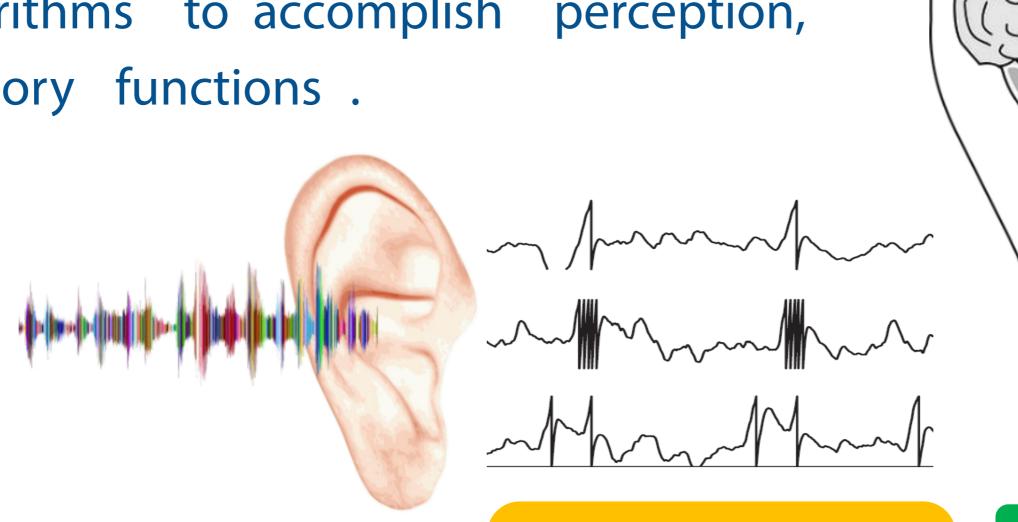


## Neuromorphic Computing

We advance the biologically plausible spiking neural network through efficient neural encoding, novel learning algorithms to accomplish perception, cognition and memory functions .



Neural Coding Spike - based Learning

Memory and Knowledge Management

## Neural Coding

- Sensory stimuli are represented in the human sensory and nervous system as spike patterns
- Rate coding, latency coding, phase coding, population coding, predictive coding etc.

## Spike - based Learning

- The human brain is highly plastic and learning occurs at every moment based on spikes.
- Spike timing and spike rate based learning rules.



1<sup>st</sup> Prize in 2018 International Collegiate Competition for Brain-Inspired Computing

## Memory and Knowledge Management

- Neural networks cooperate to accomplish complex perception, cognitive and memory functions
- Integrate functions such as consolidation, storage, and recall into a complete system