使用時間干擾刺激的非侵入式深層腦電刺激模型暨電路開發

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INTRODUCTION

Brain Stimulation

	優點	缺點
TMS	非侵入式、已使用於臺灣臨床	僅能刺激大腦淺層
tDCS	非侵入式、應用廣泛(復健、治療成癮行為等)	僅能刺激大腦淺層
DBS	治療成效好、已使用於臺灣臨床	侵入式、手術困難
TIBS	非侵入式、可刺激大腦深層	尚處研究階段

Neurodegenerative disorder

Why "TIBS" so important?

Treat neurodegenerative diseases

Non-invasive treatment

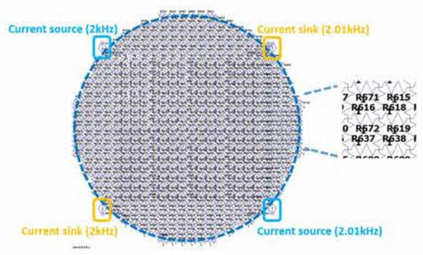
Patient-friendly

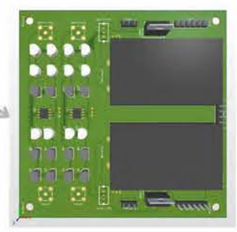
OUR WORKS

A. Software - LThead

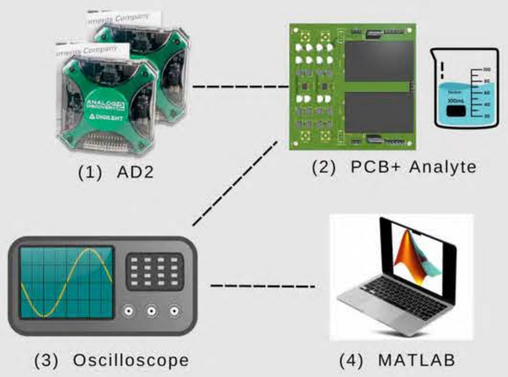
B. Hardware - Stimulation PCB board

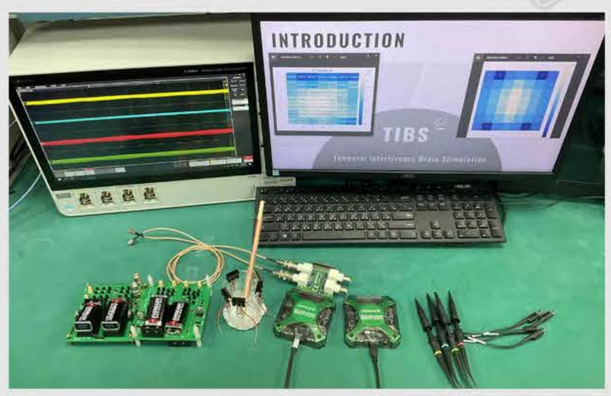
C. Experiment - LThead verification
- TIBS stimulation





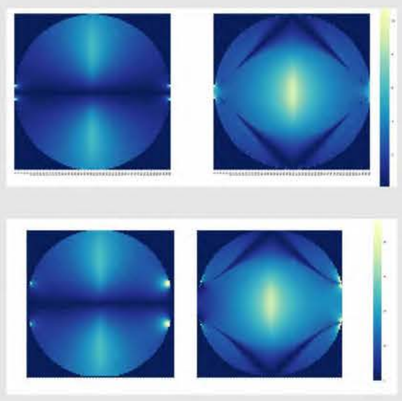
TIBS stimulation



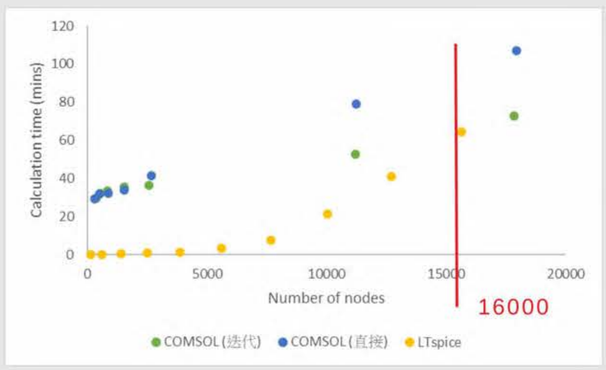


OUR RESULTS - LThead

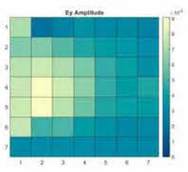
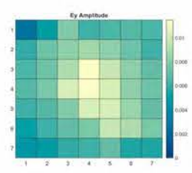
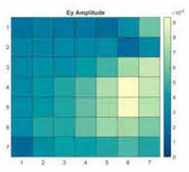
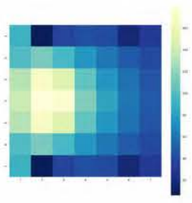
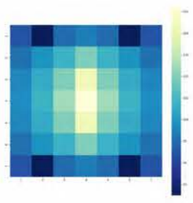
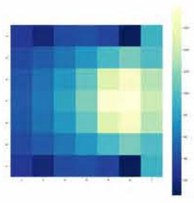
- Accuracy comparision



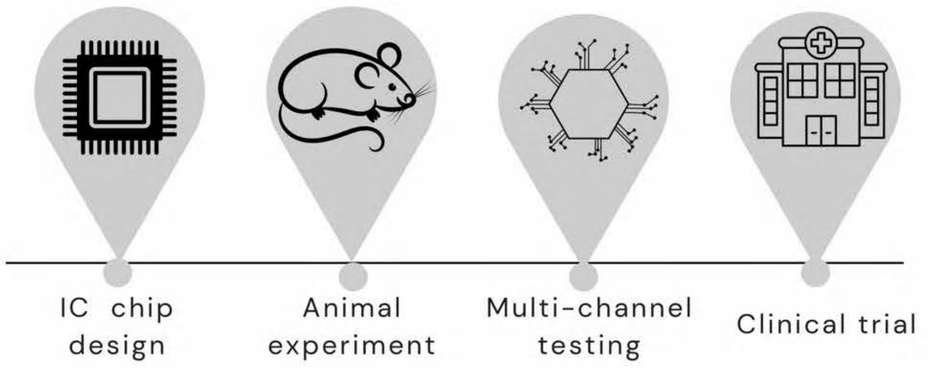
- Operation time comparision



- TIBS stimulation results of different current ratio

ratio	1 : 3	1 : 1	3 : 1
Our results			
LThead			

FUTURE WORKS



OUR THOUGHTS

We appreciate the recognition from the TIBS Creative Scholarship awarded by CTCI Foundation. In the pursuit of this scholarship, our enthusiasm for TIBS research has grown, leading to numerous creative advancements. The achievements attained are not solely the result of individual effort but also the collective dedication of the entire team. The collaboration among us has fostered revolutionary sentiments, and we are grateful for this opportunity that has allowed us to grow together. This scholarship will serve as a catalyst for our future academic and creative endeavors. With a grateful heart, we commit to actively engaging in social innovation and contributing to the advancement of technology.