Brain AI

SenseI

MACNICA

Modeling human "tacit knowledge"

SenseI

Fusion of AI with human Intelligence

Brain-in-the-Loop For AI model creation and update

SenseI is a unique platform to create and update AI models based on the human expertise as directly read from the brain.

INNER**EYE**

All type of data
Visual and auditory data from any source, type and format

Multimodality
Learning from multiple perceptual information

Quick annotation
10x faster data labeling and annotation

Brain generated soft labels
Adding brain insights and confidence level to AI model learning

Human factors assessment
Monitoring human attention and fatigue to ensure high quality of decision
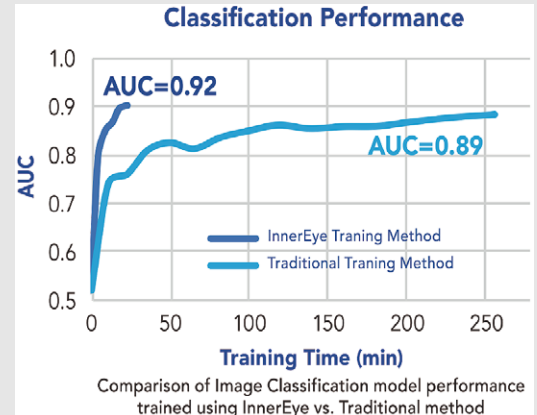
Improved Performance
Reaching higher accuracy than traditional AI learning, with a small amount of data
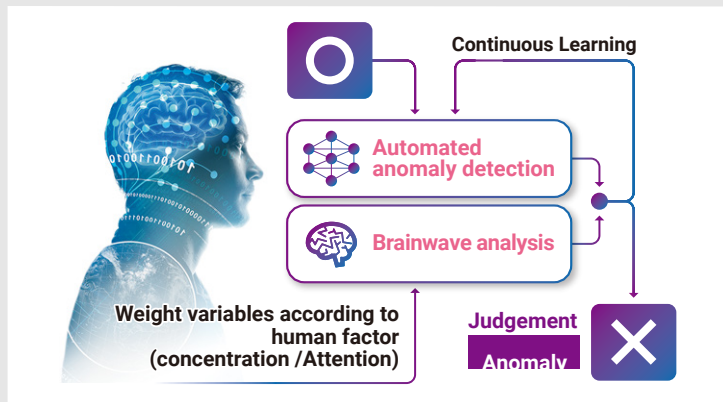
Superiority over traditional AI Training Methods

SenseI is a novel and unique active learning framework for training and validation of deep neural networks using the information measured directly from the brain. By connecting between the expert's brain and the AI model, SenseI allows fast presentation of data, classification of brain responses, generation of soft labels reflecting the expert's confidence level, and providing real-time feedback to update the model.

SenseI enables its users to reduce cost and resources required to develop their AI models, while reaching model accuracy is improved compared to traditional training methods.

Classification Performance

AUC=0.92

AUC=0.89

InnerEye Traning Method
Traditional Traning Method

AUC

Training Time (min)

Comparison of Image Classification model performance trained using InnerEye vs. Traditional method

AI Learning & Decision making system

Continuous Learning

Automated anomaly detection

Brainwave analysis

Weight variables according to human factor (concentration /Attention)

Judgement
Anomaly

Once AI model created, SenseI can be used as standalone AI, or as a combined human-AI decision making system. Using SenseI, the expert user judgment and decisions are automatically captured while he is scanning through the data. The user brainwaves are processed along with the Data (i.g. image, audio) which enables the system to reach higher decision accuracy as well as improve the AI model on the fly.

Use cases

SenseI can be used in various industries and use-cases such as security, quality inspection, healthcare, aerial imagery and more..

Monitoring CCTV

Visual inspection

Automated diagnosis

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