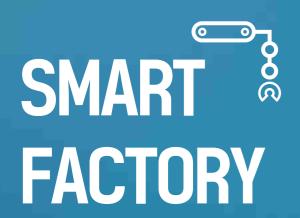
SOLUTIONS for SMART-FACTORY & SMART-FARM

Smart Factory Smart Farm Solutions





Factory in Self-Controlling for the Planned Purpose by the Real-Time Data on Gathering and Analyzing from all their Sensors of the Machineries & Facilities

Smart-Factory aims toward the Ultimate Factory in Producing the Customer-Oriented under the Minimum Cost & Time on Integrating the ICT and MES* from the Planning up to Sales.

D.

EXPECTATION EFFECTIVENESS

- Confirming all situation of process by the data
- Best making decision by the analysis based on the data from the manufacturing process
- Recognizing the reason of defect / fault & its
 Troubleshooting
- More profit based on the better production efficiency by less error rate



MES

(Manufacturing Exe cuting System)

Executing the Function of Reducing Difference between the Producing-plan and the Manufacturing-process over the Real-time Data of Manufacturing Site-information Integrating-Management of all Data which can be occurred at Manufacturing Site

Sales-Management Efficient Improvement of Sales Activities Environment such

as Customer's Order-management, Shipping-schedule, In/

Out-Storage & Budget-Collection/Payment.

Production-Management Real-time Confirmation of Production-order and

Production-record over the Production-Plan.

Process-Management Total-management confirming all processing steps without

missing registration of manufacturing process steps on the

complicated mid-stage production process

Lot-Management Recognizing the status of on-going process, current process,

fault position & material/inventory management by the Lot work-order & Lot material-No. for working condition for

each individual company.

Auto-Documentation Auto-Docume

Auto-Documentation of production test record,

management plan & work sheet over all data input already





RFID Radio Frequency Identification

Identifying the product information over the wireless antenna and radio frequency electronic-tag

Systematic management of material & inventory over the RFID system on the production line

- Electronic-chip of RFID prevents miss identification against the damage & contamination of the paper barcode.
- Supplementary solution of confidentiality over encoding the data storage against regular bar-code system
- Due to the root of IOT(Internet of Things), recorded data of RFID-chip can be added, changed & deleted easily
- Identifying many RFID-tags isolated far away and data processing/transmitting over the computer network.

Industrial Robot-arms

Industrial Robot-arms makes productivities at manufacturing business.

It can build the Platform of manufacturing automation and do the job which is difficult and dangerous to the man.



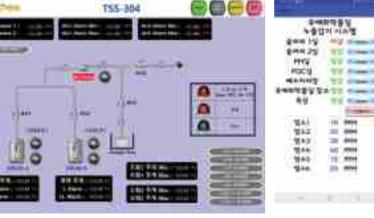
Solution of Monitoring & Auto-Control

We provide the Total-Solution of Monitoring of production-process & Auto-control for the Manufacturing Company over the Control-panel based PLC-control with instruments & sensors.

And it's possible to build all kinds monitoring system of indicators, touch-screen & mobile-application.







Smart Sensor (NEURON) - Neuron Soundware Al Solution

Al-Sensor and Software can separate the normal sound of machinery from the abnormal noise and recognize the difference.

- Real-time monitoring
- Applicable to the all devices(Mobile, Tablet, Laptop-PC & Desktop-PC)
- Early warning for the Machinery-fault
- Easy Visible-dashboard
- · Continuous Service-improvement



4 SOLUTIONS for SMART-FACTORY & SMART-FARM 5



Means the advanced Systemic-Farm which can operate and manage the cultivating environment of crops and livestock remotely and automatically under the ICT at the Farm and Greenhouse.

Can improve the productivity and quality under the best environment by the data of growing condition even though less manpower, energy or fertilizer.



EXPECTATION EFFECTIVENESS

- Least manpower & Most product
- Best growing condition and Management confirming the crops everywhere & anytime
- Times-productive corps against less soil square





Environment-Conditioner Solution for Automation of Greenhouse-horticulture

Can manage the best cultivating condition for the conventional greenhouse by the monitoring system(Touch-screen/Mobile-application) of various devices such as environmental instruments, generators, visual devices and etc.

Internal Devices Temperature, Humidity, CO2, Soil moisture, Fertilizer sensor(EC, PH) & Etc.

External Devices Temperature, Humidity, Wind speed/direction, Rain, Solar radiation quantity & Etc.

Visual Devices Infrared-camera, CCTV & Etc.

Greenhouse Controller Ventilation, Heating, Energy saving, Shading, Floating fan, Warmwater control, Motor

& Integrator control, LED, & Etc.



CULTIVATOR (Cabinet-type / Container-type)

Organize the best condition for the crops by hydroponics/fertilizer-spray in the Cabinet/Container.

- Control & change the growth environment by monitoring the monitoring
- More cultivating by more vertical layer
- Constant fertilizing & preventing harmful insects
- Real-time monitoring & control cultivating environment at CCTV & Mobile by Touch-screen & Smart-phone application





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