

Setting the Standard for Automation

In this Issue

- 1 Presidents Message
Executive Committee
- 2 Seneca College Automation Lab
Message to Employers
New & CCST Members
- 3 Loop Tuning 1 Course Description
- 4 September 28 Dinner Meeting

Upcoming Events

- *ISA EXPO 2006, 17-19 October Houston, TX*
- *LOOP TUNING 1 Training Course, 23-24 October Toronto ON*
- *WBF 2006 European Conference, 13-15 November Belgium*

FALL 2006

Website: www.isatoronto.org Email: office@isatoronto.org L.Salemi

Presidents Message

The new ISA activity year for the section is about to start and here's hoping that we can have a progressive year where we can accomplish some of the goals that we have set for the section during our summer workshop.

Coming out of this full day planning session, the committee members, who volunteered one of their Saturday weekends, identified a few things that we want to do, some of which have already been put in motion.

As a reminder to members of the Instrumentation and Automation profession ISA's raison d'etre is to provide services and resources to its members. Most of these resources are available on the ISA web site and are free to members. As further benefits to members, there are also a host of training courses and material available to help attain the highest levels of their profession.

The Toronto section provide some of these services through monthly member/dinner meetings where informative and educational topics are presented by experts and professionals in their respective fields. Members and guests are invited to attend and learn the latest in technologies.

We also welcome suggestions for topics for these presentations and encourage fellow members to assist ISA in continuing to be the premier organization serving the Automation profession.

The online membership surveys were a valuable tool in determining membership needs, namely — the annual show, programs (a.k.a. dinner meetings) and training courses. Many thanks to

those that took the time to complete these surveys and in appreciation of this effort David Merritt was selected from the list of respondents and has won a free 1 year membership renewal.

Our first dinner meeting (see pg. 4), typically held on the fourth Thursday of each month, will be on September 28th at LeBift-heque Steakhouse in Etobicoke. Please come out and meet the executive, network with fellow members, get educated and best of all enjoy a steak dinner for only \$10.

We encourage your participation.

Best regards
Reynold Ramdial
ISA Toronto Section President

2006-2007 Executive Committee

Section Officers

President—Reynold Ramdial
President Elect—Glen Doole
Vice President—Currie Gardner
Treasurer—Doug Norton
Secretary—Henry Rasanen
Rules Advisor—Leo Salemi
Delegate—Phil Salemi
Past President—Doug Norton

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Education—Gordon Chen
Programs—Glen Doole
Directory—Louise Jones
Exhibits—Louise Jones
Membership—Don Mahony
Standards—Doug Norton
Webmaster—Leo Salemi
Newsletter Editor—Leo Salemi
Historian—Stan Weiss
Honors&Awards—Hank Rasanen
Student Liaison—Len Klochek

Seneca College Automation Lab

The ISA Toronto Section wishes to thank Seneca College for allowing us to use their facilities to run the Loop Tuning 1 course. Their lab is a well equipped with the latest Process Control and Instrumentation equipment some of which includes the following hardware and software:

- Lab Volt 6090 Instrumentation and Process Control training modules using LVProsim data acquisition and control software. This equipment includes pressure, level, flow, and temperature sensors as well as process equipment allowing experiments in instrumentation calibration, PID, cascade, and feedforward control.
- Level and batch process demonstration equipment as well as thermal chambers with temperature and DP sensors.
- Various PLC & PC platforms (Allen Bradley, Schneider, Omron, Rockwell) networked using Ethernet, DH485, DeviceNet, Modbus+ and more, all connected to control applications with AC/DC drives, servo and pneumatic robots, vision systems, National Instruments data acquisition cards and much, much more.
- Application and simulation software such as LabView, Rockwell RSLogix, Schneider IEC1131-3, Microsoft Visual Studio

Seneca's lab experience develops students with skills that enable them to enter the instrumentation, process control, and the discrete parts manufacturing industries. Their diploma program has been accredited by the Ontario Association of Certified Engineering Technicians and Technologists.

