



GRID+



Kyudenko Corporation

Grid Corporation

Fuji System Engineering, Inc.

Automation Technology, Inc.

12/26/2023

Received the Energy Conservation Center Chairman's Award

for the 2023 Energy Conservation Grand Prize

Heat load prediction and digital twin to optimize Air Conditioning Heat Source Control AI

Kyudenko Corporation (Head Office: Minami-ku, Fukuoka City; Representative: Kazuyuki Ishibashi; hereinafter “Kyudenko”), Grid Corporation (Head Office: Minato-ku, Tokyo; Representative: Masaru Sogabe; hereinafter “Grid”), Fuji System Engineering, Inc. (located in Kajiya-ku, Fukuoka City; Representative: Masato Fujisaki; hereinafter “Fuji System”) and Automation Technology, Inc. (located in Minami-ku, Fukuoka City; Representative: Masaaki Jono; hereinafter “Automation Technology”) have won the Energy Conservation Center Chairman’s Prize in the Product and Business Model Category of the 2023 Energy Conservation Grand Prize sponsored by the Energy

Conservation Center, Japan for jointly developing an AI system to control air conditioning heat sources.

The Energy Conservation Grand Prize, sponsored by the Energy Conservation Center, Japan, is a program that awards outstanding energy-saving efforts and advanced, efficient, energy-saving products in the industrial, business, and transportation sectors in Japan.

The Energy Conservation Center Chairman's Award was presented to the 'Air Conditioning Heat Source Control AI' for improving the heat source system COP (Coefficient of Performance)* by 5 to 13% during the actual cooling and heating periods of a store during verification testing.

About the system

The 'Air Conditioning Heat Source Control AI' is an award-winning system that utilizes AI to calculate and control energy-saving operation values for central heat source air conditioning systems commonly found in commercial facilities.

Features

The system optimizes the efficiency of the heat source system by extracting and controlling the operating conditions. This is achieved by using the heat source operating patterns derived from a heat load prediction model and simulator, which are based on the load characteristics of each heat source system. The current heat source equipment's characteristics and operating conditions are

understood through on-site surveys.

Going forward, Kyudenko, Grid, Fuji System, and Automation Technology will continue to contribute to society by providing technologies that realize energy conservation.

*Heat source system COP

The energy consumption efficiency of a heat source system, an indicator of energy-saving performance.