



Wilmington Section ISA
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Newark, DE 19714-9254

Wilmington Section ISA

ISA—The Instrumentation, Systems, and Automation Society 

Check out our web page at <http://www.isa.org/~wilmdel/>

Wilmington ISA Section Event

Annual Shrimp Boil

5:30 pm Tuesday, Apr. 30, 2002

Applied Control Engineering

4550, New Linden Hill Road

Wilmington, DE

Please RSVP to Steve Nann at:

nann@ellipsys.com or

610-328-6400

ISASENSOR

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The Sensor

March 2002

**Tues. Feb 26th, 2002:
Section Meeting Notes
ISA Section Meeting
Presentation by
Vaidee sampathkumar - EDS,
Saturn Car Assembly Plant**

**Title: "Use of Plant Floor Systems
to Achieve the Goal of a Complex
Manufacturing System"**

This presentation, by Vaidee Sampathkumar, EDS, Saturn Car Assembly Plant, was based on his Masters Research done in the GM plant in Linden, NJ and the subsequent work done by him as systems integrator in EDS, General Motors North American Operations in the past one and a half years in various General Motors assembly plants. The presentation gave an overview of the plant floor systems and their applications in a typical auto plant and related it to the "Goal" of a plant.

The goal of any organization is to make "money" today and in the future (Goldratt, 1986). "Money" is tangible and intangible. For the corporate the immediate goal (or making money today) would be profits to satisfy stock market and the long-term goal (or make money in the future) would be to expand business and make sure they remain in business. Profit = Selling Price - Cost Price. Selling price is fixed by market conditions and competition and hence cost price is the one which can be controlled. The Goal for a manufacturing system in the organization would be to maximize throughput, minimize inventory, and minimize operational costs keeping safety and quality as top priorities. Usually,

all these goals are in conflict with each other and hence it becomes an optimization problem. There can be no system without constraints. Goldratt developed the "Theory of Constraints (TOC)" and developed a methodology to solve the problem.

The auto assembly plant is a complex continuous flow manufacturing system. They are all becoming leaner every day. Lean initiatives are taken keeping safety and quality as the top priorities and then maximizing throughput and minimizing inventory and cost. Plant floor automation systems are aimed at achieving any of these goals.

Plant floor systems are classified as monitoring systems and PC based control systems. The following are the plant floor data available from monitoring systems: Faults; Warnings; Production Counts, Bank Counts. Monitoring systems help in real-time running of the plant and also in data analysis. HMI based SCADA software are used to collect these data and store it in a database for historical analysis. The data collected are used to identify top issues in the plant and to identify bottlenecks in the plant, to focus resources on the bottlenecks. These data are also used to do "what-if" analysis using computer simulation and hence help in decision-making. The plant-integrated database approach is used to sift information out of the ocean of data.

PC based control systems help in running of the plant and may also be used for monitoring and data

collection. The design and maintenance of PC based control systems is different from that of monitoring systems. The objective of the system should be stated very clearly and the focus should be on NOT jeopardizing this objective. The backup, failover, and maintenance plans should be developed at the design stage.

About SCADA:

SCADA is an acronym for Supervisory Control and Data Acquisition. This technology enables collection of data from one or more distant facilities or send control instructions to those facilities. A SCADA system allows an operator in a location central to a widely distributed process. The technology best applies to processes that are spread over large distances and are relatively simple to control and monitor, and require frequent, regular, or immediate intervention. It can also be used to act as an interface between two hardware devices which cannot communicate with each other.

Interesting Fact :

Data Suggests U.S. Controls Economy began Recovery in 4th Quarter 2001

The industrial controls markets improved by over 26% in 4th Quarter 2001 over the previous quarter. The market value of companies included in the CE index (Control Engg. Stock Index) reflected the overall confidence in the industrial control market. Financial forecasters have predicted that the nation's GDP will pick up by 2002's second half.