Message to Employers: Certify your technicians



You know certified technicians give you an edge when submitting bids and preparing documentation for regulatory agencies. Having a certification program also gives you criteria to use in hiring and promoting employees. That's why hundreds of employers have adopted ISA's Certified Control Systems Technician® (CCST®) Program.

The CCST Program recognizes and documents your technicians' knowledge and experience in instrumentation, measurement and control. Designed to enhance their professional development, the CCST program provides a third party endorsement of your technicians' accomplishments by ISA.

Visit <http://ccst.isa.org> for more information. Or contact CASTLE™ Worldwide and ask for the ISA CCST Representative at info@castlelearning.com or your local ISA section at office@isatoronto.org



Access a huge searchable database of information – CIEN articles going back several years. Look up industry stats, people, companies, products and more. When you need information fast, find it here www.cienmagazine.com

The Toronto Section is pleased to welcome the following new members who joined the ISA during the summer months.

- | | |
|----------------|----------------|
| Luis Barrios | John Clark |
| Brain Keane | Robert Killick |
| Chuck Kolking | Alfred Nehme |
| Peter Satur | Peter Sun |
| Barry Westhead | |

Join or renew your membership online at www.isatoronto.org

Stand out above the crowd

Join the growing list of the CCST certified professionals and be recognized.

- | | |
|----------|------------|
| Thackoor | Balliram |
| Clement | Belanger |
| Michael | Berry |
| Steve | Durston |
| William | Durston |
| Anil | Gosine |
| Dave | Kerr |
| Conrado | Manuel |
| Brian | McAllister |
| Arif | Memon |
| Carlos | Morais |
| Jon | Nyman |
| James | Passmore |
| Greg | Pierce |
| Ihor | Skotar |
| Paul | Watkins |
| Allan | Young |



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Toronto
Sectionand
Seneca presents
College

LOOP TUNING 1 Training Course

The majority of the tuning rules taught in schools are either highly mathematical models or based on generalized methods such as Quarter-Amplitude decay.

These types of tuning methods will often increase rather than decrease process variability. This increase in variability is certain to have a negative impact on process efficiency and product quality.

Most Instrumentation/Electrical Technicians, when faced with a "real world" tuning situation will have either forgotten the methods or have lost confidence in them, leaving them with the only "proven" technique of "trial-and-error".

- Sylvain Millette P.Eng

Overview:

Loop Tuning I is a course designed to take out the *art* of tuning process control loops and turn it into a *science*. In this age of increasing global competition, manufacturing efficiency and product quality should not be left to "trial-and-error".

This is a two-day course and presented in a fashion which underlines the practical aspects of the process control loop. It uses plain language and provides numerous examples illustrating technical points.

The *Practical Aspects* boxes that appear in the manual provided, give the student, regardless of his or her level of understanding, applicable information that can readily be used "in the field".

The realistic simulation used in this course illustrates the control engineering principles during lab exercises. These labs allow the students to experiment in "real time" with concepts taught in the classroom. It has often been said that it was "in the lab when things came together".

The course will be taught at Seneca College's Automation Lab and will utilize state-of-the-art real time process simulators as well as computer based simulation and applications.

Class sizes will be limited to a maximum of 12 people to ensure students receives the full benefits of an interactive learning experience.

Students who complete this course will be able to:

- Measure First Order and Integrating Process Dynamics
- Diagnostic Control Related Valve Problems such as Valve Stiction and Backlash
- Tune Control Loops Using Modern Methods For Both Self-Regulating Processes (i.e. flows and pressures) and Integrating processes (i.e. levels)
- Apply Tuning Rules For Cascaded and Interacting Control Loops

Topics:

- Measuring First Order and Integrating Process Dynamics
- Effects of Valve Non-Linearity's on Control Performance
- Understanding the Three Actions of the PID Controller
- Effects of Signal Damping on Control Performance
- Modern Tuning Methods for Self-Regulating and Integrating Processes

PREREQUISITES: General technical background and ISA membership required to qualify for discounted rates.

