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Title	Brain activity study on olfactory stimulation via electroencephalography
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# Brain activity study on olfactory stimulation via Electroencephalography

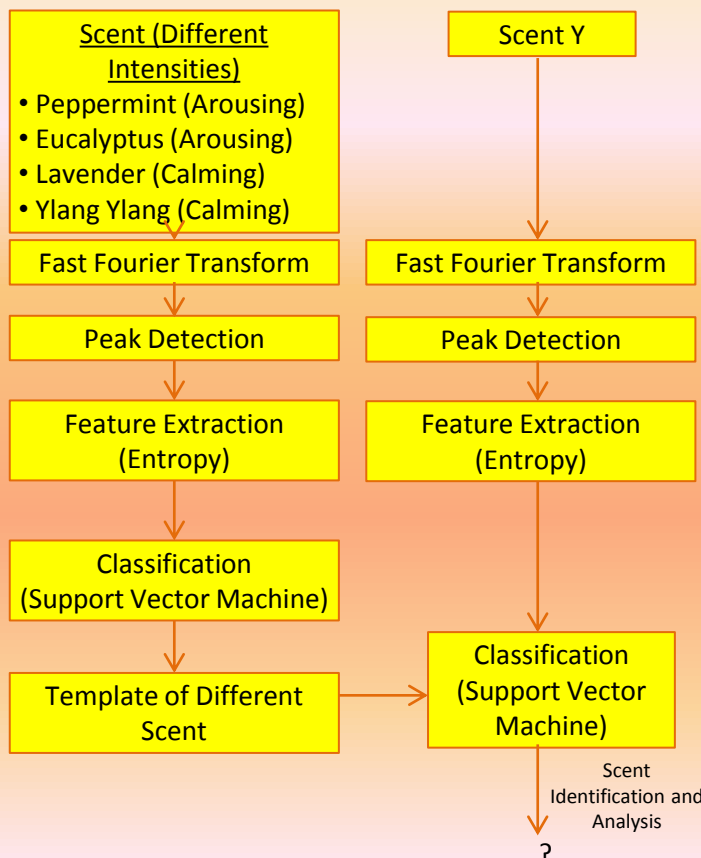
## Introduction

- Electroencephalography (EEG) is the recording of electrical signals generated by the brain.
- EEG had been used for past diagnostic application in neurology.
- EEG proves to be a important instrument in research, especially when higher temporal resolution is needed.

## Objective

- To investigate the steady state behavior of the brain to arousing and calming odours at different intensities by using EEG
- To identify and analyze different odours using EEG

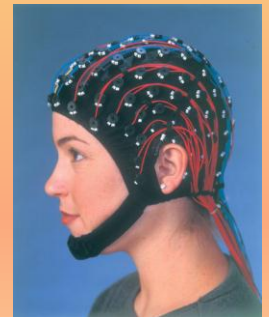
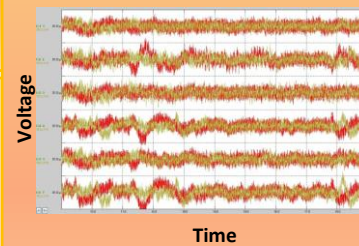
## Algorithms



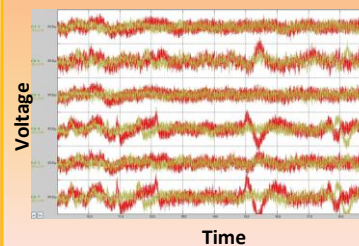
## Preliminary Results

- Experiment were conducted for 2 scents, lavender and ylang ylang at two intensities.
- Red signals represent the higher scent intensity while yellow signals represent the lower scent intensity.
- Channel used were Ground: FPz; POz, Reference Cz, Channel 1: C3, Channel 2: Oz, Channel 3: C4, Channel 4: Fz, Channel 5: P3, Channel 7: F3
- The 2 graphs below show that higher scent intensities have greater impact on brain signals.

### lavender



### Ylang Ylang



## Potential Applications

- To invigorate workers using arousing or calming scent at appropriate intensity
- To identify and classify scent into different types by using EEG

