



Baton Rouge Newsletter

Year 30, Number 3

www.aiche-br.org

November 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.

November Dinner Meeting –Officer Nominations

Date: Thursday, November 21, 2019

Place: King's Buffet, 6230 Bluebonnet Boulevard, at Interstate 10

Topic: *AIChE Beer Brewing Competition*

Speaker: **Bad News Beers**

Agenda: **5:30** – Registration and social
6:00 – Dinner and speakers

Menu: Chinese buffet, Sushi, soft drinks

Cost: Members: \$15 (Non-members: \$20, Students: \$10).

RESERVATIONS

Make your reservation
by 5:30 PM on Wednesday, November 20th
at EFlores@Hargrove-epc.com
Reservations are not required. Bring s friend.

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

Nov 15th Process Technologies, Equipment Sizing and Specification, P&ID Creation and Engineering Ethics Seminar, Oak Lodge Conference Center, 8 PDHs.

*If you or a colleague(s) would like to give a technical presentation at an upcoming chapter meeting for 2 professional development hours (PDHs), please contact Chapter Vice-Chair, **Chelsea Bourdon**, at CBourdon@Hargrove-epc.com to schedule a meeting date and time.*

From the Vice-Chair's Pen

We've had a great past few weeks with a presentation on "Giants on the River", giving out high school grant awards, and volunteering with Super Science Saturday. A big shout out to those who led those efforts and made everything possible: Randy Peterson, of course, for his awesome and interactive presentation; Clark Snyder, for his organization of high school grant funding program; and Erick Flores for his continued involvement in Super Science Saturday. Although we are starting to wind down, we still have a few events that are a transition from a focus on the continued education of the youth to our own chapter's growth and development.

At the November meeting, we will be electing next year's officers as well as have the Bad News Beers present on their experience competing at the AIChE Local Section Beer Brewing Competition. Please review the candidates in this newsletter to get familiar with potential officers and if you or anyone you know is interested in filling a position, nominations will still be taken on the floor at the November meeting. We also have the Fall Seminar on November 15th, which is a great way to continue our individual development.

I look forward to seeing everyone at the November meeting!

Chelsea Bourdon, Vice-Chair

High School Chemistry Grants



Central Baptist School: Clark Snyder with teacher Esther Rogillio and student Taylor Martin; Springfield HS, student Layla Geissler and teacher Yvette Hill; Brightside school, teacher Kimberly Parsiola and student Colby Pickett.



East Ascension HS: Erik Flores and teacher Marki Landry; Southland Christian Academy: students Daniel Schaffer and Brayden Blackburn, and teacher Leslie Cachere.

Beauty without grace is like the hook without the bait.

--Ralph Waldo Emerson (1803-1882)

Recap of October Dinner Meeting



At the October meeting Randy Paterson gave us a most entertaining and informative presentation based on his book, *Giants on the River*, about the history of the chemical and petroleum industry in south Louisiana. He spoke about how our natural resources, gas and oil, sulfur, salt domes, etc., contributed to the development of the variety of chemical plants in our area. He also talked about how WWII contributed to this development and about the German origin of many modern processes. As he spoke, Randy asked questions of the audience and those who gave him good answers were awarded a copy of his book.

At the meeting Clark Snyder presented the High School Chemistry grants to the teachers and students that attended. He and Erik Flores also privately presented the grants to the other awardees. Brandon Lithgoe recognized Donna Bryant for her outstanding contributions to our Section and to National AIChE. Donna is leaving us for Boston.



November Speaker and Topic

At the AIChE annual conference in Orlando Florida, teams from around the country will be competing in the Local Section Beer Brewing competition. Baton Rouge will be represented by Daniel Candler, Rebecca Ishee, and Fallon Salinas (Team Name: Bad News Beers). The competition is comprised of two parts; the actual brewing and judging of the homebrews and a poster presentation. The team has brewed an Imperial Stout to take to competition this year as well as prepared a poster containing alcohol content calculations, process layout, recipe list, and brewhouse efficiency. The team hopes to improve upon their third overall grand prize place from last year for their American IPA.

Nominations for 2020 Local Section Officers

Nominations for the following section officers' vacancies are solicited: Vice-Chair, Secretary, Treasurer, and Executive Committee Member. Send nomination name and brief resume to Randy Goodman (Randy.Goodman@LA.GOV)

The call for nominations will be closed on 31 October 2019. However, at the annual Election Meeting, nominations may also be taken from the floor. Only members of AIChE and the section in good standing are eligible to hold office.

Voting for the Candidates shall take place at the section's annual Election Meeting (November 2019) at and their installation will take place at the section's Annual Meeting (December 2019).

Duties -

Vice-Chair: In absence of the Chair, shall preside at all meetings of the section. The Vice-Chair serves as the Chair of the Program Committee which makes arrangements (topic, speaker, location, food and time) for eight (8) or more monthly meetings (September through May). Term of office is one (1) year, then serve as Chair for one year and then serve on the Executive Committee for two years.

