

FOPIS-MES

Technology Overview

- Manufacturing integrated solutions that can be used in the field of SMEs and expanded to manufacturing big data analysis system
- Sustainable solution in terms of price and maintenance because of government-led development

Core Technologies

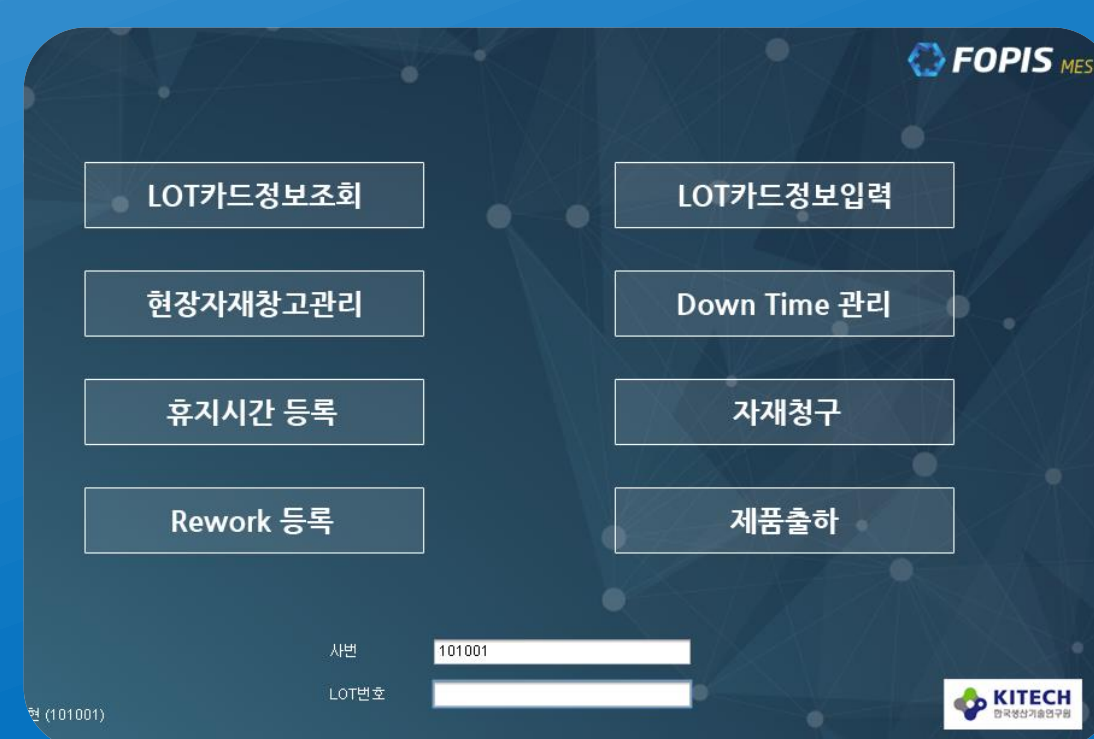
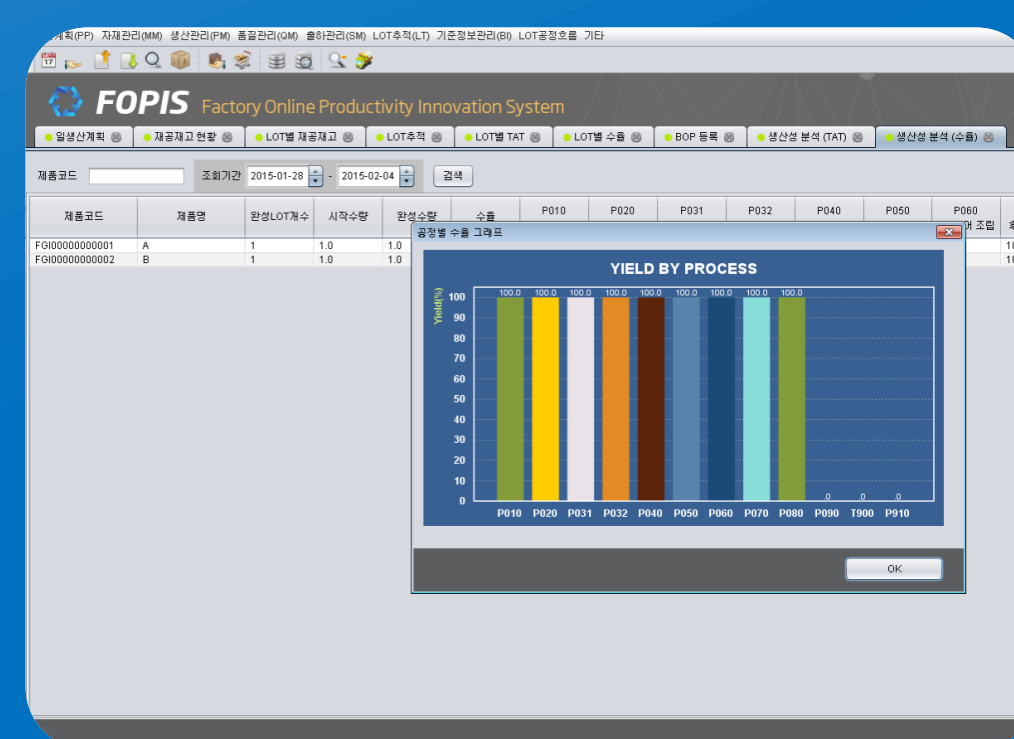
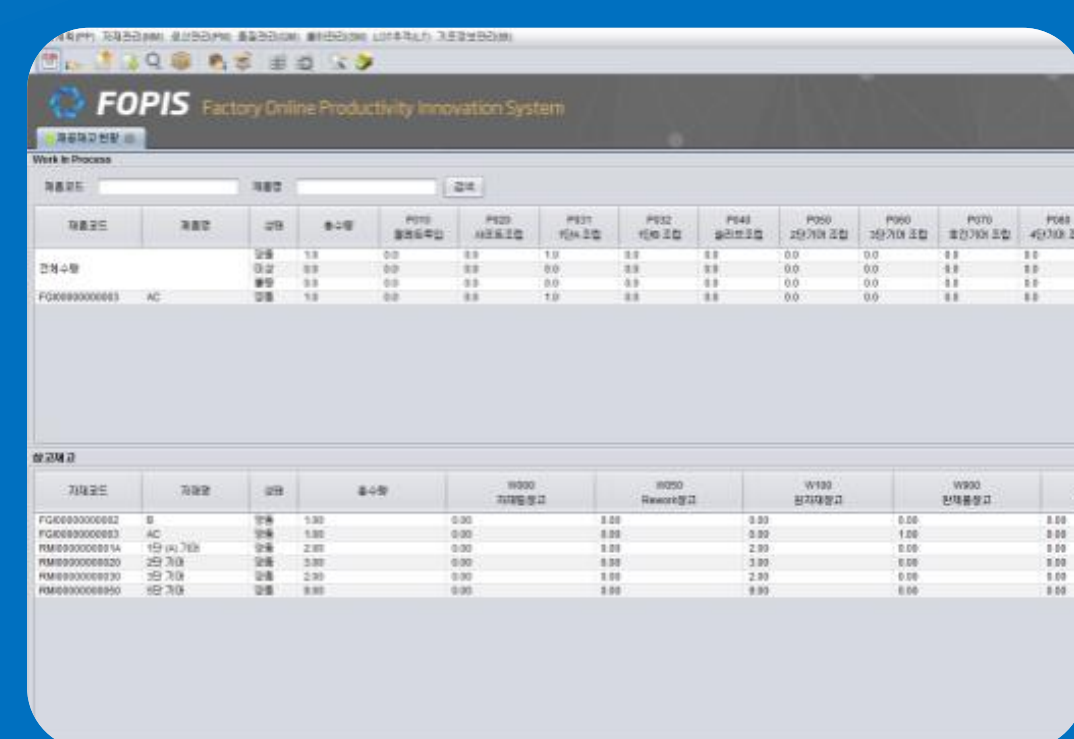
- FOPIS Access: Manufacturing process evaluation methodology
- FOPIS MES: Manufacturing execution system for SMEs

