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PRESS RELEASE

February 15, 2023

SHINRYO CORPORATION Mitsubishi Jisho Design Inc. Shibaura Institute of Technology

"Shinryo Shinjo Building" Awarded for 2023 First Place of ASHRAE Technology Award

Commercial Buildings (New) Category February 4, 2023, in Atlanta, Georgia, U.S.A.

We are pleased to announce that the Shinryo Shinjo Building (Chiyoda-ku, Tokyo), designed, constructed and verified by SHINRYO CORPORATION, Mitsubishi Jisho Design Inc. and Takayuki Akimoto Laboratory of Shibaura Institute of Technology had won the first place of 2023 ASHRAE Technology Awards of newly built office building category presented by American Society of Heating, Refrigerating and Air-Conditioning Engineers.



"Shinryo Shinjo Building"

Awards Ceremony (Atlanta, GA, U.S.A.)

Shinryo Shinjo Building, a mid-sized office building completed in June 2020, has achieved an increase of "+1 Floor" by adopting newly developed "ductless air conditioning system" throughout the building. This ductless air conditioning system is based on the conventional system but has significantly improved energy-saving performance. Additionally, several other newly developed technologies are also implemented, many of which have been established as higher-level technologies through years of joint research and demonstration experiments by the three parties. Such R&D processes have also been highly regarded by relevant academic organizations.



With more than 50,000 members from over 130+ nations, ASHRAE* is a diverse organization, founded in 1894, HQ Atlanta, GA, dedicated to advancing the arts and sciences of heating, ventilation, air conditioning and refrigeration to serve humanity and promote a sustainable world. The ASHRAE Technology Awards since 1999 recognize outstanding achievements by members who have successfully applied innovative building design in the areas of occupant comfort, indoor air quality and energy conservation. Performance is proven through one year's actual, verifiable operating data. https://www.ashrae.org/

Winning First Place of ASHRAE Technology Award After a Rigorous Three-Stage Process

The ASHRAE Technology Awards are judged in three stages according to the region. Shinryo Shinjo Building won the Best Technology Award of Japan Chapter in July 2022, followed by award of Region XIII (Asia) in the following August. Subsequently Shinryo Shinjo Building was selected from 15 regions around the world for the final selection and awarded the first place. The award demonstrates that the energy-saving and various environmental technologies implemented in the project are of the highest level in the world.

The detailed performance verifications are continually conducted during the operation to aim for further energy conservation, such efforts include the development of heat source control linked to spreadsheet software (Excel application). The various technologies implemented in this project can be widely deployed and applied in design and construction field. We will continue to communicate our commitment for the promotion toward the realization of the decarbonized society.

Japan ASHRAE Japan Chapter Technology Awards Japan Chapter Award (1st) Asia Region ASHRAE Region XIII Technology Awards Asia Region Award (1st) August 19, 2022

July 19, 2022

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Global ASHRAE Technology Awards

Global nominee from regional winners Global Best Technology Award February 4, 2023

2023 ASHRAE Technology Awards Nomination Process

Sustainable Technologies Implemented in "Shinryo Shinjo Building"

Building-wide Implementation

- Natural Solar chimney ventilation system that uses stairwell
- Active restroom ventilation control
- Environmental Visualizer
- High insulation + low radiation glass
- ♦ Solar panels
- ♦ Cloud-based BEMS
- Excel linked heat source

2F: Common meeting room

Image Analysis Type Motion
 Sensor Energy-Saving Control

1F: Entrance

- <u>Recycled Water A/C System</u>
 <u>Utilizing the Vaporization Heat of</u>
 <u>Drain Water</u>
- Vaporization cooling air conditioning using drain water
- Geothermal cooling of outdoor air



6-8F: Office

- Dynamic Range Radiant A/C System
- Pre-cool cooling tower
- VWV-VT control
- Non-chemical injection anti-corrosion system "Corro-Guard[®]"
- Heat exchange-less piping system
- Return water temperature Cascade Control
- Desiccant outdoor air conditioning system
- Water supply temperature linked dewpoint temperature control

3-5F: Office

- VAV Coanda A/C System
- Constant wind speed devices
 "Air-Soalar[®]"
- Water supply and hot water supply systems
- Water Circulating Temperature Control

Shinryo Shinjo Building achieved to secure one additional floor under strict height restrictions utilizing newly developed Ductless Air Conditioning System throughout the building.

Award History of the "Shinryo Shinjo Building"

Below are the list of other awards Shinryo Shinjo Building has received. (The awards Includes awards for various individual technologies implemented in the project)

	Environmental and Equipment Design Award 2019
May, 2020	Association of Building Engineering and Equipment
	- Variable-Air-Volume Coanda Air Conditioning System: "Air-Soarer"
	10th Carbon Neutral Awards Kanto Branch
April, 2022	Japanese Association of Building Mechanical and Electrical Engineers
	- "Environmental Technology in Shinryo Shinjo Building"
	The building's air-conditioning system was evaluated for its potential contribution to small- and medium-sized offices in the future.
May, 2022	Environmental and Equipment Design Award 2021
	Association of Building Engineering and Equipment
	- "Shinryo Shinjo Building"
May, 2022	Environmental and Equipment Design Award 2021
	Association of Building Engineering and Equipment
	- "Dynamic range radiant air conditioning system"
May, 2022	60th Society of Air Conditioning and Sanitary Engineers Award for Technology Award - Building equipment category
	Society of Heating, Air-Conditioning and Sanitary Engineers of Japan
	- "Environment and equipment plan of Shinryo Shinjo Building"
	The development and verification process of unique air conditioning technologies such as the "Dynamic Range Radiant Air Conditioning System" and "Variable-Air-Volume Coanda Air Conditioning System" that maximize the use of natural energy, as well as the high environmental performance of the system, were highly evaluated.
May,2022	60th Society of Air Conditioning and Sanitary Engineers Award for Technology Award - Technology development category
	Society of Heating, Air-Conditioning and Sanitary Engineers of Japan
	 "Development of the Non-Chemical Corrosion Prevention System for Long Life Building Equipment"
	It is a non-chemical corrosion prevention system for long life building equipment and was evaluated as effective not only for new buildings but also for localized corrosion that has already occurred in existing buildings, thereby reducing the environmental impact.
July, 2022	ASHRAE Japan Chapter Technology awards First Place
Aug, 2022	ASHRAE Region XIII Technology awards First Place
Feb, 2023	2023 ASHRAE Technology Award First Place [Winter Conference]

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