



QEEG Clinical Report

BrainLens V0.4

Report Description



Personal & Clinical Data

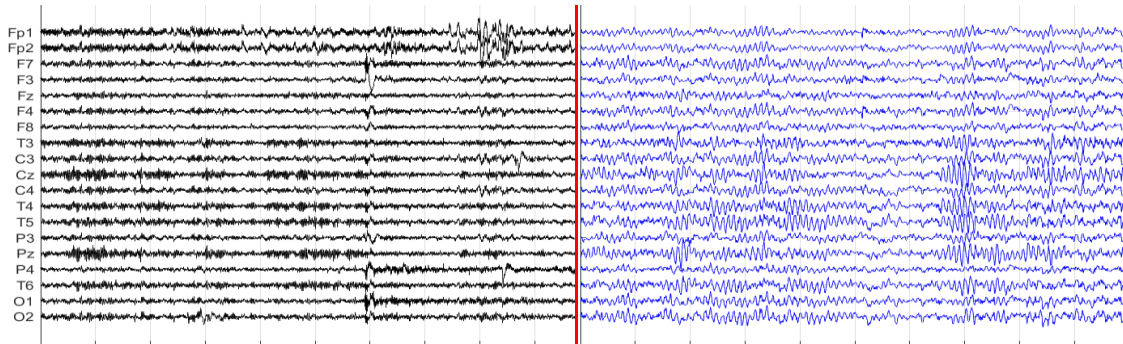
Name	Hana Tabatabaei	Date of Recording	09-Sep-2024
Date of Birth - Age	23-Oct-2007 - 16.88	Gender	Female
Handedness(R/L)	Right	Source of Referral	Mr Askari
Initial Diagnosis	GAD-MDD		
Current Medication	Medication Free		

Mr Askari

Denoising Information (EC)

Raw EEG

Denoised EEG



Flat Channels

Rejected Channels

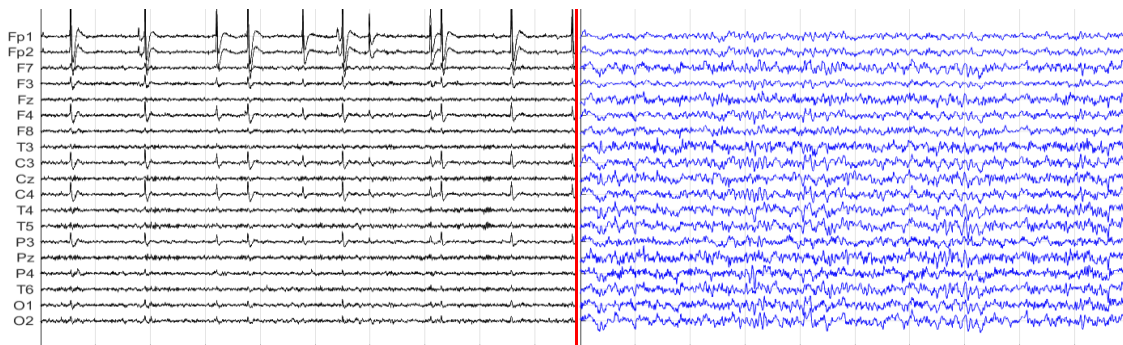


Number of Eye and Muscle Elements				Low Artifact Percentage	
Eye	2	Muscle	1		
Total Artifact Percentage				High Artifact Percentage	
EEG Quality		bad		Total Recording Time Remaining	
				232.54 sec	

Denoising Information (EO)