Application Area and Advantages

- MES system provide functions for data acquisition and analysis that occurs in the entire production cycle (raw material input, semi-finished production, shipment of the final product).
- 12 main functions, 57 sub modules
- Support for entire manufacturing process (process planning and execution)
- Open source license policy (R, Maria DB, etc) and Java-based platform to solve the many problems (labor and budget) of SMEs

Accomplishments

- Trademark registration, "FOPIS"(KR), 2014-01-07.
- IPR, "Method and System on Making c-MES Module Mapping Information According to the Level of Manufacturing Process of a Company", 1012278810000(KR), 2013.
- Jo, H.J., Noh, S.D., Cho, Y.J., "An Agile Operations Management System for Green Factory", IJAMT-GT, Vol. 1, No. 2, pp. 1-13, 2014. (SCIE)

Process ID	Process Name	Yield (%)	Defect Rate (%)	Setup Time (min)	Changeover Time (min)	Material Waste (%)	Energy Consumption (kWh)	CO2 Emission (kg)	Water Consumption (L)
P001	Raw Material Input	95.0	0.5	10	5	2.0	1.0	0.5	1.0
P002	Semi-finished Production	90.0	1.0	15	10	3.0	1.5	0.8	1.5
P003	Final Product Shipment	98.0	0.2	5	2	1.0	0.5	0.2	0.5