ELPIS

THINK CREATE ENABLE

COMPANY PROFILE

We are one of the top IT companies in terms of quality, originality, and simplicity in achieving business objectives, with In-house team of expertise.

Industrial Automation
IT Solutions & AI/ML
INDUSTRY 4.0

www.elpisitsolutions.com

WHO WE ARE?

THINKER

Solutions Provider

We are a highly experienced team of Technology Solutions in IoT & Industrial Automation. We serve our customers globally having presence in India, USA, Japan & Middle East.

CREATOR

Technology

We leverage Cutting Edge Technologies to provide Integrated solutions for Industrial Enterprise segment both in HW & SW.
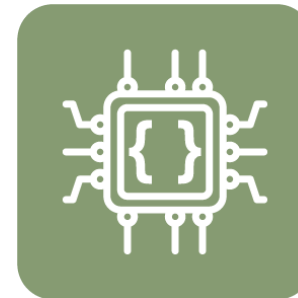
ENABLER

Competitive Cost

We emphasize on the Cost Effectiveness and thrive for excellence. We undertake software development on outsourced model.

INDUSTRY 4.0
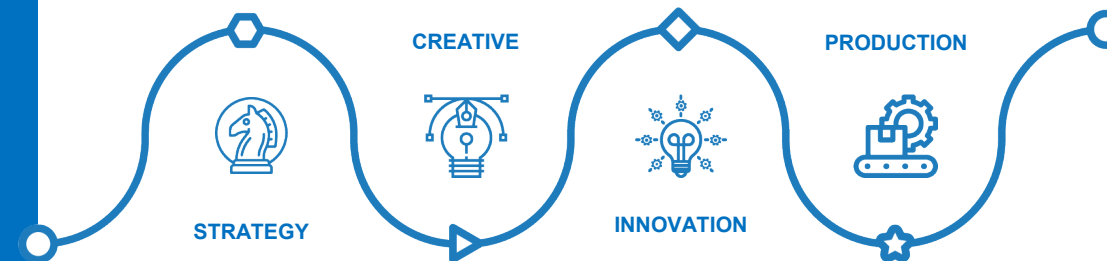
ENTERPRISE SOLUTION

EMBEDDED & HARDWARE

OFFSHORE DEVELOPMENT SERVICES

ELPiS

OUR SERVICES

We are the name of quality, creativity, simplicity in terms of accomplishing business goals.

- INDUSTRIAL AUTOMATION SOLUTION
- TECHNOLOGY CONSULTING
- EMBEDDED SYSTEM SERVICES
- DATA ANALYTICS
- OUTSOURCING
- SOFTWARE SERVICES
- TECHNOLOGY TRAINING
- IIOT SOLUTIONS
- OPC SOLUTIONS
- VISUALIZATION
- DATA SOLUTIONS

CREATIVE

PRODUCTION

STRATEGY

INNOVATION

ELPIS

INDUSTRY 4.0 CAPABILITIES

INTERNET OF THINGS

A set of end-to-end services that businesses contract with external providers to design, build, install and operate IoT solutions. Here are a few of the tools we use to make a step advanced in technology : OPC, MQTT, AMQP, IoT Gateway, Apache Kafka, HiveMQ.

CLOUD COMPUTING

A delivery model for IT services that enables several IT companies to provide their customers with access to computing resources, such as servers, storage, and applications, on demand by using Azure, Azure IoT, AWS.

AI / ML

Frameworks – TensorFlow, Keras, PyTorch, H2O.ai, KNIME, Scikit-learn, Statsmodels, Prophet.