Raw EEG

Denoised EEG



Flat Channels

Rejected Channels



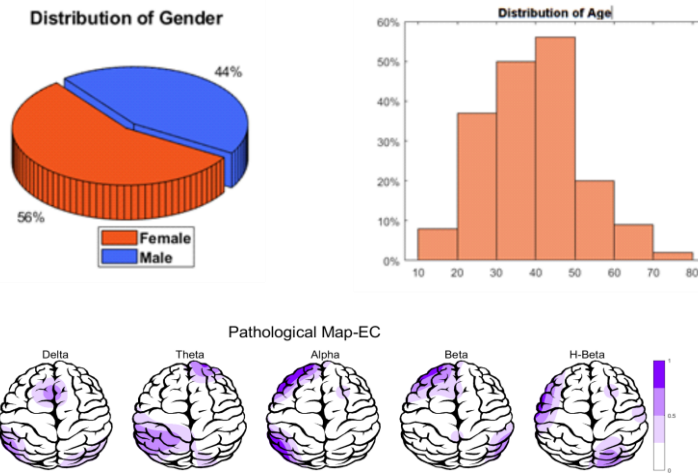
Number of Eye and Muscle Elements				Low Artifact Percentage	
Eye	2	Muscle	3		
Total Artifact Percentage				High Artifact Percentage	
EEG Quality		bad		Total Recording Time Remaining	
				233.45 sec	

rTMS Response Prediction

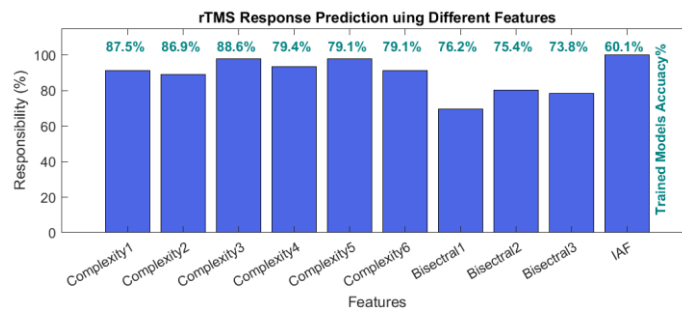
Network Performance

Accuracy: 92.1%
Sensitivity: 89.13%
Specificity: 97.47%

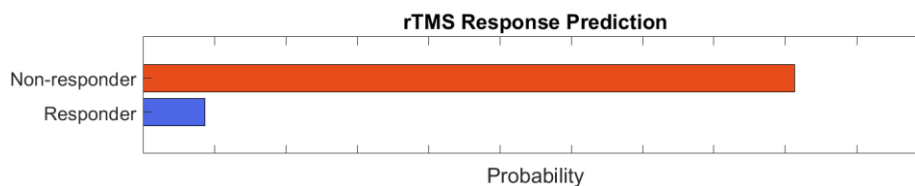
Participants Information



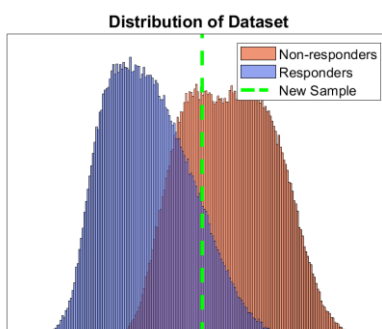
Features Information



Responsibility



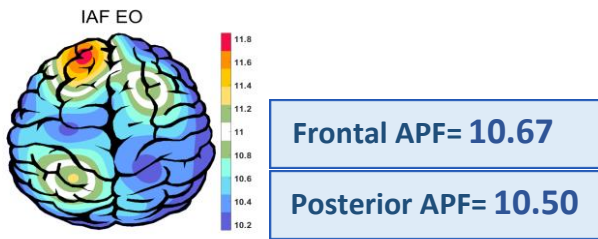
Data Distribution



About Predicting rTMS Response

This index was obtained based on machine learning approaches and by examining the QEEG biomarkers of more than 470 cases treated with rTMS. The cases were diagnosed with depression (with and without comorbidity) and all were medication free. By examining more than 40 biomarkers capable of predicting response to rTMS treatment in previous studies and with data analysis, finally 10 biomarkers including bispectral and nonlinear features entered the machine learning process. The final chart can distinguish between rTMS responsive and resistant cases with 92.1% accuracy. This difference rate is much higher than the average response to treatment of 44%, in the selection of patients with clinical criteria, and is an important finding in the direction of personalized treatment for rTMS.

