72nd Annual Conference
2025 – Dallas, Texas, USA

Petroleum and Chemical Industry Committee Technical Conference, and Standards Committee Meetings

September 22 – 25, 2025

Conference Program

***Industry Standards Working Group Meetings** – September 18th to 21st*
***Petroleum and Chemical Industry Committee Conference** – September 22nd to 24th*
***PCIC Conference Tutorials** – September 25th*
***Confernce Website** – https://www.pcic2025.com/*

Welcome to Dallas

IEEE IAS PCIC 2025

On behalf of the Dallas 2025 Local Conference Committee, I am excited to invite you to the Seventy-Second Annual PCIC Technical Conference in Dallas, Texas. All conference activities will take place at the Sheraton Hotel, 400 Olive St., Dallas, Texas.

The annual PCIC conference is a gathering of electrical professionals with a common focus on electrical installations, operations, and safety. We are excited about the many high-quality technical papers that are being developed over the next year for presentation at the conference. The PCIC Conference is one of the best educational values in the process industries, providing high-quality technical papers by professionals, for professionals, free of commercialism. The conference is also a great opportunity for professional development, offering access to over 50 technical papers and eight tutorials that cover a wide range of topics. Continuing Education credits are available through IEEE either as Continuing Education Credits (CEUs) or Professional Development Hours (PDHs).

Mark your calendars, and we are looking forward to seeing everyone in person at the 2025 IEEE IAS PCIC Technical Conference, September 22-25, 2025, in Dallas, Texas!

Dr. Robert A Durham, PhD, FIEEE
PCIC 2025 Local Conference Committee Chair

Petroleum and Chemical Industry Committee Officers

Chair	Paul Sullivan	DuPont
Vice Chair	Robert Durham	THEWAY Labs
Secretary	Rick Paes	Rockwell

PCIC Subcommittees

Advisory & Awards – Chair	Kevin Peterson	P2S Inc.
Advisory & Awards – Eugene J Fagan Fund	Dennis Bogh	IPS
Advisory & Awards – PCIC Chair	Jim Bowen	MMT Services Inc.
Awards Nominating – Chair	Jacqueline Morris	LyondellBasell Industries
Codes and Regs – Chair	Will McBride	CONAM
Emeritus – Chair	Daleep Mohla	Dow – Retired
Engineer's Development – Chair	Kayvon Mirdamadi	Innomotics
Facilities Planning – Chair	Dean Ruiz	MS Benbow & Assoc
Financial – Chair	Nicole Neuman	Synergy Engineering
Historical – Chair	Rick Bried	Shell Pipeline Co. LP – Retired
Information Technology — Chair	Merisha Bily	Shell Canada Ltd.
Marketing – Chair	John Focke	Powell Industries, Inc.
Membership – Chair	Bill Stewart	Chevron
Papers Review – Chair	Brant Cassimere	ExxonMobil
Publications – Chair	Mike Caruso	Baldor Electric
Standards – Chair	Shelly DeGrate	Grace Technologies
Sponsorship – Chair	Nehad El-Sherif	MNKYBR Technologies
Tutorials – Chair	Janet Flores	

Chemical Technical Subcommittee – Chair	Robbie McElveen	Parker-Hannifin
Emerging Technologies Technical Subcommittee – Chair	Richard Anderson	Fluor
International Technical Subcommittee – Chair	Rakan El-Mahayni	Saudi Aramco
Marine Industry Technical Subcommittee – Chair	Karen Johnson	Innomotics
Midstream Technical Subcommittee – Chair	Manish Verma	TMEIC
Mining Industry Committee – Chair	Nicole Neuman	
Production Technical Subcommittee – Chair	Matthew Marchiano	Hess
Refining Technical Subcommittee – Chair	Patrick Loupe	Occidental Chemical
Safety Technical Subcommittee – Chair	Tony Parsons	Eaton

Dallas 2025 PCIC Local Conference Committee

Robert Durham	Local Committee Chair	The Way Labs
Jackie Morris	Local Committee Vice-Chair	LyondellBasell
Chris Heron	Local Committee Vice-Chair	Integrated Power Services
Jackie Sanders	Facilities Chair	Ashgrove
Jonathan Havey	Facilities Vice-Chair	Okonite
Pam Gold	Finance	GIAC Group
Nicole Neuman	Finance Vice-Chair	Synergy Engineering
Jerold Sauter	Secretary	Chemelex

Dallas 2025 PCIC Local Conference Committee (Continued)