MICROSOFT & TECHNOLOGIES

C#, ASP.NET Core, WPF, WCF, MVC, MVVM, C++, Xamarin, and MS-SQL. These technologies are all part of the Microsoft to build its products and services, which helps various organizations in software development frameworks that allows developers to create a wide variety of applications for Windows, macOS, Linux, and mobile devices.
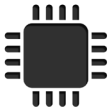
INDUSTRY 4.0 CAPABILITIES

OPEN SOURCE

We use these open-source technologies such as Angular, React JS, Node JS, JSON, JAVA, PHP, JavaScript, HTML5/CSS, Python, MySQL, and SQLite stack allows any organization to quickly and easily build and deploy web applications, and to take advantage of the latest innovations in web development.
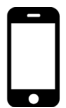
OPC (Open Platform Communications)

OPC solutions enable secure, reliable, and standardized data exchange between automation systems and IT systems. OPC Solutions includes -OPC DA Server, OPC DA Client, OPC UA Server, OPC UA Client, CTT, Lab Certification, COM/DCOM.

EMBEDDED

LTE/GSM, GPS, Wi-Fi, BLE, Touch Screen Display Industrial Controller Design Highspeed PCB Design Board bring up U-boot and Linux Driver Development.

MOBILE APP

Android / iOS, Android Studio / X Code, Objective C, Xamarin

PORTFOLIO

ELPiS

ODC and Product Development Services

For over a decade, we have successfully converted customer ideas into real products and Go To market with cost effective processes. We have a **State of Art Infrastructure facilities to accommodate Offshore Development Centre** with Highly Skilled Resource Pool in Hardware, Software, and Middleware Applications.

Ideas To Products

Highly Skilled Resources

Cost Effective

Technical Support

Global Delivery

Better ROI

Secured Centre

Shorter Release Cycle

ELPiS

OUR PRODUCTS

OEE Tracker

Overall Equipment Effectiveness Tracking Device

AVAILABILITY		PERFORMANCE		QUALITY		OEE
0.8881	x	0.8611	x	0.9780	=	0.7479 (74.79%)

- To measure Industrial assets Overall Equipment Effectiveness (OEE) and track locations.

- Used in various platforms like Automotives, Oil & Gas, OEMs, Mining & Construction, Aerospace and machine Builders.
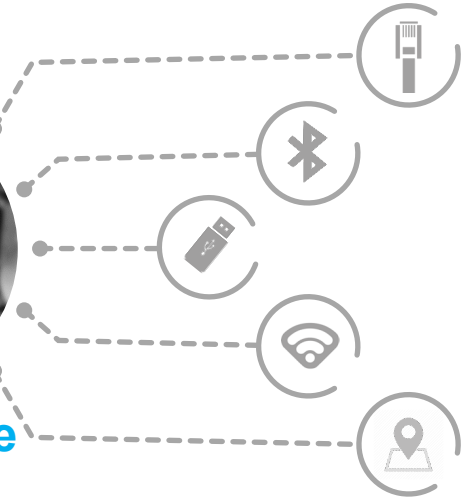
mDAQ

Data Acquisition Device

Sensor → **DAQ Device**

Power
- 9-30v DC Input

Analog Input
- 4-20 mA or 0-10v Input,
- 24V DC Powered Circular Connector Interface

Visual Alert
- Power On LED
- GPS/GSM LEDs
- Reset Switch

GPS
- Cold Start <40s
- Warm Start <32s
- Hot Start 5s
- Accuracy 5-20m

Cloud
- 4G/GSM/3G/GPRS CAT1 Support (USA, Asia, Europe/Australia)
- GPS/GSM external Antenna

Battery
- Rechargeable Lithium Battery
- Up to 4 hours Backup
- 6-8 hours charging time

Edge Gateway
IoT Gateway Controller Device

- Enables PLC data acquisition & communicates to 3rd party applications like E-REMOS using 4G and Wi-Fi

- Used in many platforms like Oil & Gas, Power/Energy Manufacturing, Industrial Automation, System Integrators, Machi

