Digitalize Your Production with EMKO Elektronik

EMKO Elektronik A.Ş.

www.emkoelektronik.com.tr

EMKO Elektronik A.Ş.

YERLİ ÜRETİM

%100 YERLİ YAZILIM DONANIM

With 100% domestic capital, it has been carrying out the design, production, marketing and pre-sales and after-sales technical services of Operator Panels, PLC, Measurement Control Devices, Temperature and Humidity Sensors, Remote Monitoring Software, Generator Control Devices since 1986.

Domestic Dealer Network

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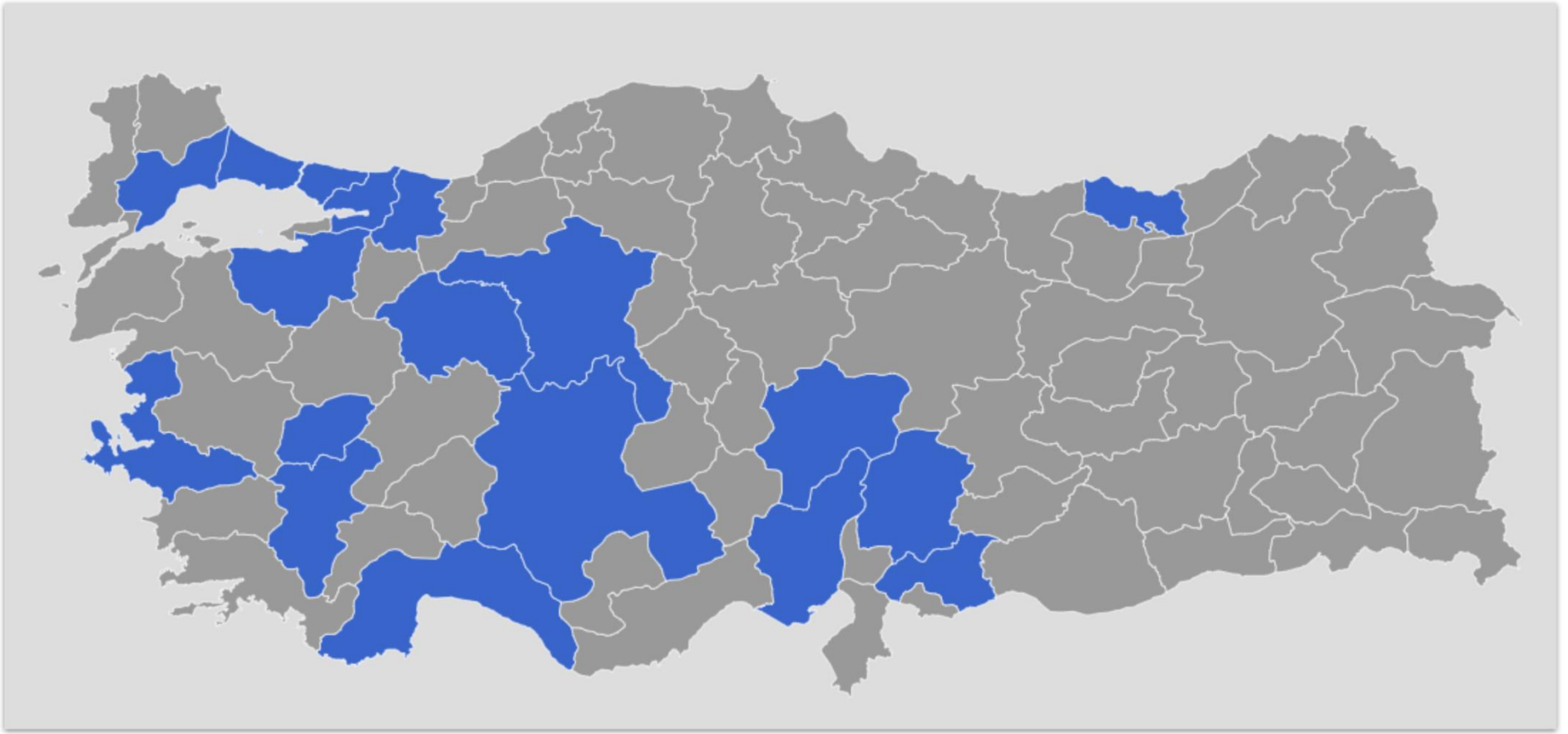