Brook Durham	Special Assistant to the Chair	The Way Labs
Monica DeJohn	Catering Chair	Dialight
Chuck Meyer	Catering Vice-Chair	Dialight
Dean Ruiz	Chair of Vice Chairs	MS Benbow and Associates
Marty Cole	Conference Program Chair	Hubbell Canada ULC
Bryan Hendon	Conference Program Vice-Chair	Emerson
Rick Bried	Emeritus Liaison	Shell Pipeline Co. LP - Retired
Jamie Tran	Emeritus Vice-Liaison	Calumet Specialty
Luis Rosario	Engineer Development Chair	Toshiba
Morgan Gentry	Engineer Development Volunteer	Dykman
Shelly DeGrate	Guest Hospitality Co-Chair	Grace Technologies
Michael Reiber	Guest Hospitality Co-Chair	Dykman
Heather Paes	Guest Hospitality Vice-Chair	Rockwell
Skip Alderson	Logistics	ABB
Peter Baen	Monday Night Social Chair	EXERTHERM by Eaton
Olivia Boone	Monday Night Social Vice-Chair	Qualitrol Corp
Jeffrey Long	Monday Night Social Vice-Chair	Siemens
Tony Trim	PCIC App Chair	Eaton
Mike Caruso	Publications Chair	ABB
Ted Inbau	Publications Vice-Chair	Chevron
Eric Canning	Publicity, Printing, & Signs Chair	Okonite
Mark Simmons	Publicity, Printing, & Signs Vice-Chair	Okonite
Johnny Wynn	Publicity, Printing, & Signs Vice-Chair	Okonite (retired)
Lana DeLeon	Registration Chair	TECO-Westinghouse
Steve Adams	Registration Vice-Chair	MKEC
Johann Sproule	Registration	Dykman
Charles Miller	Registration	Burns & McDonnel
Valerie Benson	Registration	Wesco
Monica Simpson	Registration	Entrust Solutions Group
Mac Criswell	Registration	R Stahl (retired)
Daleep Mohla	Safety/Emergency Planning Chair	DCM Consulting
Ray Crow	Safety/Emergency Planning Vice-Chair	DRC Consulting Inc
Andrew Ackerman	Schedule Coordinator	NEI Engineering
Grant Aramburu	Social Media Vice-Chair	Dykman
Javier Garza	Social Media Vice-Chair	Bartec
Derrick Robey	Technical Program Chair	ExxonMobil
Dane Martindale	Technical Program Vice-Chair	Okonite
Alfredo Marcia	Technical Audio-Visual Chair	ITT Inc.
Daleep Mohla	Tutorials Liaison	DCM Consulting
Jackie Morris	Vendor Hospitality / Contributions Chair	LyondellBasell
Michael Hudgens	Vendor Hospitality Vice-Chair	Ashgrove
Daniel Cochran	Website Chair	Burns & McDonnel
Duane Brossart	Website Vice-Chair	Chemelex
Rebecca Rama	Social Media Chair	Innomotics
Jackie Morris	Vendor Hospitality / Contributions Chair	LyondellBasell
Michael Hudgens	Vendor Hospitality Vice-Chair	Ashgrove

20 25 DALLAS IEEE PCIC

IEEE IAS Petroleum and Chemical Industry Committee Conference Mission

To provide an international forum for the exchange of electrical applications technology relating to the petroleum and chemical industry, to sponsor appropriate IEEE standards activity for that industry, and to provide opportunities for professional development.

PCIC Strategies

1. The IEEE IAS Petroleum and Chemical Industry Committee Conference Annual Technical Conference will be held in North American locations of petrochemical industry strength, and its location will be rotated annually in an effort to attract national and international participation.

2. The PCIC will proactively promote participation by a broad base of PCIC representatives, with an emphasis on both early-career younger and retired engineers.

3. PCIC Conference attendees will be encouraged to participate in technical activities including authorship of papers and tutorials and participation in standards development.

4. The PCIC develops technical standards relevant to the petroleum and chemical industry that drive technology development, and standardization and coordinates these activities with the IEEE Standards Association and other standards making bodies.

5. The PCIC will offer tutorials directed at enhancing the technical, communication, and interpersonal skills of petroleum and chemical industry engineers.

6. The quality of the PCIC paper offerings is essential for the PCIC mission to succeed and will be given highest priority. Preference in paper selection will be given to practical, application-oriented papers.

7. The PCIC will actively seek opportunities for rewarding participating members for contributions to the PCIC and the profession.

8. Technical Subcommittee areas of specialty will be continuously evaluated and updated to reflect the evolving needs of the industry.

9. User, manufacturer, consultant and contractor participation will be encouraged in the activities of the PCIC to strengthen the conference technical base.

10. The PCIC will develop international collaborative partnerships as deemed appropriate to promote the PCIC Mission further.

Technical Subcommittees of the IEEE IAS Petroleum and Chemical Industry Committee and the IEEE IAS Mining Industry Committee

The IEEE IAS Petroleum and Chemical Industry Committee technical subcommittees solicit technical papers to enable the exchange of electrical applications technology related to the petroleum and chemical industry.

Chemical Subcommittee
The Chemical Technical Subcommittee provides a forum for IEEE PCIC members to communicate technical papers related to the production of chemicals.

Emerging Technologies Subcommittee
To advance electrical engineering technology, applications, technical papers and industry standards for the emerging technologies within the petrochemical industry. This subcommittee provides an international forum to publish technical papers related to these topics at the annual PCIC conference.

International Subcommittee
The scope of the International Subcommittee is to provide technical sessions presented by non-North American authors that would be of interest to conference attendees with a purpose of bringing international participation to the North America PCIC Conference.

Marine Industry Subcommittee
The Marine Industry Subcommittee (MIS) provides an opportunity to expand the technical transfer of information and standards between the petroleum industry and the marine industry. The MIS facilitates the use and understanding of the currently issued standards such as IEEE-45 dot series, IEEE 1580 and IEC/IEEE 80005. MIS has been a leader in harmonizing standards with IEC. MIS also provides for the necessary working groups to keep the IEEE standards current and develop new standards as needed.

Midstream Subcommittee
The Midstream Subcommittee deals with electrical questions involved with transportation and storage of petroleum and chemical materials. This includes controls, measurement, data handling, power systems, motors and drives associated with pipelines, tankage, valves and conveyors.

