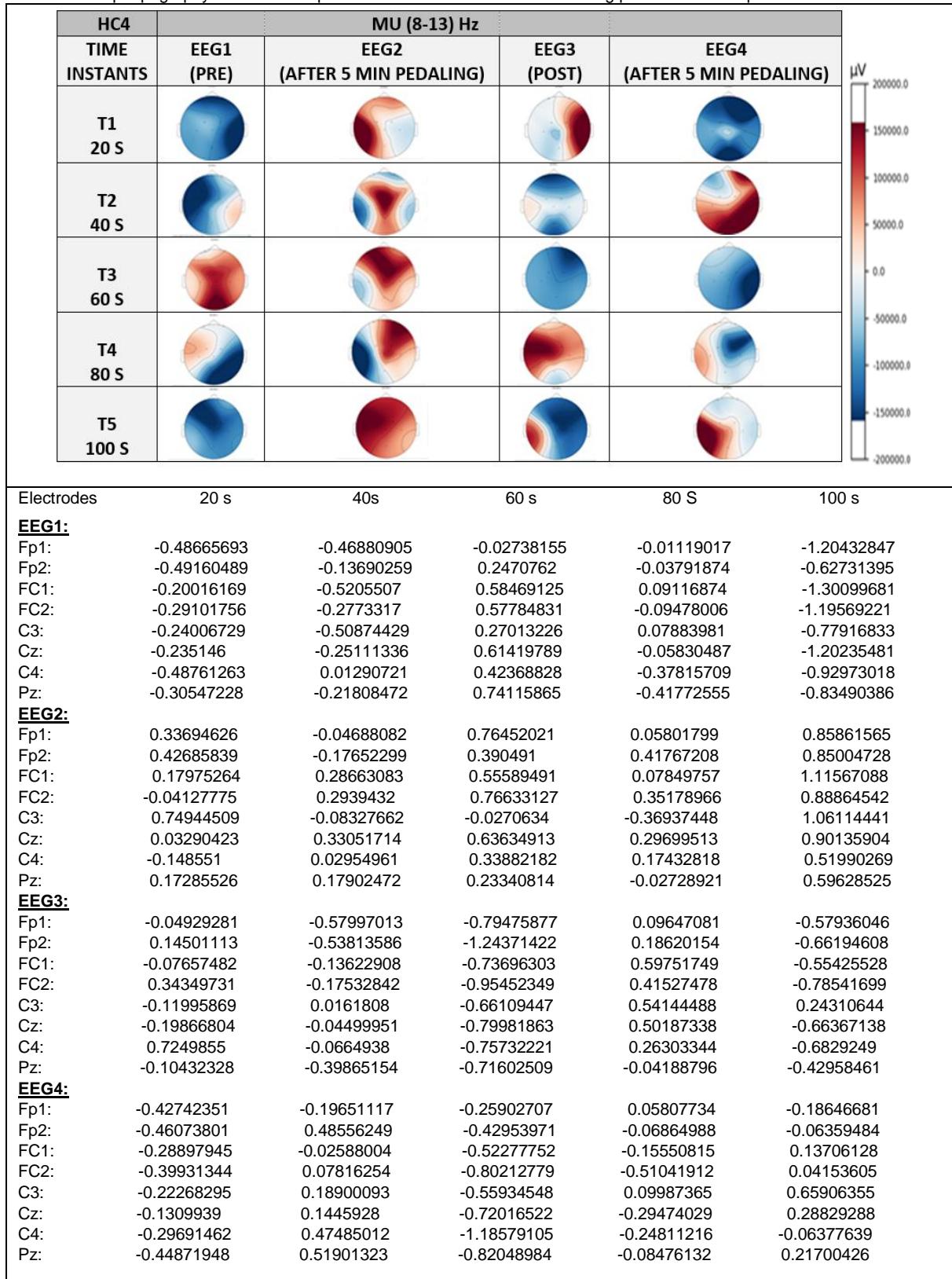


Fig 28. Space connectivity based on PLV – HC3-BETA

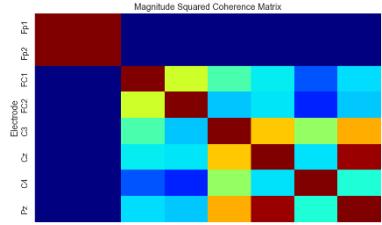
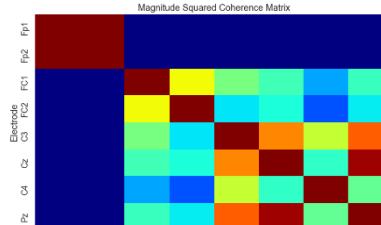
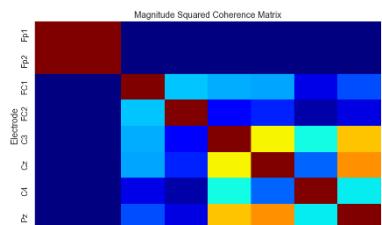
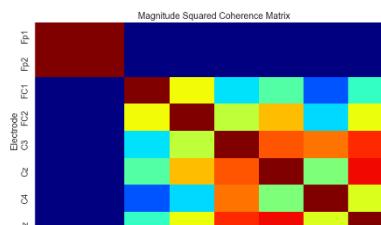
Results of HC4 – Mu band

Table 43. Scalp topography and mean amplitude values for each electrode among phases and time points for HC4 - Mu band



