



Manufacturing Intelligence and MES - A new focus area

Autosys, is one of the leading partners for Rockwell Automation in India. Recently, Autosys was upgraded to become a “Control & Process” partner. Soon Autosys will also become an Information Systems partner for Rockwell.

Rockwell has a wide range of modular software solutions for manufacturing intelligence that bridge the gap between PLCs/Machines and ERP / PPC. Design, Development and Implementation of these information solutions from Rockwell will be a new focus area from this year.



About Manufacturing Intelligence (MI)

As a business leader you need detailed, accurate and up-to-date information on capacities, utilization, OEE, cycle times, yield, cost factors and asset efficiencies. Many of these useful information originates from your machines, control systems, PLC/DCS, QC Testing Stations, Logs maintained by Operator / Supervisors etc.



Sieving through a deluge of data, curating them in to relevant information and presenting them in a format that is tailor made to each level of management – all these can now be easily automated with real time dashboards, trends and reports. While doing this, traceability also becomes real time. The objective of Manufacturing Intelligence systems is to interact and collate information in real time, directly from

their source machines / control systems, PLCs and production floor personnel and also update the ERP with live data.

Event at Chennai : Bridging the Chasm between your PLCs and ERP/PPC

June 16 2016 Hotel Residency Towers,
T Nagar Chennai

Autosys is conducting a half day free seminar at Chennai on Manufacturing Intelligence, exclusively for senior executive management of manufacturing companies (Vice President and President Level). This event is conducted in association with Rockwell.

This will be a “by invitation only” event with 40-50 seats. To request for an official invitation, please send us an email with contact details of the concerned executive.

Please write to rsr@ael-india.net or vjk@ael-india.net.

PlantAutomation-Technology.com is the largest web-based publication on Industrial Automation operating for more than a decade. Excerpts from the interview published by them in Feb 2016.

1. How does Autosys engage with the growing needs of the industries triggered by the consumer demands?

Labour cost reduction is no longer the key deliverable for Automation. It has been replaced by consistency, accountability, repeatability and measurability. With the advent of new modern manufacturing techniques and seamless integration from Business processes to Production Engineering, customers are investing more and more on Automation. Autosys is engaging customers with new concepts of Automation from Raw material receipts to finished goods dispatch. Traceability of materials and processes along with live visibility of what is actually happening on the production floor are achieved by integrating Electro-mechanical-PLC automation with manufacturing intelligence software and ERP/PPC.

Autosys offers a turnkey approach to solutions. With multi-disciplinary engineering skills available in Mechanical, Electrical, Electronics and Software, Autosys provides a complete and wholesome solution to suit each customer's unique business requirement.

So in that sense, Autosys is not in the business of supplying an instrument or a PLC. We partner with our customers to deliver competitive advantage

2. Which attributes, in your perspective, are requisite to becoming an expert in multi-disciplinary engineering for automating factories?

System's thinking is quite opposite to that of reductionist analytical reasoning. Synergizing across disciplines, integrating multiple sub systems, architecting information flows, managing complex projects – all these require a set of skills and capabilities that are distinctively different from being a specialist in any one area or product. Our core team has over 20 years of experience across 500+ projects and that can make a huge difference.

3. Has designing products specifically for the Indian subcontinent been uniquely challenging? If so, how?

Autosys delivers global solutions within affordable budgets. Many batching and weighing solutions which we provide are state of art and meet the requirements of global /

MNC customers. Several large groups in bulk material processing industry have standardized on Autosys solutions. We use industry's leading sub systems and components (such as Rockwell systems and Siemens Switch gear) for all our projects. But yes, designing an automation and control scheme for an Indian customer requires a fine balance between budget, sophistication and practical needs.

4. How do the products manufactured by Autosys help curb the impact on environment?

The more intelligent your control systems are, the more efficient the process will be. This reduces material wastage, rework, energy consumption, water consumption etc. Autosys offers solutions which use the concept of reuse of rare resources. Solutions help customers reduce material wastage, avoid rework, reduce energy / water consumption and improve overall efficiency

5. With MNCs from foreign countries doing business in India, how will the game of competition change?

MNC's are raising the bar on the budgets allocated for automation, traceability, manufacturing intelligence etc. This is pushing Indian companies to keep pace with them, because if they don't, their competitive advantage will erode. Many MNC's operating in India have standardized their automation requirements with solutions provided by Autosys. This has increased our credibility, enabling Indian companies to rely on us with trust and confidence. Autosys provides solutions whose total cost of ownership is among the lowest in the industry. Many MNCs have told us that our solutions are more effective and less expensive compared to similar solutions that they have implemented in other countries.

6. What are the key products and industries that Autosys deals with?

Today there is hardly any industry that we don't work with directly or indirectly. Our projects are broadly classified in to 6 major areas: Material handling and Batching Automation, Instrumentation and Control, EPC Projects, Manufacturing Intelligence and MES Software, Special Purpose / Custom Products, PLC and Instrumentation systems for Water and Waste Water industry.

7. When it comes to affordability and manufacturing cost, does Autosys deploy a special approach?

We focus on total cost of ownership for our customers, instead of the initial cost. Having said that, we are proud to have executed turnkey

projects that cost half of what they do in other parts of the world. We still use the products of global vendors in our BOMs. But we optimize the investment by right-sizing the project. And our experience allows us to engineer and execute a project tightly and within time and budget. This enables customers to achieve their target costs.