Mining Industry Committee (IEEE IAS only)
The Mining Industry Committee is responsible for all matters within the scope of the IAS in which the emphasis or dominant factor specifically relates to all mining and related operations, many of which are of interest to PCIC members.

Production Subcommittee
The Production Technical Subcommittee provides a forum for PCIC members to communicate technical papers related to drilling, well head, and facilities operations of oil and gas wells.

Refining Subcommittee
The Refining Technical Subcommittee provides a forum for IEEE PCIC members to communicate technical papers related to the refining industry.

Safety Subcommittee
The Safety Subcommittee was chartered in 1991 and has served to accelerate the dispersion of information and knowledge impacting electrical safety in the petroleum and chemical industry.

IEEE IAS PCIC Conference First-Time Attendees

The PCIC leadership welcomes all those attending the annual conference for the first time. The conference provides an excellent opportunity to learn more about advancements in the petrochemical industry, to meet a wide range of other individuals involved, from newer folks to seasoned veterans, and to have a bit of fun while doing it. This year there are 63 papers being presented that focus on electrical engineering topics related to the petroleum, chemical, and mining industries, as well as six half-day tutorials on key topics.

The conference also provides an excellent opportunity to participate in IEEE Standards development and for you to network with a wide range of professionals involved in this industry. All paper presentations, IEEE Standards meetings, PCIC Subcommittee meetings are open to all attendees, and at the end of the conference day, you can relax and enjoy the social events and vendor hospitality suites.

Your badge will identify you as a "First Time Attendee" (FTA) and don't be surprised if folks stop to chat with you, even if it's just to welcome you to the conference. You also are encouraged to participate in the Engineer Development Subcommittee (EDS) orientation breakfast and luncheon, and to take advantage of the discount on tutorials (see the EDS information below). The PCIC conference is not just for engineers, it is for all those involved in this industry. We look forward to meeting you. And if this is your guest's first time attending PCIC, see page 11).

***NOTE:* First-time PCIC attendees** *are welcome to participate in all Engineer Development Subcommittee and PCIC activities and we encourage you to post about your conference experience on LinkedIn, Facebook or Twitter. Welcome to Dallas!!*

Engineer Development Subcommittee

The Engineer Development Subcommittee is an administrative subcommittee of the IEEE IAS Petroleum and Chemical Industry Committee. The subcommittee was formed (as Young Engineer Development Subcommittee: YEDS) in 1996 with the charter to "promote participation in PCIC technical conference and provide personal professional growth opportunities".

The Engineer Development Subcommittee also focuses on all first-time PCIC attendees and those beginning their career in the petrochemical industry, regardless of age, This Subcommittee sponsors two major conference activities and encourages your participation in them:

- **The PCIC Engineer Development and First Time Attendee Orientation Breakfast (see page 8)**
- **The PCIC Engineer Development Orientation and First Time Attendee Luncheon (see page 9)**

Survival Guide – For those new to PCIC, the committee publishes a "survival guide". The guide explains the goal of the conference, the structure, daily events and meetings, dress codes, and ways to plan your time to gain the most out of the conference. The PCIC Survival Guide can be downloaded at: https://www.pcic2025.com/survival-guide.html

Tutorials – PCIC is offering six half-day technical tutorials on Thursday, September 25, 2025. following the main conference. First time attendees registered for the full conference are eligible to attend one tutorial at a reduced rate. A second tutorial can be attended at the regular price. See page 32 for more information on the PCIC Tutorials and requirements to pre-register for tutorials.

Conference Record

The registration fee includes a one-time free download of the Conference Record during the conference. Papers can be downloaded directly using the PCIC App during the conference. Bound copies of the Conference Record are available for a fee of $75.00.

Information for Authors and Presenters

Registration

At least one contributing author must be registered for the conference and present on the day their paper is scheduled to be presented. Any additional person(s) involved in the presentation of their paper must be similarly registered for the conference.

Authors' Screening Room

Screening rooms with projection systems are provided for authors/presenters to confirm their equipment is compatible with audio visual systems used by the conference. Please note presenters are required to use their own presentation device that is compatible with projection technology used by PCIC (e.g., laptop, tablet, etc.). For information on A/V systems being used at the conference, contact Technical Program Chair Derrick Robey email derrick.robey@ieee.org

The authors' screening rooms are in State Room 1 on the third floor of the Sheraton Convention Center.

Sunday: .... 12:00 p.m. – 9:00 p.m.
Monday, Tuesday, and Wednesday: .... 7:00 a.m. – 9:00 p.m.
Thursday: .... 7:00 a.m. – 2:00 p.m.

Authors' Breakfast

A complimentary breakfast will be served from 7:00 a.m. to 8:00 a.m. for the presenters of the papers and tutorials each day of the conference in the in Lonestar Ballroom C1 in the Sheraton Convention Center.

NOTE: *All authors and presenters must attend this breakfast* ***on the day their paper is being presented (only****) to meet their session chair, review session logistics, check the audio video compatibility of their equipment, and to receive their PCIC certificate and authors' memento.*

IEEE-IAS-PCIC On-Line Surveys

PCIC encourages feedback from the attendees to ensure that the Conference remains one of the premier conferences sponsored by IEEE and IAS. Following the conference, surveys will either be available on the PCIC web site (www.ieeepcic.com) or on the conference app (available at www.eventmobi.com/pcic2025) or you will be contacted with an alternate location. The following surveys are offered:

- ✔ General Survey
- ✔ Authors Survey
- ✔ Guest Survey
- ✔ First Time Attendees Survey

You only need to fill out one of the surveys, so please pick the one that is most appropriate.

