Denka

September 2, 2019

Denka Company Limited

Denka Renotec K.K.

Denka Contributes to the Preservation of Cultural Heritage via the Application of Structural Diagnostic Technologies

<Front view of Sanbouin Karamon Gate of Daigoji Temple>

Denka Company Limited (headquarters: Chuo-ku, Tokyo; president: Manabu Yamamoto; hereinafter "Denka"), along with its Group subsidiary Denka Renotec K.K. (headquarters: Chuo-ku, Tokyo; president: Toyoki Yokoyama; hereinafter "Renotec"), has been participating in a joint project to preserve cultural heritage via the application of the latter's concrete structural diagnostic technologies. Specifically, this project is aimed at preserving Daigoji Temple (location: Fushimi-ku, Kyoto City, Kyoto), a historically significant facility designated as a World Heritage Site, and is being undertaken on the initiative of KYOTO'S 3D STUDIO K.K. (headquarters: Sakyo-ku, Kyoto City, Kyoto; president: Kazuya Nishimura).

Denka hereby announces that the work performed over the course of this project will be showcased as part of a Daigoji-related exhibition to be presented during the International Council of Museums' 25th General Conference in Kyoto (ICOM Kyoto 2019) at the Kyoto International Conference Center from September 1 to 7, 2019.

Renotec's diagnostic technologies employ 360 degree-laser scanning to acquire structural point cloud data that can be used to support the design, construction, maintenance and management of structures. By providing an accurate assessment of a structure, these technologies also aid in the repair and preservation of historical buildings, including those with cultural heritage site designations, especially in the absence of planning or design documents.

In addition, various data gleaned in the course of structural maintenance and management, including the status of damage and records of repair work, can be coordinated with a three-dimensional model of the structure. This data coordination is called Building Information Modeling / Construction Information Modeling/Management (BIM/CIM)* and facilitates the efficient management of a broad range of three-dimensional data in an integrated manner.

Looking ahead, we will strive to create efficient solutions for prolonging the life and enhancing the durability of buildings and structures, with a special emphasis on preserving sites deemed to have significant historical value among those designated as important cultural heritage. To this end, we will bring together these three-dimensional measurement technologies and a wealth of technologies associated with inorganic material design, repair materials and construction that Denka accumulated since its founding.

In line with the Denka Value-Up management plan, the Denka Group is pushing ahead with the specialization of its key operations. As we aim to play our part in collaborative efforts aimed at preserving cultural heritage that should be passed down to future generations, we will provide cutting-edge solutions developed in the course of such specialization with the aim of helping create high-value-added infrastructure. In this way, we will contribute to the realization of "Sustainable Cities and Communities," one of the Sustainable Development Goals (SDGs) identified by United Nations.

Website of Daigoji Temple: https://www.daigoji.or.jp/index_e.html
Website of KYOTO'S 3D STUDIO K.K.: http://k3s.jp/ (Japanese only)
Website of ICOM Kyoto 2019: https://icom-kyoto-2019.org

Outline of Denka Renotec K.K.

(As of April 1, 2019)

Headquarters	Unizo Nihonbashi-Honcho 1-Chome Building 6F, 5-11, Nihonbashi Honcho 1-chome, Chuo-ku, Tokyo; zip code: 103-0023
Capital	¥50 million (a wholly owned subsidiary of Denka Company Limited)
Representative Director & President	Toyoki Yokoyama
Employees	32
Establishment	July 4, 2001
Main business	1. Structural surveying and diagnostics and consulting with regard to the repair, reinforcement and design of concrete structures
	2. Construction work applying technologies that specialize in the repair and reinforcement of concrete structures
	3. Sale of special materials for use in the repair and reinforcement of concrete structures
	4. Other operations associated with the aforementioned businesses
Website	http://www.denka-renotec.co.jp/index.html (Japanese only)

* Building Information Modeling / Construction Information Modeling/Management (BIM/CIM)
BIM refers to a method for developing a building data model boasting square measurements and details regarding materials, specifications and the performance of each structural component as well as data on surface finishes and other attributes of the structure in addition to its three-dimensional shaping data. CIM refers to a method for improving and upgrading the efficiency of entire production systems for construction via the introduction of three-dimensional models from the planning, survey and design stages as well as the utilization of advanced data coordination employing such models at subsequent stages, including facility construction, maintenance and management. BIM and CIM, which are used in the construction and civil engineering fields, respectively, have come to be collectively referred to as BIM/CIM in response to the global trend

toward the standardization of these methods. Today, BIM/CIM is used as an overarching terminology representing three-dimensional measurement technologies for assessing landscapes, structures and other objects.

[For inquiries about this press release]
CSR & Corporate Communications Dept., Denka Company Limited Tel: +81-3-5290-5511
[For inquiries about the business discussed above]
Structural Survey, Diagnosis & Design Dept., Denka Renotec K.K. Tel: +81-3-5290-5362