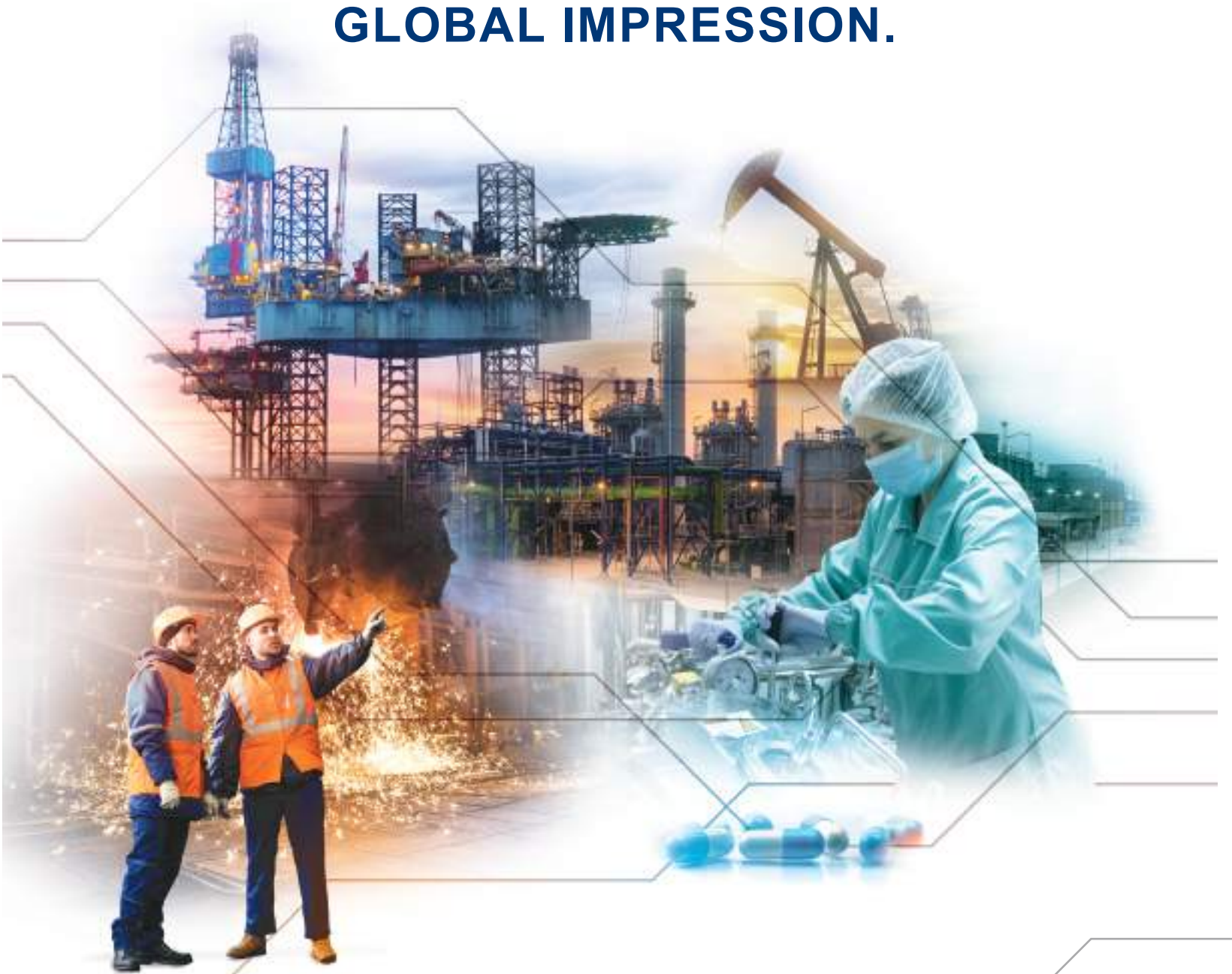


**INDIAN DESIGN.
GLOBAL IMPRESSION.**



MicroVerse
automation pvt.ltd.

30 YEARS OF INNOVATION IN AUTOMATION

COMPREHENSIVE. CONSISTENT. CUTTING-EDGE.

