AES Sponsors Seizure Detection Challenge

AES has teamed with the National Institute of Neurological Disorders and Strokes (NINDS), University of Pennsylvania, and Mayo Clinic, to launch the Seizure Detection Challenge, an international competition challenging the best minds in “machine learning” to improve devices to track and treat epilepsy. Contestants will analyze retrospective prolonged intracranial EEG data recorded from four dogs with naturally occurring epilepsy and from eight patients with medication-resistant seizures during evaluation for epilepsy surgery. The contestant or group that can identify the earliest EEG changes leading to seizures, with the fewest false alarms, wins!

After the contest, these unique data sets will be made freely available to researchers worldwide by the NINDS, University of Pennsylvania and Mayo Clinic at http://ieeg.org to advance epilepsy research and treatment. Join our international collaboration to cure epilepsy at http://ieeg.org and https://www.kaggle.com/c/seizure-detection.

The contest runs until August 19, 2014, and offers $8,000 in prizes funded by the American Epilepsy Society and the NINDS. AES members, Brian Litt, M.D. and Gregory Worrel, M.D., Ph.D. organized the competition, which is hosted by Kaggle.com, an online community where scientists come together to solve complex problems. https://www.kaggle.com/c/seizure-detection

The winners will be announced at the American Epilepsy Society Annual Meeting held in December in Seattle, and the results will be featured during the Presidential Symposium hosted by Elson So, M.D., president of AES.

In addition to Dr. Litt, the University of Pennsylvania team is co-led by Zack Ives, PhD, of Computer and Information Science, and includes Joost Wagenaar, PhD, of Neurology and Bioengineering and Charles Vite, DVM, PhD, of the School of Veterinary Medicine. The Mayo Clinic team includes co-primary investigator Gregory Worrell, MD, PhD, and Ben Brinkman, PhD, of the Department of Neurology.