E-IDOS

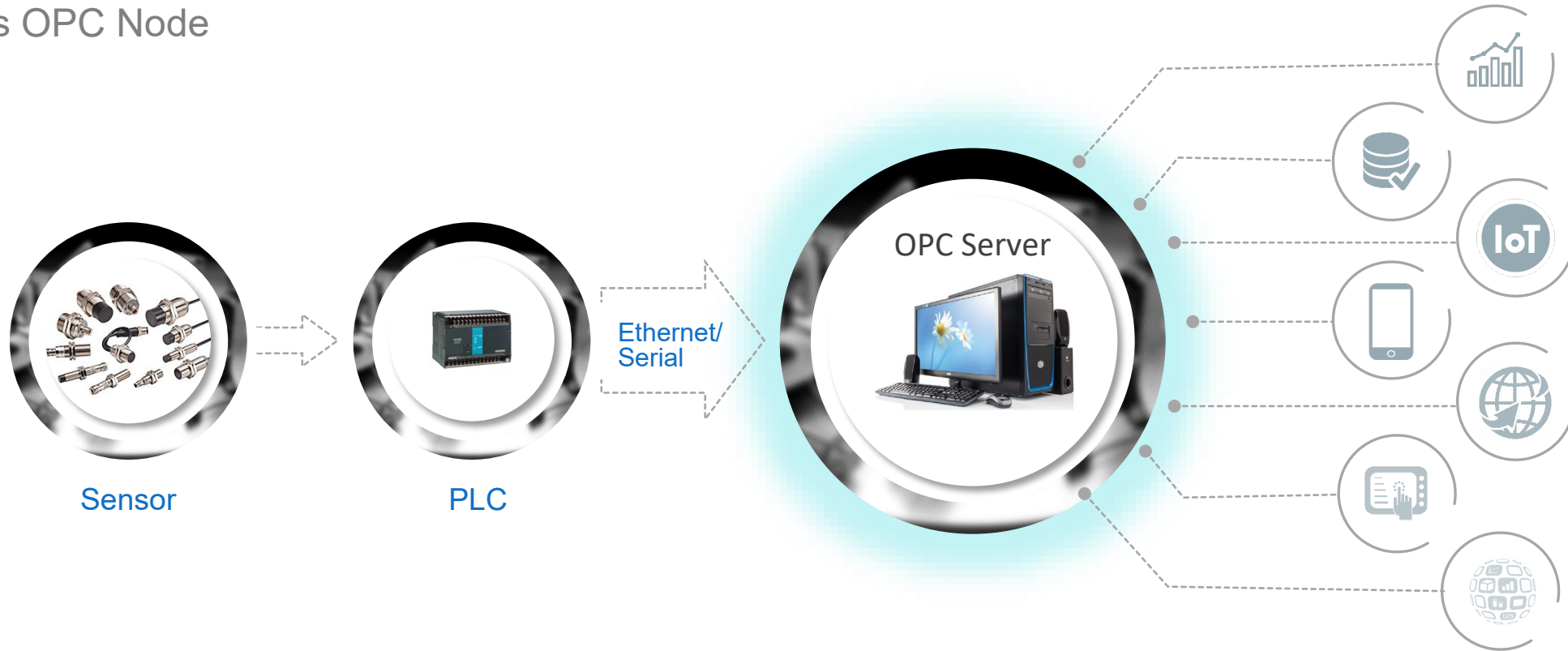Elpis IoT Device for Oil Sampling

Specifications

- 4G/Wi-Fi/ZigBee/BLE

- 2 USB, Ethernet Port, MicroSD Card Slot

- Thermal Printer
- Touch Screen HMI

- RS232/RS 485 Interface
- Motor Drive Interface

E-ON

Elpis OPC Node

