# AIChE Baton Rouge Fall / 2017 Seminar

# SCADA/DCS/PLCs & Separation Technology Seminar + Engineering Ethics

This presentation will compare and contrast the DCS vs PLC/SCADA platforms as they relate to operational business objectives and employees' work life balance.

#### SCADA=Supervisory Control And Data Acquisition

SCADA is a category of software application program for process control, the gathering of data in real time from remote locations in order to control equipment and conditions.

-Latest SCADA Technologies: Allen-Bradley; Honeywell; Matrikon; WinCC.

#### **DCS=Distributed Control System**

-General Architecture Diagram; Description of the Elements; Programming & Tuning Control Loops: Main Programming Formats: Function Block, Structured Text, Ladder, Sequential. -Latest DCS Technologies

#### PLCs=Programmable Logic Controllers

General architecture Diagram; Description of the elements; Programming & Tuning Control Loops: Main Programming Formats: Function Block, Structured Text, Ladder, Sequential. -Latest PLC Technologies

#### Interfacing

Discussion of control system architectures, computers, and interfaces, networked data communications and graphical user interfaces for high-level process supervisory management.

#### The Future of Process Automation:

DCS vs PLCs

The network infrastructure of the DCS and the network architecture for plant information are becoming increasingly intertwined.

Today with open technologies, DCS systems are competitively priced with PLCs.

#### **Gas/Liquid/Liquid Separations Technology**

- Define and Discuss Physical Separation Fundamentals
- Detail Design Philosophy of Separation (Do's & Don'ts)
- Gas/Liquid, Liquid/Liquid, and Gas/Liquid/Liquid Separation Applications and Services: Inlet Separators, KO Drums, 3-Phase Separators, Compressor Suction Scrubbers, Glycol dehydration Towers, etc.
- Separator Analysis Steps & tools (Design Philosophy, CFD Analysis, Simators)
- No-Weld Designs, Retrofit, and Revamp Solutions (Case Study)

#### **Latest Physical Separation Technologies and Products:**

- Gas/Liquid Separation
  - Wire Mesh and Vane Mist Eliminators.
  - Demisting Cyclones (Maxswirl™ Cyclone)
- Liquid/Liquid Separation (Coalescing)
  - Wire Mesh Coalescers
  - Corrugated Plate Colaescers
  - o Parallel Plate Coalescer

#### **Latest Chemical Separation Technologies and Products:**

- Mass Transfer Technology Fundamentals (Stages, Theoretical Plates, HETP, Flood %, Foaming or Froth, etc.)
- Conventional and High-Performance Trays (Float & Fix Valves, Sieve trays, High Performance SEMV™ Trays)
- Structured Packing and Random Towers (similarities and differences)
- Feed Inlet Devices; Liquid Distributors; Hold Downs and Packing Supports, etc.

# SCADA/DCS/PLCs & Separation Technology Seminar + Engineering Ethics

Friday, Nov 10, 2017 8:00AM – 4:30PM

Location: Oak Lodge Reception & Conference Center

2834 S. Sherwood Forest Blvd. Suite E-1 Baton Rouge, Louisiana 70816, (225) 291-6257

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

### **REGISTRATION FORM**

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

NAME:		_
MAILING ADDRESS:		
CITY:	STATE: _	ZIP:
COMPANY:		
EMAIL:		PHONE:
TECHNICAL/PROFES	SIONAL SOCIETY MEMBER	RSHIP*: (must indicate)
COST: (Please check appropriate box)	·	f Society Members* prior to 05-Nov-17 /Prof Society Members prior to 05-Nov-17 05-Nov-17
MAIL COMPLETED REGISTRATION FORM TO: (Please include check if that is your payment option) Check or cash only, no credit cards on event day Walk-ins welcome space permitting.		Jimmy Orr (Treasurer) 1729 Roseneath Dr. Baton Rouge, LA 70806 Email: <u>jimmy.orr@Jacobs.com</u> Phone: (225) 540-5154

\*The AIChE supports membership in Professional and Technical Societies (see list below)

<u>Refund Policy</u>: Advance registration is 100% refundable with notice at least 12 days prior to the date of the seminar. Notice received between 01-Nov-2017 and 09- Nov-2017 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: SCADA/DCS/PLCs & Separation Technology Seminar (7 PDHs)**;

+ Engineering Ethics (1 PDH)

**DATE:** Nov 10th, 2017

**PROPOSED AGENDA:** 

7:30 A - 8:00 A Breakfast

8:00 A - 11:30 P

11:30 P -12:00 P Lunch (provided by AIChE)

12:00 P - 4:30 P

#### 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.

Babak Rafienia – Applications Process Engineer

AMACS - Process Tower Internals; 14211 Industry St, Houston, TX 77053 USA; Direct: 713-332-0388 | Fax: 713-433-6201; BRafienia@amacs.com | www.amacs.com

Babak Rafienia – Applications Process Engineer and responsible for separation and fractionation design/technology at AMACS-Process Tower Internals for over past 3 years. He has received his B.Sc. and M.Sc. in chemical engineering focusing on gas-liquid and liquid-liquid separation optimization and is acknowledged as "Individual with Exceptional Ability" in separation technology by United States DHS. Prior to joining AMACS, Babak spent 4 years in oil and gas industry holding positions as Process Engineer, Manufacturing Field Engineer, and Researcher. His focus is to provide solutions in new internal designs, retrofit solutions, and designing of internals for revamp projects for different sectors of the oil & gas industry.