COURSE LOCATION: Seneca College Process Automation Lab (Room 1028 Building B)

INSTRUCTOR: **Sylvain Millette** is President of Millette Control Engineering Inc. He holds a B. Eng. from McGill University and has been in the field of process control for almost ten years.

Throughout his career, Mr. Millette has implemented DCS control solutions, performed numerous process control audits and held over 100 training sessions for technicians, engineers and department managers on various aspects of process control. He has published numerous articles in trade magazines.

COURSE DATE: October 23 & 24 2006. (Limit of 12 students)

COST: \$350 ISA Member, \$450 List (add GST to all prices) Payable by check or company P.O. before Oct. 16.

For group rates or in-house training please contact us at:
office@isatoronto.org

Instrumentation as a Recognized Trade in Ontario: How will the changes affect you?

The Trade of Instrumentation is expanding throughout Ontario Industry's and the momentum is causing individual Technicians and Professionals to apply for and obtain their Trade License. Companies are recognizing the value of certified and credible technicians, as the Trade License is being used as a hiring requirement. With major Industry involvement, a revamped Instrumentation Apprenticeship is being delivered to prepare for Ontario's industry need for recognized Licensed Trades people. Process Control, Instrumentation, and Automation are areas that are all growing at incredible rates. Ontario is determined to actively participate and lead in this present and future growth.

Did you know that Instrumentation is an officially recognized Trade in Ontario? And did you know that the Ministry currently has a registered Inter-Provincial License Exam that when written and passed will give you a Trade Certificate of Qualification in Instrumentation that is recognized in Ontario and many other provinces?

However you may not know that the current system is under review and new guidelines are being drafted that will re-define the skill sets and experience required for practitioners of instrumentation working in the province of Ontario. This presentation will cover:

- the new apprenticeship program being developed for Ontario Colleges
- the role of the Provincial Trade Advisory Committee
- the Ministry's involvement and commitment
- the changes to the National Occupational Analysis
- the current license and testing requirements
- differences between ISA certification and provincial standards
- opportunities for ISA involvement

This presentation was given at the District 13 Leadership Conference in Toronto last May and because of the volume of questions it generated a Q&A will be scheduled after the presentation as well as the regular questions that come up during the talk.

If you have specific questions you would like addressed at the Q&A please email them to office@isatoronto.org

Speaker: Mr. Berny Portolesi Jr. CCST

Berny works for the City of Hamilton, in their Water & Waste Water Treatment Division. He possesses dual trade certification in the Province of Ontario, as he is a licensed Industrial Instrumentation Mechanic #447A and Electrician #309D. He is currently the Education Chairperson for the ISA Hamilton Section as well as District 13. His interest in standards and credentialing have led him to become involved with the ISA certification program.

In May 2002, he received the ISA Level 1 Certified Control Systems Technician (CCST) Certificate, after completing their requirements and successfully writing the exam. Berny has been promoting the Ontario Instrumentation Trade Certification #447A to industry within Ontario and has recently accepted the Chair position for the Provincial Trade Advisory Committee for Instrumentation here in Ontario. He is assisting the Ministry of Training, Colleges, & Universities, along with Ontario Technical Colleges, with the development of the new Provincial Instrumentation Apprenticeship Training Program for Ontario. Mr. Portolesi is also a graduate of the Mohawk College Industrial Instrumentation Program.

Location: Le Biftheque Steak House in Etobicoke, 25 Carlson Court, (416)798-4333

Dinner: 5:30 - 6:30 PM (\$10 members - \$20 non-members - \$5 Students)

Presentation: 7 PM (no charge for attending presentation only)

RSVP to : office@isatoronto.org