PCIC®
IEEE • IAS
Petroleum and Chemical Industry Committee

2025 DALLAS
IEEE ◆ pcic

General Information

Registration – Check-in

Registration is at the Skybridge Office/ Registration is on the second floor of the Sheraton Dallas Hotel. It is accessible by an escalator from the lobby or the elevators in the three hotel towers.

- Saturday, September 20 .... 10:00 a.m. – 5:00 p.m.
- Sunday, September 21 .... 10:00 a.m. – 5:00 p.m.
- Monday, September 22 .... 6:30 a.m. – 4:00 p.m.
- Tuesday, September 23 .... 7:00 a.m. – 12:00 p.m.
- Wednesday, September 24 .... 7:00 a.m. – 12:00 p.m.
- Thursday, September 25 (for tutorial attendees not registered at conference) .... 7:00 a.m. – 8:00 a.m., 12:00 p.m. – 1:00 p.m.

Conference Breakfasts

Attendee Breakfasts

Registered attendees are welcome to attend a complimentary breakfast each morning of the conference in the Lonestar Ballroom B in the Sheraton Convention Center from 7:00 am to 8:15 am. The PCIC appreciates the companies that support these breakfasts. (Guests are welcome to attend, see below)

Authors' Breakfasts

Authors registered for the conference are required to attend the Authors' Breakfast on the day of their paper presentation (See page 7) in the Lonestar Ballroom C1 in the Sheraton Convention Center from 7:00 am to 8:00 am.

Guest Breakfasts

Registered guests are welcome to attend the main conference breakfast in the Lonestar Ballroom B in the Sheraton Convention Center, or if they would prefer, a light breakfast will be available for them in the Guest Hospitality Suite located in the Austin Ballroom 3 on the second floor of the hotel. (See page 11 for more information.)

PCIC Engineer Development and First Time Attendee Orientation Breakfast (EDS/FTA) (*Note: Pre-registration is required*)

Young engineers, first time attendees, and others interested in learning more about the PCIC are encouraged to attend the "***PCIC EDS/FTA Orientation Breakfast***" on Monday, September 22 from 7:00 a.m. to 8:00 a.m. in Lonestar Ballroom C4 in the Sheraton Convention Center. A presentation and a discussion will take place on the history of PCIC, how it functions, on ways that you can become more involved, and many other suggestions on how to enhance your conference experience. **You must check the "ED/FTA PCIC Orientation Breakfast" box during registration if you plan to attend**. (See page 9 for more information).

Women Professionals Networking Breakfast

PCIC is hosting a networking breakfast for women professionals that promotes diversity in the industry and provides an opportunity for women to meet peers and potential mentors. Women professionals that are registered Conference Attendees are invited to attend a complimentary breakfast on Tuesday morning in Lonestar Ballroom C4 in the Sheraton Convention Center from 7:00 am to 8:15 am. The PCIC appreciates the companies that supported and sponsored this breakfast.

Conference Luncheons

PCIC Monday Awards Luncheon – Monday September 22, 2025, in the Lonestar Ballroom BC in the Sheraton Convention Center. This event recognizes the achievement of conference delegates receiving PCIC, IAS, and IEEE Awards, new IEEE Fellows and PCIC Prize Paper Awards in the past year.

Emeritus Subcommittee Luncheon –Tuesday, September 23, 2025, in Lonestar Ballroom C1 in the Sheraton Convention Center. Attendance is limited to those who have been confirmed as Emeritus members by the PCIC Chair. The Emeritus Subcommittee is composed of PCIC members who have retired at least once from our industry. Members are required to consistently volunteer their services in support of various PCIC activities. If you are interested and feel you qualify, contact Daleep Mohla, Chair of the PCIC Emeritus Subcommittee at dcmohla@comcast.net

PCIC Engineer Development Orientation and "First Time Attendees" (EDS/FTA) Luncheon – Tuesday, September 23, 2025. from 11:45 a.m. to 12:45 p.m. in Lonestar Ballroom C4 in the Sheraton Convention Center. First time attendees are encouraged to attend this luncheon. It focuses on soliciting feedback from participants on how PCIC can better encourage new participation; improve professional development through PCIC and discuss new ideas for future PCIC conferences. ***Remember to check the* PCIC EDS/FTA Orientation *Tuesday PCIC Luncheon" box during registration if you plan to attend.***

Wednesday Luncheon Speaker – Eric Maddox

Eric Maddox is an author, motivational speaker, and consultant who teaches audiences worldwide in the art of Empathy Based Listening. He is the author of the book Mission: Black List No.1 (Harper Collins, 2008) which details his lead in the search and capture of Saddam Hussein.

After graduating from the University of Oklahoma in 1994, Eric enlisted in the U.S. Army where he was a paratrooper in the 82nd Airborne Division, a jumpmaster, and graduate of Ranger School. He then reenlisted in 1997 as a Chinese Mandarin linguist and interrogator. In 2003, he was sent to Tikrit, Iraq where he joined a Delta Force team who was searching for high value targets on the infamous Deck of Cards. After five months and over 300 interrogations, Eric was able to track down and eventually give the team the exact location of the spider hole in which Saddam hid. For this, he was awarded the Legion of Merit, the National Intelligence Medal of Achievement, the Defense Intelligence Agency Director's Award, and the Bronze Star.