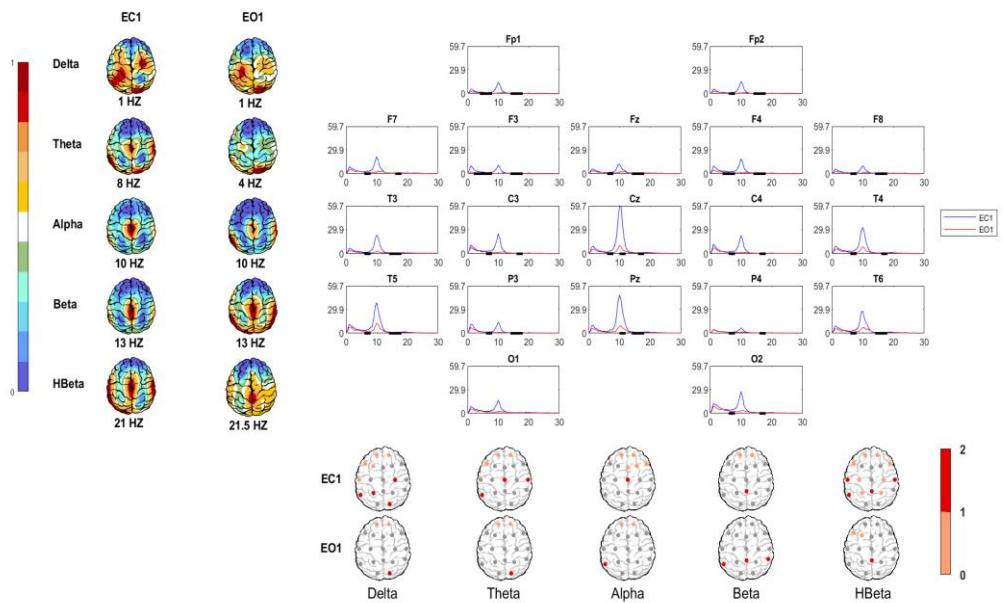
APF(EO)



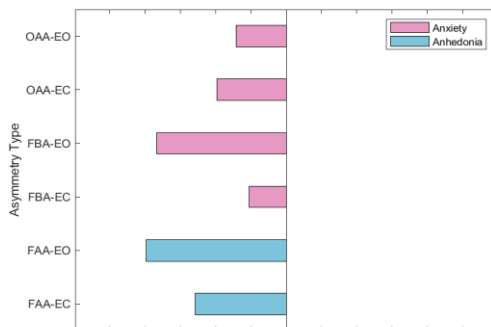
APF(EC)



EEG Spectra



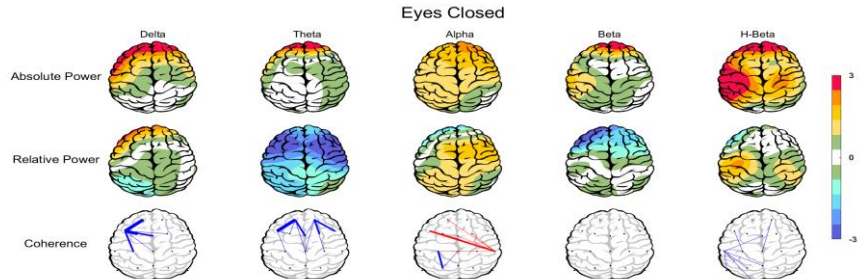
Alpha Asymmetry(AA)



