



# Baton Rouge Newsletter

Year 26, Number 8

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

April 1, 2016

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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.

## *April 2016 Meeting*

- Date:** Thursday, April 28, 2016
- Place:** El Maguey Mexican Buffet, 8290 Siegen Lane (at railroad overpass)
- Speaker:** **Dr. Robert R. Twilley**, Executive Director, Louisiana Sea Grant Program
- Topic:** *The Sea Grant Program at LSU and Other Coastal Issues*
- Agenda:**  
5:30 PM – Registration and social (cash bar)  
6:00 PM – Dinner and business  
6:05 PM – Speaker  
7:00 PM – Meeting adjourns
- Menu:** Full Mexican buffet menu, tea, soft drinks.
- Cost:** \$15 for members, \$20 nonmembers, \$10 students.

### RESERVATIONS

Please make your reservation with chapter secretary, Donna Bryant, **by 5:00 PM on Tuesday, April 26<sup>th</sup>** at [donna.bryant@syngenta.com](mailto:donna.bryant@syngenta.com)

*Invite your friends. You can show up 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 2016 Events / Speakers*

**April 15 Tulane Engineering Forum**, New Orleans Convention Center, 8 PDHs, 1 Ethics PDH,  
<https://shop.mudbugmedia.com/tef.tulane.edu/registration/>

**May 6 Spring Seminar (7 PDH)**, Air Compressors, Plant Air Systems, Project Management, Process Safety

*If you or your colleague(s) would like to give a technical presentation at an upcoming chapter meeting for 2 professional development hours (PDHs), please contact Chapter Chair, William Buck, at [William.Buck@WinkEngr.com](mailto:William.Buck@WinkEngr.com) to schedule a meeting date and time.*

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## *April Meeting Abstract*

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The Louisiana Sea Grant program has been in operation for more than 40 years. Its strategic initiatives address four main issues for Louisiana:

- 1) Healthy Ecosystems and Habitats
- 2) Resilient Communities and Economies
- 3) Sustainable Fisheries and Aquaculture
- 4) Education and Workforce Development

Dr Twilley, will present information about the Sea Grant Program and will also present an update on coastal issues. The organization conducts research on Oil Spill Dispersants and coastal issues such as ocean acidification, migrations of blue crabs and much more.

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### *Dr. Robert R. Twilley, Speaker*

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Dr Twilley has been a professor of Oceanography and Coastal Sciences at LSU since 2004, Vice President for Research at University of Louisiana at Lafayette and since 2012 serves as the Executive Director of the Louisiana Sea Grant College Program.

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## *March Meeting Recap*

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Our speaker at the March meeting was Tom Turner, regional manager for the APC Power & Industrial Division of **AAF International**. He spoke on explosive and combustible dust management. Dusts can be a significant safety hazards in several industries including chemical, agricultural and plastics, and their handling is heavily regulated by OSHA. The food industry accounts for 23% of dusts explosions and the chemical industry for 13%. Tom mentioned a sugar dust explosion in Savannah, GA, resulting in 44 deaths. Dust collectors are used to control dust. They are located outside buildings and designed with explosion relief venting and with isolation devices to prevent deflagration propagation. Dust collectors can be wet or dry. Wet collectors are safer because water replaces air as the carrier. The slurries from wet collectors are sent to water treatment facilities.

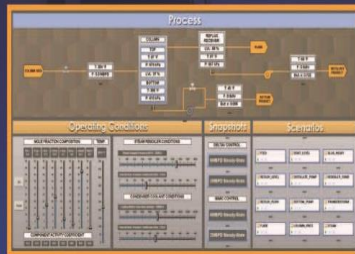
*Armando Corripio, Newsletter Editor*

*He that can have patience, can have what he will.*

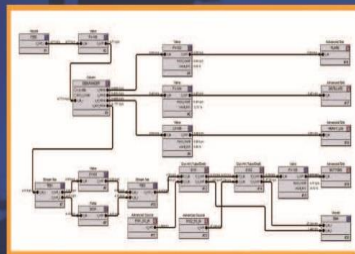
**Benjamin Franklin**

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M Y N A H

### DID YOU KNOW?

Some years ago our local section meeting consisted of a tour of LIGO (Laser Interferometer Gravitational-wave Observatory) in Livingston, LA, one of two such observatories, the other one at Hanford, WA. You may have heard that just recently these two LIGO facilities have fulfilled their objective of detecting gravitational waves that had been predicted by Albert Einstein.

