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, hydroprocessing, 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.

MID-DAY SESSION: Engineering Ethics

Presenter: Armando B. Corripio, PhD, P.E.

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.

AFTERNOON SESSIONS: Equipment Sizing and Specification

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.

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:
(Please check appropriate box)

- ☐ $85/person for Tech/Prof Society Members* prior to 02-Nov-19
- ☐ $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:
(Please include check if that is your payment option)
Check or cash only, no credit cards on event day
Walk-ins welcome space permitting.

Armand Melikyan (Seminar Coordinator)
P.O. Box 84787
Baton Rouge, LA 70884
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 (FB&D)

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

12:30 P – 1:30 P Engineering Ethics (Armando B. Corripio, PhD, P.E.)

1:30 P – 5:00 P Equipment Sizing and Specification (FB&D)

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 includes a mid-day 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.

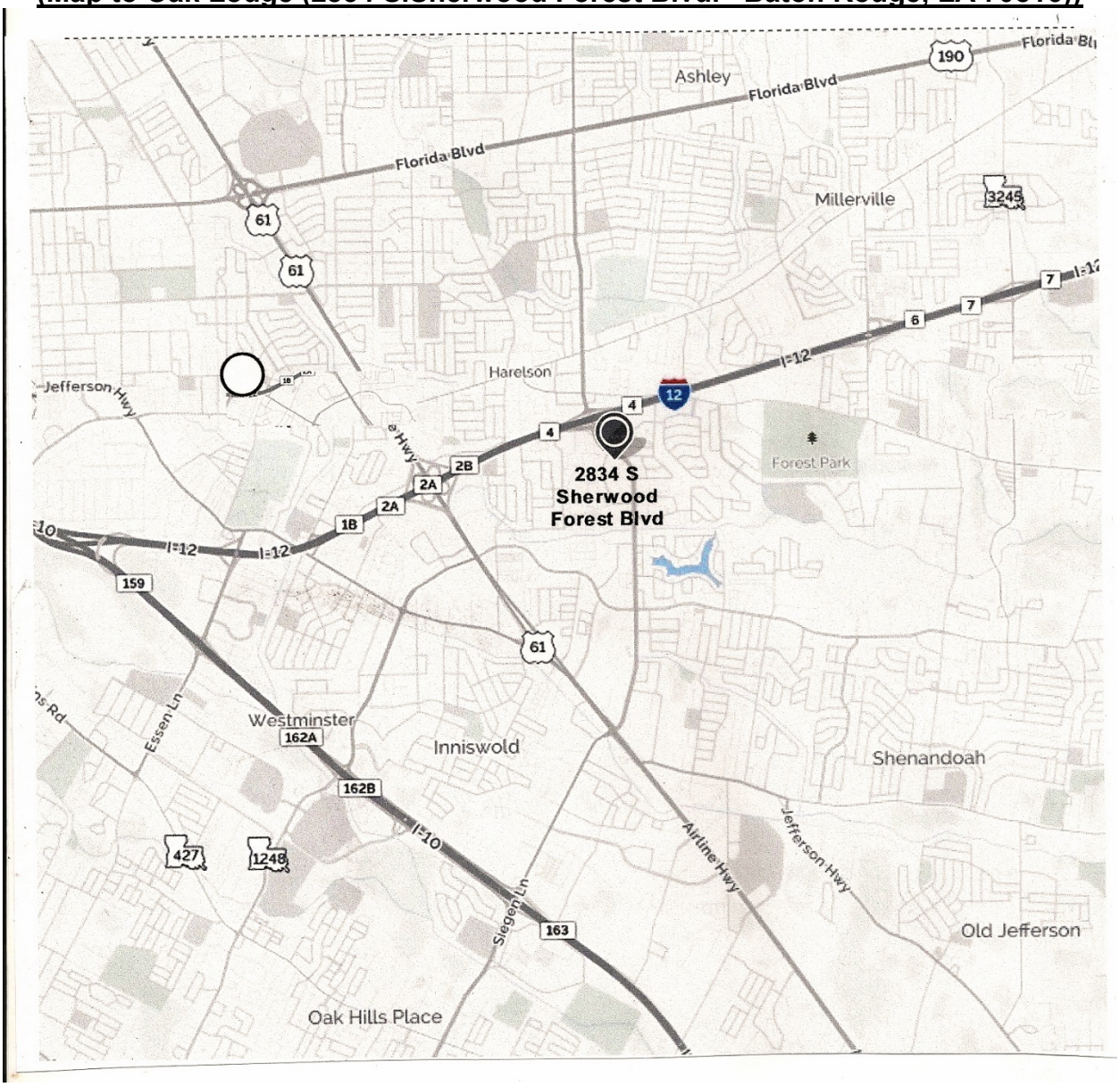
Dr. Corripio has delivered his lecture on Engineering Ethics and Professionalism for the local sections of AIChE and ISA and in his Plant Design course at LSU.