Sensor → PLC → Ethernet/Serial → OPC Server

OPC Server

Drivers Supported

- Modbus Protocol
- Twin CAT

- S7 Protocol
- ODBC

- Allen Bradley Ethernet/IP

E-REMOS

Elpis Remote Monitoring System

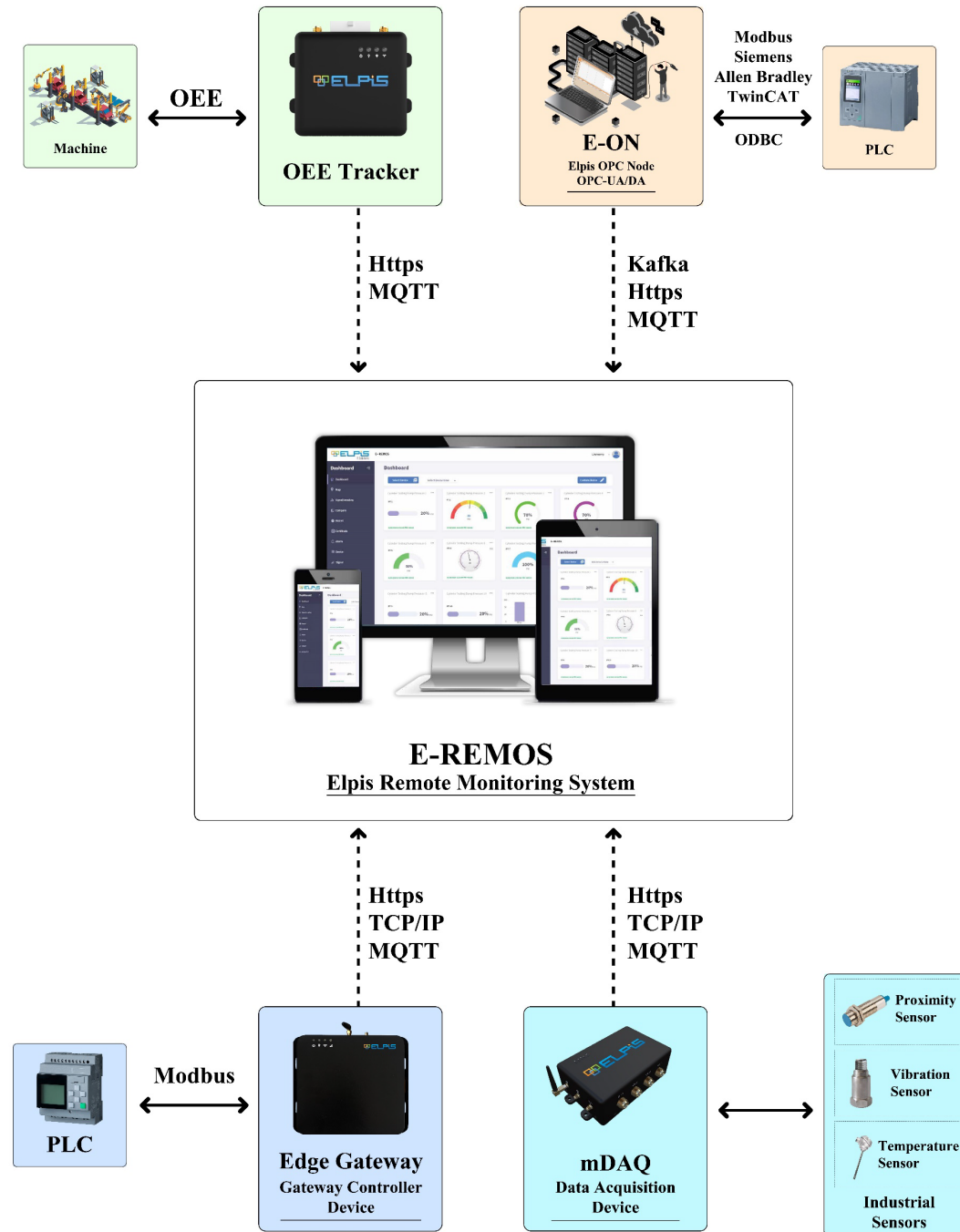**Realtime Monitoring of Critical Parameters**