The LIGO telescope consists of two 4-ft in diameter 4-km long tubes at right angles to each other and perfectly straight. Each tube has a mirror at each end and the length of each tube is continuously measured by the time it takes an infrared laser light to travel the distance between the two mirrors in each tube so that a difference of  $10^{-16}$  cm can be detected.

According to Einstein's general theory of relativity, should a gravitational wave from some violent celestial event pass through the Earth, one arm of LIGO should contract and the other should lengthen. The two LIGO telescopes are located 3,000 km apart to disregard any differences in length caused by local phenomena.

The tubes were assembled under Class 100 clean-room conditions because they must not contain more than 100 particles larger than  $0.5 \mu\text{m}$  per  $\text{ft}^3$  of air.

Cost of the project is about \$350 million.



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## *Brandon Lithgoe Receives 2016 Coates Award*

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The Coates Awardee for 2016 is Mr. Brandon Lithgoe. Congratulations, Brandon.

Brandon has specialized in Environmental Engineering and is a member of the Environmental Division of AIChE as well as a local section member. He is also an active member of the Air and Waste Management Association (AWMA). His chosen field is driven by his concern for the global environment and particularly for his interest in keeping the local environment in the greater Baton Rouge area within EPA and DEQ compliance limits.

Brandon has made immeasurable contributions to the Local Section activities for the last 13 years. Brandon came to us at a time when few young Chemical Engineers regularly attended meetings or had anything to do with AIChE. After joining the section he immediately began to volunteer to take a very active role. His accomplishments and interests on the local and the national levels are impressive. He has never refused any request made to him for work on any of our activities. He is also known by the Chemistry Department through his consistent help with Super Science Saturday. He has been one of the most continuously productive members and officers in our section for the past thirteen years.

Of greatest importance is that through his high visibility as treasurer, Vice-Chair, Chair and Board Chair as a young, dedicated professional with fresh ideas, he has attracted many new younger members over the last 13 years. We now have a group of younger members some of whom have become officers and committee chairs. Those first few years of his leadership were critical to our future survival as a section. Several other technical societies have withered during the same period in Southeastern Louisiana area due to lack of participation by younger professionals. We are grateful for his continued service to the profession of Chemical Engineering.

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## *From the Chapter Chair's Pen*

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The spring is a busy time for Baton Rouge AIChE. It's a time for preparation and planning for some important upcoming events. Jimmy Orr has once again put together an exceptional

Spring Seminar Agenda for Friday May 6<sup>th</sup>. One of the featured guests will be Manny Erlich of the US Chemical Safety Board. His presentation will discuss a little background on the US Chemical Safety Board and he will present a case study on the West Texas Fertilizer plant explosion. I expect it to be a topic of interest for our audience. I encourage everyone to attend the seminar as 7 PDH credits are available for the one day session.

Additionally, we have been busy this month planning for the 59<sup>th</sup> Annual Charles E Coates Award banquet. ACS chair George Stanley has the lead this year on finalizing the date and location for the event. This year's recipient of the Coates Award is Brandon Lithgoe who is currently serving as our Webmaster and Communications Officer. Brandon is a Senior Environmental Engineer for Williams Olefins and has his BS in Chemical Engineering from UC-San Diego. Please offer your congratulations to Brandon. His service and dedication to Environmental Issues along with his service to AIChE the past 13 years is deserving of recognition and accolades.

Lastly, we are nearing graduation for high schools LSU and Universities in Louisiana. Take the time to congratulate and recognize the academic achievements of graduates. AIChE plays a role in education through our interface with the LSU student chapter of AIChE and our High School grants program. April and May is a time to celebrate these graduates!





