



# Baton Rouge Newsletter

Year 30, Number 6

[www.aiche-br.org](http://www.aiche-br.org)

February 10, 2020

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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.

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## *February Tour and Dinner Meeting*

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**Date:** Thursday, February 20, 2020

**Place:** Southern Craft Brewery, Barringer Foreman Technology Park, 14141 Airline Highway, Suite 4J

**Speakers:** **Wes Hedges** and **Joe Picou**

**Agenda:** **5:30** – Registration and social.  
**6:00** – Tour followed by dinner

**Menu:** Tacos and other hot plates by the Chef at Southern Craft.

**Cost:** Pay for your meal and drinks at the counter.

### RESERVATIONS

Make your reservation  
by **5:30 PM on Wednesday, February 19<sup>th</sup>** at  
, [Armand\\_Melikyan@hotmail.com](mailto:Armand_Melikyan@hotmail.com)  
Reservations are not required. Bring a 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.

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## *Other Upcoming 2020 Events / Speakers*

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**March 19** Joint meeting with New Orleans section. Tour and dinner at Nobile's.

**May 8** **Spring Seminar:** Process Control, Fired Heaters and Ethics, Oak Lodge. 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](mailto:CBourdon@Hargrove-epc.com) to schedule a meeting date and time.*

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## *Call for Nominations—2020 Coates Memorial Award*

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The deadline for nominations for the Coates Award is in February. If you would like to nominate one of your colleagues please contact Erick Flores, EFlores@Hargrove-epc.com. A member of the Baton Rouge AIChE Section should get the award this year. The award is given for contributions to the profession, the society, and the community. The nominator must obtain three letters of support from individuals familiar with the nominee's activities in each of the three areas, one letter for each area. A letter summarizing these activities and the nominee's résumé are the other items in the nomination package.

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## *Recap of January Meeting*

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Thanks to all who came out to the January Meeting! We had a great turn out at George's southside with Dr. Thomas E. Rehm. At the meeting Dr. Rehm gave a thorough presentation on some climate change statistics that have been compiled over the last 20 years. Dr. Rehm also gave an overview of many initiatives that are being developed to tackle climate change. As a founding member of AIChE's Climate Solutions Community, Dr. Rehm is actively engaged in activities to promote awareness of climate change and discussed upcoming events that aim to accomplish this. Special thanks to Dr. Rehm for coming out to present this information and thanks to all who participated in the meeting.

***Honor and shame from no condition rise  
Act well your part, there all the honor lies.***

***--Alexander Pope (1688-1744)***

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## *From the Chair's Pen*

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February has always signified the start of the transition from winter hibernation into spring for people in the south. The days start to get longer, the flowers start to bloom, and I tend to start using my AC more frequently. There's just something about that first nice spring-like day that gives me a little more pep in my step. For me that happened this past weekend at the Roux Rally, where 50 teams battled it out in a gumbo competition. Many of those teams were made up of engineering firms/contractors and there's a reason for that: most of us work as part of a team every day for our jobs. So, when we're already wired to work as a team, who wouldn't jump at the chance to do something they're passionate about. For some, it's food; for others, like Wes Hedges and Joe Picou, it's beer. I look forward to hearing how they turned their hobby into a business, and I look forward to seeing you all!

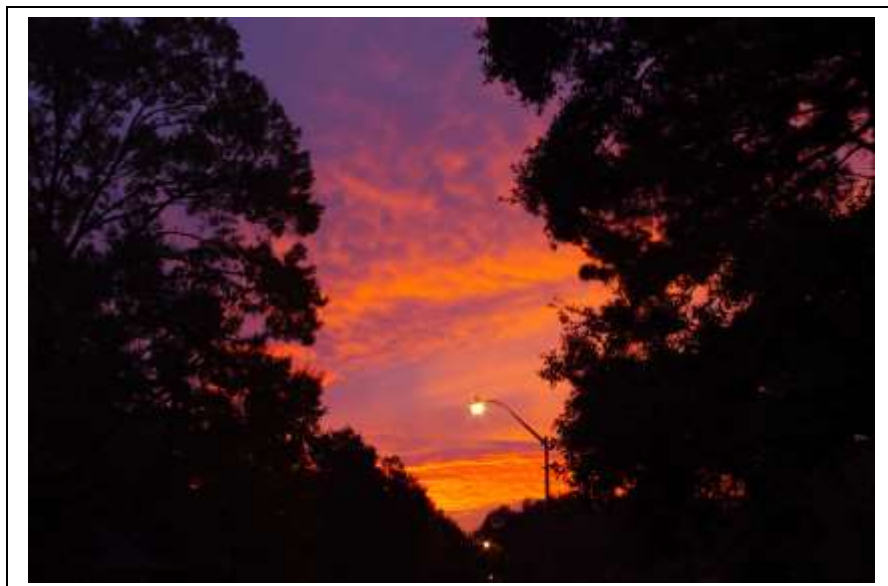
*Chelsea Bourdon, Chair*

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## *February Meeting Speaker and Topic*