Source: Control Engineering, March 2002

**National Manufacturing Week
Industrial Automation and
Design Engineering Shows
March 18-21 in Chicago**

With 1,889 exhibitors and more than 20 special pavilions, dozens of conferences, and three exhibit halls spreading throughout the massive McCormick Place complex in Chicago, the 12th annual National Manufacturing Week hits town just in time to welcome spring, *March 18th to 21st*.

The industrial manufacturing and design extravaganza gives professionals access to many of the new products and technologies available to compete and succeed in today's global manufacturing marketplace. As it has been for years, the four-day event is four shows under one roof: *Industrial Automation, Design Engineering, Industrial Enterprise Information Technology, and Plant Engineering MRO and Management*.

Exhibition hall hours are 10 a.m.-5 p.m. Monday through Wednesday and 10 a.m.-3 p.m. on Thursday. Conference hours are 8:30 a.m.-4:30 p.m. all four days.

ASME will run 12 design engineering technology transfer conference sessions on Monday from 8:30 a.m.-5 p.m. Session titles include Robust Design; Test/Analysis Correlation and Design Optimization; Implementation Strategy for Real-Time Demand; Controlling Factory Costs During Design; Project Engineering/Management Fundamentals; Personal Finance for Engineers; and Industry Advances in Design for Safety.

Two technical sessions on "*Smart Transducer Interfacing and Networking Standards*" will be

collectively sponsored by the National Institute of Standards and Technology (NIST), the Institute of Electrical and Electronics Engineers' Sensors Council, and IEEE's Instrumentation and Measurement Society's Technical Committee on Sensor Technology. The sessions will be 8:30-11 a.m. Tuesday and 9 a.m.-noon Thursday. These sessions will focus on the architecture and technical approach to interfacing and networking smart transducers, the standardization of electronic data sheets and interfaces, and wireless connectivity for the transducers, as well as examples of implementation and application of the proposed IEEE 1451 standard interfaces.

If you're looking for a new job or just curious about what hiring companies are saying, then stop by the Grand Ballroom in the South Hall for Career Fair.

Admission is free to job candidates. Just bring plenty of resumes because the promoters say job hunters will be able to meet face-to-face with recruiters and hiring managers from leading companies, and they claim attendees will discover **job opportunities** not found anywhere else. Career Fair hours are noon to 5 p.m. Monday and 10 a.m.-5 p.m. Tuesday. For more information about the week's events, log on to <http://www.manufacturingweek.com>.
Source: www.controlmagazine.com

ISA News:

Terrence (Terry) G. Ives was elected to the position of District Vice President. His term will begin from January 2002. The President's Summer Meeting (PSM) will take place at the ISA headquarters, Research Triangle Park, N.C from 8th June 2002 (Saturday) to 12th June 2002 (Wednesday). It is being

considered by to have the District Leadership Conference (DLC) alongwith the PSM from 7th June 2002 to 8th June 2002.

Mark Your Calendar:

Tuesday, April 30, 2002

Change of Venue

Applied Control Engineering

Time: 5:30 p.m.

This is an event NOT to miss. Featuring our section's interpretation of a famous Louisiana Shrimp Boil recipe under the direction of our own Dan Roarty. Contact Dan Roarty via Email or by phone: (610) 363-5450 or (610) 363-0167 for more information, including how to become a 'Friend' or 'Buddy' of the shrimp. Help yourself to our recipe and give it a try.

Directions to ACE

From Wilmington,

Philadelphia, and points north:

Take I-95 South from Wilmington, DE. Take Exit 4B (Stanton/Metroform), Route 58 West. Go approximately 1/2 mile; turn right onto Route 7 North. Follow Route 7 approximately 4.5 miles to the Pike Creek area. At a light at the top of a long hill, you will see Goldey Beacom College ahead on your right and the Pike Creek Shopping Center ahead on the left. Turn left onto New Linden Hill Road. Pass one light; at the second light turn left into Linden Park. ACE is on the ground floor, Suite 140.