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## 2016 Section Contacts

### Officers

**Chair:** William Buck, [William.Buck@WinkEngr.com](mailto:William.Buck@WinkEngr.com)  
**Vice Chair:** W. Clark Snyder, [WClarkSnyder@hotmail.com](mailto:WClarkSnyder@hotmail.com)  
**Secretary:** Donna Bryant, [Donna.Bryant@Syngenta.com](mailto:Donna.Bryant@Syngenta.com)  
**Treasurer:** Oscar Alfaro, [Oscar.Alfaro@Jacobs.com](mailto:Oscar.Alfaro@Jacobs.com)

### Executive Committee Members

Glenn Bryson, [BGBryson@BellSouth.net](mailto:BGBryson@BellSouth.net)  
Jimmy Orr, [Jimmy.Orr@Jacobs.com](mailto:Jimmy.Orr@Jacobs.com)  
Noel Ricord, [LCNoel55@aol.com](mailto:LCNoel55@aol.com)  
Stephen Reilly, [stephen.reilly@prosys.com](mailto:stephen.reilly@prosys.com)  
Armand Melikyan, [Armand.Melikyan@WinkEngr.com](mailto:Armand.Melikyan@WinkEngr.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:** (OPEN)  
**High School Grants:** W. Clark Snyder, [WClarkSnyder@hotmail.com](mailto:WClarkSnyder@hotmail.com)  
**Membership:** Glenn Bryson, [BGBryson@BellSouth.net](mailto:BGBryson@BellSouth.net)  
**Newsletter:** Armando Corripio, [Corripio@LSU.edu](mailto:Corripio@LSU.edu)  
**Nominations:** (OPEN)  
**Professional Development:** Randy Goodman, [Randy.Goodman@LA.gov](mailto:Randy.Goodman@LA.gov)  
**Seminars:** Jimmy Orr, [Jimmy.Orr@Jacobs.com](mailto:Jimmy.Orr@Jacobs.com)  
**Sponsorship:** Stephen Reilly, [Stephen.Reilly@Prosys.com](mailto:Stephen.Reilly@Prosys.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.



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**and congratulate Baton Rouge Chapter President,  
William D. Buck, P.E.**

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# AIChE Baton Rouge Spring Seminar

## Plant Air Systems, Project Management, Fertilizer Plant Explosion, Process Safety Controls Perspective

Friday, May 6, 2016

8:00AM – 4:00PM

**Location: Holiday Inn South**

9940 Airline Hwy Baton Rouge, Louisiana 70816, (225) 924-7021

**Earn 7 PDH's! Enrollment is Limited! Sign-Up Early!**

### REGISTRATION FORM

**NEW!** Register online at [www.aiche-br.org](http://www.aiche-br.org), 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)

- ☐ \$75/person for Tech/Prof Society Members\* prior to 02-May-16  
☐ \$95/person for non-Tech/Prof Society Members prior to 02-May-16  
☐ \$110/person for all after 02-May-16

**MAIL COMPLETED REGISTRATION FORM TO:**

(Please include check if that is your payment option)

**Must be RECEIVED** by 02-May-16

Walk-ins welcome space permitting.

Check or cash only, no credit cards on event day

Oscar Alfaro (Treasurer)

1124 W Lakeview Dr.

Baton Rouge, LA 70810

Email: [Oscar.Alfaro@Jacobs.com](mailto:Oscar.Alfaro@Jacobs.com)

Phone: (818) 642-8003

\*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 02-May-16 and 05-May-16 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.

## Baton Rouge Section May 6, 2016 Seminar

**7:00 AM – 8:00 AM: REGISTRATION & BREAKFAST**

**8:00 AM – 10:00 AM: MORNING SESSION**

### **Plant & Instrument Air Design Considerations**

Mike Austin (Atlas Copco)

#### Introduction of topics

- Review of Plant and Instrument Air System
- What is Instrument air?
- Overview of system configuration(s)

#### Selecting the correct Compressor Technology

- Piston
- Oil Injected Screw
- Oil Free Screw
- Centrifugal

#### Air Dryer Technology-Which is appropriate?

- Heatless
- Externally Heated
- Blower Purge
- Heat of Compression

#### Other Considerations

- Cooling-Air Cooled or Water Cooled
- Power-Low Voltage, Medium voltage, diesel
- Area Classifications

#### System Energy Savings

#### Question and Answer

#### [About the presenter:](#)

**Mike Austin** is Sales Manager for Oil Free and Engineered Products – Atlas Copco Compressors LLC. He has a BS in Chemistry degree from LSU. Mike has extensive experience in Compressed Air System design. This includes Maintenance and Reliability of Piston, Rotary Screw, Rotary Lobe, and Centrifugal Compressors. He serves on the API-672 Advisory Committee. Mike also serves as a Moderator on the GSRMS Advisory Committee. He holds a CAC Level II. Overall Mike has 45-years experience in the Process Equipment Industry.