Kruskal-Wallis test p-value: 0.0012
Cohen's d: -0.39

Table 44. Magnitude-Squared Coherence (MSC) between electrode pairs and among phases for HC4-Mu band

Magnitude-Squared Coherence (MSC) HC4-MU			
EEG1	EEG2		
Overall Mean MSC within ROI: 0.4506160375035351	Overall Mean MSC within ROI: 0.504927257697504		
			
EEG3	EEG4		
Overall Mean MSC within ROI: 0.3098681699321427	Overall Mean MSC within ROI: 0.5687534057822181		
			
EEG1	EEG2	EEG3	EEG4
FC1 and FC1: 1.0000 FC1 and FC2: 0.6002 FC1 and C3: 0.4397 FC1 and Cz: 0.3563 FC1 and C4: 0.2103 FC1 and Pz: 0.3427 FC2 and FC2: 1.0000 FC2 and C3: 0.3177 FC2 and Cz: 0.3496 FC2 and C4: 0.1570 FC2 and Pz: 0.3228 C3 and C3: 1.0000 C3 and Cz: 0.6964 C3 and C4: 0.5294 C3 and Pz: 0.7259 Cz and Cz: 1.0000 Cz and C4: 0.3451 Cz and Pz: 0.9758 C4 and C4: 1.0000 C4 and Pz: 0.3903 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.6408 FC1 and C3: 0.4932 FC1 and Cz: 0.4264 FC1 and C4: 0.2871 FC1 and Pz: 0.4186 FC2 and FC2: 1.0000 FC2 and C3: 0.3486 FC2 and Cz: 0.3829 FC2 and C4: 0.2039 FC2 and Pz: 0.3581 C3 and C3: 1.0000 C3 and Cz: 0.7677 C3 and C4: 0.5880 C3 and Pz: 0.8111 Cz and Cz: 1.0000 Cz and C4: 0.4088 Cz and Pz: 0.9694 C4 and C4: 1.0000 C4 and Pz: 0.4692 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.3191 FC1 and C3: 0.2939 FC1 and Cz: 0.2873 FC1 and C4: 0.0927 FC1 and Pz: 0.1994 FC2 and FC2: 1.0000 FC2 and C3: 0.1101 FC2 and Cz: 0.1577 FC2 and C4: 0.0352 FC2 and Pz: 0.0876 C3 and C3: 1.0000 C3 and Cz: 0.6519 C3 and C4: 0.3750 C3 and Pz: 0.7001 Cz and Cz: 1.0000 Cz and C4: 0.2248 Cz and Pz: 0.7545 C4 and C4: 1.0000 C4 and Pz: 0.3589 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.9676 FC1 and C3: 0.9544 FC1 and Cz: 0.9513 FC1 and C4: 0.8903 FC1 and Pz: 0.9547 FC2 and FC2: 1.0000 FC2 and C3: 0.9481 FC2 and Cz: 0.9550 FC2 and C4: 0.8799 FC2 and Pz: 0.9404 C3 and C3: 1.0000 C3 and Cz: 0.9786 C3 and C4: 0.9182 C3 and Pz: 0.9775 Cz and Cz: 1.0000 Cz and C4: 0.9079 Cz and Pz: 0.9816 C4 and C4: 1.0000 C4 and Pz: 0.9281 Pz and Pz: 1.0000

