

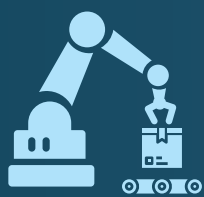
# ENGINEERING SOLUTIONS FOR DIGITAL TRANSFORMATION

**ENGINEERING  
SOLUTIONS | SERVICES**

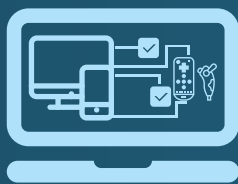


We offer a range of solutions & services to various industry verticles. We leverage our accelerators for OEMs & end-users in their transformative journey towards IIoT/Industrie 4.0 solutions

## OUR INDUSTRY FOCUS



Industrial OEM's



Discrete

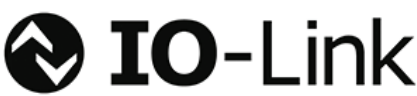


Process



Power & Utilities

## INDUSTRY ASSOCIATION



Participating | Evolving | Adapting



Javelin is a robust, scalable, customizable accelerator developed ground up for Process, Power, Building and Factory Automation. Javelin enables comprehensive customization to suit industry specific needs.



## COLLECT

### Offerings

uConnect  
uGateway  
uConverter  
uDatalogger  
Edge Computing

### Security

Secure Boot  
TrustZone  
Wireless Security  
OPC Security  
Protocol Level Security

OPC    MQTT    RESTful    AMQP    CoAP  
WiFi    BLE    3G/4G



## CLOUD

### Offerings

IoT Hub Portal  
Display Builder  
Remote Management  
On-premise Hosting  
Hybrid & Private Cloud

### Security

TLS/HTTPS  
OPC UA Security  
Private Cloud/VPN

AWS    Azure    Bluemix    ThingWorx  
Hadoop/Spark    OpenStack



## COMPUTE

### Offerings

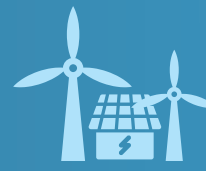
Machine Learning  
Data Streaming  
Custom Algorithms  
Predictive Analytics  
Prescriptive Analytics  
Anomaly Detection



Smart energy meter  
solution



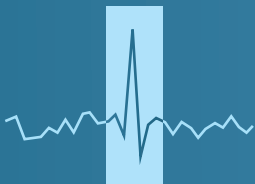
Industrial asset optimization  
and utilization solution