Domestic
34
Distributors

Foreign Dealers and Brand Registrations

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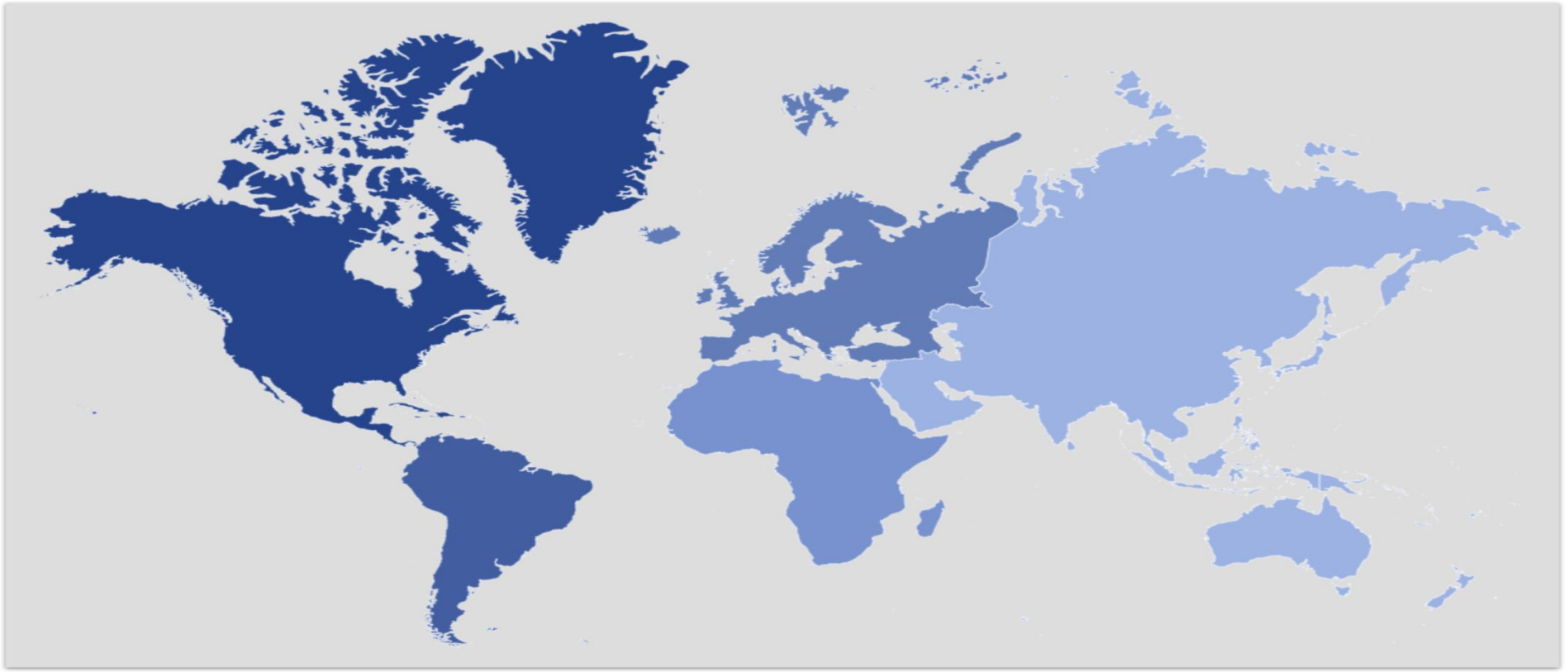

Overseas
46
Distributors

Export
57
Country

Brand
65
Registration

Quality Certificates

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TSE-ISO-EN9001

CE Certificate

UL Certificate

EAC Certificate

EMKO Elektronik is a World Brand

Production Technology

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Technologies in Use

SMT Production

TRH Production

Sensor Production

Dynamic Signboard

Test & Calibration

ERP System

Production Department

500K pcs product/year

ARGE Center

TÜRKİYE CUMHURİYETİ
BİLİM, SANAYİ VE TEKNOLOJİ BAKANLIĞI

AR-GE MERKEZİ BELGESİ

Bilim, Sanayi ve Teknoloji Bakanlığı tarafından,

Emko Elektronik San. ve Tic. A.Ş.

5746 Sayılı Araştırma ve Geliştirme Faaliyetlerinin Desteklenmesi Hakkında Kanun kapsamında sağlanan teşvik ve muafiyetlerden yararlanmak üzere bu belge verilmiştir.

