InnerEye Sense Plus
Braintech Solution

2024/9/24

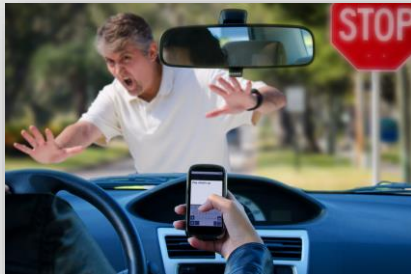Technology Solution Division
Josselin Vilpoux

MACNICA

Minded AI for Mobility

Solution to provide safety, security, comfort, and enjoyment for Automotive industry

Safety Monitoring

Dangerous scene/ Sleepiness Detection

Driver's States Monitoring

Concentration Level Stress Level

Entertainment experience

Music, Games, Recommendation

Emotion Analysis

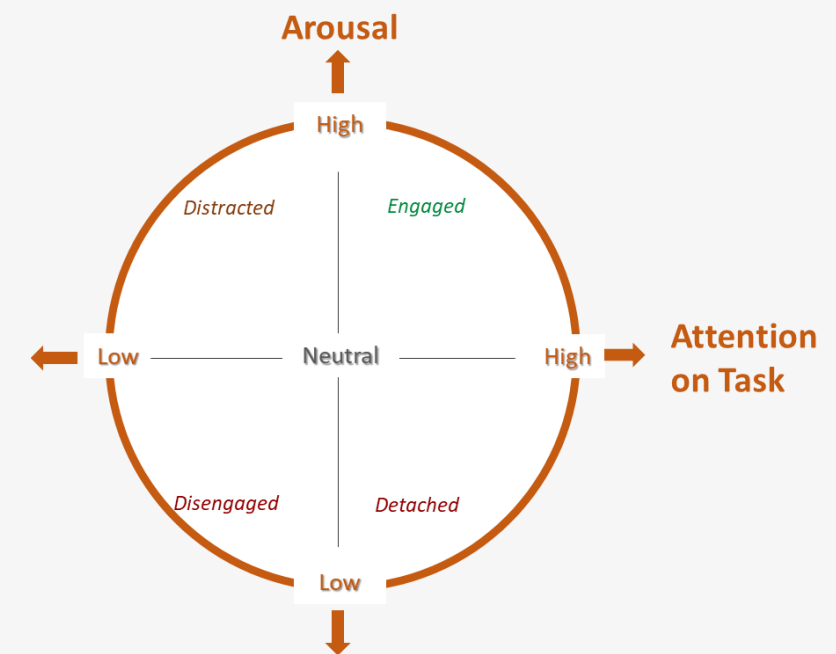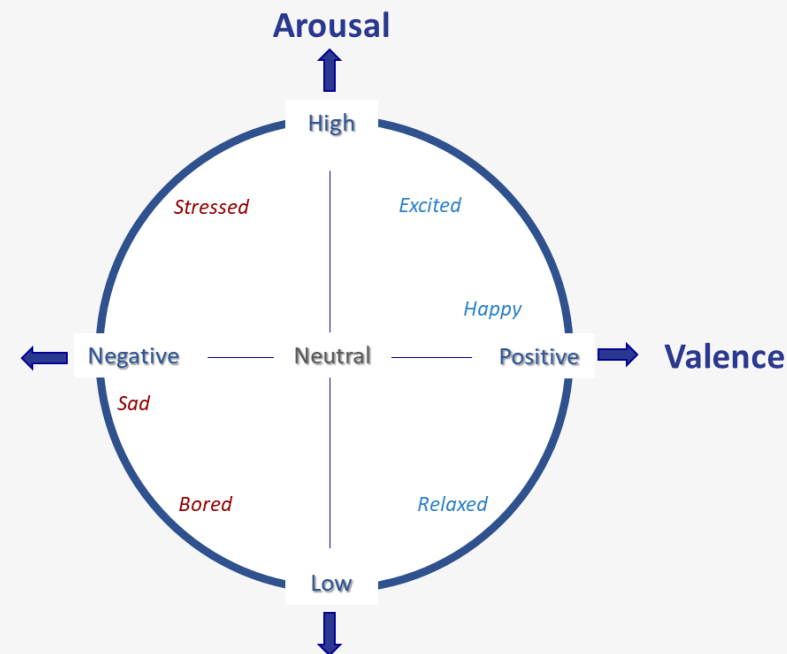Senses Plus product enables measurement and monitoring of user's cognitive and emotional states.

The states include primary states which are direct outputs of physiological signal classifiers, and secondary states which are combinations of the primary states.