Permutation test p-value: 1.0

Cohen's d: 0.27

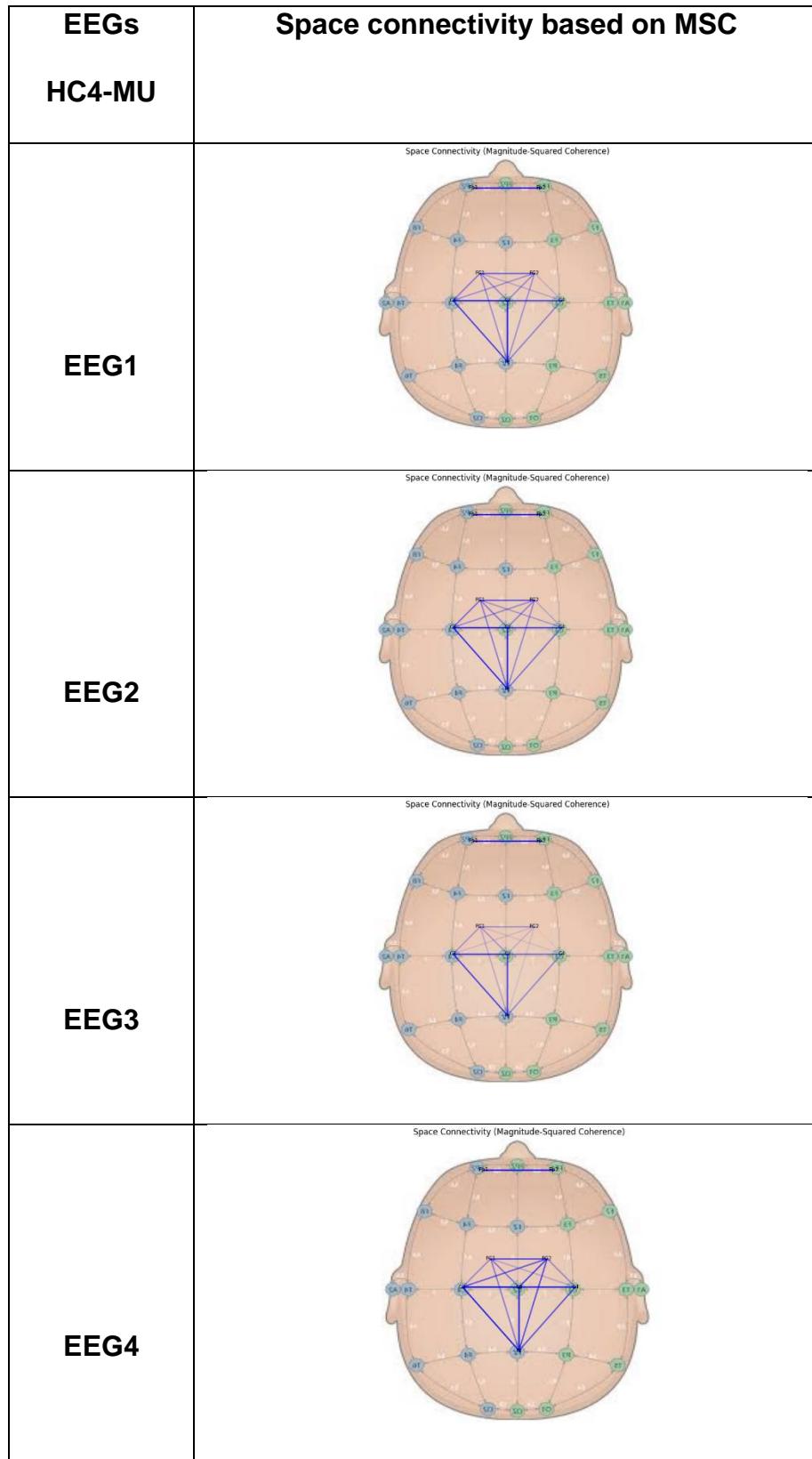


Fig 29. Space connectivity based on MSC – HC4-MU

Table 45. Phase Locking Value (PLV) between electrode pairs and among phases for HC4- Mu band

Phase locking Value (PLV)		HC4-MU	
EEG1	EEG2	EEG3	EEG4
Overall Mean PLV within ROI: 0.6324857637220755	Overall Mean PLV within ROI: 0.6721654840072963	Overall Mean PLV within ROI: 0.5831570119867143	Overall Mean PLV within ROI: 0.637259735332121
EEG1	EEG2	EEG3	EEG4
FC1 and FC1: 1.0000 FC1 and FC2: 0.8074 FC1 and C3: 0.6312 FC1 and Cz: 0.5468 FC1 and C4: 0.4036 FC1 and Pz: 0.5218 FC2 and FC2: 1.0000 FC2 and C3: 0.5907 FC2 and Cz: 0.5871 FC2 and C4: 0.3561 FC2 and Pz: 0.5498 C3 and C3: 1.0000 C3 and Cz: 0.8254 C3 and C4: 0.7064 C3 and Pz: 0.8309 Cz and Cz: 1.0000 Cz and C4: 0.5623 Cz and Pz: 0.9750 C4 and C4: 1.0000 C4 and Pz: 0.5930 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.8285 FC1 and C3: 0.7034 FC1 and Cz: 0.6678 FC1 and C4: 0.4261 FC1 and Pz: 0.6390 FC2 and FC2: 1.0000 FC2 and C3: 0.6551 FC2 and Cz: 0.6850 FC2 and C4: 0.3627 FC2 and Pz: 0.6442 C3 and C3: 1.0000 C3 and Cz: 0.8510 C3 and C4: 0.6568 C3 and Pz: 0.8601 Cz and Cz: 1.0000 Cz and C4: 0.5451 Cz and Pz: 0.9722 C4 and C4: 1.0000 C4 and Pz: 0.5856 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.7346 FC1 and C3: 0.6397 FC1 and Cz: 0.6067 FC1 and C4: 0.2853 FC1 and Pz: 0.4998 FC2 and FC2: 1.0000 FC2 and C3: 0.5470 FC2 and Cz: 0.6047 FC2 and C4: 0.2716 FC2 and Pz: 0.4780 C3 and C3: 1.0000 C3 and Cz: 0.7686 C3 and C4: 0.5968 C3 and Pz: 0.7820 Cz and Cz: 1.0000 Cz and C4: 0.4811 Cz and Pz: 0.8507 C4 and C4: 1.0000 C4 and Pz: 0.6007 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.7600 FC1 and C3: 0.7009 FC1 and Cz: 0.6834 FC1 and C4: 0.3111 FC1 and Pz: 0.5835 FC2 and FC2: 1.0000 FC2 and C3: 0.6363 FC2 and Cz: 0.6862 FC2 and C4: 0.3327 FC2 and Pz: 0.5825 C3 and C3: 1.0000 C3 and Cz: 0.8274 C3 and C4: 0.5955 C3 and Pz: 0.8423 Cz and Cz: 1.0000 Cz and C4: 0.5191 Cz and Pz: 0.8698 C4 and C4: 1.0000 C4 and Pz: 0.6281 Pz and Pz: 1.0000