Configurable Dashboards & Alarms

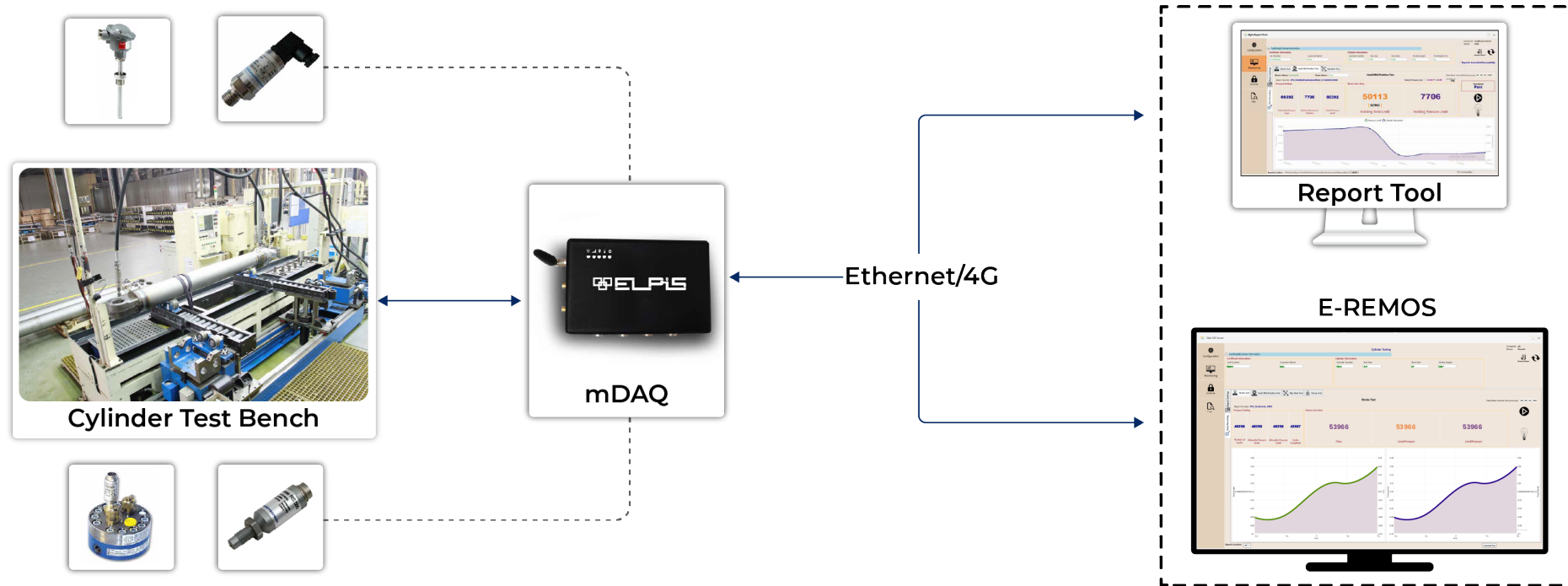**Analog and Digital Data Monitoring**

Early Detection of Faults

Reports

Machine — OEE — **OEE Tracker**

E-ON Elpis OPC Node OPC-UA/DA — Modbus Siemens Allen Bradley TwinCAT — ODBC — **PLC**