Following the capture of Saddam, Eric was hired as the first ever civilian interrogator by the Defense Intelligence Agency where he went on to conduct over 2,700 interrogations of prisoners from 25 different countries.

Having served in the U.S. Army and Defense Intelligence Agency for 20 years, Eric now devotes his work full time to teaching what he learned during that time to audiences worldwide — the art of Empathy Based Listening.

About the IEEE IAS Petroleum and Chemical Industry Committee Conference

The annual PCIC conference is an exchange of technical ideas – not a trade show – that brings together professionals with a common focus on electrical installations and safety. The PCIC Executive and Local Conference Committees take great pride in providing a high-quality conference while keeping registration and participation costs reasonable. PCIC is the best educational value for anyone working in the petrochemical electrical field: Here's why:

- Conference papers and tutorials are authored by many of the most respected minds in the industry. Great care is taken to ensure that presentations are free of commercial content.
- Many PCIC members participate in writing industry standards. Working groups meet prior to the start of the conference to work on standards for the IEEE, API, and other organizations. These meetings are open to all conference registrants.
- Vendors are an integral part of PCIC. They support the technical and professional goals of the conference, author papers, sponsor conference functions, and host evening hospitality events. Vendor participation is encouraged and welcomed. All vendors must follow the PCIC etiquette rules.

Conference Activities Dress Code:

- For conference papers, tutorials, working groups, and standards meetings**, *business casual attire*** is acceptable and appropriate.
- Technical session leaders and paper presenters must wear ***professional business attire***. (For gentlemen, this means a suit or sports jacket with a tie; for ladies this means a dress, business suit, etc.)
- For the Monday Night Conference Social*, **semi-formal attire is required***.
- For vendor sponsored hospitality events, **casual attire** is acceptable.

Social Activities at the conference:

Conference attendees work hard during the day, but after the technical sessions conclude there's time to unwind, reconnect with friends, and network through some after-hours socializing. The events listed in the PCIC Hospitality and Social Calendar are open to all attendees that are registered for the full conference along with their guests at no additional charge. Major conference events include:

- **The Sunday Tailgate Party** is a long-running event where attendees and their guests can have some fun, enjoy some food and beverages, do some socializing, and watch Sunday football on the big screen. This year's **Tailgate Party** is hosted by **Toshiba** and will be held in the Dallas A1-A3 Ballroom in the Sheraton convention center from 12:00 p.m. to 4:00 p.m.
- **The Monday Night PCIC Conference Social** is the premier social event of the conference. This year's event is sponsored by the Local Committee and features some of Dallas's local food and beverages. You won't want to miss this opportunity to meet friends and colleagues in an entertaining, elegant cocktail party setting. The PCIC Conference Social will be held in the Grand Hall in the Sheraton Convention Center from 6:00 p.m. to 7:30 p.m. **Note: The dress code for the Conference Social is semi-formal.**
- **Vendor Hosted Events and Hospitality Suites.** Many vendors host major hospitality events and suites in the evenings where a good time can be had by all. These events and suites are open in the evening after the conference sessions. Consult the Social Calendar or the PCIC App for the days, times, and locations.

Nametags and lanyards are provided to attendees and guests to identify you as a registered conference participant. Nametags must be worn when attending any PCIC technical subcommittee meetings, paper presentations, tutorials, breakfasts, luncheons, social functions, vendor-hosted events, and hospitality suites. Attendees and guests must be over the age of 21 to participate in social functions, vendor-hosted events, and hospitality suites where alcohol is being served.

Note: *1. The PCIC Conference Social for attendees and one registered guest is included with your **full conference registration** only.*

*2. Admittance to the Conference Social is **not included** with any **"one-day only" conference registrations.***

"Monday and Tuesday only" registrants may pre-purchase Conference Social tickets during on-line registration or at the registration desk.

"Wednesday and Tutorials Only" registrants are not permitted to purchase Conference Social tickets.

Please remember: All conference attendees and registered guests must wear their conference name tag to be admitted to any PCIC activity.

Guest Information

The local PCIC committee takes great pride in welcoming the guests of our attendees, ensuring their time at the conference is both enjoyable and memorable. We understand how long the day can seem while waiting for meetings to end, so we've created a comfortable Guest Hospitality Suite where there is a light breakfast Monday to Wednesday, and a supply of beverages, and snacks all day – an inviting space to relax, socialize, and meet new friends away from the hustle and bustle. In addition, we've arranged a variety of off-site, chartered tours to help guests explore and enjoy the local area. We hope you have a wonderful time with us, and if you have any questions, our team in the hospitality suite is always happy to help.

Who can be the guest of an attendee? Conference Attendees may include one guest in their registration. A guest is the spouse, significant other, child, or friend of a registered conference attendee. **Registered guests cannot be** anyone that is involved in an electrical industry related occupation, this includes co-workers, associates that participate in any related industries, someone that is involved in any PCIC Conference papers or tutorials (as an author or presenter), or anyone involved in similar activities.

Guests of conference attendees are not allowed to participate in, or attend, any PCIC standards meetings, paper presentations, technical subcommittee meetings, official PCIC meetings, or PCIC conference luncheons. However, tickets may be purchased in advance for guests of a conference attendee to attend the Monday Awards Luncheon and the Wednesday PCIC Luncheon for an additional fee.