8. What are the typical operations involved in plant modernisation and process automation?

If it is a green field project, it is a lot simpler as you can design these elements right up front. But retrofitting automation into an existing plant is a lot more complex and we, as a team, specialize in it. We study the plant thoroughly. Then we spend significant amount of time with their top management to understand the strategic priorities, their business context, immediate pain points (from the market as well as operationally), investment capacity and the low hanging fruits in terms of potential ROI. It is only then that we recommend a solution. Of course, we also factor in practical things like available space, limitations, roof height available etc.

9. In a world where nature is under a perpetual threat, where does Autosys stand in its responsibility towards environment and people?

Autosys builds systems keeping in mind health and safety of the operating staff. The solutions offered meet many global standards of health and safety.

As far as our organization is concerned, we are a very people-oriented organization. More than 90% of our people are qualified engineers. For any engineer from any discipline, (who is not attracted to the pure IT/software industry), we provide a very challenging environment. We groom them in multi-disciplinary engineering skills, system integration, project management and customer handling. No other industry can offer this kind of all-round development for engineers.





Instrumentation and Telemetry – now a separate division / SBU

Having done large multi-crore projects for Reliance, L&T, Vatech-Wabag, we have decided to create a separate division / SBU focusing on this sector. There are many water and waste water related projects that are coming up across India, and we see significant growth coming from this and other similar infrastructure sectors. Our solution to this sector now includes IMIS a high level software system that integrates metering, billing, consumer portal, CRM, ERP, Asset management, SCADA and GIS systems.



Drawout panels - CPRI approved

Autosys has been manufacturing and supplying many types of CPRI approved panels to large OEMs and EPCs. Drawout panels are special type of panels that allow us to remove and maintain individual sub sections without shutting down the rest of the sections. This has been recently typed approved by CPRI. With this, Autosys is poised to make deeper inroads in to power and process sectors.

Panel Manufacturing – now a separate division / SBU

Apart from manufacturing panels for our own projects, we also do panels for large OEMs and EPCs such as L&T, Vatech, Aqua Design, IVRCL, Enmass, Shriram EPC etc. Given the huge potential for this (in India + export orders have started), we have created a separate division / SBU to focus on this business.



Model approval for Batching and Packing

Many customers are not aware of the need for legal metrology approval for batching systems and packing systems used within the process. (Only weighbridges and weigh scales are normally approved and stamped). Autosys is one of the very few manufacturers who have got model approval for their Batching Systems, Automated Bagging Machines etc. from the Legal Metrology Dept. Our systems also comply to international standards such as S88 and FDA guidelines on traceability and genealogy.

Bulk material handling and Batching Plant projects

This has been a core competence area for Autosys and its team. A leading manufacturer of roofing sheets and cement gave turnkey responsibility for their material handling and batching plant. A similar project is also being executed for a leading refractory MNC.

Poultry Feed Bagging Plant – 30 Tons per day

Autosys successfully designed, supplied and installed a complete bagging plant for a large poultry feed manufacturer in AP. With a capacity of 30 Tons per day, the plant has 6 bagging lines, 4 lorry loading bays with automated bag handling conveyors and telescopic systems. The flexible design allows any silo output to go to any lorry and each lorry can be loaded with 3 different products.



Snippets

- Doubled the area of our manufacturing facility at Perungudi.
- Created an associate company “Kore Mechatronics Pvt Ltd” – www.koremec.com to focus on MI/MES software and Robotics.
- Successfully commissioned an automatic nailing machine for Amara Raja Batteries Tirupati.
- Proud to be associated with the Ganga Cleaning Project through Vatech.
- Implemented Tank Farm Management System for an Oil and Gas Company
- Rubbed shoulders with the teams at Jacob, EIL, Tetratex, NJS
- Implemented Megalift projects for Village water transmission
- Currently executing turnkey projects on STP and ETP across various states.
- Export turnover crossed 30%



END TO END PLANT AUTOMATION FOR AGILE MANUFACTURING

The manufacturing industry in India is moving up the value curve. The focus is shifting from volume to value, driven by quality and consistency. Investing in modernization and automation has become an imperative. After working with the industry for over 2 decades, we are leading this revolution with guaranteed performance metrics on OEE, throughput, quality and accuracy.

WHY AUTOSYS?

- Fixed price contracts
- Deep domain / process knowledge across many industries
- Strong multi-disciplinary expertise (Mechanical-Electrical-Instrumentation-PLCs-Software)
- Engineering team has worked together for 20+ years, 400+ projects.



CAPABILITIES

Consulting and Services

- Green field projects – EPC / Turnkey
- OEE improvement, De-bottlenecking, Modernization, Automation.
- Project management • Software Development for MES, M2M and IOT.

Systems

- Automated material handling (raw materials to finished products)
- Batching plants (from silos & feeders to mixers & grinders)
- Automatic weighing & dosing (grams to tons, solids and liquids)
- Instrumentation, Control and Telemetry
- PLCs, SCADA, MES Software
- Power, MCC and Control panels

Domains

- Water, Waste-water • Oil and Gas
- Refractories, Ceramics, Building materials, Friction materials
- Food, Animal feeds, Nutrients, Pharma • Chemicals, Plastics

Products

- Recron / Fibre dosing system
- Preform (fibrous composite) dosing system
- Automatic nailing system (for wooden skids / pallets)
- Batch weighing system
- Bagging machines
- Bag placers, palletizers

Xeleer

Product division
of Autosys

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