Https MQTT

Kafka Https MQTT

E-REMOS Elpis Remote Monitoring System

Https TCP/IP MQTT

Https TCP/IP MQTT

PLC — Modbus — **Edge Gateway** Gateway Controller Device

mDAQ Data Acquisition Device

Proximity Sensor
Vibration Sensor
Temperature Sensor
Industrial Sensors

Test Bench Reporting Tool System

Hydraulics Pump & Cylinder Test Bench Monitoring Solution

Ethernet/4G

Report Tool

E-REMOS

mDAQ

Cylinder Test Bench

Enables automation of Pump & Cylinder Test Bench

- Configurable Test Bench

- Can be integrated to any 3rd party devices

- Centralized test monitoring and management

- Scalable architecture to add any number of devices and communication type
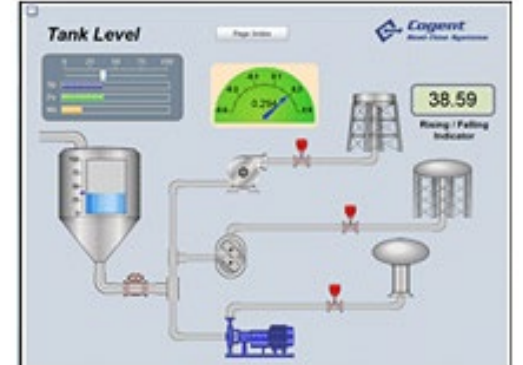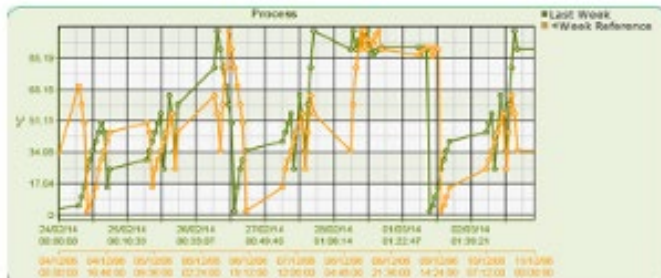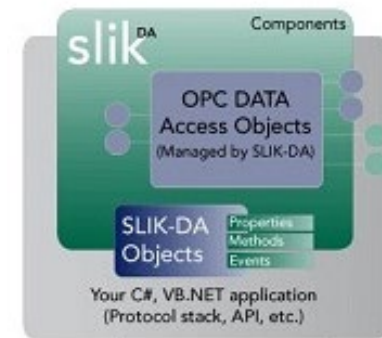
More Products

OMNI SERVER

DATALOGGER

SYMBOL FACTORY

WEB VIEW

DREAM REPORT

INDUSTRIAL GADGET

SLIK-DA

OUR SERVICES

TESTING
Service

**Functional &
API Testing**

**Integration
Testing**

**Automated &
Manual Testing**

**Performance
Testing**

**Mobile
Testing**

ELPiS

OFFSHORE DEVELOPMENT

Capabilities

Application Development

- C, C++, C#, VC++
- Dot NET, JAVA
- Python
- RPA
- HTML 5
- Angular/React

Data Warehousing & BI

- Hyperion
- Ab Initio
- ETL
- QlikView
- Cognos
- Informatica
- MicroStrategy

Embedded/Hardware

- PCB Design
- Board bootup
- Driver Development
- LTE, 802.11b/a, RF-ID, Zigbee, Bluetooth
- Linux, VxWorks, Android
- FPGA

Collaboration & Content Mgmt Tools

- SharePoint
- FileNet
- Adobe

Mobile Development

- Android Development
- iOS Development
- UI/UX
- Xamarin

ERP & CRM

- PeopleSoft
- SAP
- Oracle
- ERP Workday
- MS Dynamics

Testing and Business Analysis

- Manual/Automation Testing (Selenium, Java/Python)
- HP - QTP, Win runner, Load Runner
- IBM – Rational toolset
- Requirements Management

Cloud & DevOps

- Azure
- AWS
- DevOps
- CI/CD

CASE STUDY

Case Study on Data Acquisition

PROBLEM

It is not an easy task to monitor and measure various parameters of hydraulic pump in dredger. This increases maintenance cost and huge lose due to downtime.

SOLUTION

In the Dredger, install **mDAQ** device to monitor various analog sensors. One of our customers monitors the following parameters using single **mDAQ** device:

- Hydraulic Oil temperature
- Dredge pump high pressure
- Cutter high pressure
- Swing high pressure

KEY BENEFITS

- Cost saving
- Real-time status of connected equipment
- Live Production monitoring
- Reporting, Data logging and trends

ON SERVICE & MAINTENANCE

- *On-time Inventory / Spares planning.*
- *Predictive maintenance of the machine.*

Installation of mDAQ in Dredger

Elpis mDAQ, which provided a solution to the preceding problem

Case Study on Oil Contamination

PROBLEM

The lack of real-time analysis of oil contamination and water saturation in hydraulic and lubrication systems can lead to challenges in running predictive maintenance.