Secretary: In absence of the Chair and Vice-Chair, shall preside at all meetings of the section. The Secretary shall keep a record of the proceedings of the Section and issue a report to the Institute (i.e., National AIChE), outlining the activities of the Section during the year. The Secretary shall coordinate section meeting attendance with the Treasurer (e.g., receiving individual e-mail reservations). After the annual election (i.e., December meeting), the Secretary shall forward the names of the officers and members of the Executive Committee to the Institute. Term of office is one (1) year.

Treasurer: In absence of the Chair, Vice-Chair and Secretary, shall preside at all meetings of the section. The Treasurer shall keep a financial record of the Section. The Treasurer shall be charged with the collection and disbursement of funds (e.g., collection of meeting credits and debit payments) as authorized by the Chair or the Executive Committee. Mid-year and end of year financial reports shall be prepared for the Executive Committee (essentially automated). Term of office is two (2) years.

Executive Committee Member (elected): Provides guidance, recommendations and opinions at Executive Committee meetings. Former section officers usually best candidates to fill this position. Term of office is three (3) years.

2019 Section Contacts

Officers

Chair:	Vishal Vora, VVVora@Gmail.com
Vice Chair:	Chelsea Bourdon, CBourdon@Hargrove-EPC.com
Secretary:	Erick Flores, EFlores@hargrove-epc.com
Treasurer:	Jimmy Orr, Jimmy.Orr@Jacobs.com

Executive Committee Members

Randy Goodman	Randy.Goodman@LA.gov
Noel Ricord	LCNoel55@aol.com
Glenn Bryson	BGBryson@BellSouth.net
Donna Bryant	Donna.Bryant@Syngenta.com
W. Clark Snyder	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, Armand.Melikyan@hotmail.com
Sponsorship:	Stephen Reilly, Stephen.Reilly@emerson.com
Young Professionals:	Erick Flores, EFlores@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 facilitates 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.

150 years



We create chemistry

AIChE Baton Rouge Fall 2019 Seminar

Process Technologies, Equipment Sizing and Specification, P&ID Creation + Engineering Ethics

15 November 2019

MORNING SESSIONS: ProcessTechnologies

Petroleum Refining

Presenter: Roland Thompson

Petroleum refineries are configured to optimally address the processing of available crudes to generate the most profitable and environmentally acceptable fuels for the market. This presentation provides an overview of refinery processes necessary to achieve these goals. Topics will include crude distillation, fluidized catalytic cracking, hydro-processing, delayed coking, alkylation, and sulfur handling.

Nitrogen Based Fertilizer Manufacturing Process

Presenter: Ryan Stinson

Nitrogen based fertilizer production contributes approximately half of the total world production of fertilizers. The process of reforming natural gas allows the synthesis of ammonia which in turn can be used as an end product or a feedstock for other products such as ammonium nitrate (AN), urea ammonium nitrate (UAN), or urea. This presentation provides an overview of the nitrogen-based fertilizer process starting with ammonia and going to nitric acid-AN, UAN, and urea processes to obtain upgraded fertilizer products.

Polyvinyl Chloride

Presenter: Roland Thompson

Forty percent of chlorine produced in the United States is used to manufacture polyvinyl chloride or PVC, a widely used plastic. The intermediate, vinyl chloride monomer or VCM, is a known carcinogen. This presentation provides an overview of the PVC manufacturing process including reaction, monomer recovery, and drying. Safe and environmentally acceptable handling of VCM will also be discussed.

AFTERNOON SESSIONS: Equipment Sizing and Specification Engineering Ethics

Shell & Tube Heat Exchangers

Presenter: Damon Motto

Shell and tube heat exchangers are ubiquitous across the chemical processing industries. This presentation will focus on the preliminary design and specification of shell and tube

heat exchanger units using commercially available third party software (such as HTRI Xchanger Suite). Heat exchanger geometry fundamentals and terminology will be explained. A description of the recommended workflow for the process engineering discipline over the phases of a project will be described. A crude preheat exchanger will be used as an example to demonstrate the workflow.

Drums

Presenter: Roland Thompson

Drums are more than a wide spot in the line to accumulate liquids. Improper sizing and design can disrupt process operations. This presentation will focus on drums in accumulation and separation service addressing good design guidelines to ensure proper drum operation.

Equipment Heat Loss

Presenter: Roland Thompson

When is equipment insulation important? This presentation will apply heat transfer principles to understanding equipment heat loss or gain and when this should be considered for energy conservation and process stability purposes.

Art Of The P&ID

Presenter: Roland Thompson

The piping and instrument diagram is the key control document to communicate how equipment, instrumentation, and piping will interconnect and interact to achieve process design objectives. While many consider the P&ID a conceptual and schematic drawing, the P&ID developer must use every opportunity to present information in a way to improve user understanding of intent. This presentation will explain how good layout and attention to details can benefit everyone.

Engineering Ethics

Presenter: Professor Armando B. Corripio

Dr. Corripio is Professor Emeritus at the LSU Cain Department of Chemical Engineering. He recently completed 51 years in the faculty and has been helping with courses after his retirement. Dr. Corripio has delivered his lecture on Engineering Ethics and Professionalism for the local sections of AIChE and ISA and in his Plant Design course at LSU.