Permutation test p-value: 0.6727

Cohen's d: -0.09

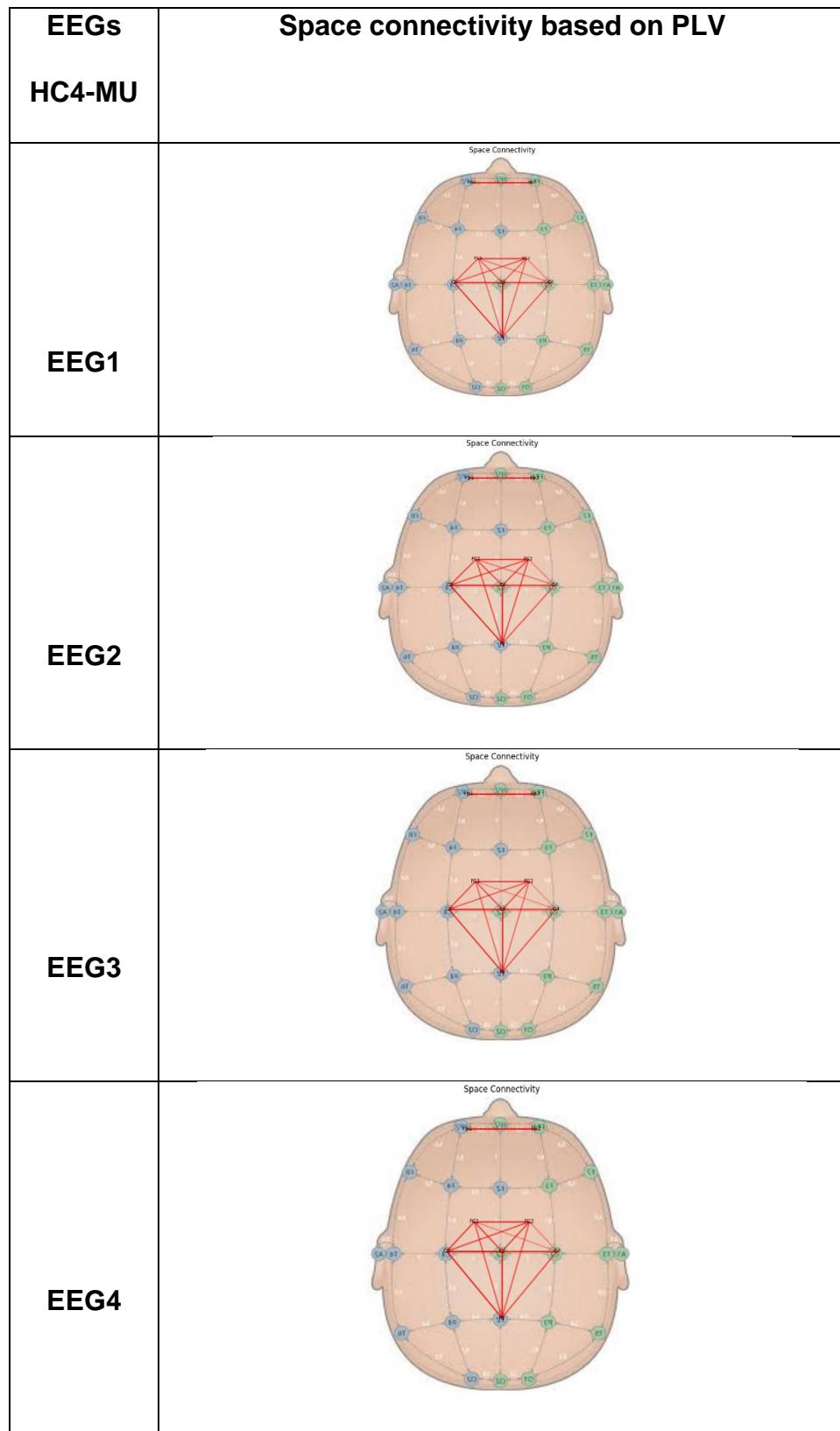
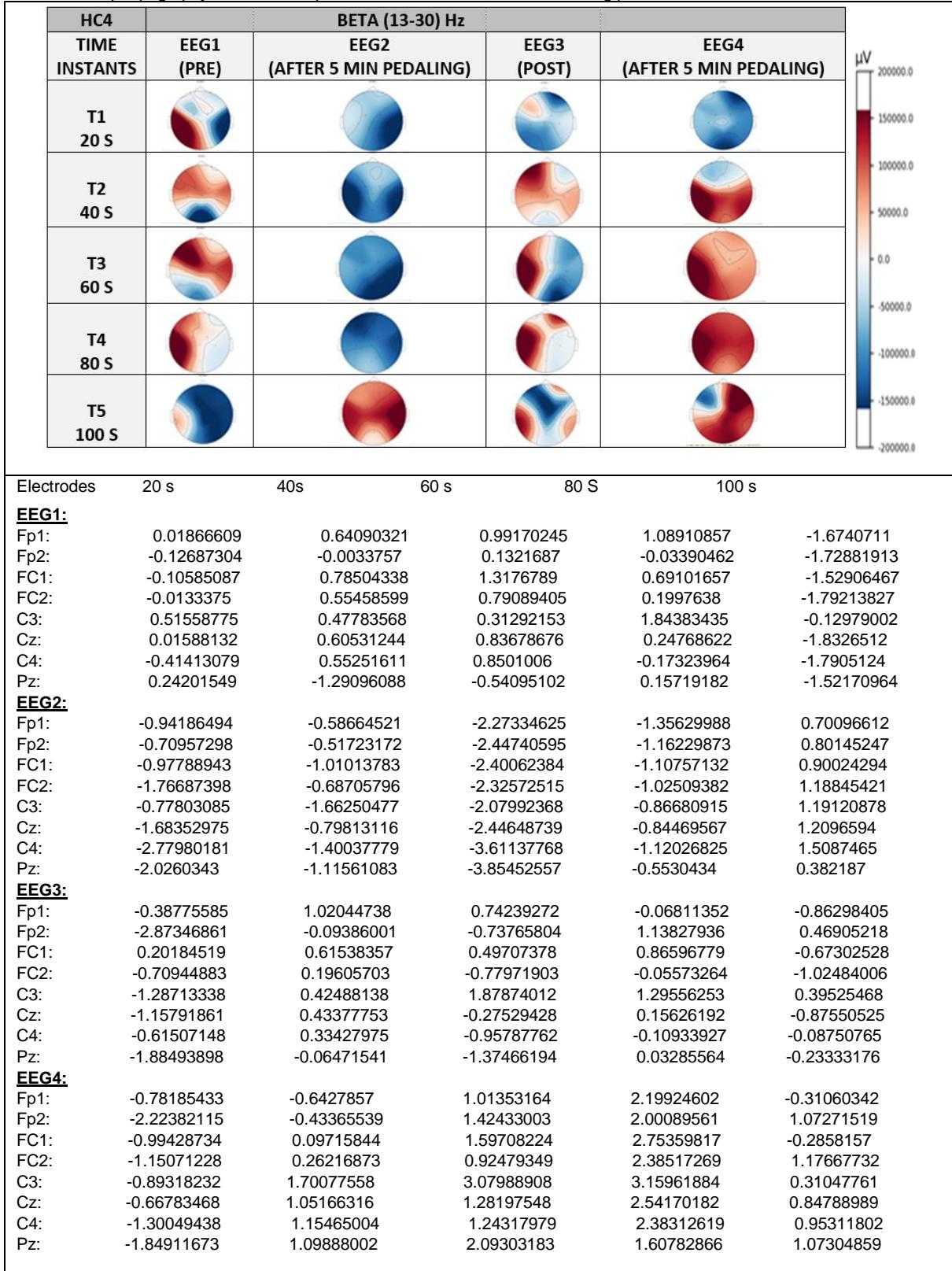