Solar and wind energy  
monitoring solution



Remote  
Monitoring



Anomaly detection and prediction  
of industrial sensors

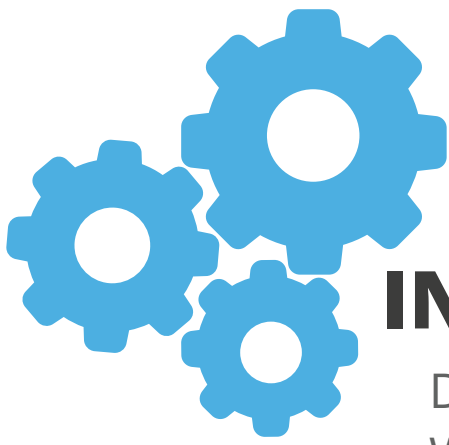


Process  
Digitization



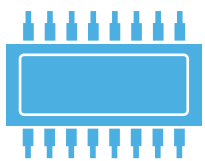
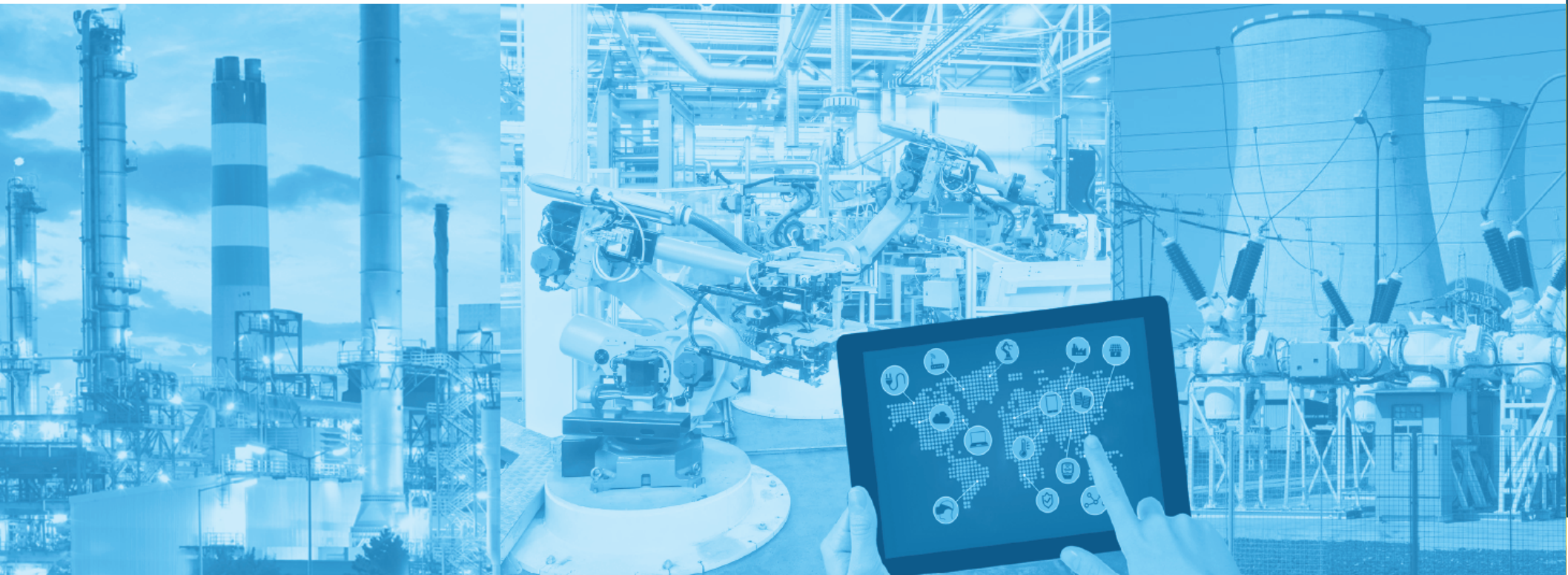
Pharma energy consumption  
analysis and optimization solution





# INDUSTRIAL DATA CONNECTIVITY

Data acquisition is a must to measure and manage. We provide complete range of connectivity solutions to acquire your industrial data.



