From Seizure Detection to Smart and Fully Embedded Seizure Prediction Engine

1. Introduction

* Low power long term technology
* RNS detects onset of seizures but cannot predict them.

1. System Overview

* Use of invasive non-penetrating and penetrating electrodes.

1. Signal Acquisition Circuits

* EEG signals are more used, but less informative.
  + Affected by the skull and by various noise and interferences.
    - Electrode offset, 1/f noise, main supply
  + Use low-noise amplifier after the electrode to condition the signal.
  + Use chopping to reduce 1/f noise and amplifier offset