

Invitation



Electronics Corporation of India Limited
Hyderabad

*We solicit your gracious presence
on the occasion of the*

Product Launch

of

“MPROGICON 5000”

POWER Series

Programmable Logic Controller

by

Dr. Anil Kakodkar

*DAE Homi Bhabha Chair Professor
& Member, AEC*

Y.S. Mayya

Chairman & Managing Director

*Venue: Nalanda Complex,
Near TIFR, ECIL*

Date : 18 May 2012

Time : 11.00 hrs

R S V P:

Shri A K Asthana

Mobile: 09440100094



Programme

Product Launch (Nalanda Complex, ECIL)

- | | |
|----------------------|---|
| <i>11.00 - 11.05</i> | <i>Welcome address by Director (Technical)</i> |
| <i>11.05 - 11.15</i> | <i>Opening Remarks by, C & MD, ECIL</i> |
| <i>11.15 - 11.25</i> | <i>Product Launch by the Chief Guest</i> |
| <i>11.25 - 11.45</i> | <i>Address by the Chief Guest</i> |
| <i>11.45 - 11.50</i> | <i>Introduction of the Product Development Team &
Felicitation by the Chief Guest</i> |
| <i>11.50 - 11.55</i> | <i>Vote of Thanks</i> |

You are cordially invited to join us for Lunch at ECIL Guest House at 13.00 hrs.

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| <i>12.00 - 13.00</i> | <i>Product Demonstration</i> |
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Electronics Corporation of India Ltd, Hyderabad

Date: 16th May 2012

ECIL's Power Series Programmable Logic Controllers (PLC)

ECIL's new, indigenously developed MPROGICON 5000 Power Series PLC System is a definitive solution to automation problems where reliability, safety and security are key concerns. Programmable Logic Controllers (PLC) are central components in automations which today control all national vital infrastructure in Energy, Transport and Manufacturing sectors. PLC provides a rugged generic platform for economic and reliable realization of control logics and loops. Their ease of use, modularity and proven reliability has resulted in their wide use.

ECIL leverages its decades of experience in development and deployment of PLCs in nuclear and other industries to offer an economical, low power, high performance, scalable, industrial strength PLC series. These highly flexible, modular PLC systems can be deployed as single stand-alone units with few dozens of I/O or large geographically distributed network of PLCs with thousands of I/O. Built-in redundancy of vital subsystems provide assured reliability. Fail-safe design features with advanced diagnostics exploit advance in technology to bring about a safe and maintainable automation. The mix of IO modules cater to all standard plant IO required for discrete and continuous plant control. Use of industry standard programming languages ensure zero learning time for developers. The contemporary hardware using modern high performance processors, memory and glue logic promote high performance with enhanced reliability due to low power dissipation leading in turn to lower temperature rise and longer life. While complying with applicable standards for climatic, environmental, EMI/ EMC specifications, the PLC hardware is engineered for tough and rough use of a factory floor. The IO modules provide front mounted screw-terminals promoting ease of field wiring and maintainability.

The I/O sub-system is connected to the CPU sub-system either as Local I/O sharing the same backplane or Remote I/O via dedicated dual redundant Ethernet TCP/IP network. The network configured using COTS switches and routers can extend up to hundreds of meters in case of copper cable and up to two kilometers for fiber optic.

MPROGICON PLC systems are programmed using IDE style Programming Software that provides a graphical user interface to program and monitor the PLC system. Currently the system provides

MODBUS® Server Interface via MODBUS® / TCP, MODBUS® serial protocol and OPC server so that third party HMI packages can be seamlessly interfaced to the MPROGICON PLC system.



Fig.: MPROGICON PLC

For applications that require high availability, MPROGICON PLC system is offered with redundant power supply modules and CPU sub-systems. The redundant CPU sub-systems support hot standby redundancy. A switch over from the primary CPU to backup CPU will occur upon failure of the primary CPU, communication link, power supply, Remote I/O etc.

ECIL's new PLC promises to mitigate the security concerns arising out of potential presence of malware or trap doors in these vital equipment which often form the nervous system of all modern industrial plants. Every component that make up the ecosystem of a modern PLC – the semiconductors which power its computation engines, the application development tools which generate run-time code for the PLC, the desk top computers / work stations which host the development tools, the network components which carry bits and bytes around - is vulnerable to malware-either maliciously introduced (pre-built) or introduced subsequently through the known vulnerabilities in hardware/software. These vulnerabilities are extremely difficult to detect. From a security stand-point, it is prudent to assume that these vulnerabilities will be discovered and exploited and hence pose a potential security risk.

Hence ECIL will be targeting these PLCs at Strategic sectors of atomic energy, defence, aerospace and Homeland security where safety and security can not be compromised. Currently Indian market is dominated by foreign brands which due to commercial reasons do not expose their designs and software for full verification. There have been problems of denials and end-user restrictions in the past. These indigenously designed 3rd generation of PLCs of ECIL are amenable to full verification validation by third party and form an important component in achieving national self-reliance in automation.