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) *****

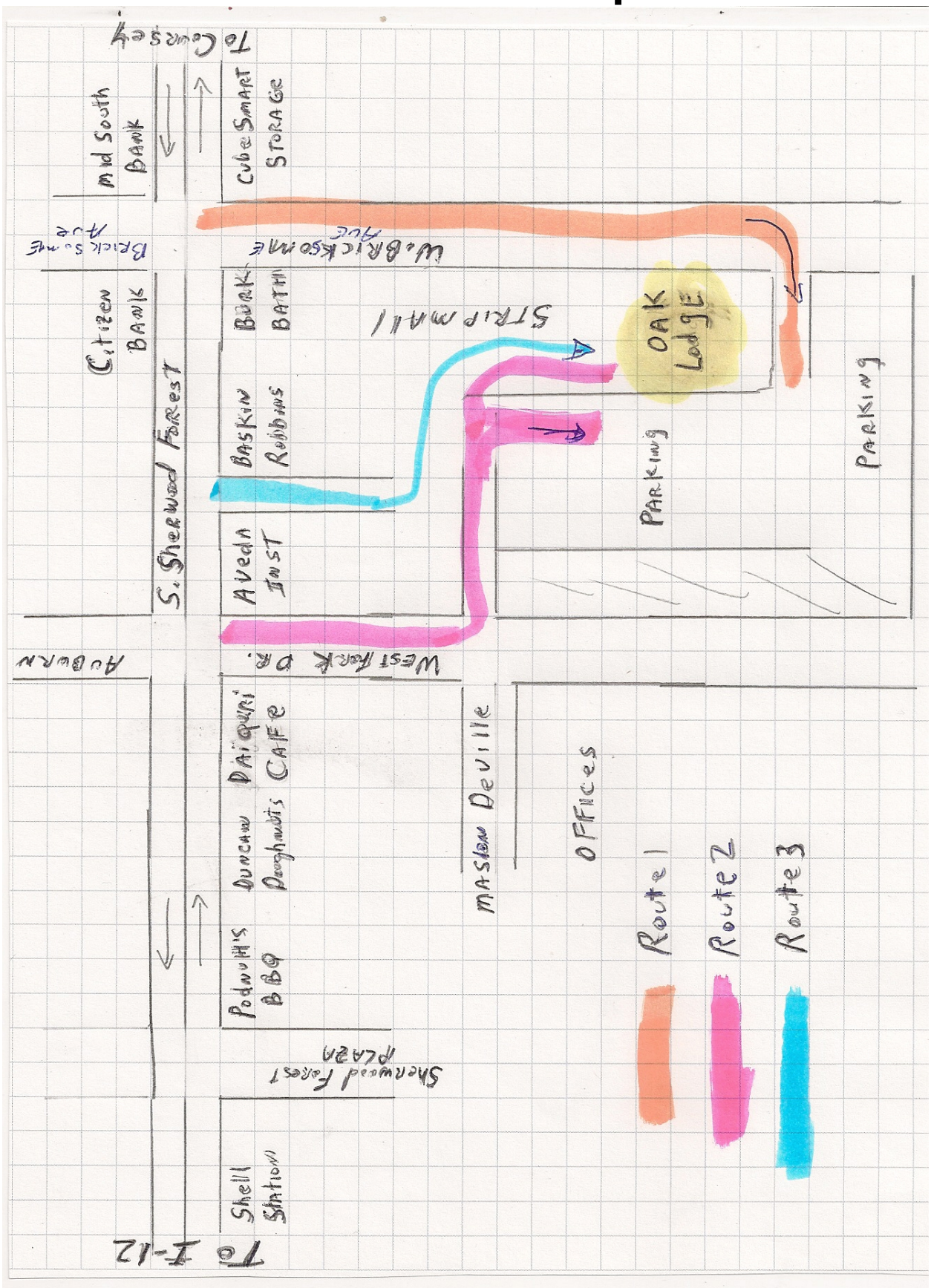
(Map to Oak Lodge (2834 S.Sherwood Forest Blvd. Baton Rouge, LA 70816))



“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



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)