Fig 30. Space connectivity based on PLV – HC4-MU

Results of HC4 – Beta band

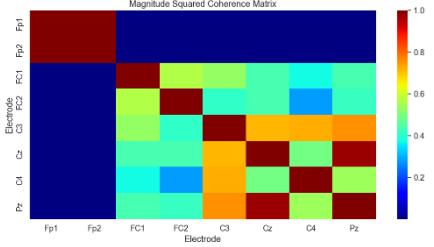
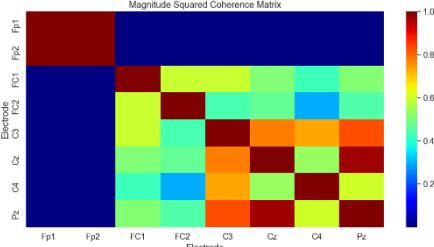
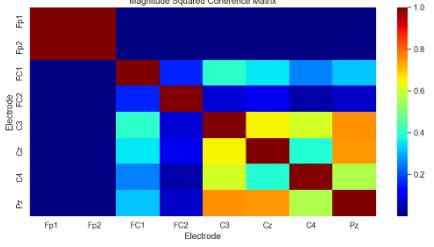
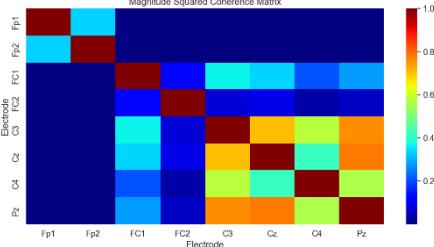
Table 46. Scalp topography and mean amplitude values for each electrode among phases and time instants for HC4 - Beta band



Kruskal-Wallis test p-value: 0.0002

Cohen's d: 0.51

Table 47. Magnitude-Squared Coherence (MSC) between electrode pairs and among phases for HC4-Beta band

Magnitude-Squared Coherence (MSC) HC4-BETA			
EEG1	EEG2		
Overall Mean MSC within ROI: 0.5391222162140888	Overall Mean MSC within ROI: 0.580618157820881		
			
EEG3	EEG4		
Overall Mean MSC within ROI: 0.365104284254803	Overall Mean MSC within ROI: 0.5687534057822181		
			