DCS | PLC | SCADA | SHUT-DOWN SYSTEM | RTU | CUSTOM-BUILT HARDWARE

Since 1989, Microverse Automation Pvt. Ltd. has been designing and developing indigenous automation systems on par with the best in the world. Microverse's wide range of automation systems power the gamut of industries with their flexibility, efficiency and scalability – enhancing quality and productivity on the factory floor.

Driven by a passion to innovate world-class technology at affordable prices, Microverse today has successfully executed 150+ prestigious and challenging projects across India, Africa, Bhutan and the Middle East, some having over 10,000 I/Os and features such as triple redundancy for mission-critical applications.

Microverse is now a proud business partner of Hitachi High-Tech Solutions Corporation, Japan. One of the major objectives of the Microverse - Hitachi collaboration is to promote products developed by Microverse in domestic and international markets.



BEST IN CLASS TECHNOLOGY

Microverse's DCS Controller has leading edge technical specifications in terms of processing speed, memory, variety of communication ports, diagnostics. The I/O and interface modules complement the Controller to provide a rugged and field-proven system. Microverse has developed powerful tools for Batch and Continuous processes integrated with in-house developed SCADA package.

INTERNATIONAL QUALITY STANDARDS

Each system undergoes stringent quality control checks as per rigorous international standards which can be witnessed by the customers. This results in high system availability under harsh operating conditions.



APPLICATION ENGINEERING EXPERTISE

With over 30 years of experience in providing automation solutions, Microverse has generated deep expertise in application engineering for industries such as Chemical, Pharmaceutical, Oil and Gas, Power plants, and Metallurgical processes.

SCALABLE SOLUTIONS

Microverse has helped its customers to grow from small unit-based installations to multi-product facilities by providing automation solutions which improve productivity and efficiency.





CHEMICAL PLANTS

- Reactor Automation
- Batch & Continuous Distillations
- Utility Monitoring
- Hydrogenation
- Nitration
- Polymerization
- Separation
- Solvent Recovery



CAPTIVE POWER PLANTS

- Boiler
- Turbine
- Coal Handling Plant
- Balance Of Plant



OIL AND GAS

- Oil and Gas Handling
- Storage
- Jetty and Terminal Automation



INDUSTRY 4.0 APPLICATIONS

- Remote Monitoring
- Cloud-based Data Acquisition
- Analytics



PHARMACEUTICAL (API) PLANTS

- Reactor Automation
- Distillation
- Solvent Processing with System Validation and 21 CFR Part 11 Compliance



WATER AND WASTEWATER APPLICATIONS

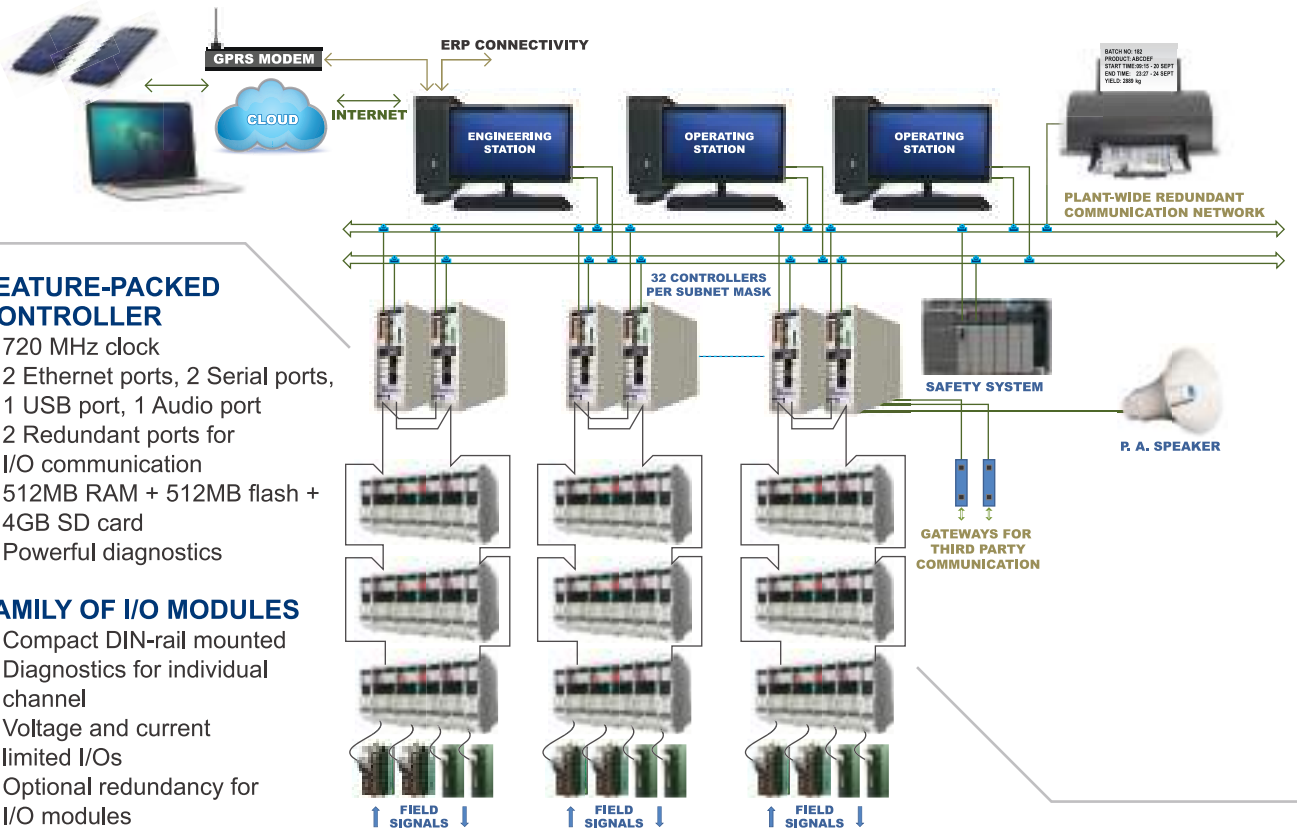
- Lift Irrigation
- WTP
- STP
- DM Water



