utthunga
Engineering Transformation

Utthunga's Product Engineering Services for

Production in Process Automation

Enhance the efficiency and reliability of sensors and actuators while ensuring sustainability using our range of process automation solutions and services. From design and development to integration and implementation, we support end-to-end operations using proven technologies, latest industry standards, and sustainable processes.

Whether you're engineering a new field level device or looking to re-engineer an existing one, trust us to offer sustainable custom-fit solutions that increase productivity, reduce downtime, and improve overall process performance.

We assist our clients rethink their businesses at scale, through sustainable practices in design, development, and maintenance of Field-Level Devices

Our End-to-end Process Automation Expertise
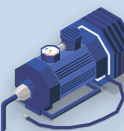
Digital Engineering

- Configuration & Diagnostic Applications
- Modelling, Simulation & Analytics
- IIoT Platform for connecting Field Devices
- Edge Device Management
- Asset Performance Management Applications
- Condition Monitoring and Preventive &
- Predictive Maintenance Applications
- Mobile & Desktop Applications
- Digital Twin Applications
- Deep Learning and Machine Learning Applications

Embedded Engineering

- Product Engineering for Sensors & Actuators
- Smart Instrumentation Engineering
- Low Power & Low Footprint Field Devices Designs
- Wireless Connectivity (Wireless HART, BLE, Zigbee, LoRa, Sigfox, WiFi, 5G, NB-IoT)
- Safety Critical Systems Design (SIL-1,2,3)
- Intrinsic Safety Design
- Sensor-to-Cloud Enablement
- Compliance to Process Automation Standards
- Sensor/Actuator Diagnostics
- Lifecycle & Obsolescence Management

Connectivity & Protocols

- Process Automation Connectivity & Protocol Expertise (Modbus, HART, Ethernet APL, PROFIBUS, PROFINET, EtherNet/IP, etc.)
- Protocol Driver
- Development & Integration Services
- Device Integration Services
- Ready-to-use Stacks & Reference Designs
- OPAF Test Bed Capabilities
- Compliance & Certification Services
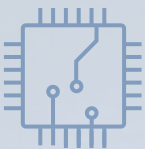
Mechanical Engineering

- New Product Design
- Engineering Analysis & Simulation
- Change Management
- Reliability Engineering
- Advanced Designs for Actuators - Valve & Positioners
- Manufacturing Support
- Compliance to Process Automation Standards (ATEX, IECx, IP6x)

Verification & Validation Services

- Application Testing
- Device Testing
- Protocol Testing (Pre-Compliance)
- Test Automation
- DevOps
- Compliance to Process Automation Standards (ATEX, SIL, IEC 615x, IEC 60079)
- Compliance to Country Specific Standards (CE, UL, FCC)

Digital Accelerators

- **DPI Framework**
  A rapid application development platform that enables design and engineering of stand-alone mobile/cloud/ web application

- **SE Suite**
  Cloud agnostic, on premise suitable secure platform to connect, build, and manage IIoT devices.

- **uFDI-DTM & uDD-DTM Suite**
  A comprehensive, robust, and cost-effective FDI-DTM and DD-DTM conversion tool.

- **DTM-supported Device Data Exchange (uDDx) Suite**
  Connectivity suite to normalize field-device data and unlock the potential of Industry 4.0 and IIoT.

- **uFlex**
  Flexible & Configuration data visualization tool for customizable user-interfaces and dashboards

Embedded Accelerators

- **Innovative reference designs for**
  - Industry protocols such as IO-Link, Ethernet APL, Embedded OPC, LoRaWAN, etc.
  - Engineered hardware products such as Smart Energy Meter, Edge Gateway, etc.

- **HART and GE/GSM Device Based Simulators**

- **Sensor Framework**

- **Condition Monitoring Accelerators (Ex - Motor Control Signature Analysis)**

Connectivity & Protocol Accelerators

- Industrial Protocols Stacks for HART, Modbus, EtherNet/IP, IO-Link, MTConnect

- Plug-and-play uOPC Connectivity Suite that offers a secure data integration for IoT applications aggregating production and machine data

- IEC-104, Modbus, HART, and GE-GSM Based Protocol Simulators

Our Industry Focus - **Forums**

FIELDCOMM GROUP™ Connecting the World of Process Automation · OPC · THE OPEN GROUP OPEN PROCESS AUTOMATION™ FORUM · PI PROFIBUS · PROFINET · FDT GROUP · IO-Link · SPE

Standards

SIL Safety Integrity Level · IEC · Ex

Industries

O&G · Chemicals · Pharma · F&B · Paper & Pulp · Textiles · Plastics

This is just the **tip of the iceberg!**

To learn more about our incremental capabilities in **sensing and manipulating, monitoring and supervising, manufacturing operations management, business planning and logistics, and cloud,** click here

Learn More >

contact@utthunga.com