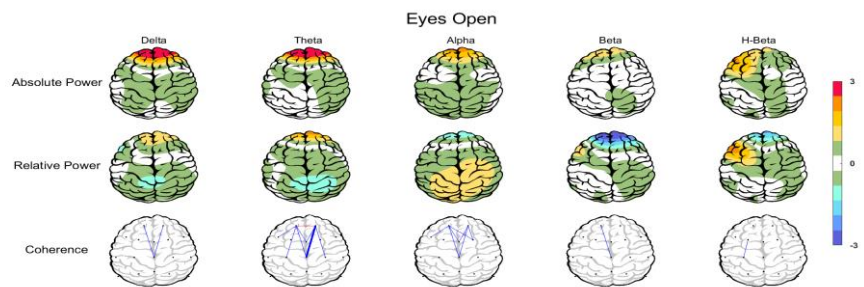
Alpha Blocking



Z Score Summary Information (EC)



Z Score Summary Information (EO)



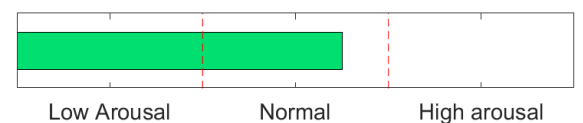
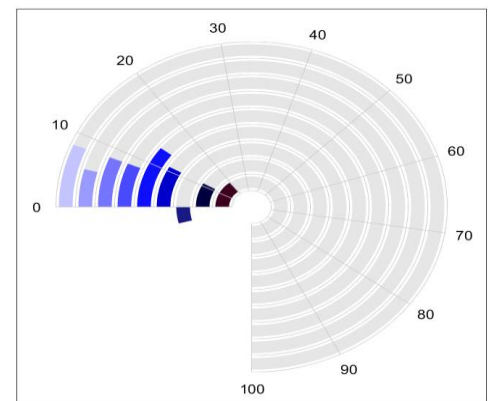
E.C.T/B Ratio (Raw- Z Score)



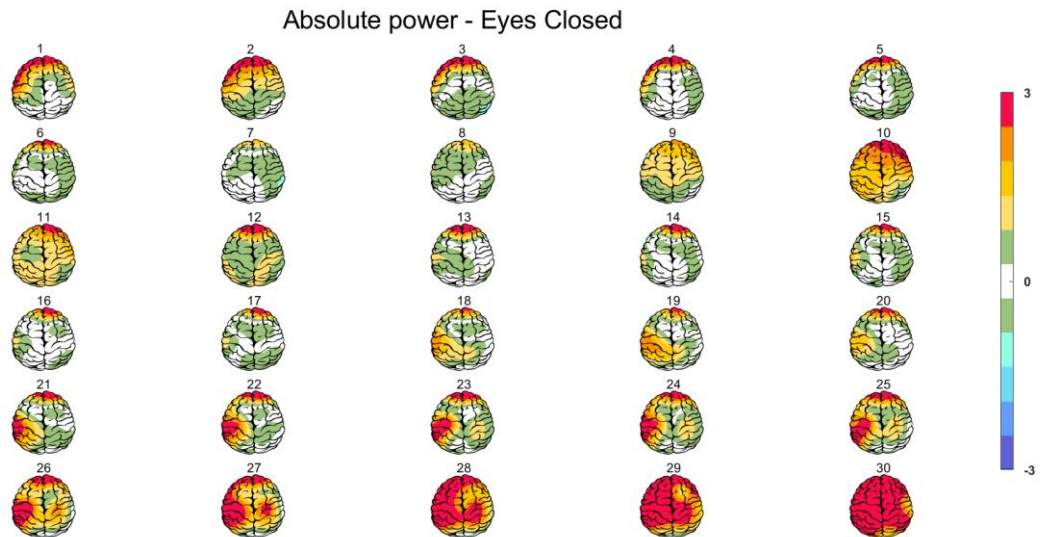
E.O.T/B Ratio (Raw- Z Score)