**10:00 AM – 12:00 AM: MORNING SESSION**

## **The Project Management Institute (PMI) Approach to Project Management**

**Charles Durr (PMP, Six Sigma Black Belt, CMII, CMIIS)**

The presentation will cover the PMI approach to Project Management. The method is based on a combination of 5 Process Groups and 10 Knowledge Areas. As the Scope Planning process is reviewed, the importance of a detailed Work Breakdown Structure (WBS) is highlighted. Overall management includes how the WBS impacts Planning, the Execution Processes, the Monitoring and the Control Processes.

### **About the presenter:**

**Charles Durr** has over 40-years of Information Technology experience. This includes 15-years in Software Development, 14-years in Data Center Management, and 10-years of IT Project Consulting. Major Project management experience includes

- Building and staffing three new data centers
- Implementing two Mobil Data Department of Justice COPS MORE Grants including seven law enforcement agencies valued at \$3.2 MM
- Installation & implementation of five site Homeland Security Presidential Directive 12 Physical Access control at the Strategic Petroleum Reserves.

Charles is currently associated with Global PM in Slidell as a PMP (Project Management Professional) Certification Prep instructor. He is also a Microsoft Project instructor/consultant. Charles previously served 3-years on the PMI New Orleans Chapter Board of Directors. He is a Graduate of the University of Louisiana Lafayette.

**12:00 PM – 1:00 PM: LUNCH**

**1:00 PM – 3:00 PM: AFTERNOON SESSION**

## **Lessons Learned from West Texas Fertilizer Plant Explosion**

**Manny Ehrlich (U.S. Chemical Safety and Hazards Investigation Board)**

On April 17, 2013 a horrifically devastating explosion took place in the West Fertilizer Company facility in West Texas. Fifteen lives were lost and in excess of 250 people injured. Property loss will be in excess of \$100 million dollars.

This presentation will examine the findings of the CSB's investigation in to the incident. The primary focus being on the lessons learned and the recommendations moving forward. Special emphasis to be placed what you can do in your communities and areas of responsibility to assure that there is never a similar accident on your watch.

About the presenter:

**Manny Ehrlich**, was nominated by President Barack Obama to the U.S. Chemical Safety and Hazard Investigation Board in January of 2014 and confirmed by the Senate in December 2014. Prior to his appointment Mr. Ehrlich spent over 50 years in the chemical industry in a variety of positions. Most recently he served as a health, safety and environmental consultant to a broad range of companies across the country.

Mr. Ehrlich spent much of his career with BASF Corporation, one of the largest chemical companies in the world. During his time at BASF Mr. Ehrlich worked in a variety of roles, including plant management and eventually leading emergency response efforts across North America. In this capacity he responded to, managed and investigated numerous hazardous materials incidents in the U.S., Canada and Mexico.

Mr. Ehrlich served as the on call chemist for the Chemical Transportation Emergency Response Center (also known as CHEMTREC) in the U.S., a 24-hour service that assists responders on the scene of chemical incidents. He also served as a member of the National Fire Protection Association's committee that develops competency standards for chemical emergency responders.

Mr. Ehrlich has a B.S. in Chemistry from Drexel Institute of Technology, completed graduate studies in chemistry from Temple University and St. Joseph's College, completed graduate studies in chemical engineering from New York University and received an Ed.M. and M.A. in Counseling Psychology for Business and Industry from Columbia University.

