AICAS 2022 Exhibition Introduction

Please send the company introduction or description of exhibition to AICAS 2022 secretariat. If you don't have any materials, please fill out this 'Exhibition Introduction'. the company introduction and exhibition introduction will be uploaded with company CI on the online exhibition page on the website. We recommend a **pdf file format** for materials. Thank you for cooperation.

Company Name	**Gwanak Analog Co., Ltd.**
Website	**https://www.gwanakanalog.com/**
Contact number	**+82-10-8723-4748**
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Exhibit item	**Particle Matter Detector(dust sensor), Text to Speech(TTS)**

Introduction

※ Please fill out the exhibition or introduction of the company in English.

Gwanak Analog Co., Ltd. (GWANKAK) is a fabless semiconductor startup that spun-off from Seoul National University, located in South Korea. GWANAK has its unique multi-sensor fusion / text-to-speech / speaker identification & verification system solution. The solutions include deep-learning algorithms and an innovative "fully-integrated standalone Edge-AI System IC with an embedded neural network accelerator". GWANAK's IC guarantees low-latency as well as a high-power efficiency memory system that are critical factors for edge applications.

By utilizing the Edge-AI System IC with one of the GWANAK's deep-learning algorithms, it has developed a dust sensor IC that has the same performance as an expensive fine dust measuring equipment (Digital Twin technology). Recently, GWANAK applied the similar concept to complete high-quality sound and voice solutions. In CES 2022, GWANAK demonstrated a TTS (Text-to-Speech, Speech Synthesis) prototype product that can speak in real time. This product was exhibited at CES 2022 which received huge interest and attention from numerous customers.

The deep learning algorithms that can be embedded inside GWANAK's Edge-AI System IC include 1: Multi Wake Up Words and Local Commands, 2: Speaker Identification and Verification, 3: Audio Event Detection and Acoustic Scene Classification and 4: Speech Enhancement.