EEG1	EEG2	EEG3	EEG4
FC1 and FC1: 1.0000 FC1 and FC2: 0.5641 FC1 and C3: 0.5308 FC1 and Cz: 0.4353 FC1 and C4: 0.3741 FC1 and Pz: 0.4343 FC2 and FC2: 1.0000 FC2 and C3: 0.4079 FC2 and Cz: 0.4354 FC2 and C4: 0.2798 FC2 and Pz: 0.4143 C3 and C3: 1.0000 C3 and Cz: 0.7187 C3 and C4: 0.7262 C3 and Pz: 0.7577 Cz and Cz: 1.0000 Cz and C4: 0.4905 Cz and Pz: 0.9761 C4 and C4: 1.0000 C4 and Pz: 0.5416 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.5917 FC1 and C3: 0.5911 FC1 and Cz: 0.5073 FC1 and C4: 0.4222 FC1 and Pz: 0.5108 FC2 and FC2: 1.0000 FC2 and C3: 0.4344 FC2 and Cz: 0.4715 FC2 and C4: 0.2936 FC2 and Pz: 0.4455 C3 and C3: 1.0000 C3 and Cz: 0.7772 C3 and C4: 0.7324 C3 and Pz: 0.8270 Cz and Cz: 1.0000 Cz and C4: 0.5328 Cz and Pz: 0.9710 C4 and C4: 1.0000 C4 and Pz: 0.6009 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.1564 FC1 and C3: 0.4052 FC1 and Cz: 0.3545 FC1 and C4: 0.2504 FC1 and Pz: 0.3172 FC2 and FC2: 1.0000 FC2 and C3: 0.0756 FC2 and Cz: 0.1002 FC2 and C4: 0.0390 FC2 and Pz: 0.0625 C3 and C3: 1.0000 C3 and Cz: 0.6508 C3 and C4: 0.6059 C3 and Pz: 0.7565 Cz and Cz: 1.0000 Cz and C4: 0.3927 Cz and Pz: 0.7484 C4 and C4: 1.0000 C4 and Pz: 0.5612 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.9731 FC1 and C3: 0.4093 FC1 and Cz: 0.3955 FC1 and C4: 0.3629 FC1 and Pz: 0.3361 FC2 and FC2: 1.0000 FC2 and C3: 0.4203 FC2 and Cz: 0.4139 FC2 and C4: 0.3793 FC2 and Pz: 0.3317 C3 and C3: 1.0000 C3 and Cz: 0.7386 C3 and C4: 0.8010 C3 and Pz: 0.6923 Cz and Cz: 1.0000 Cz and C4: 0.6997 Cz and Pz: 0.9061 C4 and C4: 1.0000 C4 and Pz: 0.6716 Pz and Pz: 1.0000

Permutation test p-value: 0.6670

Cohen's d: -0.16

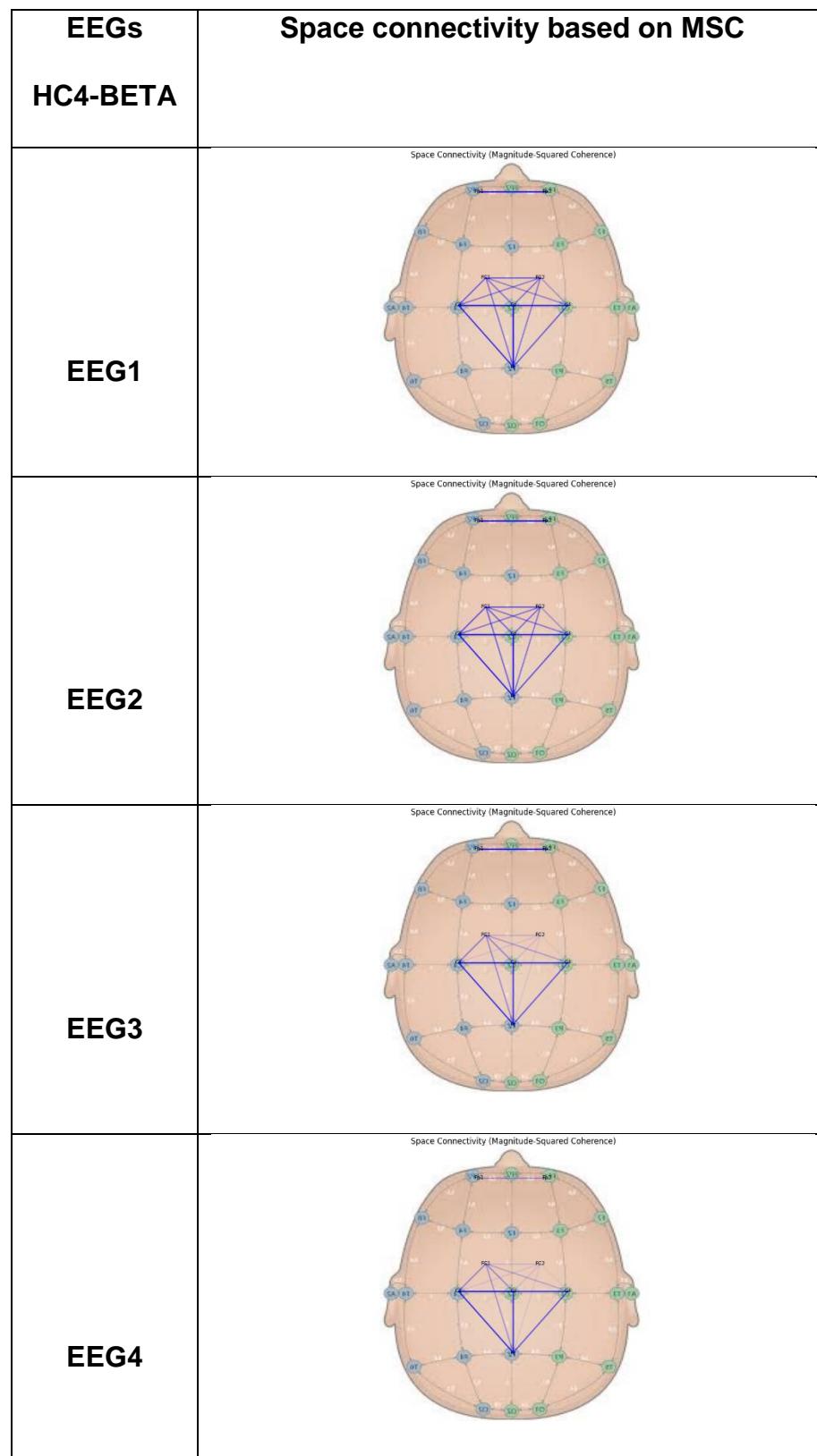
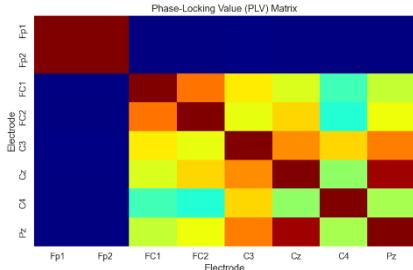
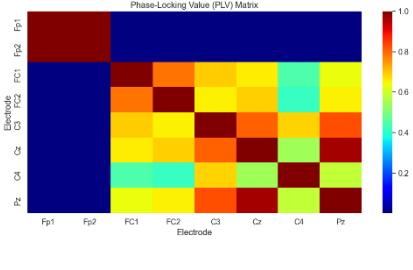
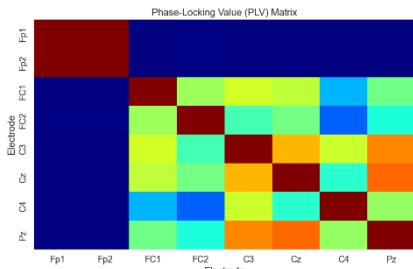
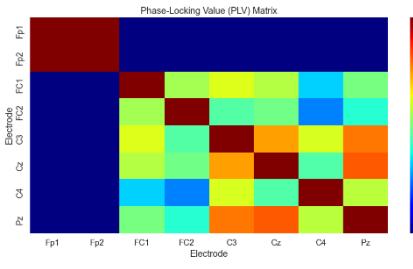