Dr. Faruk ÖZLÜ
Bakan

T.C.

EMKO Elektronikhas been an R&D center since 2017.

Product Groups

Professional Operator Panels

YERLİ ÜRETİM
%100 YERLİ YAZILIM DONANIM

Proop
Profesyonel
Operatör
Panelleri

Professional Operator Panels

PLC and I/O Modules

YERLİ ÜRETİM
%100 YERLİ YAZILIM DONANIM

PLC and I/O Modules

Measurement Control Devices

YERLİ ÜRETİM
%100 YERLİ YAZILIM DONANIM

Process Indicators and Control Devices Temperature Control Devices Counters and Timers

Industrial Kitchen Equipment

YERLİ ÜRETİM
%100 YERLİ YAZILIM DONANIM

Bakery Baking Control Devices Oven Control Devices

Temperature and Humidity Sensors

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Thermoresistances , Thermocouples , Humidity Sensors

Poultry Automation Devices

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Poultry Automation and Incubation Control Devices

Generator Control Devices

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Generator Control, Synchronization and Load SharingRemote Monitoring Applications

Digital Transformation

Digital Transformation

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Digital Factory ?

It refers to the integrated operation of machines and production management systems.It is the MONITORING, REPORTING and CONTROL of production or management processes in processes instantly, locally or from anywhere in the world.

Real-Time Process MonitoringRetrospective Monitoring and Reporting Management of Production Values Consumption Values Energy Management

Failure Notifications

Production StopsWork Orders Management/PlanningQuality Management

Alarms...

The Purpose of Digital Transformation

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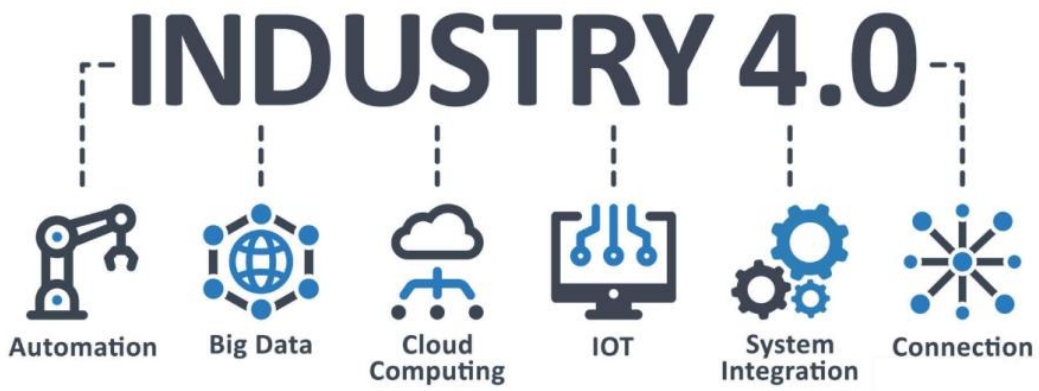
With Digital Transformation,

Collection of all input parameters in Production, Management, Quality processes in a digital environment.In this way, by analyzing the data, KPIs and Basic Performance Indicators are obtained,qualified process management is ensured and efficiency is increased at every point.

Purpose of Digital Transformation?

- Reducing CostsIncreasing
- Performance Increasing Capacity
- Recording Processes
- Increasing Quality and Making It Stable….



ERP and MES System Integration

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In all this digitalization effort, ERP software and MES System Integration appear as an important process..

EMKO PROOP HMI Panels IPERTU PLC and Analog ModulesProvides integration of ERP and MES systems and enables IOT transformation.

IOT
Internet Of Thinks

Digital Transformation Examples

EMKO – Digital Transformation

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Thanks to the e-mail sending feature, your process is closer to you. Thanks to the MQTT protocol, remote access to process values is facilitated. With HMI Panel; You can send alarm conditions, Process and consumption values by e-mail.

IOT Internet Of Thinks

MQTT

EMKO – Digital Transformation

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Proop
Profesyonel
Operatör Paneli

Thanks to the VNC remote desktop feature, the HMI Panel screen can be viewed from a PC or Mobile over a local network or the internet. Thus, real-time monitoring, control, and reporting can be done from anywhere.