Primary States
1. Concentration
2. Attention-On-Task
3. Wakefulness
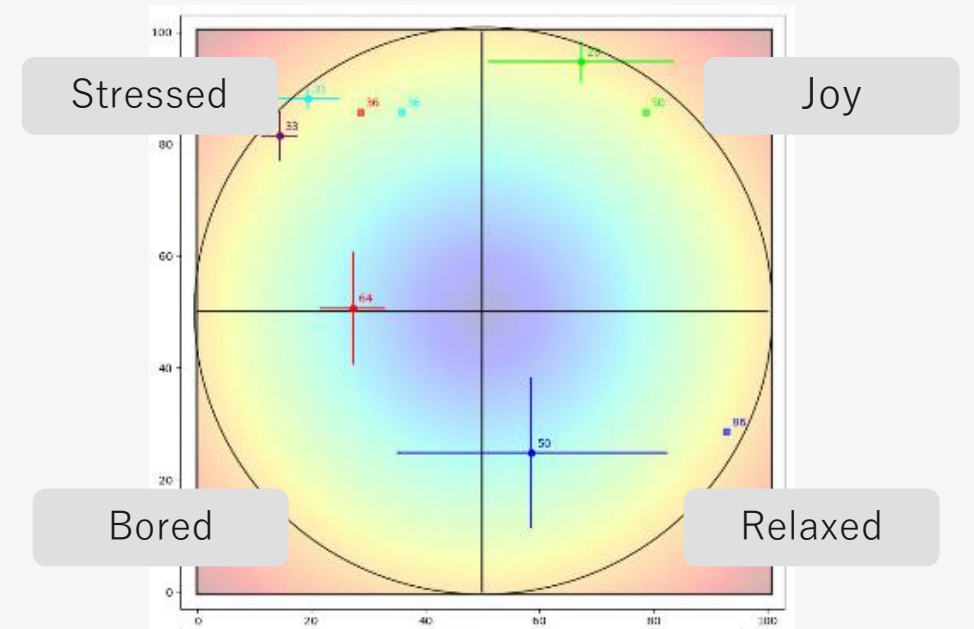4. Arousal
5. Valence

2nd States
- Stressed vs. Relaxed
- Excited vs. Bored
- Happy vs. Sad
- Engaged vs. Disengaged
- Distracted vs. Detached

PoC Case Study − Emotions States
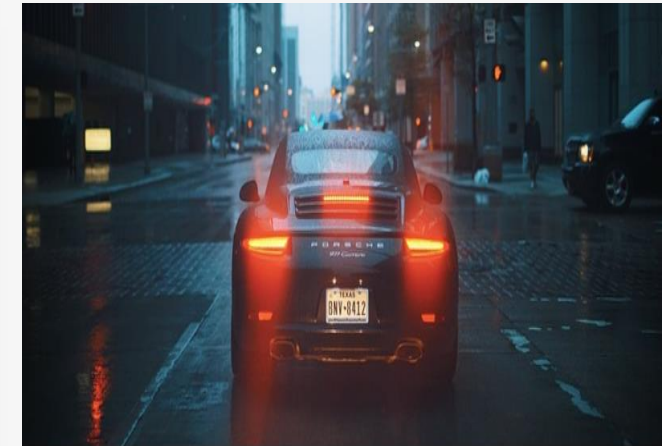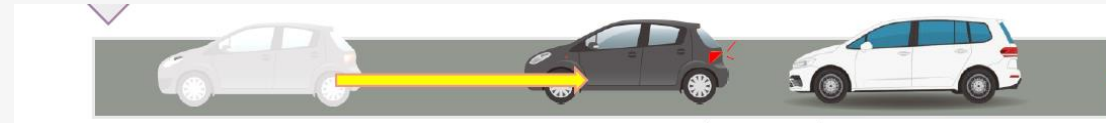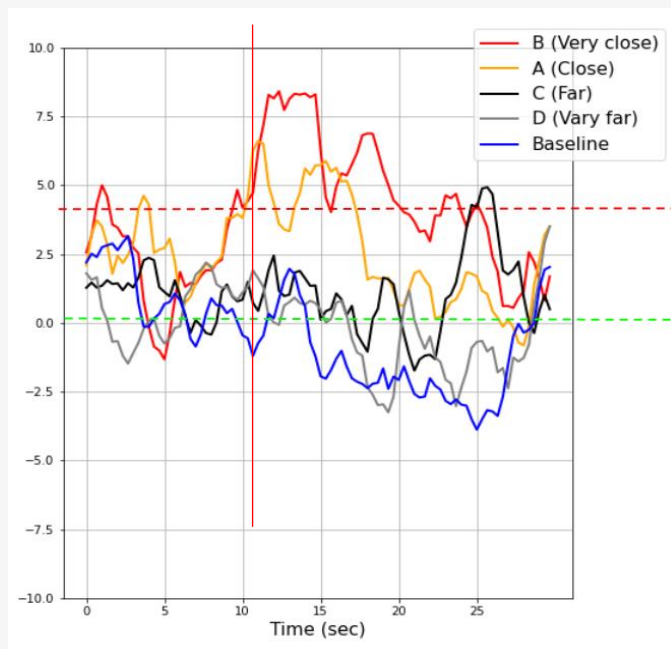
Cognitive States / Emotions Analysis