CHALLENGE

Traditional methods of oil analysis, such as manual sampling and laboratory testing, are not able to provide real-time data on the condition of the oil. This can make it difficult to identify and troubleshoot problems early, which can lead to costly repairs and downtime.
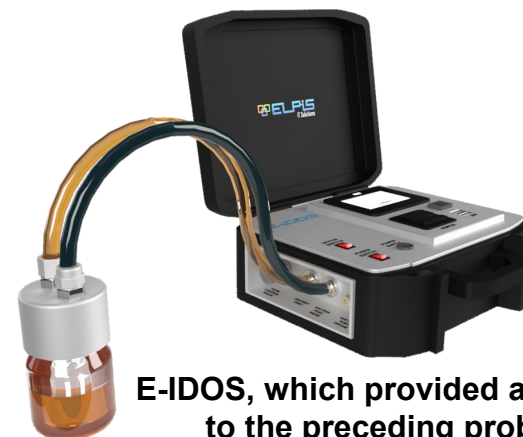
SOLUTION

E-IDOS acquires data such as solid particle, water saturation, oil flow in hydraulic & lubrication systems both in on-line and off-line states. It is widely used in the industry for performing real-time analysis of the oil contamination and water saturation. The data curated from these analysis helps in running predictive maintenance.

KEY BENEFITS

- *Portable, easy to carry on field for operations.*
- *Results in 15 minutes instead of weeks, Reduces operational costs.*
- *Compliant to Cleanliness code ISO 4406/NAS 1638.*
- *Enables quick decision making for Predictive/Preventive maintenance.*
- *Highly interoperable with multiple Particle Sensors.*

For more info visit elpisitsolutions.com
Watch video about E-IDOS youtube.com/watch?v=jfSDCQ-z6hU&t=11s

**E-IDOS, which provided a solution
to the preceding problem**

Case Study on OEE Tracking

PROBLEM

The lack of industrial assets tracking in industrial facilities is leading to inefficient and unsafe operations, resulting in increased costs and reduced profitability for organizations.

SOLUTION

Therefore, there is a need to implement effective industrial asset tracking systems to optimize asset usage, reduce costs, ensure compliance, enhance safety, and improve overall asset management in industrial facilities.

mTracker, an **IoT device** with digital inputs, **4G/Wi-Fi**, and **GPS,** was connected to the machines on the assembly line, and the following parameters were monitored by the client:

