



March 22, 2021 UT Group Co., Ltd.

Development of "Live-Action VR Training Program" that Depicts Reality of Construction Sites

UT Construction Co., Ltd. (headquartered in Shinagawa-ku, Tokyo; President and Representative Director: Hiroshi Hokari) is a wholly owned subsidiary of UT Group Co., Ltd. (headquartered in Shinagawa-ku, Tokyo; President and CEO: Yoichi Wakayama), which is engaged in worker dispatch services in the manufacturing and engineering sectors. The company provides dispatch services for construction engineers and construction design and construction outsourced services. UT Construction announced that it has developed a "Live-Action Virtual Reality (VR) Training Program" jointly with Hitachi, Ltd. (headquartered in Chiyoda-ku, Tokyo; President and CEO: Toshiaki Higashihara) and NeU Corporation (headquartered in Chiyoda-ku, Tokyo; President and CEO: Kiyoshi Hasegawa), which has brain science knowledge and technology. This program is targeted at UT Group's new employees (new graduates and mid-career hires) and its employees who seek to change their careers within UT Group companies.

1. Background to the introduction of "Live-Action VR Training Program"

UT Construction provides pre-assignment training to its new employees (new graduates and midcareer hires) and employees who are moving to the construction industry through the use of the One UT career support system*. The training program promotes understanding of the work of construction management engineers and provide safety education on construction sites. This time, the company has developed the "Live-Action VR Program" to enable employees to better understand the realities of construction sites and has decided to introduce it as part of the training program. Through this "Live-Action VR Program", we believe that even unexperienced personnel will be able to play an active role in the workplace more quickly and smoothly by experiencing the sounds, movements, and dangerous areas of construction sites realistically, rather than through imagination or images.

*[Reference: One UT]

One UT is a system that assists employees in manufacturing (job of operator) to change careers within the UT Group. Even an employee with no experience can aspire to become an engineer at a group company. Many employees with no experience have changed their careers to engineers in equipment and equipment maintenance, design and development, construction, and IT at engineering companies in the UT Group.





2. Features of "Live-Action VR Training Program"

The "Live-Action VR Program" was jointly developed with Hitachi, Ltd., which has an extensive track record of field support at work sites, and NeU, which has a wealth of knowledge regarding brain science. Hitachi thoroughly assumed the role of shooting the VR video and the development of applications, while NeU conducted literature research and provided advice to realize more effective learning from the viewpoint of brain science in the design of VR scenarios and activities. By taking into account such knowledge and insights, the "Live-Action VR Program" was developed.

Key points of structure and development of "Live-Action VR Training Program"

The "Live-Action VR Program" consists of "A Day Spent by a Construction Management Engineer (Job Flow)" and "Risk Prediction." The content enables even unexperienced personnel to see the reality of the work of a construction management engineer and of the construction site. In Japan's construction engineer dispatch industry, VR content utilizing animation (CG) has been available, but the live-action VR learning content is the first in the industry (*based on UT Group's research).

Key points in the development of the "Live-Action VR Training Program"

- Based on cooperation and permission provided by some clients for shooting at their construction sites, 360-degree cameras are used to capture the sounds of construction sites and the movement of heavy machinery and people.
- 2) The VR video is made up of scenes that promote understanding of the work of construction management engineers, including a morning meeting and on-site visit, as well as the areas and scenes where safety needs to be particularly observed outdoors and indoors.
- 3) Active learning activities, such as looking for places where danger lies and thinking about what you can do in the scene, are adopted, in addition to viewing of the VR video.

| | Scenes | Overview |
|--|-----------------------------------|---|
| A Day Spent by a Construction Management Engineer [Morning meeting] | Carrying out mutual safety checks | See dozens of workers checking each other's safety equipment together. |
| A Day Spent by a Construction Management Engineer [On-site visit] | Checking the piping | Check whether the pipes are correctly installed with a senior engineer. |

Excerpts from the "Live-Action VR Training Program"





| Danger Prediction | Moving inside an | Color barricade cones are placed around the |
|----------------------|--------------------|--|
| [Outdoor site visit] | area restricted by | crane in operation. With an attempt to erect a |
| | color barricade | fallen color cone, the engineer accidentally |
| | cones | goes inside the area restricted by color cones |
| | | (on the side of a crane in operation) |
| | | |

3. Future developments

UT Construction will continue to enhance educational measures for employees, including the newly developed "Live-Action VR Program" for new hires, support employee career development, and strive to improve the provision of value to clients. UT Group plans to expand the scope of the "Live-Action VR Program" to include content regarding post-assignment training and themes aimed at learning the skills needed at work sites, and to promote the establishment of a more practical education system.

Company Outline

| Company name: | ompany name: UT Group Co., Ltd. (listed on | |
|--|--|--|
| | the First Section of the Tokyo | |
| | Stock Exchange) | |
| Location: | Denpa Bldg. 6F, 1-11-15 | |
| | Higashi-Gotanda, Shinagawa- | |
| | ku, Tokyo 141-0022 | |
| Representative: | Yoichi Wakayama, President, | |
| | Representative Director & and | |
| | CEO | |
| Founded: | April 2, 2007 | |
| Capital: | 680 million yen | |
| Business: | Dispatch and outsourcing of | |
| | permanent employees in | |
| | manufacturing, design and | |
| | development, construction, and | |
| other sectors | | |
| Number of employees: 22,180 (Consolidated; | | |

Company Overview

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| Company name: UT Construction Co., Ltd. | | | |
| Location: | Denpa Bldg. 6F, 1-11-15 | | |
| | Higashi-Gotanda, Shinagawa- | | |
| | ku, Tokyo 141-0022 | | |
| Representative: | Hiroshi Hokari, President and | | |
| | Representative Director | | |
| Founded: | April 17, 2012 | | |
| Capital: | 40 million yen | | |
| Business: | Dispatch of construction | | |
| | engineers and construction | | |
| | design and construction | | |
| | outsourced services | | |
| Number of employees: 858 (as of January 31, | | | |
| | 2021) | | |
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