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Southern Craft Brewing Co. started as a hobby for Wes Hedges and Joe Picou, two friends who were engineers by day, homebrewers by night. As their skill set grew, so did their admiration for crafting unique flavors highlighting southern ingredients. With experimentation coming second nature to the two, they believed it was necessary to take advantage of locally grown ingredients that were readily available. In 2011, Wes and Joe entered their first National Homebrew Competition in San Diego where their original brew, named for their Baton Rouge home base, earned second place among 7,000 entries. You could say that the Red Stick Rye was the brew that began it all. Their success in other multiple homebrew competitions helped them realize something -- they really enjoyed making beer, and people really enjoyed drinking it. With this newfound motivation, their Double IPA, Pompous Pelican, was born. Their dream of building a microbrewery from the ground up with Southern-infused craft brews has become a reality. Something's always brewing, and we'll get to tour where it all happens!



## 2020 Section Contacts

### Officers

**Chair:** Chelsea Bourdon, [CBourdon@Hargrove-EPC.com](mailto:CBourdon@Hargrove-EPC.com)  
**Vice Chair:** Erick Flores, [EFlores@hargrove-epc.com](mailto:EFlores@hargrove-epc.com)  
**Secretary:** Armand Melikyan, [Armand\\_Melikyan@hotmail.com](mailto:Armand_Melikyan@hotmail.com)  
**Treasurer:** Jimmy Orr, [JimmyOrr2@Cox.net](mailto:JimmyOrr2@Cox.net)

### Executive Committee Members

Randy Goodman [Randy.Goodman@LA.gov](mailto:Randy.Goodman@LA.gov)  
Noel Ricord [LCNoel55@aol.com](mailto:LCNoel55@aol.com)  
Brandon Lithgoe [BLithgoe@Yahoo.com](mailto:BLithgoe@Yahoo.com)  
Donna Bryant [Donna.Bryant@Syngenta.com](mailto:Donna.Bryant@Syngenta.com)  
W. Clark Snyder [WClarkSnyder@hotmail.com](mailto:WClarkSnyder@hotmail.com)

### Committees

**Awards:** Dal Dalferes, [Joseph.Dalferes@jacobs.com](mailto:Joseph.Dalferes@jacobs.com)  
**Communications:** Brandon Lithgoe, [BLithgoe@Yahoo.com](mailto:BLithgoe@Yahoo.com)  
**Education:** Erick Flores, [EFlores@hargrove-epc.com](mailto:EFlores@hargrove-epc.com)  
**High School Grants:** W. Clark Snyder, [WClarkSnyder@hotmail.com](mailto:WClarkSnyder@hotmail.com)  
**Membership:** Glenn Bryson, [GBryson@BellSouth.net](mailto:GBryson@BellSouth.net)  
**Newsletter:** Armando Corripio, [Corripio@LSU.edu](mailto:Corripio@LSU.edu)  
**Nominations:** Noel Ricord, [LCNoel55@aol.com](mailto:LCNoel55@aol.com)  
**Professional Development:** Randy Goodman, [Randy.Goodman@LA.gov](mailto:Randy.Goodman@LA.gov)  
**Seminars:** Armand Melikyan, [Armand\\_Melikyan@hotmail.com](mailto:Armand_Melikyan@hotmail.com)  
**Sponsorship:** Stephen Reilly, [SJReilly06@Gmail.com](mailto:SJReilly06@Gmail.com)  
**Young Professionals:** Erick Flores, [EFlores@hargrove-epc.com](mailto: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.

Support your Baton Rouge Local Section  
By advertising in this newsletter

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Single issue and annual (9 issues) rates

For information contact

Steven Reilly, [SJReilly06@Gmail.com](mailto:SJReilly06@Gmail.com)

# AIChE Baton Rouge Spring / 2020 Seminar

## An Overview of Process Controls & Fired Heaters Seminar + Engineering Ethics

May 8th, 2020

### **MORNING SESSION: Process Controls**

The morning session is a presentation designed for engineers who are either new to or unfamiliar with control and safety systems. All automated functions consist of three basic elements: Sensors, logic solvers, and final elements. This is the first of a three-part series that will take a closer look at the components of automated functions. Part 1 concentrates on logic solvers, which can be mechanical, electrical, or electronic devices. The focus is on discrete actions based on predetermined conditions, which includes interlocks, permissives and safety instrumented functions.

