

**Shaping Future Value  
Through Intelligent IT**



**Powering Smart Industries**



[Homepage link](#)

# Iron Plant Unmanned Smart Crane Solution

Unmanned Crane Operation (Semi-Auto / Manual)

3D Yard & Inventory Integrated Control

Operator Tracking & Path Prediction Safety

Predictive Maintenance & Downtime Reduction

Continuous Monitoring for Reliable Ops

01

## Smart Safety

Autonomous Operation  
Reduced Onsite Risk

02

## Reliability Assurance

Fast Root-Cause Detection  
Stable Operations

03

## Predictive Maintenance

Failure Prevention  
Downtime Reduction

04

## System Consistency

Human-Error Reduction  
Standardized operations





# AI Autonomous Handling for Safer, More Efficient Steel Yard Operations.

## Unmanned Crane Operation System



- Automatic task allocation based on inbound/outbound logistics conditions
- Automated vehicle plate & cargo shape recognition
- Autonomous crane trajectory control

## Unified Logistics Yard Control System



- Real-time 3-axis tracking of crane resources
- Live monitoring of work assignments & operational status
- Tracking of rail carts and truck movement across the yard
- Real-time 3D tracking & unified yard operations control

## Real-Time Inventory Tracking



- Individual product location tracking & movement history
- Identification of stagnant inventory to support FIFO
- Linked metadata: size attributes, classification rules, client information

## Worker Safety Control



- Restricted access to crane proximity zones
- Worker location tracking & emergency stop
- Virtual safety geofence (admin-defined) for access control

## Predictive Maintenance



- Lifecycle monitoring by equipment, device, and component
- Real-time alerts based on operational performance
- Component structure and spatial position mapping

## System Monitoring & Reliability



- Real-time network & communications monitoring (critical for unmanned crane system reliability)
- Network status tracking for APs, sensors, wired/wireless devices

## Digital Twin Platform

We deliver integrated IT solutions covering the entire value chain—from MES-ERP deployment to production, fulfillment, logistics, distribution, public systems, inventory, and sales operations.



### Digital Twin Control System

Smart Yard Operations via Remote Integrated 3D Control System

- ➡ Real-time 3D asset & crane tracking
- ➡ Lifecycle-driven predictive maintenance
- ➡ Digital-twin operational monitoring
- ➡ Worker safety & reusable 3D assets

### Digital Twin Optimization Simulation

Optimization Solutions Through Multi-Scenario Simulation in a Digital Twin Environment

- ➡ Predictive performance & productivity optimization
- ➡ Defect analysis and feedback-based quality control
- ➡ Optimized energy production and consumption
- ➡ Safety simulation for facilities, fire, and disasters

“

High-Fidelity 3D Digital Twins  
Real-world equipment modeled and linked with live IoT data.

”

Our digital twin solutions serve major clients such as POSCO, SK Telecom, Hanjin Logistics, Intops, and Nanjing Iron & Steel.



We deliver 3D real-time control, smart logistics, yard CPS, smart-building, and 3D geospatial information solutions.

# Industry Reference of Digital Twin Technology

## 1. Smart Industrial Equipment Solutions

### POSCO

- Smart Factory
- Digital Twin systems for No.2 Hot Rolling Mill

### POSCO Group University

- VR-based training system

### INTOPS

- Smart Factory CPS platform for injection molding

### LG Electronics

- Remote control system development

### KIMM

- Ship Block Handling Integrated Control System
- Equipment simulation systems

### Shougang Group (China)

- 3D HMI for MCCR Continuous Casting & Hot Rolling Control Station

### Nanjing Iron & Steel (China)

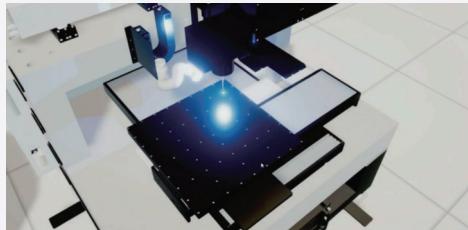
- Smart crane 3D yard mapping

### SAMBOPLATEC

- Smart Factory



▲ POSCO No.2 Hot Rolling Mill –  
Digital Twin-Driven Plant Optimization



▲ Laser Equipment Digital Twin Solution Development

## 2. Smart Logistics Solutions

### Logistics Simulation

Optimized logistics algorithms reduce costs and prevent misdelivery

### Real-Time Monitoring

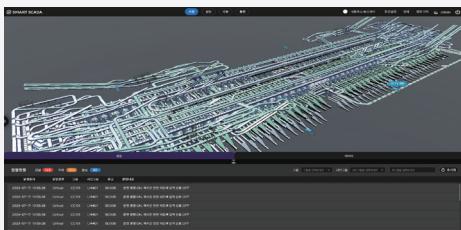
Real-time tracking ensures accurate loading and unloading history

### Real-Time Control

Adaptive logic enables rapid response to operational disruptions

### Yard Safety Management

Worker tracking, virtual fencing, and yard map consistency ensure safety



▲ Hanjin Mega Hub Logistics Center Implementation

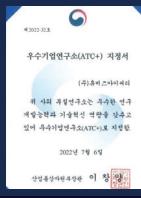


▲ Nanjing Iron & Steel – Smart Crane 3D Yard Mapping System Implementation

By optimizing manufacturing processes, the solution simultaneously improves defect rates and productivity, effectively reducing opportunity loss costs in enterprise operations.

It delivers essential insights for smart factory operations, enabling productivity and quality advancement, and is applicable across system design, analysis, training, and performance evaluation.

## Corporate Certifications & Filed Patents



ATC+ Certified Corporate Research Institute



3D Equipment & Facility Monitoring Patent



Service Quality Evaluation Patent



Service Transaction Brokerage Patent



Virtual Lighting Technology Patent



SimpleLink Certification



Hubiz Content Management System Certification



BeamRizer v2.0 Software Certification



Heat Tracing Control System Certification



3D Monitoring System for CSF Enhancement

### COMPANY ADDRESS

#### Headquarters (Korea)

Rooms 402-404, Venture Bldg. 5, Pohang Technopark,  
394 Jigok-ro, Nam-gu, Pohang-si, Gyeongbuk, 37668



#### Seoul Office

Room 706, Triplex,  
116 Munrae-buk-ro, Yeongdeungpo-gu, Seoul, 07293



#### E-MAIL

hubizict@hubizict.com



#### TEL

+82 54 256 7000