Richard Savoie. P.E. – LAPELS Deputy Executive Director

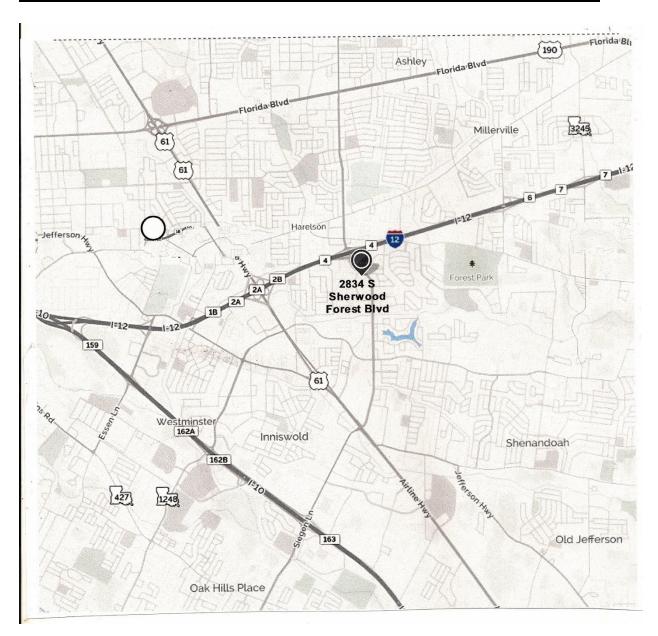
Richard Savoie – Deputy Executive Director for the Louisiana Professional Engineers and Land Surveyor's Board (LAPELS). He has served in the position since April 2015. He also served one term as a Board Member from 2007 to 2013.

The presentation will cover fundamentals and latest on SCADA/DCS/PLC Control Systems including an overview of the various architectures and interfacing (Foundation FieldBus; MODBUS; TCP/IP). Smart (HART) communication and loop tuning. The presentation will also cover fundamentals on Separation technologies and latest design alternatives for demisters, coalescing elements, tower internals, etc. 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) \*\*\*

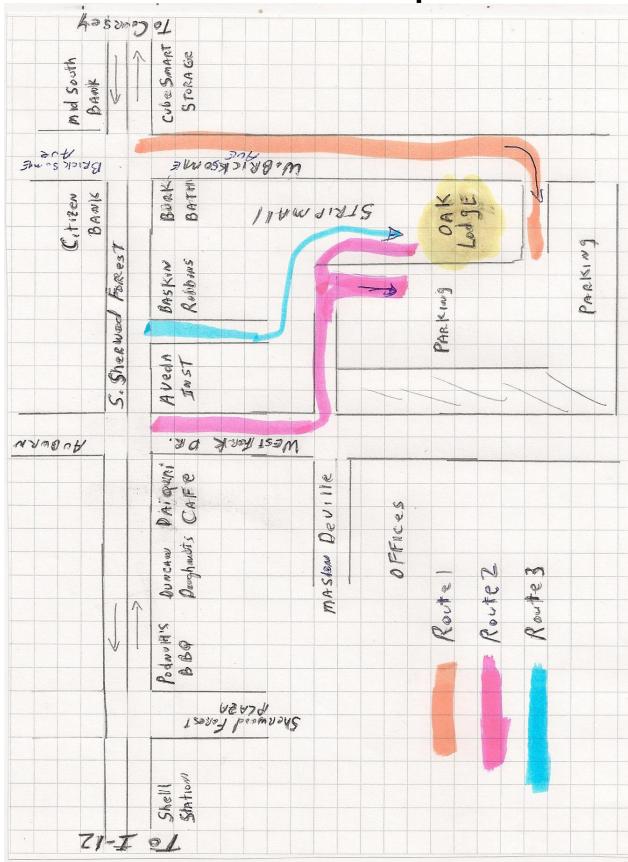
## (Map to Oak Lodge (2834 S.Sherwood Forest Blvd. Baton Rouge, LA 70816)



"Oak Lodge" is a little bit hard to find

Please Reference the next Map to Find "Oak Lodge" in the Local Area

**Local Area Map** 



- 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)