The guests of conference attendees are welcome to attend the conference attendee breakfasts (or the light breakfast available in the Guest Hospitality suite), the PCIC Conference Social, and all vendor hospitality functions at no additional charge.

First Time Guests. The PCIC Committee recognizes the importance of the guests of attendees and commits a lot of time and resources to make their conference experience memorable. And we understand that attending a large conference for the first time can be somewhat intimidating for some. For many years, PCIC recognized "First Time Attendees" to help them become better acquainted with the conference. PCIC and now recognizes "**First Time Guests**", The registration process has a check box where the guest's name is added, to identify your First-Time Guest. Ask for your First Time Guest" ribbon at the registration desk. And don't be surprised if folks stop and welcome you to the conference, share some helpful hints, let you know where the best suites and parties are, what tours you might want to go on, or other places of interest you might want to see. And you might just end up with new friends by the time you leave.

The Guest Hospitality Suite: The Guest Hospitality Suite is in Austin Ballroom 3 on the second floor of the hotel and is open from 7:30 am until 4:00 pm. A light breakfast is available in the suite Monday, Tuesday and Wednesday mornings before the guest tours depart.

Complimentary Guest Breakfasts: Guests of conference attendees are welcome to attend the main conference breakfast in Lonestar Ballroom B in the Sheraton Convention Center. Alternatively, a light breakfast will be served in the Guest Hospitality Suite at the times posted below.

Guest Hospitality Suite hours and food services:

Sunday:	8:00 a.m. to 4:00 p.m.	This is great place to meet other guests – No Food Service
Monday:	7:30 a.m. to 2:00 p.m.	Light Breakfast served for Guests only from 7:30 a.m. to 9:00 a.m.
Tuesday:	7:30 a.m. to 2:00 p.m.	Light Breakfast served for Guests only from 7:30 a.m. to 9:00 a.m.
Wednesday:	7:30 a.m. to 2:00 p.m.	Light Breakfast served for Guests only from 7:30 a.m. to 9:00 a.m.

Guest Tours are offered by the Local Committee on Saturday, September 20, 2025, through Wednesday, September 24, 2025. The tours allow participants to meet other guests while experiencing some of the local areas of interest. (See page 38 for details and pricing.)

Note: *Tours are subject to cancellation if registrations do not meet minimum capacity levels (with a full refund).*

Petroleum and Chemical Industry Committee Conference App

The IEEE IAS Petroleum and Chemical Industry Committee Conference 2025 App (PCIC2025) can also be accessed from any laptop, PC, tablet, or mobile device through any web browser at the website: www.eventmobi.com/pcic2025.

ANDROID APP ON Google play

Available on the App Store

The app is your interactive guide to the PCIC Conference, including:

- Paper Presentations
- IEEE-IAS-PCIC & Standards Meetings
- Tutorials
- Hospitality Events
- Attendee and Guest Meals
- Registration, Help, and Safety Information
- Guest Tours and guest social events
- Interactive maps for navigating conference events
- A Directory of Attendees, Guests, Authors, and others
- Web links to the hotel(s), conference center, airport, and other sites
- Links for downloading the entire Conference Record or individual presentations
- Alerts for last-minute changes and updates

Each attendee MUST register for the conference with a unique email address. It is highly recommended that any attendee guest(s) are added to the registration using a unique email address, so they access the PCIC App and view the Guest Events and any alerts or notices.

When accessing the App for the first time you will be instructed to enter the email address that you used to register for the conference. You will also be instructed to create and enter your own one-time unique password. You may choose any password that you like. If you should later forget your password, there will be a link for you to update it.

Condensed Etiquette Rules for Vendor Entertainment

Vendor participation is welcomed at the PCIC conference. Etiquette rules are designed to prevent a conflict of vendor activities with the technical programs. Conduct at the conference must comply with the complete PCIC Rules of Etiquette which are available at https://www.pcic2025.com/vendoretiquette.html. The following is a summary of those rules:

- All vendor personnel and their guests working in a hospitality suite must be registered for the conference.
- Hospitality rooms must be closed during all official conference functions (technical sessions, official luncheons, Conference Social, Subcommittee meetings, etc.)
- Commercial demonstrations and commercial literature distribution must be confined to the hospitality suite.
- Vendor activities outside the conference hotel must not host more than 25 conference delegates (exclusive of guests and host company personnel) at **no time between** 7:00 a.m. Monday, September 22, 2025, and 5:00 p.m. Wednesday, September 24, 2025.

Attendance of a vendor representative is mandatory at the "Vendor Pre-meeting" held Sunday September 21, 2025, from 3:00 p.m. to 4:00 p.m. in the Austin Ballroom 1 on the second floor of the hotel. Vendors will be contacted with additional details.

Myron Zucker Travel Grant

It is vital for the ongoing success of the IEEE-IAS Petroleum and Chemical Industry Committee to attract young, new electrical engineering talent who would greatly benefit from attending but are prevented from participating due to financial restrictions. Recognizing this, the PCIC has arranged with the IEEE Industrial Applications Society to sponsor a certain number of co-op/Intern students, or students in their last year of their university program, and those who graduated within the last two years of the conference to attend the conference through the Myron Zucker Travel Grant.

