



THE UNIVERSITY OF
SYDNEY

Seizure Monitoring System

[2018-144]

Medical Technology and Devices

Opportunity

There are approximately 250,000 people living with epilepsy in Australia and 65 million worldwide. Epilepsy and the unpredictability of the recurrent seizures can impact the independence and confidence of people living with the disease. While many people effectively manage the condition with their first or second anti-epileptic drugs, if it fails to be treated the chance of responding to further drugs is significantly diminished, leaving about 30 percent of patients with drug resistant epilepsy. This means many people are faced with few choices which allow them to effectively manage their debilitating condition.

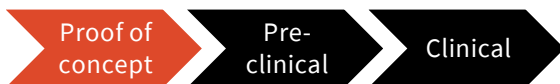
Technology

Researchers at the University of Sydney have established a minimally-invasive seizure monitoring system capable of performing in-situ EEG signal monitoring with an artificial intelligence-based seizure onset forecasting. It is anticipated that the user of the device (or another party) can be conveniently warned of an oncoming seizure, thus allowing precautionary actions to be taken and providing the user with more control over their daily life.

This innovative technology seeks to provide a greater degree of independence to a specific cohort of individuals living with epilepsy, that will help better manage against the seemingly unpredictable nature of seizures.

Intellectual Property Status

The technology is the subject of pending Australian Provisional Patent Application No. 2019904142.



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Related Publications by Inventors

Additional information is available at

- <https://doi.org/10.1109/ACCESS.2019.2944691>
- <https://doi.org/10.1109/TED.2019.2948950>
- <https://doi.org/10.1109/TIFS.2018.2850770>

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