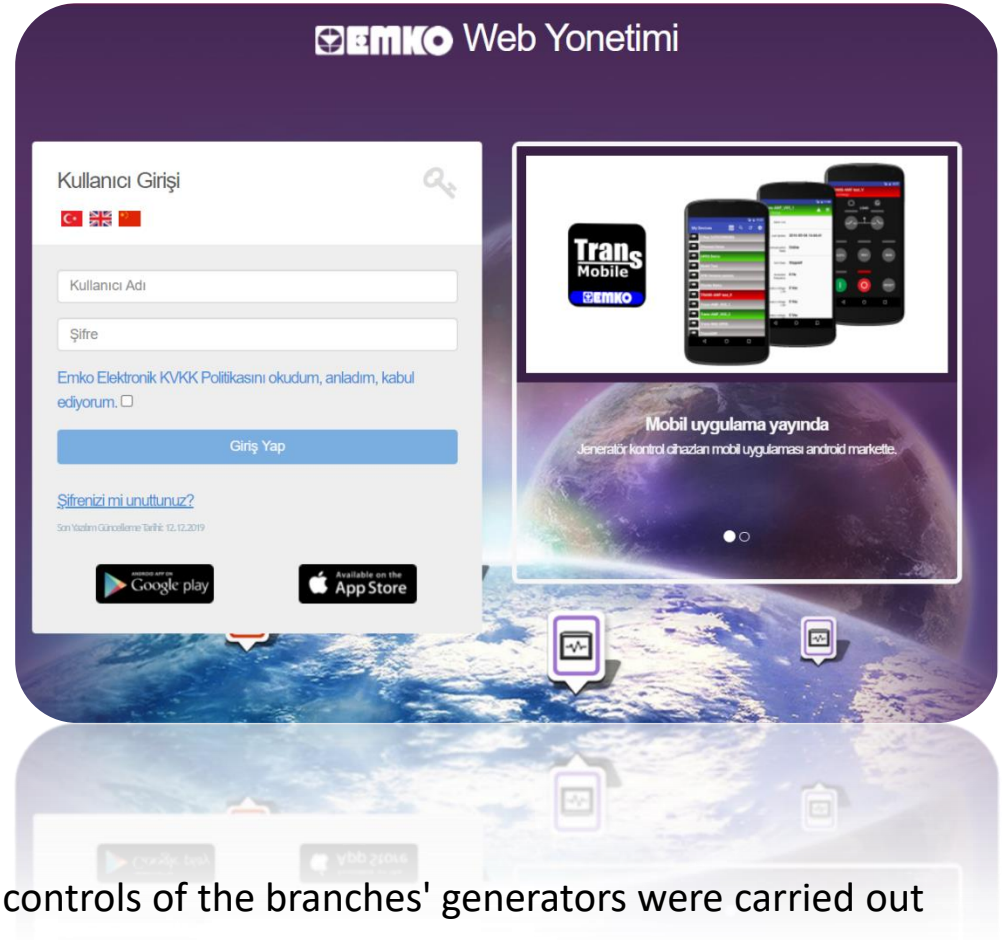
IOT Internet Of Thinks

MQTT

EMKO – Digital Transformation

EMKO
Web Management

Remote Monitoring and Control with EMKO Generator Control Devices from anywhere in the world with EMKO Web Management



In the bank project with over 1000 branches, the controls of the branches' generators were carried out with TRANS-AMF. The data received from TRANS-AMF is monitored, managed and reported remotely with WEB Scada software. In case of alarm, the system informs the relevant units via SMS/Mail.

EMKO – Digital Transformation

EMKO
Web Management

With this digital transformation, GENERATOR via EMKO Web Management;

