

## **Baton Rouge Newsletter**

Year 29, Number 6

www.aiche-br.org

March 10, 2019

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The AIChE Baton Rouge Newsletter is published monthly, from September to June, by the AIChE Baton Rouge Section, 110 Chemical Engineering, LSU, Baton Rouge, LA 70803. It is distributed free of charge to members of the Baton Rouge Section of the American Institute of Chemical Engineers.

Membership Fee: \$15.00/yr.

## Joint March Meeting with New Orleans Section

Date: Thursday, March 21, 2019

**Place:** Louisiana Sugar Refining, 1230 South 5<sup>th</sup> Avenue, Gramercy, LA

**Topic:** Tour of Louisiana Sugar Refining

**Agenda:** 6:00 – Check in

6:30 – Tour

Followed by dinner at Nobile's Restaurant, 2082 W. Main Street, Lutcher

(see map on page )

**Menu:** American cuisine.

Cost: \$20 per person (\$15 AIChE member, \$10 students)

#### **RESERVATIONS**

Make your reservation on-line by 5:00 PM on Wednesday, March 20<sup>th</sup> at https://www.aiche-br.org

Pay in advance by Pay Pal or credit card or choose to pay by cash or check at the door.

#### **Professional Engineering Certification**

The subject of this meeting is an acceptable activity for continuing Professional Development as defined by LAPELS and is **approved for one (1) PDH unit.** 

The Baton Rouge AIChE chapter is NOT responsible for individual record keeping of PDH credits. Certificates must be obtained at the meeting by the individual.

## Other Upcoming 2019 Events / Speakers

May 31<sup>st</sup> Advanced Process Control, Real-Time Optimization and Ethics Seminar, Crowne Plaza, 8 PDHs.

If you or your colleague(s) would like to give a technical presentation at an upcoming chapter meeting for 2 professional development hours (), please contact Chapter Chair, Vishal Vora, at <a href="https://www.vvvora@gmail.com"><u>VVVora@gmail.com</u></a> to schedule a meeting date and time.

## Help Needed at AIChE Spring Meeting in New Orleans

The Baton Rouge Section will be manning a booth to help publicize and attract new members into our section at the AIChE Spring Conference in New Orleans Sunday March 31st from 12-7:30pm and Monday April 1st 7am-5:30pm. If you work the booth, you will not be required to purchase registration during that time frame to work the booth. Please let Donna Bryant at Donna.Bryant@Syngenta.com know if you are interested in participating and what days/time you are interested in.

### From the Editor's Pen



It has been a long time since I've been able to write the letter for the newsletter. I thank our Chair Vishal for giving me the opportunity to do this again. Unfortunately, I have been not able to attend the last few monthly meetings due to my wife's bout with pneumonia that have limited my ability to bring her to the meetings. She is now recovering, and I hope I'll be able to resume attending the meetings soon.

I was saddened to read in AIChE Progress of the passing of my good friend John MacKetta this past January at the age of 103. He served the University of Texas at Austin for over 60 years and was a leader of National AIChE serving the Institute as President and in many other endeavors. I am certain many of you learned material and energy balances from his very popular textbook which was used by many schools for many years.

The May seminar on Advanced Process Control and Real-Time Optimization promises to be most informative. I hope many of you are planning to attend. We are grateful to Armand Melikyan for putting it together. Some of you may recall that before my current run of teaching the plant design course (26 years) my specialty and passion was process automation.

After a relatively mild winter it looks like spring is right around the corner. Enjoy it.

Armando Corripio, Newsletter Editor

Man is the artificer of his own happiness.

--Henry David Thoreau

### **2019 Section Contacts**

#### **Officers**

Chair: Vishal Vora, <a href="https://www.vvvora@Gmail.com">VVVora@Gmail.com</a>

Vice Chair: Chelsea Bourdon, CBourdon@Hargrove-EPC.com

Secretary: Erick Flores, <u>EFlores@hargrove-epc.com</u>
Treasurer: Jimmy Orr, <u>Jimmy.Orr@Jacobs.com</u>