Fig 31. Space connectivity based on MSC – HC4-BETA

Table 48. Phase Locking Value (PLV) between electrode pairs and among phases for HC3- Mu band

Phase locking Value (PLV)		HC4-BETA							
<u>EEG1</u>		<u>EEG2</u>							
Overall Mean PLV of the ROI: 0.6462720655699999		Overall Mean PLV of the ROI: 0.6696252680905207							
 <p>Phase-Locking Value (PLV) Matrix for EEG1. The matrix shows correlations between electrode pairs Fp1, Fp2, FC1, FC2, C3, Cz, C4, and Pz. The color scale ranges from 0.2 (blue) to 1.0 (red). The matrix is symmetric, with high values (red/orange) indicating strong phase locking across most electrode pairs.</p>		 <p>Phase-Locking Value (PLV) Matrix for EEG2. The matrix shows correlations between electrode pairs Fp1, Fp2, FC1, FC2, C3, Cz, C4, and Pz. The color scale ranges from 0.2 (blue) to 1.0 (red). The matrix is symmetric, with high values (red/orange) indicating strong phase locking across most electrode pairs.</p>							
Overall Mean PLV of the ROI: 0.5239287700630056		Overall Mean PLV of the ROI: 0.5421227085104708							
 <p>Phase-Locking Value (PLV) Matrix for EEG3. The matrix shows correlations between electrode pairs Fp1, Fp2, FC1, FC2, C3, Cz, C4, and Pz. The color scale ranges from 0.2 (blue) to 1.0 (red). The matrix is symmetric, with moderate values (yellow/orange) indicating phase locking across most electrode pairs.</p>		 <p>Phase-Locking Value (PLV) Matrix for EEG4. The matrix shows correlations between electrode pairs Fp1, Fp2, FC1, FC2, C3, Cz, C4, and Pz. The color scale ranges from 0.2 (blue) to 1.0 (red). The matrix is symmetric, with moderate values (yellow/orange) indicating phase locking across most electrode pairs.</p>							
EEG1	EEG2	EEG3	EEG4						
FC1 and FC1: 1.0000 FC1 and FC2: 0.7861 FC1 and C3: 0.6601 FC1 and Cz: 0.6162 FC1 and C4: 0.4276 FC1 and Pz: 0.5865 FC2 and FC2: 1.0000 FC2 and C3: 0.6312 FC2 and Cz: 0.6826 FC2 and C4: 0.3937 FC2 and Pz: 0.6406 C3 and C3: 1.0000 C3 and Cz: 0.7618 C3 and C4: 0.6829 C3 and Pz: 0.7747 Cz and Cz: 1.0000 Cz and C4: 0.5261 Cz and Pz: 0.9696 C4 and C4: 1.0000 C4 and Pz: 0.5544 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.7877 FC1 and C3: 0.6920 FC1 and Cz: 0.6582 FC1 and C4: 0.4453 FC1 and Pz: 0.6348 FC2 and FC2: 1.0000 FC2 and C3: 0.6541 FC2 and Cz: 0.6893 FC2 and C4: 0.4148 FC2 and Pz: 0.6546 C3 and C3: 1.0000 C3 and Cz: 0.8059 C3 and C4: 0.8059 C3 and Pz: 0.8262 Cz and Cz: 1.0000 Cz and C4: 0.5443 Cz and Pz: 0.9664 C4 and C4: 1.0000 C4 and Pz: 0.5839 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.5429 FC1 and C3: 0.6017 FC1 and Cz: 0.5797 FC1 and C4: 0.3040 FC1 and Pz: 0.4850 FC2 and FC2: 1.0000 FC2 and C3: 0.4303 FC2 and Cz: 0.4920 FC2 and C4: 0.2222 FC2 and Pz: 0.3860 C3 and C3: 1.0000 C3 and Cz: 0.7172 C3 and C4: 0.5971 C3 and Pz: 0.7695 Cz and Cz: 1.0000 Cz and C4: 0.4016 Cz and Pz: 0.7985 C4 and C4: 1.0000 C4 and Pz: 0.5312 Pz and Pz: 1.0000	FC1 and FC1: 1.0000 FC1 and FC2: 0.5499 FC1 and C3: 0.6195 FC1 and Cz: 0.5694 FC1 and C4: 0.3297 FC1 and Pz: 0.4930 FC2 and FC2: 1.0000 FC2 and C3: 0.4535 FC2 and Cz: 0.4885 FC2 and C4: 0.2546 FC2 and Pz: 0.3983 C3 and C3: 1.0000 C3 and Cz: 0.7404 C3 and C4: 0.6128 C3 and Pz: 0.7839 Cz and Cz: 1.0000 Cz and C4: 0.4478 Cz and Pz: 0.8147 C4 and C4: 1.0000 C4 and Pz: 0.5759 Pz and Pz: 1.0000						