GENERATOR Remote Monitoring / Operation,

Monitoring Network Values ,

Monitoring Generator Values,

SMS/Mail in Alarm Situations,

Fuel Level, Temperature Information,

Fault Status Information,

Fuel Reporting, Analysis,

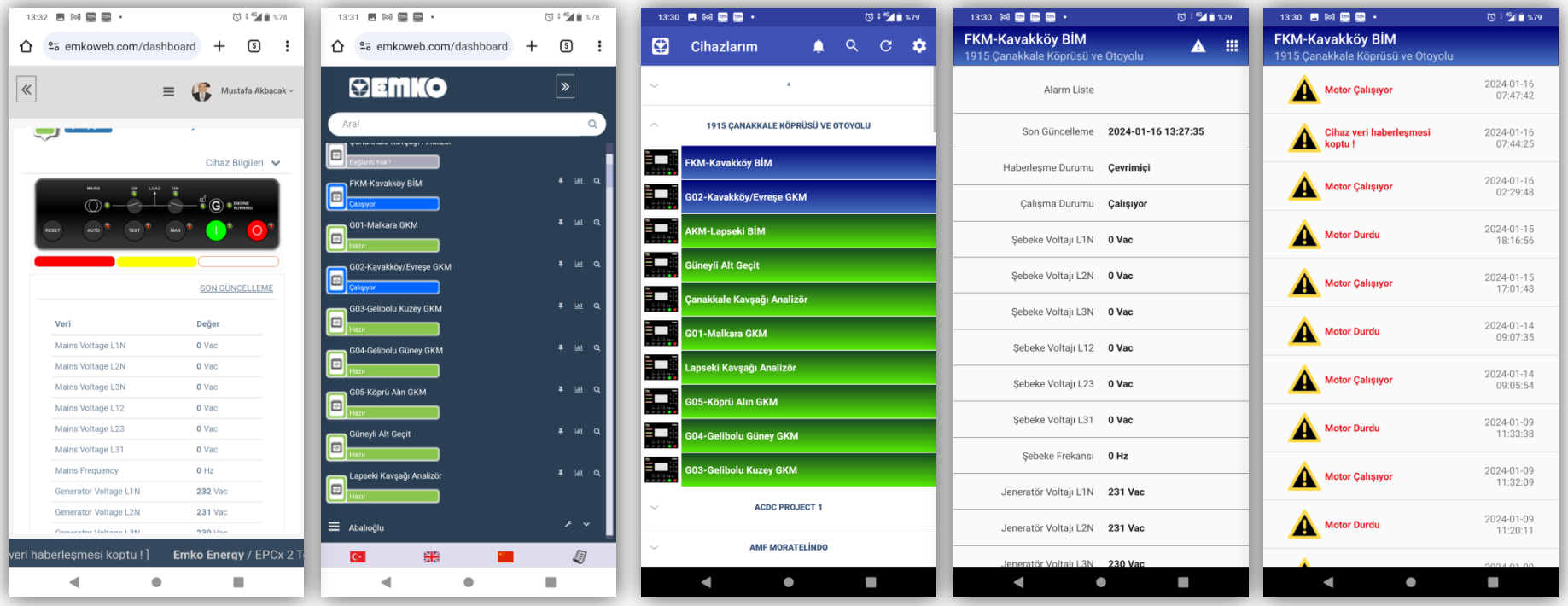
Recording of processes,

Working Hours Data ReportingProvided.

EMKO – Digital Transformation

EMKO
Web Management

GENERATOR Remote Monitoring and Control- Mobile Application



Predictive Maintenance activities are carried out by analyzing the data received in alarm situations and their frequency of occurrence. In this way, the efficiency of labor and infrastructure performance can be continuously improved. For example; There may be a problem with the starter of a generator that frequently fails to start.

EMKO – Digital Transformation

EMKO
Web Management

EMKO Web Yönetimi ile HMI Dokunmatik Ekranlı Kümes Kontrolü ve izlemesi
Bilgisayarınız'da,
Tabletiniz'de,
Telefonuz'da

