AIChE Baton Rouge Spring / 2019 Seminar

Advanced Process Control & Real-Time Optimization Seminar + Engineering Ethics May 31st, 2019

MORNING SESSION: Advanced Process Control (APC)

Topic Description

This presentation will provide an overview of the latest Advanced Process Control (APC) techniques and methodologies including a step-by-step implementation approach. Advanced Process Control (APC) is a general term that covers a broad range of techniques and control methodologies, including: Advanced Regulatory Control (ARC), advanced control techniques, (feedforward, decoupling, and inferential control), Multivariable Model Predictive Control (MPC) with optimization algorithms to control multiple variables simultaneously, and other methodologies are discussed. Basic questions and concerns will be addressed including when APC is worthwhile, implementation strategies with complex systems, and various methodologies are presented. The subject of Multi-Variable Process Control (MVP) and MPC will be discussed. MPC is a multivariable strategy implemented to reduce variation in process variables in industrial applications, which in turn leads to an increased throughput and higher profit. A structured approach to complex problems is discussed.

Actual APC and MVP examples will be provided for enhanced understanding and implementation.

AFTERNOON SESSION: Real-Time Optimization (RTO) / Engineering Ethics

Topic Description

This presentation will provide an overview of Real-Time Optimization (RTO). RTO provides process optimization with the intergration of process measurements with simulation. RTO incorporates actual process data into simulation for the adjustment of a set of process variables for finding the best values for optimization. RTO can also be used to complement and further enhance APC control systems. The presentation will include a discussion of building, preparing and validating Equation Oriented (EO) simulation models for use in RTO applications. RTO development is described in terms of: Simulation, Parameterization, Optimization, and Reconciliation. A brief discription of the Real-Time server and setup for linking tags to the simulation will be provided. The

presentation concludes with a discussion of how RTO can improve plant performance, minimize operating costs, and increase profitability.

The benefits of RTO will demonstrated with actual examples already implemented.

Engineering Ethics

This presentation will cover the latest on Engineering Ethics.

Advanced Process Control & Real-Time Optimization Seminar + Engineering Ethics

Friday, May 31, 2019 8:00AM – 5:00PM

Location: Crowne Plaza Executive Center

4728 Constitution Ave, Baton Rouge, Louisiana 70808, (225) 930-0114

Earn 8 PDH's! Enrollment is Limited! Sign-Up Early!

REGISTRATION FORM

NEW! Register online at <u>www.aiche-br.org</u> and pay by credit card using PayPal, or mail this completed form with payment to the address below.

NAME:				
MAILING ADDRESS:				
CITY:	ST	ATE:	ZIP:	
COMPANY:				
EMAIL:		PHONE:		
TECHNICAL/PROFES	SSIONAL SOCIETY ME	EMBERSHIP*	(must indicate)	
		n-Tech/Prof S	ty Members* prior to 26-May-19 ociety Members prior to 26-May-19 -19	
(Please include check if that	at is your payment option) dit cards on event day	P.O. Bato Email: arma	and Melikyan (Seminar Coordinator Box 84787 n Rouge, LA 70884 and_melikyan@hotmail.com 5) 773-0468	

*The AIChE supports membership in Professional and Technical Societies (see list below) Refund Policy: Advance registration is 100% refundable with notice at least 12 days prior to the date of the seminar. Notice received between 22-May-2019 and 30-May-2019 is 50% refundable. No refunds on day of the seminar.

<u>Cancellation</u>: AIChE reserves the right to cancel this seminar if low attendance is projected. A full refund will be sent in this event.

EVENT: Advanced Process Control & Real-Time Optimization Seminar (7 PDHs) + Engineering Ethics (1 PDH)

DATE: May 31st, 2019

PROPOSED AGENDA:

7:30 A - 8:00 A Breakfast

8:00 A -11:30 A Advanced Process Control (APC)

11:30 A – 12:30 P Lunch (provided by AIChE)

12:30 P – 4:00 P Real-Time Optimization (RTO)

4:00 P - 5:00 P Engineering Ethics

Presenters:

August Tassin CAP – Reliability and Process Controls Consultant
John H. Carter Company, Inc.; 14141 Airline Hwy. Building 3, Suite N| Baton Rouge La 70817|
U.S.A; Office (225) 755-1706 | Mobile (225) 916-9569; August.Tassin@johnhcarter.com |
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August Tassin – Reliability and Control Systems Consultant at John H. Carter Co. With over 20 years of service in chemicals and oil and gas industries, August has held multiple automation maintenance, design, implementation, and system migration roles. Recently moving from end user to a consulting role, August provides the practical operations and business context to Automation and Reliability decisions.