### **AFTERNOON SESSION: Burner Design / Fired-Heater Design**

The afternoon session is a presentation on burner design and configuration for the different fired-heater types including natural draft; mechanical draft with preheat; and mechanical draft without preheat, etc.

Burner design considerations are discussed for proper heat flux distribution. Optimization of burner count, orientation, layout and size are provided from a burner manufacturer's perspective. A discussion of flame characteristics will be provided including flame pattern, flame shape, flame length, and flame radiation boundary. An applied approach of radiation theory to practical burner design is explained. The presentation concludes with the latest on CFD modeling. Various system configurations and applications will also be discussed in detail.

The latter part of the afternoon session will include latest on fired-heater design including reformers and furnaces. Fired-heater design considerations will be presented for maximum capacity and efficiency including firebox geometries, forced draft convection, and induced draft convection alternatives. Retrofit and revamp of existing furnaces and reformers is included with successful modification examples already implemented. Proper burner air supply and fuel supply distribution design alternatives are discussed.

An overall heat balance on a furnace is presented. An overall heat balance on a reformer is presented. Various system configurations and applications will also be discussed in detail.

### **Topic Description**

Engineering Ethics

### **Presenters:**

**Karen Morten, P.E., C+A SIS Technical Consultant, Hargrove & Associates**

**Chris Parker, Applications Engineer, Zeeco, Inc.**

**Rasik Patel, Vice President, Process Technology, Primoris Onquest**

**Engineering Ethics Presenter: TBD**

**An Overview of Process Controls & Fired Heaters Seminar**  
**+ Engineering Ethics**

**Friday, May 8, 2020**  
**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](http://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 3-May-20  
(Please check appropriate box)  \$95/person for non-Tech/Prof Society Members prior to 3-May-20  
 \$110/person for all after 3-May-20

**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 28-April-2020 and 7-May-2020 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: An Overview of Process Controls & Fired Heaters Seminar (7 PDHs)  
+ Engineering Ethics (1 PDH)**

**PROPOSED AGENDA:**

**DATE: May 8th, 2020**

<b>7:30 A – 8:00 A</b>	<b>Breakfast</b>
<b>8:00 A – 11:30 A</b>	<b>Process Controls</b>
<b>11:30 A – 12:30 P</b>	<b>Lunch (provided by AIChE)</b>
<b>12:30 P – 2:00 P</b>	<b>Burner Design</b>
<b>2:00 P – 4:00 P</b>	<b>Fired-Heater Design: Furnaces + Reformers</b>
<b>4:00 P – 5:00 P</b>	<b>Engineering Ethics</b>

Presenters:

Karen Morten, P.E. – C+A SIS Technical Consultant

Hargrove & Associates, 4333 American Way, , Baton Rouge, Louisiana, United States, 708016  
(225) 937-3657; kmorton@hargrove-epc.com

Karen has worked as an engineer with process safety and control systems projects in South Louisiana's petrochemical industry since 1995. She is a licensed professional engineer. She also has functional safety engineering certification from TÜV Rheinland. Karen works at Hargrove Controls + Automation in Baton Rouge as a C+A SIS Technical Consultant, where she concentrates on process safety and burner management system projects. A member of ISA and IEEE, Karen co-authored ASSP's reference guide Applied Mathematics for Safety Engineers.

Chris Parker – Applications Engineer

Zeeco, Inc.; 22151 East 91st Street, Broken Arrow, Oklahoma USA 74014

918-893-835; chris\_parker@zeeco.com.

Chris obtained his Bachelor's Degree in Mechanical Engineering with a minor in Petroleum Engineering from Oklahoma State University. He has been involved with the combustion industry as an employee of Zeeco for approximately nine years. During his time at Zeeco, Chris has worked as a Test Facility Engineer in Zeeco's Research and Test Facility for two and a half years before moving into Applications Engineering in the Process Burners Division. In his previous role within Zeeco, Chris, as a Test Facility Engineer, orchestrated the testing and development of various combustion equipment. This role included developing new products and testing existing equipment that would be used by the refining and petrochemical industries. As an applications engineer in the process burner division, Chris determines the initial design, cost estimation, and commercial negotiation for burners used in process heaters.