The Myron Zucker Travel Grant, which is administered by the First Time Attendees (FTA) / Engineers Development Subcommittee (EDS), provides the following benefits for the winning recipients:

- ✔ Up to $600 for travel allowance
- ✔ Free Hotel Registration
- ✔ Free Conference Registration as a Student
- ✔ One Free Tutorial

IEEE • IAS
Petroleum and Chemical Industry Committee

In order to be considered for the program the applicants shall:

- ✔ Be an engineering co-op/Intern student or have graduated less than 2 years ago from a recognized university, college or technical school.
- ✔ Be 21 years of age or older.
- ✔ Complete the application form, which is available on-line at; http://ieeepcic.com/operating-subcommittees/young-engineers/#Myron-Zucker-Student
- ✔ Submit, with the application form, a 200-word essay describing the importance of attending the PCIC technical conference.
- ✔ Be an Intern or be involved as a co-op worker for a company with one or more IEEE members who are full PCIC Conference registrants; one of whom will vouch for the applicant on the application form.
- ✔ Be a member, or a student member of IEEE.
- ✔ Become a member of the First Time Attendee (FTA) / Engineers Development Subcommittee (EDS) by attending the PCIC FTA/EDS Orientation Breakfast on the Monday of the conference and PCIC FTA/EDS Luncheon on Tuesday of the conference.
- ✔ Attend the Monday and Wednesday Conference Luncheons.
- ✔ Attend the general program meeting, technical paper presentations and at least one sub-committee meeting.

Applicants who are presenting papers or tutorials at the conference are not eligible for the Myron Zucker Travel Grant. This grant is exclusively available to students and new graduates attending the conference for the first time.

The recipient employers must be willing to pay the applicant their normal salary while they are at the conference.

The selection of the Myron Zucker Travel Grant Program recipients will be selected based on the quality of the submitted essays.

Applications including the mandatory essays are required no later than July 31, 2025. The applicants will be informed of the outcome of their applications by August 16, 2025.

Professional Development Hours (PDH) and Continuing Education Units (CEU)

PCIC offers PDH and CEU documentation, if required. Participation in the PCIC Conference standards or technical meetings, presenting or attending conference papers, and tutorials may be used as evidence of ongoing training and education for renewal of professional registration. It is the responsibility of everyone to check and confirm the requirements for continuing education of their respective organizations. The PDH and CEU certification processes are managed separately, completely independent of each other within PCIC. CEUs are normally converted into PDHs (1 CEU = 10 PDHs).

Note: IEEE-IAS-PCIC applies separate charges for PDH and CEU certificates which is in addition to the Conference Registration and Tutorial fees.

Professional Development Hours (PDH)

PCIC has a process for attendees to log and receive a PDH certificate for presenting or attending conference papers, participating in standards activities, and subcommittee meetings at the conference.

PCIC charges a $40.00 fee for processing a PDH certificate. When an attendee registers for a PDH certificate, a form for logging your participation at events during the conference will be included with your registration packet. Instructions are provided on the form for submitting the completed worksheet.

IEEE Continuing Education Units (CEU)

IEEE Continuing Education Units (CEUs) are available for attending PCIC tutorials. Attendees earn 0.4 CEU's for each tutorial attended provided the completed forms are returned to the presenter at the end of class.

IEEE CEU certificates are provided directly by IEEE for tutorial participation only and PCIC charges a $40.00 fee per tutorial for processing a CEU certificate. The IEEE rules for CEU Certificates do not allow these to be issued for any other PCIC participation (such as paper presentations and standards meetings). (See notes 3 and 4 below.)

IMPORTANT NOTES REGARDING PDHs AND CEUs

1. **Pre-registration is mandatory** to obtain these certificates. Please check the appropriate box on the registration form to receive the appropriate documentation with your registration package.
2. **All PDH documentation/forms must be completed and submitted on-line by the *attendee* prior to October 10th, 2025.** If this information is not received prior to that date, it will not be possible to issue a certificate. All PDH documentation and/or certificates will be emailed after the conference.
3. **To obtain CEU Credits, attendees** must be registered and attend the tutorial. A CEU evaluation form is provided to attendees at the start of each tutorial and **the completed form must be returned to the presenter at the end of the tutorial or a CEU cannot be issued. The IEEE CEU process only allows for submittal of CEU forms at the end of each tutorial, no late or other means is permitted.**
4. **PDH and CEU credits are optional**, and no action is required by an attendee if these credits are not required.

IEEE

IAS IEEE INDUSTRY APPLICATIONS SOCIETY IEEE

pcic IEEE • IAS Petroleum and Chemical Industry Committee

IEEE-IAS-PCIC Conference Schedule-at-a-Glance

Most of the sessions in the table below are being held in the Sheraton Convention Center, PCIC Executive and Local Committee meetings are on the 38th floor of the Center Tower