**3:00 PM – 4:00 PM: AFTERNOON SESSION**

**Process Safety Management from a Controls Perspective**

Karen D. Morton, P.E., FSEng (**Hargroove Controls & Automation**)

Process safety management (PSM) has become an important factor in the design and operations of facilities that use potentially explosive and poisonous chemicals. In the U.S., certain processes are covered under the OSHA PSM regulation and implementation incorporates technical standards from multiple engineering disciplines

including mechanical and instrumentation. This overview presentation includes the following topics:

- Process Safety Management Technical Standards and Regulations
- Process Controls and Safety Concepts
- Risk Reduction Methods and Layers of Protection
- Safety Instrumented Systems Overview

About the presenter:

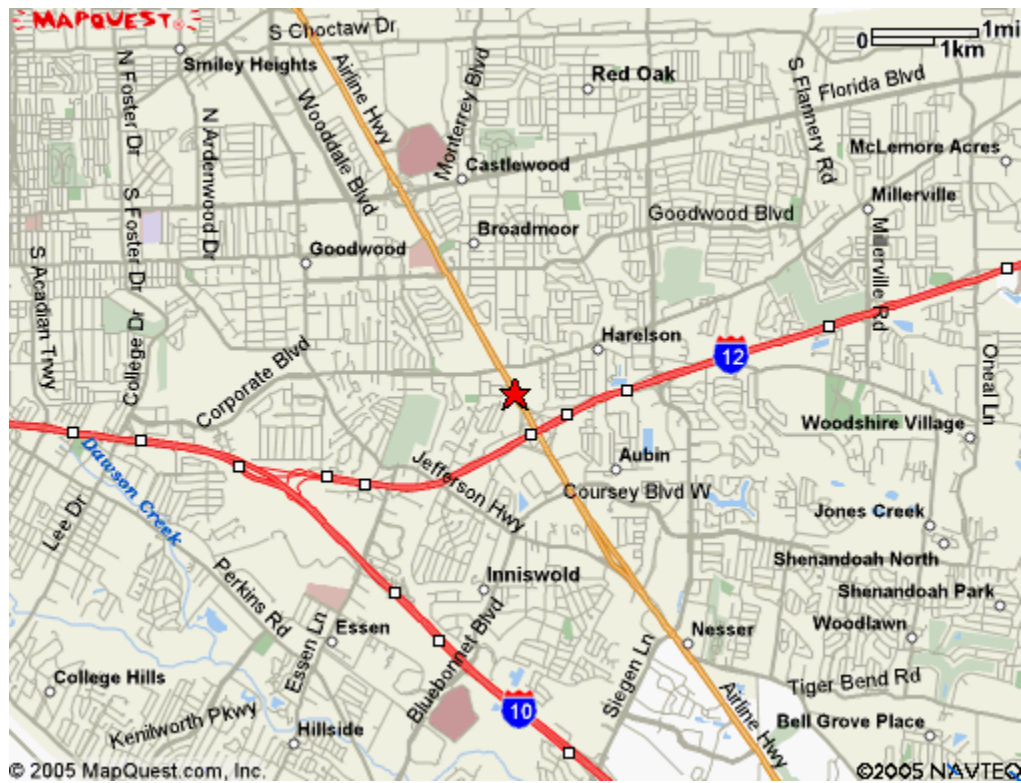
**Karen Morton** has worked as an engineer with process safety and control systems projects in South Louisiana's petrochemical industry since 1995. She is a licensed professional engineer in Louisiana, Texas, New Jersey and Alabama. She also has functional safety engineering certification from TÜV Rheinland. Karen works at Hargrove Controls + Automation in Baton Rouge as a C+A SIS Technical Consultant, where she concentrates on process safety management related projects. Karen co-authored the reference guide *Applied Mathematics for Safety Engineers* (published by the American Society of Safety Engineers). She and her husband, retired control systems engineer Walter M. Scott, III, are volunteer instructors for Baton Rouge's Cajun Clickers Computer Club. They were co-hosts on WJBO's "Cajun Clickers Computer Show" from 2002 - 2008. Her many hobbies include running, photography, jewelry making, writing and science fiction.

**Note: Due to travel, sickness or unforeseen events - 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 Holiday Inn South (9940 Airline Hwy, Baton Rouge, LA 70816)



## 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)