FERRO ALLOY, SPONGE IRON & COPPER SMELTING PLANTS

- Submerged Arc Furnace Resistance Control
- Integration with Raw Material Handling
- Weighing
- Batching
- Furnace Feeding

DCS MICROSYS 3200 ET SYSTEM ARCHITECTURE



FEATURE-PACKED CONTROLLER

- 720 MHz clock
- 2 Ethernet ports, 2 Serial ports, 1 USB port, 1 Audio port
- 2 Redundant ports for I/O communication
- 512MB RAM + 512MB flash + 4GB SD card
- Powerful diagnostics

FAMILY OF I/O MODULES

- Compact DIN-rail mounted
- Diagnostics for individual channel
- Voltage and current limited I/Os
- Optional redundancy for I/O modules
- Integral SOE of 1mSec

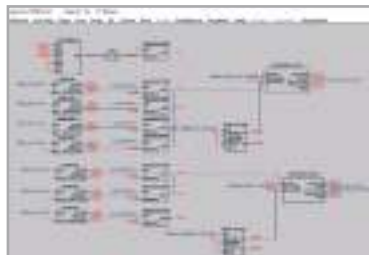
G3 CLASS CONFORMAL COATING FOR ALL HARDWARE AS STANDARD

CONTROLLERS + I/O MODULES CAN BE IN THE FIELD TO SAVE CABLING COSTS

FIELD TERMINATIONS

- I/O Protect terminals for protection against transient disturbance
- DI termination modules for protection against 230/415 V AC on digital inputs
- Snubber, MOV across relay contacts

SOFTWARE TOOLS



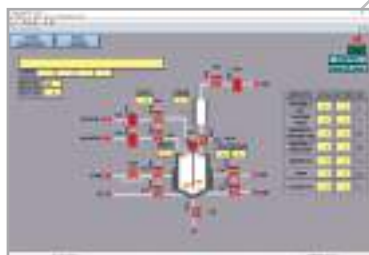
SYSDEV 32 LOGIC DEVELOPMENT TOOL

- 100+ Functional Block library plus user defined blocks
- Online and offline simulation with SCADA
- Execution speed of logic pages settable from 10mSec. to few seconds



PSCOPE-17 SCADA

- Unlimited tags and unlimited SCADA screens
- Extensive symbol library, reports, alarms, trends
- 9 level password protected security for individual tags
- Each operator station stores tag history independently



BATCH CONTROLLER

- Multi-product, multi-vessel simultaneous batch recipes
- User recorded interactive audio instructions
- Batch-wise reports for complete process including batch specific events and parameters