



# THE 9TH VIRTUAL DESIGN WORLD CUP

Theme 2019 "OSAKA Dream Island, the Future City for Entertainment"

## INTRODUCTION

Wave Alpha team suggests design with the topic "Yumeshima – A destination of the industrial revolution 5.0". In this project, our designs focus on the World Expo and Container Terminal. Information technology will be an important element in the city design to connect humans with modernization facilities.

## DESIGN CONCEPT

With cloud computing technology, we combine virtual reality and physical construction to create an island of 5.0. Visitors can experience the high-tech and companion with the "Special tour Guides" inspired by famous characters from the Japanese Manga and Anime series.

- Sustainability
- Connections
- Technology
- Experience
- Sharing Economy
- Green Manufacturing



## - CONTAINER TERMINAL -

# A DESTINATION OF THE INDUSTRIAL REVOLUTION 5.0

## - WORLD EXPO -

### SMART APP



- Booking Facilities (AI guider, goods,...)
- Control over services in the Island
- Collect customer Data base
- Alert warning
- Transport Hypeloop, Renault Float,...

The container terminal plays an important role in the economic development and logistics sector of Yumeshima Island. The port is operated automatically with the penetration of the IoT and the support of artificial intelligence.



1. Robots collect information via CCTV system
2. Big Data Central control base on Cloud databases
3. Location and itinerary details are monitored by GPS and verification by Face ID



### AUTOMATICS LOGISTIC SYSTEMS

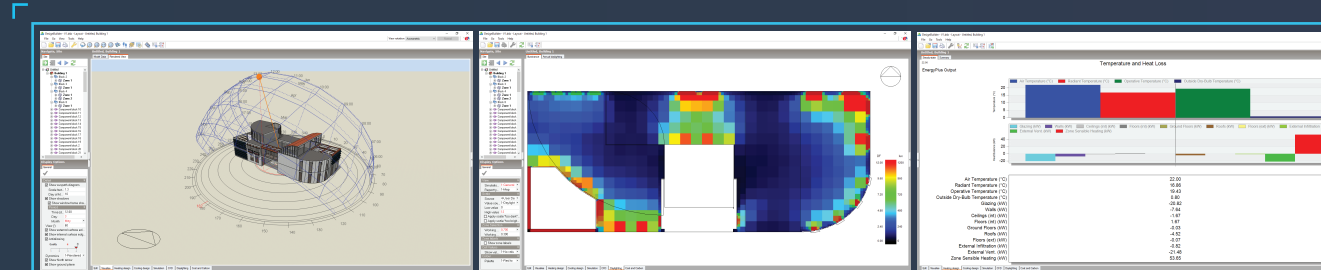
The use of devices such as automatic stacking crane, automatic truck handling and horizontal transportation,... are remotely controlled to manage the tasks of unloading from ships, transporting goods by container, managing yard,... take place easily.

### BIG DATA

BigDATA Center is a place to monitor and collect information from CCTV systems and sensors in the city for operation, security, control, notification, Anchorage, weather... It will then be handled through the supercomputer system to ensure that all joint operations are in port. In order to save time, save efforts, save money and best security.

### DESIGN BUILDER

DesignBuilder is used to analyze and simulate the heating and cooling system and lighting to save energy. In addition, maximizing the use of natural light and green energy will help you achieve your goal to decrease carbon emissions. With this usage, we can create a more sustainable environment.



Our designs focus on bringing the mixed reality entertainment experiences Everything is not limited to the experience of the imaginary world that floods the real world. Visual arts and entertainment-related facilities are characterized by Japanese culture.

### VIRTUAL REALITY ASSISTANT

We create the virtual reality assistant VR character – a **Special tour guide**. Through which the guides will be integrated with artificial intelligence to accompany you in all activities on this island: directions, provide information,...



### ROBOT

Besides, the intelligent robots that are managed by the Bigdata system have the task to substitute for humans in difficult, dangerous tasks, giving warnings and navigation when there is a risk of problems occurring.



### AUTOMATIC TRANSPORTATION

Tourists are experienced with multi-modal transportation systems that integrate automated technologies through the precise sensing of the route, a safe distance between vehicles and avoiding collisions-with obstacles, using "green" material sources thereby moving quickly and safely and protecting the environment.



### DIGITAL MUSEUM

In here the feeling and mindset of visitors are immersed and immerse yourself in the artwork through the physical and digital technologies.

### CCTV SYSTEMS

High-definition CCTV systems can pick out faces up to 10 meters away. Faces are scanned and the points are 'mapped' out into a series of algorithms. Thereby, the cloud system compares to verify identity to search for and ensure security on the island.



### HYPERLOOP



For trips with a long itinerary, we propose to use the Hyperloop. After customers book through the app, data will be sent to the server via cloud computing and select the Hyper Pod appropriate. It will be gathered and transported on a Hyper-loop route.

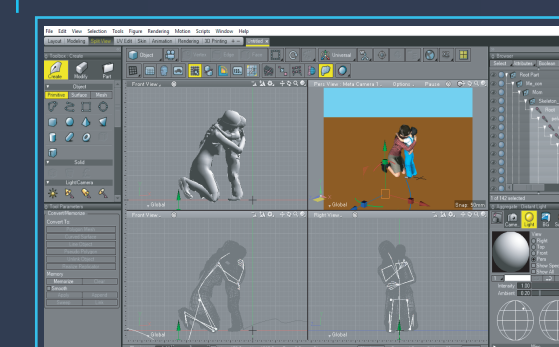
### RENAULT FLOAT

Vehicle type works similarly to Hyperloop, however, it circulates in the local roads. Also, it use solar energy and equipped with sensors to keep the safety with the surrounding obstacles.



### SHADE 3D SOFTWARE

By the Animation function of Shade 3D, we simulate the operation and interaction in the space of animation model to create the most realistic motion.



### WALK-CAR

If you want a lightweight, highly portable form of movement that is convenient to operate in crowded areas, this is the means for you.