From Route 1 in Pennsylvania:

Exit Route 1 at the Avondale-Route 41 exit. Proceed south on Route 1 for about 5 miles. Exit right onto Route 7 south. Proceed approximately 4.5 miles. After passing Goldey Beacom College on your left, turn right onto New Linden Hill Road. Pass one light;

at the second light turn left into Linden Park. ACE is on the ground floor, Suite 140.

From Baltimore and points south:

Take I-95 North from Newark, DE. Take Exit 4B (Stanton/Metroform) for Route 7 North. Follow Route 7 approximately 4.5 miles to Pike Creek area. At a light at the top of a long hill, you will see Goldey Beacom College ahead on your right and the Pike Creek Shopping Center ahead on the left. Turn left onto New Linden Hill Road. Pass one light; at the second light turn left into Linden Park. ACE is on the ground floor, Suite 140.

www.ace-net.com

Call for Sponsors!!

The Shrimp Are Running Scared!

Can it be? Is it time once again to gather around the 80 quart pot and cook up pounds of shrimp? YOU BET IT IS! Mark your calendars for April 30th when the 10th annual Wilmington ISA Shrimp Boil kicks off. Once again the call is going out to our local vendors to help sponsor this event. We have two levels of sponsorship:

Friends of the Shrimp: \$125.00

This provides recognition in two issues of the SENSOR as well as at the Boil itself. It also entitles the sponsor to set up a table top at the Boil to display your company's products.

Boil Buddy: \$50 This level of sponsorship provides recognition in two issues of the SENSOR as well as at the Boil festival.

Without the sponsors this yearly event would not take place. Please consider being a sponsor for this year's biggest Wilmington ISA social event. Please indicate your interest by sending an e-mail to Dan Roarty at droarty@tycoint.com.

FUTUREEVENTs

April 9, 2002
Executive Committee Meeting
Applied Control Engineering
4550, New Linden Hill Road
Wilmington, DE
Time: 5:30PM

April 30, 2002
Shrimp Boil
Applied Control Engineering
4550, New Linden Hill Road
Wilmington, DE
Time: 5:30PM

Early Notice:

Wilmington Section of ISA is planning an Instrumentation Exhibit and several training seminars on Nov. 14, 2002. If any members have suggestion of interesting topics for the seminars please forward your ideas to Mwegter@rodel.com. Vendors who have had booths at previous exhibits will be contacted with details soon and any new vendor wishing to reserve a table can contact the above e-mail address or Call Janet Cunningham at Barr Enterprise 301-668-6001.

New Directory:

The new WISA directory was mailed to members in mid-February. I would like to thank everyone who worked on the directory to make it up-to-date as possible. Upon receiving your directory, please take a minute to review your information. If corrections are needed, please login at www.isa.org and revise your membership information.
-- Vince Brady

Thanks!!!

The Wilmington section would like to thank Bill Franey for his donation of \$25 to the section.

Email Distribution

EMAIL Change

The Wilmington section will now use the ISA List Server system to manage WISA email to the members. The Section will use this list to broadcast announcements of Wilmington Section activities and information. The present scheme using personal email address lists is neither convenient nor efficient. Use of a List Server allows every user to control their section emails. The user controls the address entry, or non entry. You can add yourself to the list or delete yourself, at any time. You will need to keep the address up to date to continue to receive emails. The simplest way to set up your email address in the system is to log on to the ISA web <www.isa.org>, select Sections, Wilmington. Click on the URL at the top of the page which has ~Wilmdel in the name. Then at the bottom of the next page there is a link to <ISA Email>. Click on that. This takes you to a selection page where you will pick <delaware-iowa>, select <wilmington> from the bottom of that list. This will get you to the WISA input form. Enter your email address as indicated. If you have any questions please email CullenL@aol.com or Kong.v.nguyen@usa.dupont.com

Scholarship Applications:

Applications are now being accepted for the **Ralph L. Moore Scholarship**. Any senior high school student who is attending a trade school or college/university is eligible. A member of the Wilmington ISA Section must sponsor the applicant. For more details, contact Dan Roarty, Scholarship Chairperson at: droarty@tycoint.com or 302-292-8866.