#### **Executive Committee Members**

Randy Goodman

Randy.Goodman@LA.gov

Noel Ricord

Glenn Bryson

Donna Bryant

W. Clark Snyder

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LCNoel55@aol.com

BGBryson@BellSouth.net

Donna.Bryant@Syngenta.com

WClarkSnyder@hotmail.com

#### Committees

Awards: Dal Dalferes, Joseph.Dalferes@jacobs.com
Communications: Brandon Lithgoe, BLithgoe@Yahoo.com
Education: Erick Flores, EFlores@hargrove-epc.com
High School Grants: W. Clark Snyder, WClarkSnyder@hotmail.com
Membership: Glenn Bryson, BGBryson@BellSouth.net
Newsletter: Armando Corripio, Corripio@LSU.edu
Nominations: Noel Ricord, LCNoel55@aol.com

**Professional Development:** Randy Goodman

Seminars: Armand Melikyan, <u>Armand Melikyan@hotmail.com</u>
Sponsorship: Stephen Reilly, <u>Stephen.Reilly@emerson.com</u>
Young Professionals: Erick Flores@hargrove-epc.com

# Why Should You Join the Local AIChE Chapter?

- 1. It is a welcoming presence to new chemical engineers in the area.
- 2. It provides a neutral ground mentorship toward career directions and other life topics.
- 3. It facilities a better understanding of local, state, and federal policies related to our professions.
- 4. It offers a smooth transition for graduating chemical engineers from LSU, ULL, and other nearby universities who start working in the area.



## **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:	STA	TE:	ZIP:	
COMPANY:			_	
EMAIL:		PHONE:		
TECHNICAL/PROFES	SSIONAL SOCIETY MEI	MBERSHIP*:_	must indicate)	
COST: (Please check appropriate box)	<ul> <li>\$85/person for Tech/Prof Society Members* prior to 26-May-19</li> <li>\$95/person for non-Tech/Prof Society Members prior to 26-May-19</li> <li>\$110/person for all after 26-May-19</li> </ul>			
			d Melikyan (Seminar Coordinator) ox 84787	
(Please include check if that is your payment option) Check or cash only, no credit cards on event day Walk-ins welcome space permitting.		Baton Rouge, LA 70884		
		Phone: (225)	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 |
www.johnhcarter.com

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

AspenTech, Ltd.; <u>2500 CityWest Blvd. Suite 1600</u> | <u>Houston, Texas 77042</u> | U.S.A | Main (888) 996-7100 | Office (281) 504-3194

nkoyo.essien@aspectech.com

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)

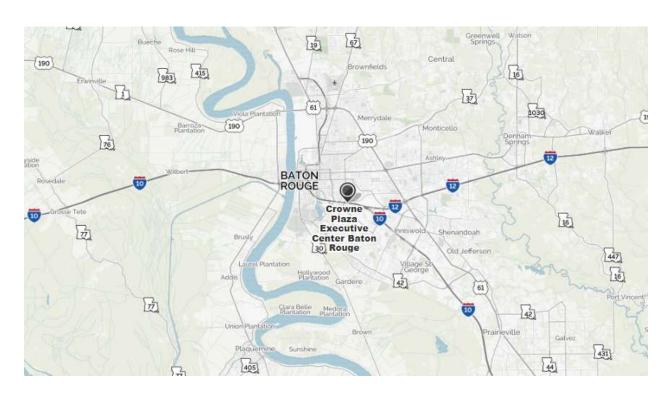
The morning session will cover fundamentals and latest technologies on Advanced Process Control and Multi-Variable Process Control with actual examples. The afternoon session will cover the latest on Real-Time Optimization including practical applications. The seminar concludes with a presentation on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

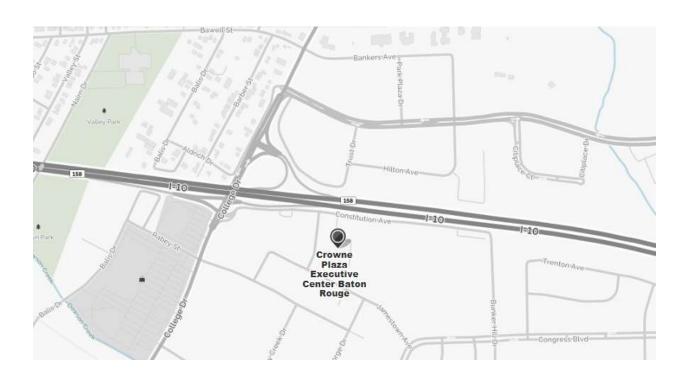
Note: Some topics may change without prior notice.

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.

<sup>\*\*\*</sup>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)