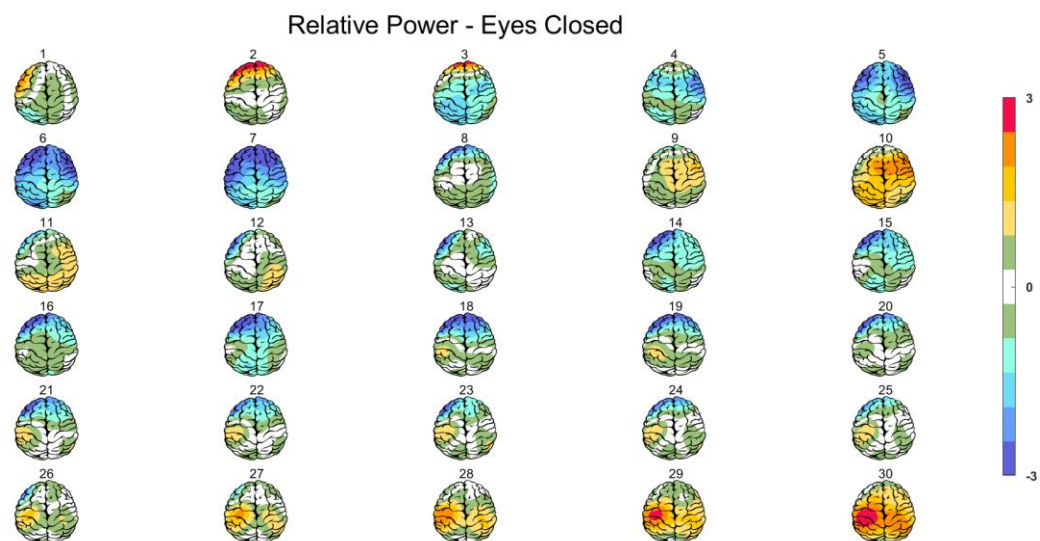
Arousal Level



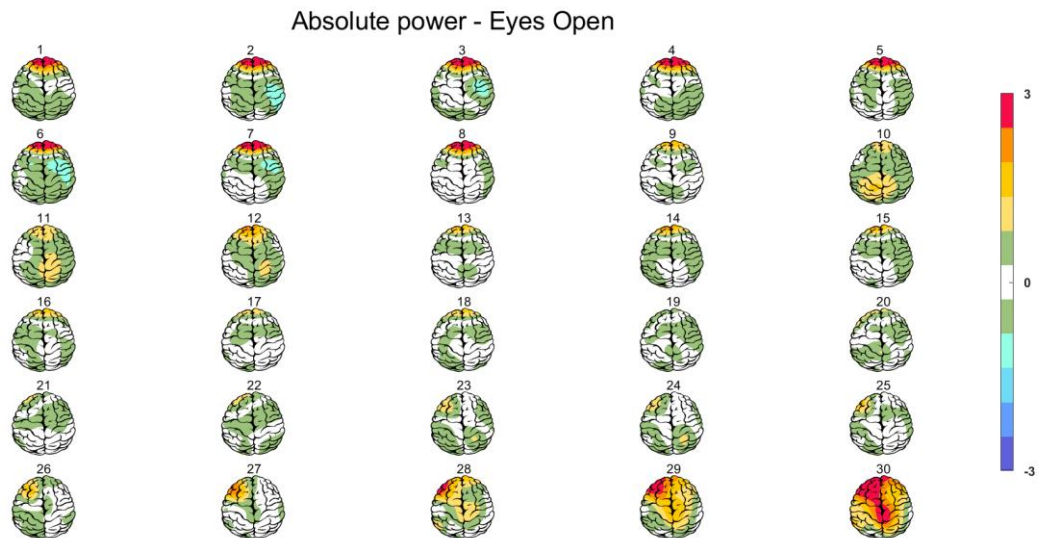
Absolute Power-Eye Closed (EC)



Relative Power-Eye Closed (EC)



Absolute Power-Eye Open (EO)



Relative Power-Eye Open (EO)