Process Technologies, Equipment Sizing and Specification, P&ID Creation
+ Engineering Ethics

Friday, November 15, 2019
8:00AM – 5:00PM

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 www.aiche-br.org 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/PROFESSIONAL SOCIETY MEMBERSHIP*: (must indicate) _____

COST: ☐ \$85/person for Tech/Prof Society Members* prior to 02-Nov-19
(Please check appropriate box) ☐ \$95/person for non-Tech/Prof Society Members prior to 02-Nov-19
☐ \$110/person for all after 02-Nov-19

MAIL COMPLETED REGISTRATION FORM TO: Armand Melikyan (Seminar Coordinator)
(Please include check if that is your payment option) P.O. Box 84787
Check or cash only, no credit cards on event day Baton Rouge, LA 70884
Walk-ins welcome space permitting. **Email:** Armand_melikyan@hotmail.com
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 2-Nov-2019 and 14-Nov-2019 is 50% refundable. No refunds on day of the seminar.

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

EVENT: Process Technologies, Equipment Sizing and Specification, P&ID
Creation

+ Engineering Ethics

DATE: November 15th, 2019

AGENDA:

7:30 A - 8:00 A Breakfast

8:00 A – 11:30 A Process Technologies

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

12:30 P – 4:00 P Equipment Sizing and Specification

4:00 P – 5:00 P Engineering Ethics

Presenters:

Roland B. Thompson, P.E

Roland Thompson has forty years of process design experience in the petroleum refining, petrochemical, polymer, and specialty chemical industries, both as a plant process engineer and as a consultant. He is a registered professional engineer in Louisiana and a member of AIChE. He began his career with Georgia Pacific as a plant process engineer in basic chemicals, specifically vinyl chloride and poly vinyl chloride manufacturing. He also worked for Mobay Corporation in the specialty chemical business, developing expertise in batch and continuous unit operations for the production of pesticides and herbicides while acquiring experience in the formulation and packaging of powder and liquid agricultural chemical products.

For the last thirty years, Mr. Thompson has worked as a process consultant and process engineering lead for several major engineering firms including Spectrum Engineering, Jacobs, and Ford, Bacon & Davis. He is committed to analyzing and documenting work processes to improve accuracy and productivity in engineering practices and has developed many spreadsheet programs with accompanying written guidelines for process equipment sizing and hydraulic calculations.

Ryan D. Stinson, P.E.

Ryan Stinson has sixteen years' experience and worked as a research engineer, plant process engineer, process design consultant, and process manager. He is a registered professional engineer in Louisiana. As a process engineer, he has worked primarily with petrochemical, petroleum refining, and specialty chemical industries. He began his career with Engineer Research and Development Center as a research engineer where he was primarily involved with blast study research for the Department of Defense. He later worked as a plant process engineer for CF Industries supporting daily operations, maintenance, and project work in ammonia, urea, nitric acid, and UAN plants.

For the last seven years, Mr. Stinson has worked as a process consultant, process engineering lead, and process engineering manager for several engineering firms

including H&K, Sigma, and Ford, Bacon & Davis. He is committed to helping train and mentor younger engineers to help maintain a good knowledge base across this industry.

Damon Motto, P.E.

Damon Motto has twelve years of experience working as a process engineering consultant in the petroleum refining, petrochemical, and power generation industries. He started his career with URS Corp. and has also worked for Jacobs and Ford, Bacon, and Davis. He has expertise in process modeling and computed aided engineering tools. He has extensive experience in the design and revamping of heat transfer, fractionation, separation, and fluid transfer equipment.

He is a registered professional engineer in the state of Louisiana and a member of AIChE. He is committed to developing novel methods to leverage process engineering software to make models more rigorous and valuable for his clients.

The seminar concludes with a presentation on Engineering Ethics (1 PDH).

Armando B. Corripio, PhD, P.E. - Engineering Ethics

Dr. Corripio is Professor Emeritus at the LSU Cain Department of Chemical Engineering. He recently completed 51 years in the faculty and has been helping with courses after his retirement. He received chemical engineering degrees, B.S., M.S., and Ph.D., from LSU and joined the faculty after working five years for the Louisiana Division of Dow Chemical Company. He has consulted for ExxonMobil, Dow, Polaris Engineering and other corporations. During his sabbatical year he worked in the development of the Aspen process simulator at MIT. Dr. Corripio has delivered his lecture on Engineering Ethics and Professionalism for the local sections of AIChE and ISA and in his Plant Design course at LSU.

Dr. Corripio's specialties are process simulation, instrumentation and automation, and computer-aided process design. He is a Fellow of AIChE and a Senior Member of ISA, and a registered Professional Engineer in Chemical Engineering and Control Systems Engineering. He has been selected by the journal Control to the Process Automation Hall of Fame.

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) *****

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



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

Local Area



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 (AWMA)