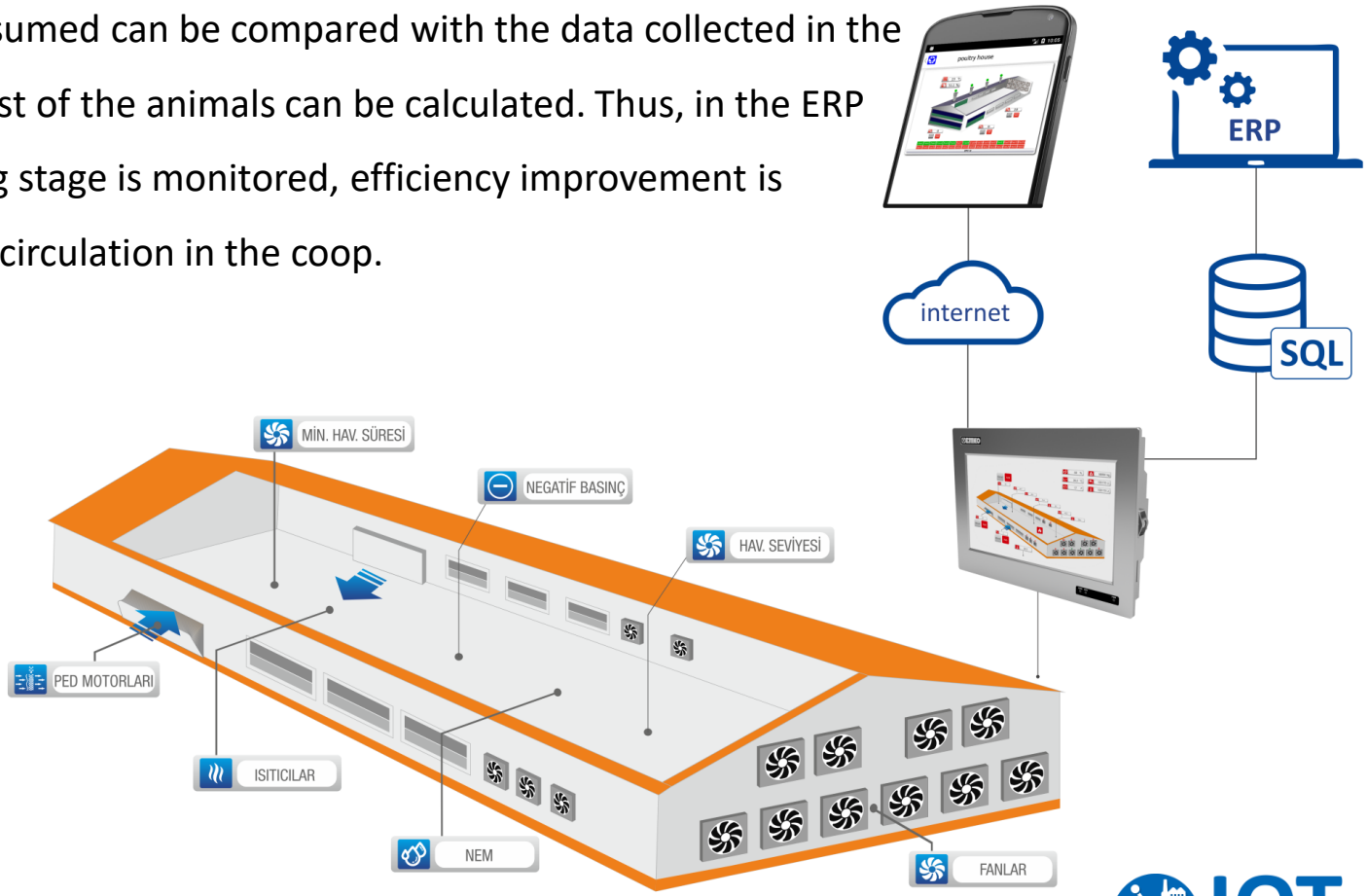
Android/IOS işletim sistemleri için Kümes Otomasyonu Uzak İzleme Uygulaması

Thanks to the EPC-T10 control device used in poultry farming and EMKO Web Management, all data and alarms received from the coop can be monitored instantly and controlled remotely. In the project we carried out with the leading company in the sector, the system informs both the caretaker and the veterinarian in case of alarms, and the collected data is used to improve efficiency.

EMKO – Digital Transformation

EMKO
Web Management

In this application, the number of animals in the coop, their weight, the amount of feed, water and energy consumed can be compared with the data collected in the SQL database and the KG cost of the animals can be calculated. Thus, in the ERP system where each breeding stage is monitored, efficiency improvement is achieved in the next animal circulation in the coop.



IOT
Internet Of Thinks

EMKO - IOT Transformation

EMKO
Web Management

With the digital transformation of the system, real-time notifications can be received with the Proop HMI - MQTT protocol, retrospective monitoring, reporting can be done from mobile and PC.In case of a problem with the Internet, alarm information is sent via SMS.