- *Production time.*
- *Idle time.*
- *Machine availability time.*
- *Intermediate stoppage times.*
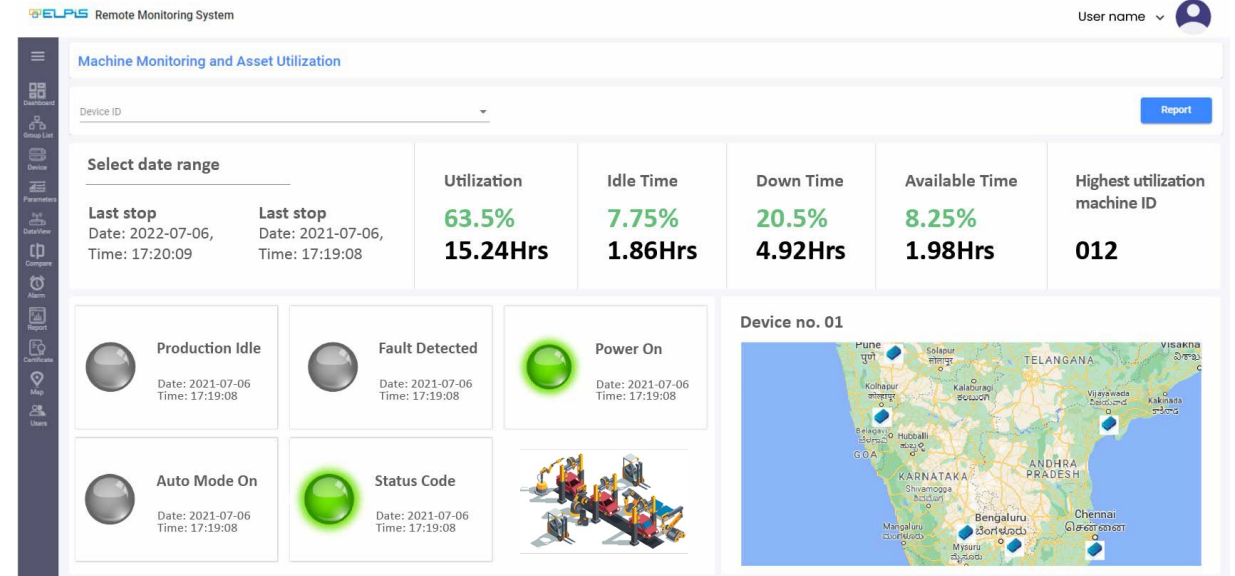- *Unscheduled downtimes.*

KEY BENEFITS

- *Cost saving.*
- *Real-time status of connected equipment.*
- *Live Production monitoring from the comfort of wherever you are!*
- *Reporting, Data logging and trends*

For more info visit elpisitsolutions.com
Watch video about OEE youtube.com/watch?v=IKSK-QMdowM&t=69s

Source for statistics: 'The Internet of Things: Today and Tomorrow' by cloud-based security networking company.

Elpis OEE Tracker, which provided a solution to the preceding problem

Testimonial

"Elpis IT Solutions has been an excellent choice as a partner as we continue to grow our global business. They truly understand what we need and work diligently to deliver it and to deliver added value." JOHN WEBER, PRESIDENT, SOFTWARE TOOLBOX INC, USA

We support Software Toolbox by develop their Industrial Automation Software which requires specialized skills like OPC DA , OPC UA and technologies like C#,.NET, WCF, WPF and Microsoft Technologies.

"We found Elpis IT solutions to be highly competent team. They are flexible to work with and deliver high quality solution on time and within budget. We are extremely happy with our working relationship with Elpis" SHANTHI SAMBATHKUMAR. PRODUCT MARKETING MANAGER, JOBVITE

We support Jobvite with their web application development which needs skills in WordPress & PHP

"We are with ELPIS since 7 years and they are always Supportive and Excellent in providing quick solutions. The team is very Cooperative and Efficient." SRIDHAR RAO DGM-IT M/S.STUMPP SCHUELE & SOMAPPA SPRINGS (P) LTD

Stump Schule Somappa in need of critical spring design and analysis software. We helped the by creating software from stretch. We used technologies like Angular, .NET and Azure cloud computing.

Partners

Clientele

Global Locations

- **ODC AND INDIA HEAD OFFICE**

    No. 102/1, 3rd Floor, Outer Ring Rd, Kamadhenunagar, B Narayanapura, Mahadevapura, Bengaluru,

    Karnataka - 560016

    +91 81979 53120

    contact@elpisitsolutions.com

- **PUNE OFFICE**

    Teerth2Work Technospace, No.106, 1st floor, 'C' Wing, Pashan Exit, Baner, PUNE -411045.

    +91 81979 53120

    contact@elpisitsolutions.com

- **UNITED STATES OF AMERICA**

    Matthews,

    North Carolina, USA - 28105

    (704) 317 8870

    contact@elpisitsolutions.com

THANK YOU

SUDHAKAR CHAKRAVARTHI

📞 +91 8197953120

✉ sudhakar@elpisitsolutions.com

☝ www.elpisitsolutions.com