## Hardware Products

- Industrial IoT Gateways
- Protocol Converters
- Industrial Data Logger



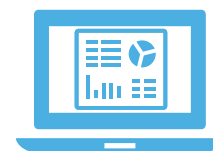
## Software Products

- OPC Client
- OPC Server
- Protocol Stacks



## Offerings

- Protocol Stacks
- Device Digitalization
- Data Integration with ERP, MES, MOM



## Simulators

- MODBUS
- IEC 104
- GE- GSM
- uHART(Single, 16 channel)
- EtherCAT

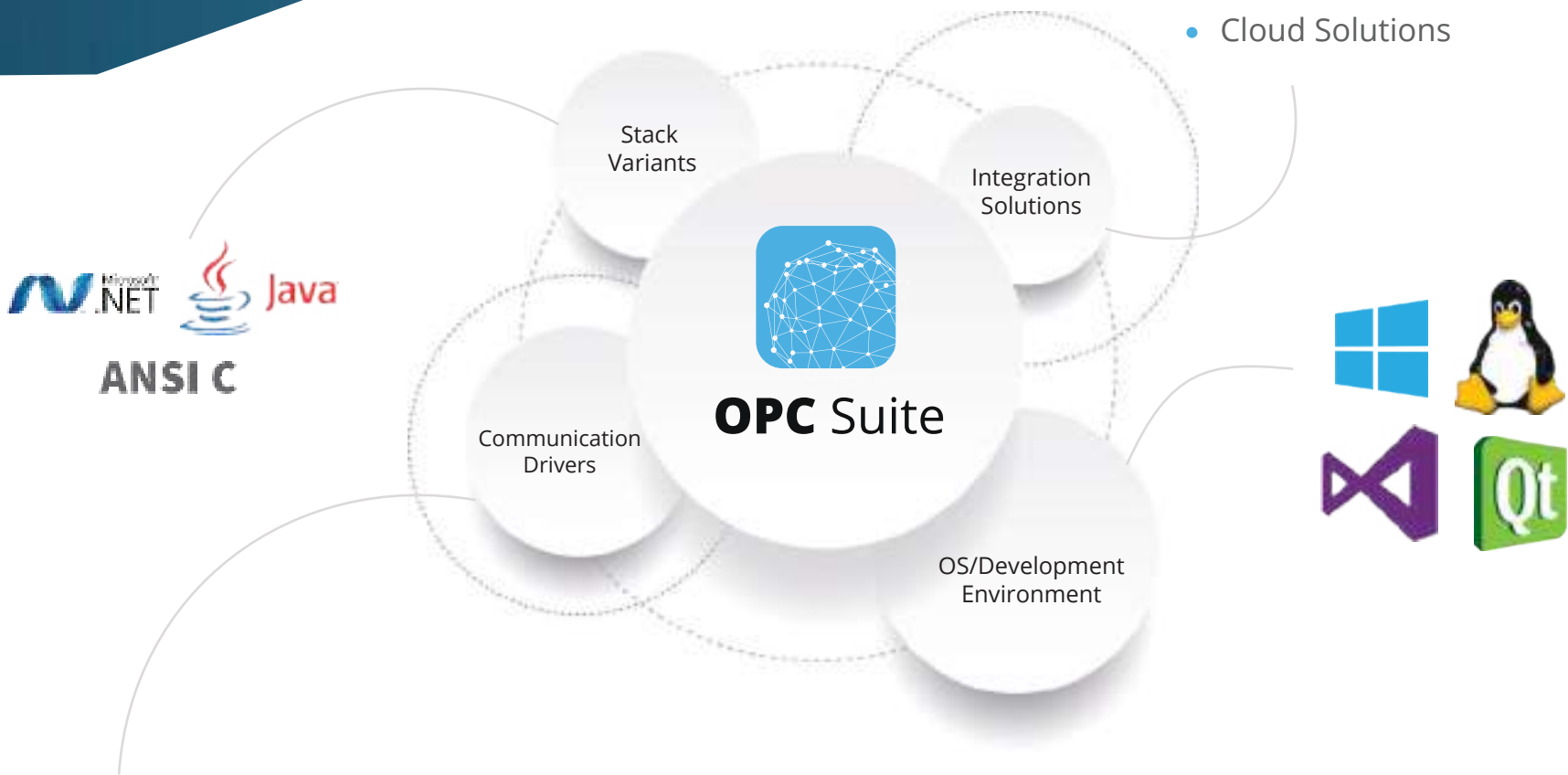


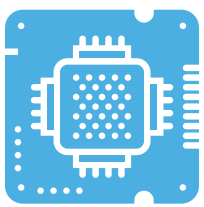
OPC

Monitor and control your industrial devices using Utthunga OPC solutions. We bring years of domain and technology experience to our customers to help them build world class OPC solutions.



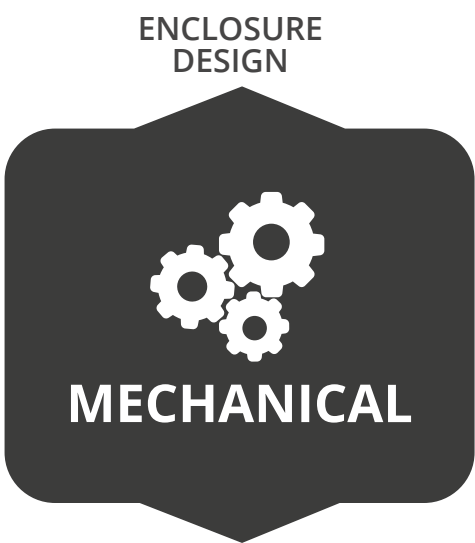
- Devices/Gateways/Data Logger
- Controllers/PLCs
- DCS/SCADA/HMI
- ERP/MES/MOM
- OPC Pub/Sub Module
- Cloud Solutions



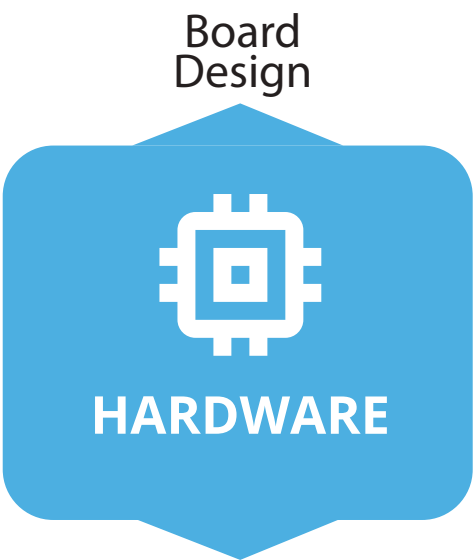


# EMBEDDED PRODUCT DESIGN SERVICES

- Product design services
- Embedded hardware design & development services
- Firmware design & development services
- Value analysis / value engineering
- Mechanical design
- Environmental qualification test services
- Protocols: Mil-1553b & ARINC429
- Systems integration, System testing, and Software development - DOD2167A and MIL-STD-498 standards
- uHART Stack
- EtherNet/IP stack
- Wired & wireless HART pre-compliance