TÜKETİM
ELEKTİRİK
AYDINLATMA
AĞIRLIK
SU
YAŞ EĞRİSİ
YEMLEME

ERP – MES System Integration

ERP and MES System Integration

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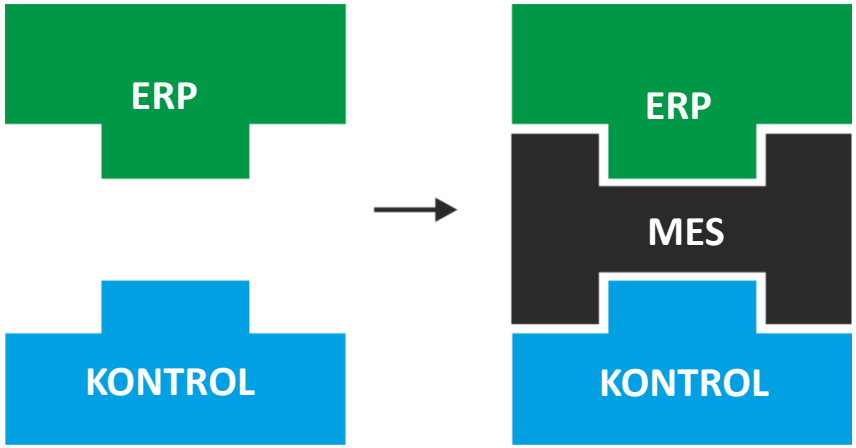
In order to realize digital transformation, ERP and MES Integration is an important step

In all this digital transformation process, EMKO HMI Panels, PLCs, Analog Modules, Measurement Control Devices and Sensorsform the HARDWARE part of ERP software in the production area with their infrastructure compatible with MES systems in processes such as control, data collection and reporting.



EMKO ERP-MES Integration

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Professional Operator Panels

Compatible with ERP/MES Systems

C/C++, MAKRO ve SOFT-PLC için
LADDER DİLLERİNDE
PROGRAMLAMA

BACNET MSTP, MODBUS-RTU/-ASII
MASTER / SLAVE
HABERLEŞME

SQL
SQL Bağlantısı

MQTT
Haberleşme Protokolü

SMB Dosya Paylaşımı

VNC Uzak Masaüstü Özelliği

EMKO ERP-MES Integration

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Professional Operator Panels

Compatible with ERP/MES Systems

INTERNAL

5x Digital Input 4x Digital Output

2x 4...20mA Analog Output

2x 4...20mA Analog Input

Barkod Okuyucu

Barkod Yazıcı

RFID Okuyucu

Klavye

Mouse

EMKO ERP-MES Integration

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As EMKO Elektronik, we started our first digital transformation from our own factory…

With PROOP HMI Panels used in the production department and integrated with the ERP software, the test and calibration processes in production are recorded in the SQL database, and quality, production performance analysis and improvement are provided via ERP.

EMKO ERP-MES Integration

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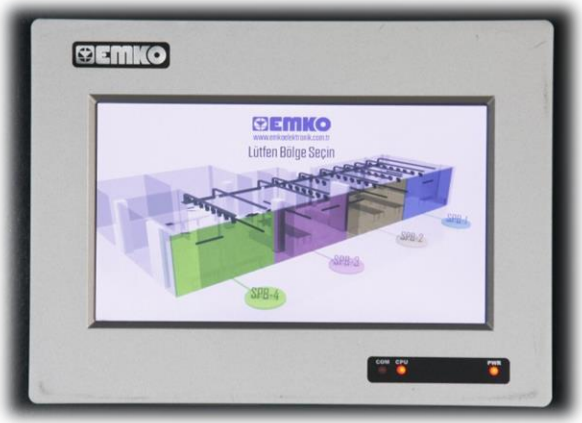
Not only the production system, but also the company's lighting and ventilation systems are controlled via EMKO HMI panel and IPERTU Digital and Analog modules, and all kinds of reporting can be obtained by recording consumption and working hour data in the SQL database.



EMKO ERP-MES Integration

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Proop HMI - Digital lighting system panel that can be controlled with VNC remote desktop feature…