Nkoyo Essien – Senior Technical Consultant /Engineer

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Nkoyo Essien – Senior Technical Consultant /Engineer at Aspentech for over 5 years. Nkoyo is responsible for: Gathering customer requirements and translating those into high-level solution designs for aspenONE Engineering products (Aspen Plus; Aspen HYSYS); providing consultation in building, updating, troubleshooting, running, and interpreting process plant models; Nkoyo has been a Project contributor on various RTO projects including building, preparing and validating EO models for use in RTO applications.

TBD - To Be Determined

(The Presenter on Engineering Ethics is forthcoming)

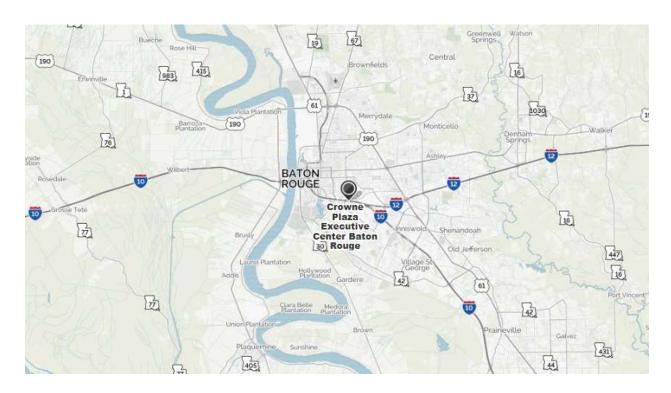
The morning session will cover fundamentals and latest technologies on Advanced Process Control and Multi-Variable Process Control with actual examples. The afternoon session will cover the latest on Real-Time Optimization including practical applications. The seminar concludes with a presentation on Engineering Ethics (1 PDH).

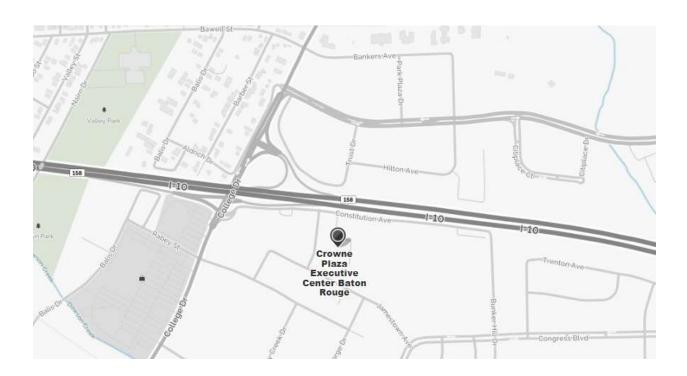
Note: Some topics may change without prior notice.

Notice: Full day registration only. Registration fees will not be reduced for half day attendance. Attendance signatures will be required at the beginning of each presentation. PDH (Professional Development Hour) certificates will be issued based upon attendance list signatures, with Hours reflecting actual attendance. Fees will not be reduced or partially refunded for partial attendance.

^{***}Morning and Afternoon Sessions each to include two or three 10 min. breaks (not shown) ***

(Maps to the Crowne Plaza 4728 Constitution Ave, Baton Rouge, Louisiana 70808)





Local Professional Societies

- Louisiana Engineering Society (LES)
- Louisiana Society of Professional Surveyors (LSPS)

National Technical Societies

- America Academy of Environmental Engineers (AAEE)
- American Institute of Architects (AIA)
- American Institute of Chemical Engineers (AICHE)
- American Institute of Electrical Engineers (AIEE)
- American Consulting Engineers Council (ACEC)
- American Concrete Institute (ACI)
- American Institute of Steel Construction (AISC)
- American Management Association
- American Iron and Steel Institute
- American Society of Mechanical Engineers (ASME)
- American Plywood Association (APA)
- American Society of Civil Engineers (ASCE)
- American Society of Engineering Education (ASEE)
- American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE)
- American Society of Safety Engineers (ASSE)
- American Wood Council (AWC)
- Earthquake Engineering Research Institute (EERI)
- Institute of Transportation Engineers
- Institute of Electrical and Electronics Engineers (IEEE)
- Instrumentation Systems and Automation Society (ISA)
- National Council of Examiners for Engineering and Surveying
- National Design Specification (NDS)
- National Society of Architectural Engineers
- National Society of Professional Engineers (NSPE)
- Society of Petroleum Engineers (SPE)
- Society of Petroleum Evaluation Engineers (SPEE)
- Society of Professional Well Log Analysts (SPWLA)
- Society of Women Engineers (SWE)
- Air & Waste Management Association (A&WMA)