Permutation test p-value: 0.3334
Cohen's d: -0.28

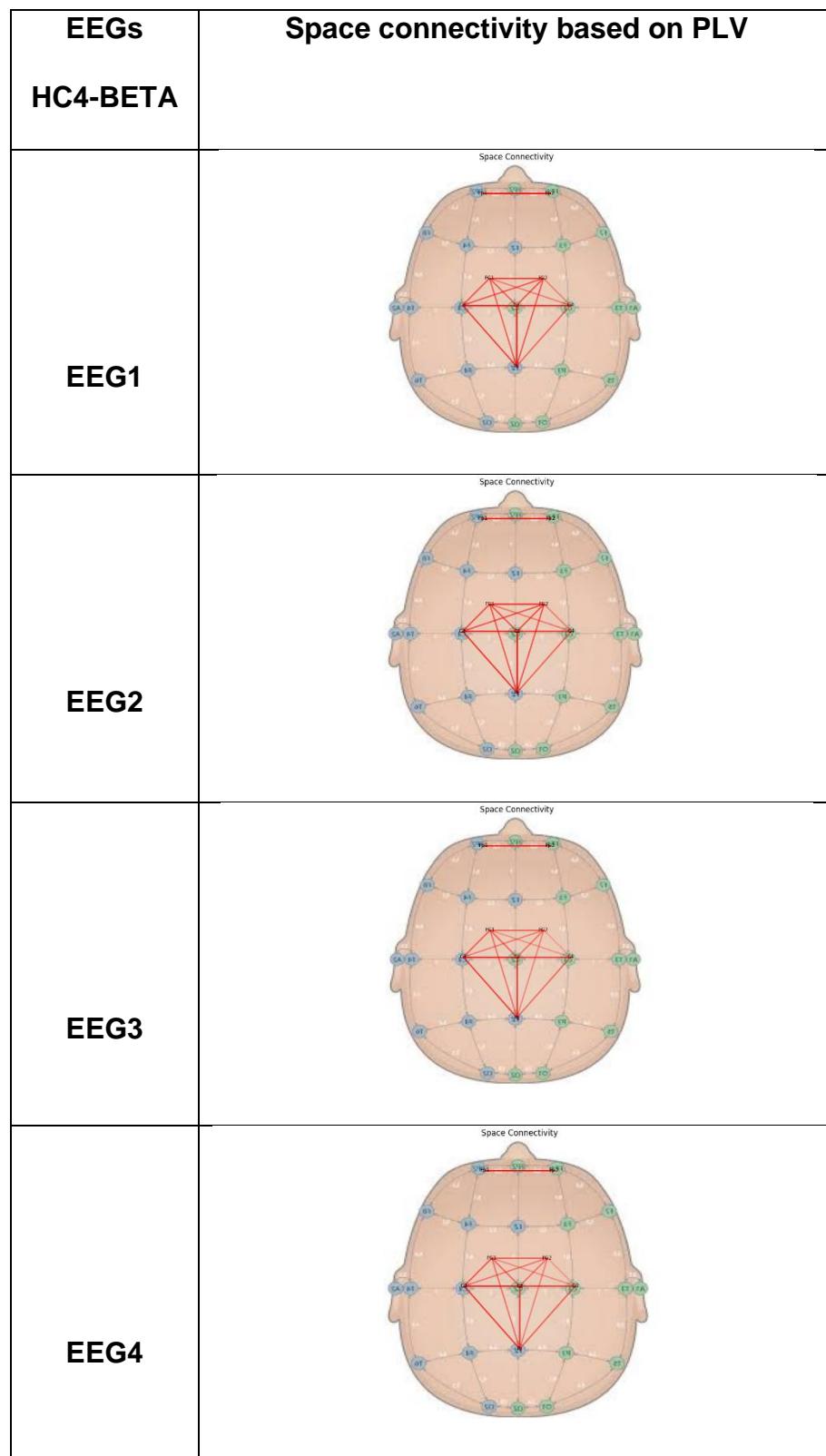


Fig 32. Space connectivity based on MSC – HC4-BETA