EMKO ERP-MES Integration

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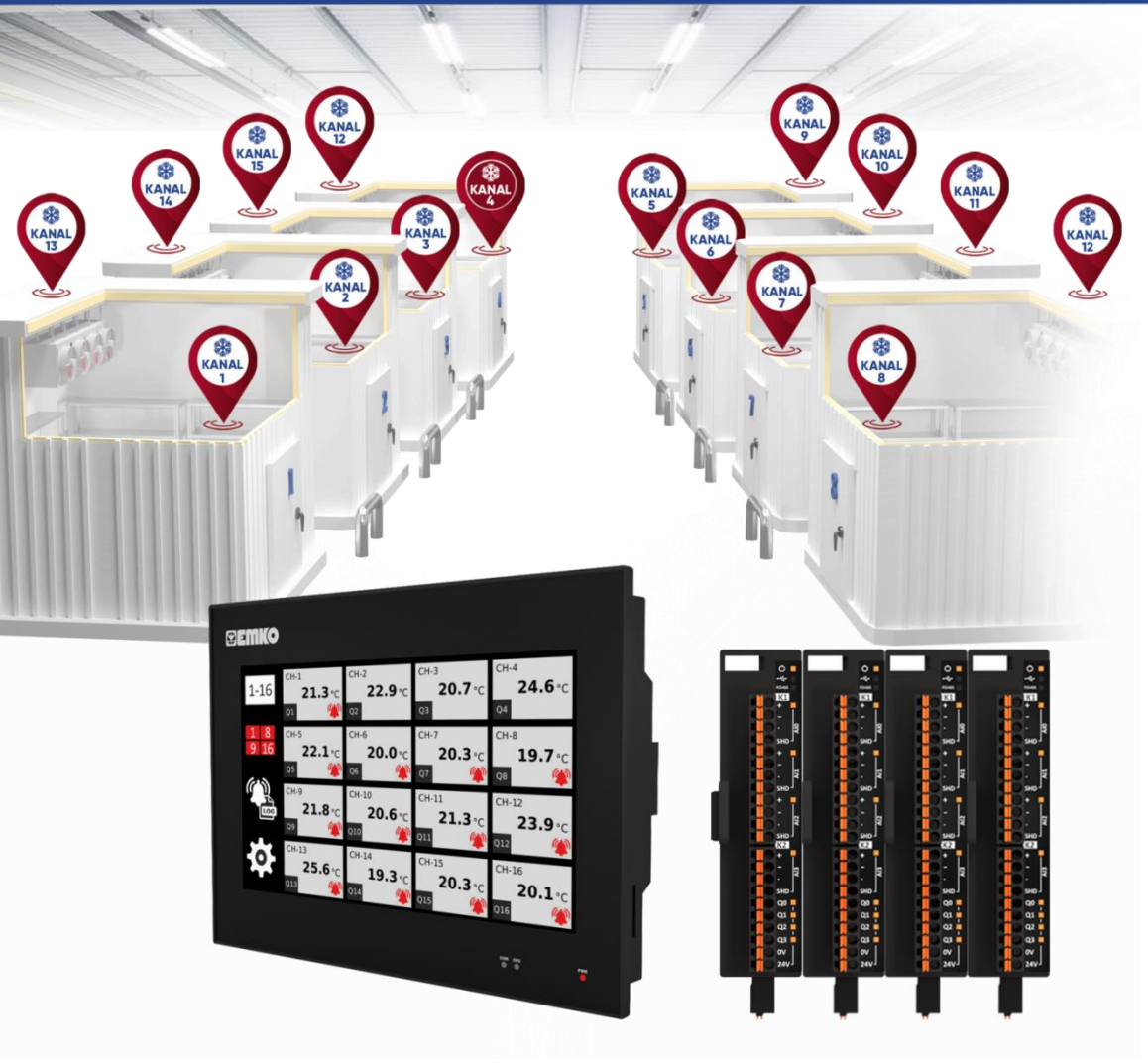

ModBus RS-485 | Datalog | Canlı Grafik | Alarm Log | USB Bellek ile Veri Toplama | VNC Uzak Masaüstü

16 Zone Humidity, TemperatureControl and MonitoringHUMIDITY andTEMPERATURE control and data collection application with IPERTU Analog modules.With the ModBus TCP-IP feature of the EMKO HMI panel, remote control and real-time graphics process values can be monitored.In addition, process values, alarms, energy consumption data are recorded and reported.

EMKO ERP-MES Integration

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All this data is recorded in the SQL database, allowing for ; Cost Analysis , Capacity Increase, Quality process management to be performed via ERP.

PROOP HMI

ModBus RS-485

Datalog

Canlı Grafik

Alarm Log

USB Bellek ile Veri Toplama

VNC Uzak Masaüstü

EMKO ERP-MES Integration

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Water Filling Application via IPERTU PLC;

The purpose is to perform tank level management,Demijohn disinfection,Filling processes.Production quantity information,Energy consumption information,Production line stoppages,Fault, maintenance informationreporting is provided.

EMKO ERP-MES Integration

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This process works integrated with other smart production and warehouse systems with digital transformation. (IOT - communication between production units)For example; Automatic provision of information to the warehouse unit about the amount of demijohns decreasing in production. With the information received from the field, efficiency is increased in production processes and capacity management. Cost analyses are performed. An increase in quality and performance values is observed.

THANKS…

MERT YAPAREL
EMKO Elektronik AŞ – EXPORT MANAGER