Rasik Patel – Vice President, Process Technology, Primoris Onquest

180 East Arrow Hwy., San Dimas, California, United States, 91773

909-451-0504; rpatel@prim.com

Rasik is the Vice President of Process Technology with Primoris OnQuest located in the San Dimas, CA. He has 36 years of experience in the design of direct fired process heaters, coker heaters, steam methane reformers and pyrolysis furnaces for the refining and petrochemical industries. He is an active member in the heat transfer sub-group of the API task force working on Fired Heater standards. He holds a Master of Science degree in Chemical Engineering from the Imperial College of Science & Technology, University of London, England

TBD – To Be Determined

(The Presenter on Engineering Ethics is forthcoming)

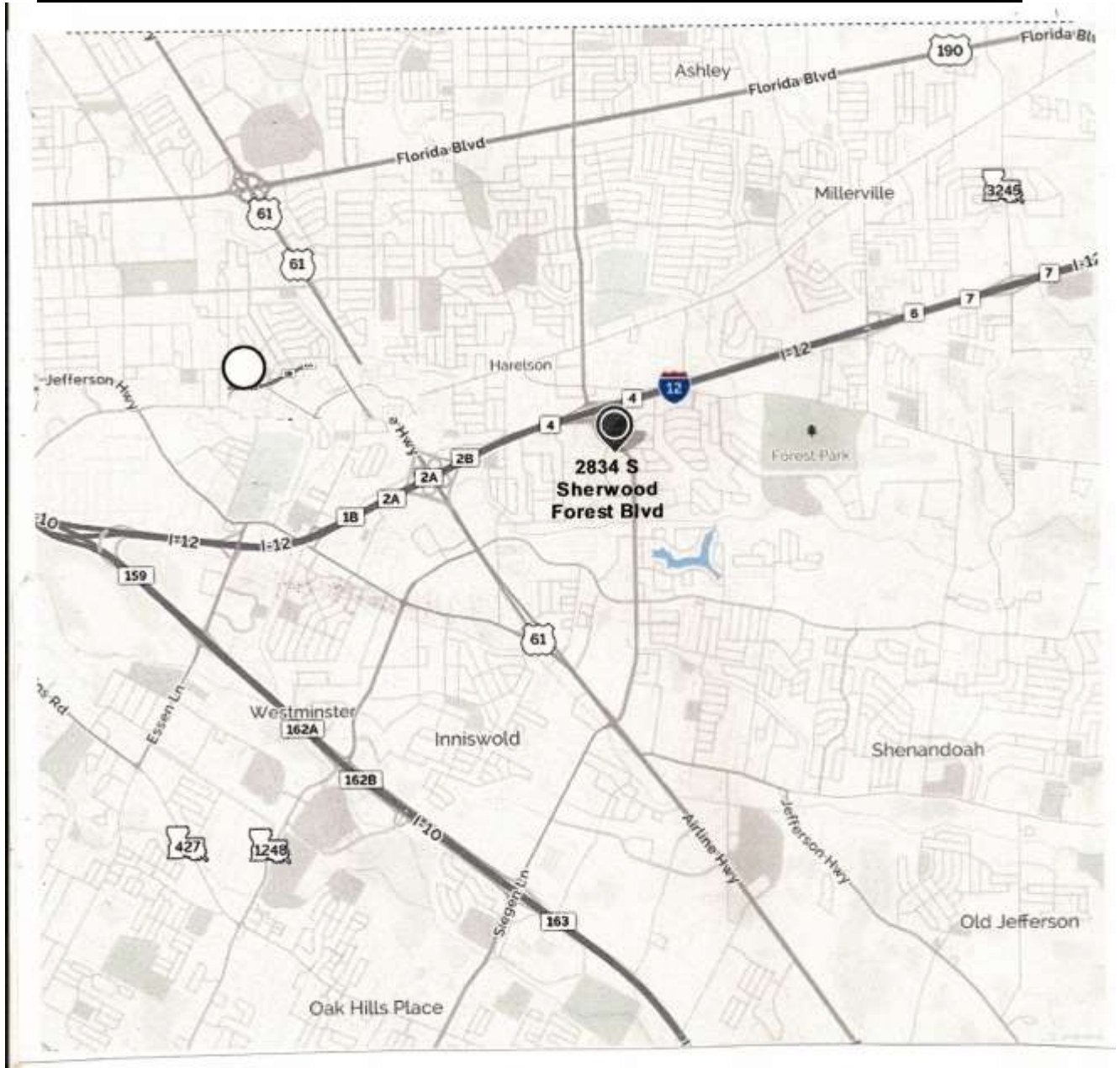
**The morning session will be an overview of Process Control. The afternoon session will be an overview of the latest on Fired-Heater Burner Design and then Fired-Heater Design with practical applications. The seminar concludes with a presentation on Engineering Ethics (1 PDH).**

**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) \*\*\***

**(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

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

## National Technical Societies

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- 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)