Focus level, emotions, sleepiness detection

Stressed

Joy

Bored

Relaxed

PoC Case Study – Danger / Safe Detection

Driver's reaction by distance of other cars (safety and danger points)
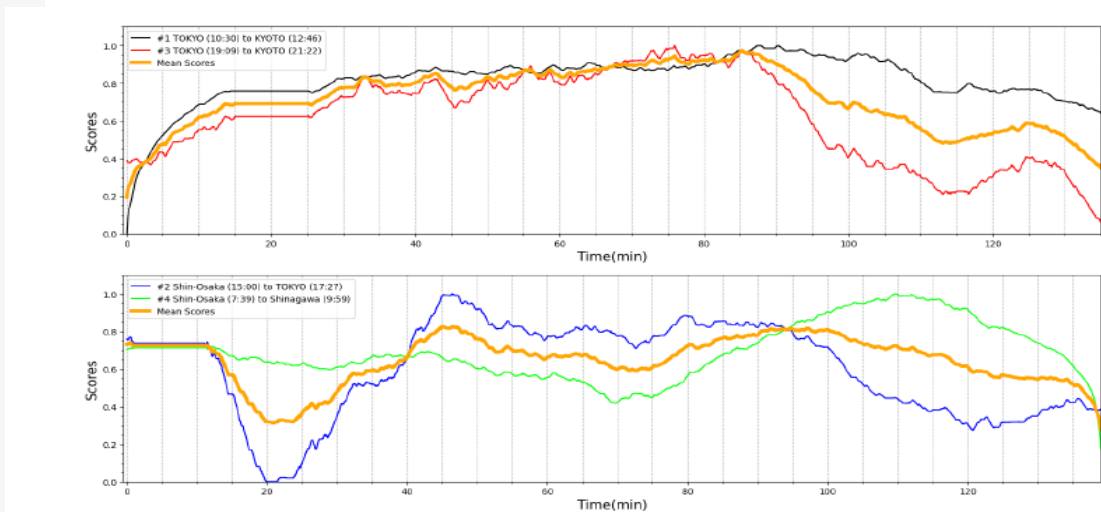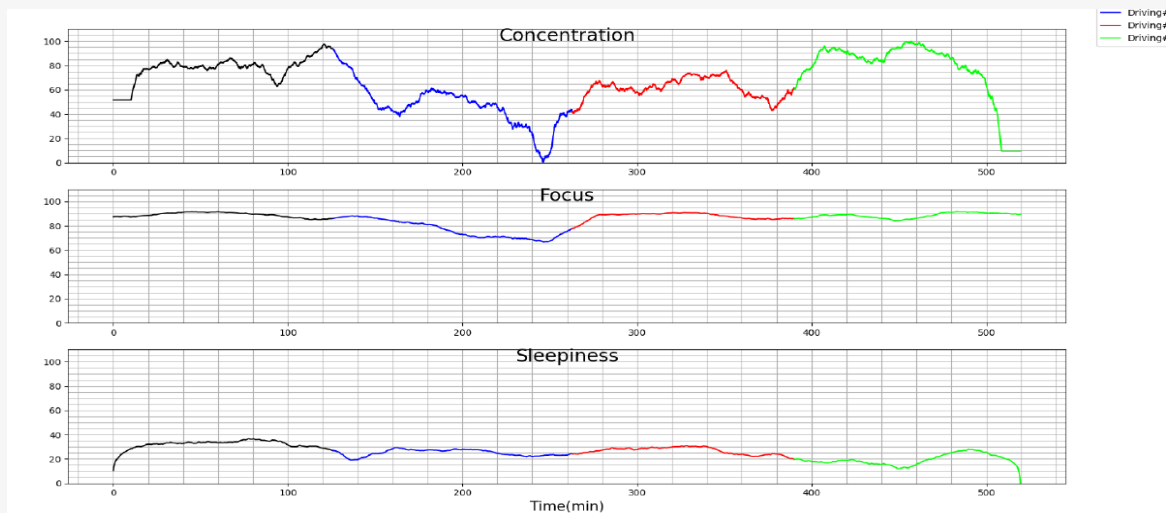
Watch 5 types of simulation video and analyze how driver reacted
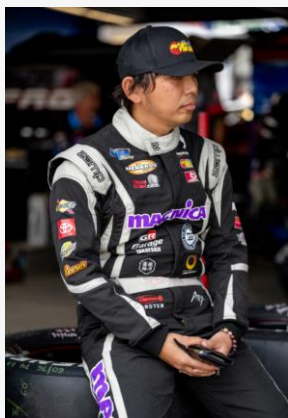
PoC Case Study – Sleepiness Detection

Train driver's « sleepiness detection »

Analyze and identify precisely at which moment drivers start feeling sleepy.

PoC with NASCAR

Brainwaves data collection with a racing car (extreme condition)

Case Studies

Sense Plus

Cognitive States
Emotion Analysis

AVAS Sound Recognition

Sound Affection

Classification AI

Safety/Danger Analysis

Surgery Focus Level

Sensel

Visual Inspection
AI Model

Composition Classification

Airport Luggage Inspection

LCD Inspection

X-Ray/MRI Inspection

Manufacturing Equipment AI

Remote Diagnosis

MACNICA