INDUSTRIAL DESIGN



Board Design

PCB Design



Board Bringup, BSP

Application Development



JSS-55555

MIL-STD-810

MIL-STD-2164 - Environmental Stress Screening

Product Sustenance

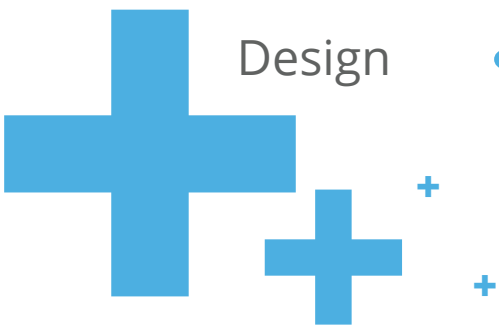
Value Analysis/  
Value Engineering

Obsolescence Management

We have deep experience in building industrial devices which can be leveraged to enhance or build products/solutions.



# ENGINEERING SERVICES



Design • Develop • Test • Maintenance

## 01 PRODUCT ENGINEERING Services

- Device configuration & diagnostic tools
- Operator interfaces, control software
- Remote configuration & real time monitoring
- Asset management
- Control systems, device & protocol simulation
- Data acquisition system / DAC / Data logger
- Embedded HW design, development and Prototyping
- Embedded SW design & development
- Condition Monitoring

## 02 Hardware Design Services

- High speed digital & analog design
- High speed PCB designs
- Communication protocol hardware design (wired & wireless)
- SI analysis, DFM & DFT
- Multi layer PCB design (16+ Layers)
- Design using BGAs (Fine pitch of less than 0.65 mm), SoC's

## 03 Obsolescence Management

- Hardware redesign / BOM analysis
- Upgrade of legacy hardware
- Upgrade from 8/16bit MCU/Processor to 32 bit ARM core based design
- Migration from legacy microprocessor design to latest ARM/Non ARM MCU based solutions

## 04 Environmental Qualification Testing services

- JSS-55555 / MIL-STD-810
- EMC/EMI
- Thermal shock
- High temperature
- Vibration

## 05 Device Integration Services FDI/EDD/FDT

- FDI package / DD to DTM convertor
- FDI host development (Android, Linux, Windows)
- FDI support for asset management system
- FDI communication server development
- FDI device, UIP package development
- FDI workshop & consultation
- Modbus FDI Comm server
- EDD development & maintenance
- EDD registration support
- Interoperability testing support
- IEC compliance verification
- Convert EDD to FDI package
- uDTMSDK - DTM development suite
- DTM development (device, gateway, communication)
- FDT testing service for certification
- DTM workshop & consultation

## 06 INDUSTRIAL Host Systems

- DD/DTM/FDI host support for HART, FF, Profibus, Ethernet IP, ISA100, Modbus, Custom protocols
- DD services, SDC625, EDD engine related offerings
- Handheld host, configurator, calibrator tool development
- FDI CHC Android & Linux SDK

Utthunga is an accredited  
FDT TESTING CENTRE FOR CERTIFICATION

Utthunga is  
PROFIBUS & PROFINET COMPETENCE CENTER



Utthunga Technologies Pvt Ltd  
No 8, 27th Cross,  
Banashankari 2nd Stage,  
Bengaluru-560070  
+91-80-68 151 900



Utthunga LLC  
700 Miliam St, Suite 1300  
Houston, TX-77002  
PH: +1-303-459-7941



Utthunga KK  
#904, TenshoBldg, 3-3-5, Ningyocho, Chuo-ku,  
Nihonbashi, Tokyo - 103-0013, Japan  
Phone : +81-80-4730-0776



Utthunga GmbH  
Hahnstraße 68-70,  
Frankfurt - 60528, Germany  
Phone: +49 383-121-33011