	Conference Breakfasts	Technical Sessions	Luncheons	Evening Events
Monday Sept. 22, 2025	**7:00 a.m. – 8:00 a.m.**	**8:00 a.m. - 11:15 a.m.**	**11:45 a.m. - 1:30 p.m.**	**6:00 p.m. - 7:30 p.m.**
	⑤ ***Authors' Breakfast*** *Lonestar Ballroom B*	**General Program Session I** – Dallas Ballroom - BC	① ***PCIC Awards Luncheon –*** *Lonestar Ballroom BC*	② **Conference Social –** Grand Hall
	④ ***EDS/FTA PCIC Orientation Breakfast –*** *Lonestar Ballroom C4*	**2:00 p.m. - 5:00 p.m.**		**5:00 p.m. - 6:00 p.m. and 7:30 p.m. – Closing**
		General Program Session II – Dallas Ballroom BC		
	① **Attendees' Breakfast** – Lonestar Ballroom C1	**Emerging Technology Technical Session I** – Dallas D1-2		**Visit Vendors Hospitality Suites**
		Marine Technical Session I – Dallas Ballroom D3		
		Midstream Technical Session I – Dallas Ballroom A3`		
		Production Technical Session I – Dallas Ballroom A1-2		
Tuesday Sept. 23, 2025	**7:00 a.m. – 8:00 a.m.**	**8:15 a.m. - 11:15 a.m.**	**11:15 a.m. - 12:45 p.m.**	**5:15 p.m. – Closing**
	⑤ ***Authors' Breakfast*** – *Lonestar Ballroom B*	**Chemical Technical Session I** – Dallas Ballroom A1-2	① **Attendees Lunch –** Lonestar Ballroom B	**Visit Vendors Hospitality Suites**
	④ ***Women Professionals Breakfast*** *– Lonestar Ballroom C4*	**International Technical Session I** – Dallas Ballroom D1-2	④ ***Emeritus Lunch –*** *Lonestar Ballroom C1*	
		Mining Industry Committee Session I – Dallas Ballroom A3		
		Refining Technical Session I – Dallas Ballroom D3		
	① **Attendees' Breakfast** – Lonestar Ballroom C1	**Safety Technical Session I** – Dallas Ballroom B	③ ***Abstract Selection –*** *Majestic 1*	
		12:45 p.m. - 5:15 p.m.	④ ***FTA/EDS Lunch*** – *Lonestar Ballroom C4*	
		IEEE-IAS-PCIC Subcommittee Meetings See Meeting Schedule		
Wednesday Sept. 24, 2025	**7:00 a.m. – 8:00 a.m.**	**8:15 a.m. - 11:15 a.m.**	**11:45 a.m. - 1:30 p.m.**	**5:00 p.m. – Closing**
	⑤ ***Authors' Breakfast*** – *Lonestar Ballroom B*	**Chemical Technical Session II** – Dallas Ballroom A1-2	① **PCIC Luncheon –** Lonestar Ballroom BC	**Visit Vendors Hospitality Suites**
		International Technical Session II – Dallas Ballroom D3		
		Mining Industry Committee Session II – Dallas Ballroom A3		
	① **Attendees' Breakfast** – Lonestar Ballroom C1	**Refining Technical Session II** – Dallas Ballroom D1-2		
		Safety Technical Session II – Dallas Ballroom B		
		2:00 p.m. - 5:15 p.m.		
		Emerging Technology Technical Session II – Dallas B		
		Marine Technical Session II – Dallas Ballroom D1-2		
		Midstream Technical Session II – Dallas Ballroom A1-2		
		Mining Industry Technical Session III – Dallas Ballroom A3		
		Production Technical Session II – Dallas Ballroom D3		
Thursday Sept. 25, 2025	**7:00 a.m. – 8:00 a.m.**	**8:00 a.m. - 5:00 p.m.**	**12:00 p.m. - 1:00 p.m.**	***Notes*** ①- Only Registered Attendees and Guests are permitted to attend breakfasts. Luncheons are limited to registered attendees only. ② Single day registrations do not include entry to the Conference Social ③ Committee Members Only ④ Must be pre-registered to Attend this event ⑤ Open to Authors on the day of presenting & Specific IEEE-IAS-PCIC Committee Members Only ⑥ Open to Tutorial Attendees only
	⑥ ***Tutorial Presenters' Breakfast*** – *Dallas Ballroom A1*	③ ***PCIC Annual Business Meeting*** *Chapparal (CT 38)*	③ ***PCIC Executive Committee Lunch*** – *Chapparal (CT 38)*	
	⑥ ***Tutorial Attendees Breakfast –*** *Dallas Ballroom B*	**8:00 a.m. – 11:45 a.m.**		
		Tutorial T1 – Dallas Ballroom A3		
		Tutorial T2 – Dallas Ballroom D1	**12:00 p.m. – 12:45 p.m.**	
		Tutorial T3 – Dallas Ballroom D3	⑥ ***Tutorial Luncheon –*** *Dallas Ballroom B*	
		1:15 p.m. - 5:00 p.m.		
	③ ***PCIC Executive Committee Breakfast*** – *Chapparal (CT 38)*	**Tutorial T4** – Dallas Ballroom A3		
		Tutorial T5 – Dallas Ballroom D1		
		Tutorial T6 – Dallas Ballroom D3		

2025 PCIC Standards Working Groups and PCIC Technical Subcommittee Meeting Schedule

The PCIC Standards Subcommittee coordinates the activities of approximately 50 IEEE and other industry related standards. The individual Standard Committees establish a Working Group to meet, discuss and make the technical decisions necessary to develop and maintain their standard. Many of these Working Groups arrange their meeting schedule a few days before or after the PCIC annual conference.

The key to any standard is the quality and commitment of its members. Technical knowledge or expertise is just a part of what constitutes being a good member: Consistent participation, the ability to listen, to discuss, and to understand, along with a willingness to accept the ideas of others, is just as important.

The PCIC encourages all attendees, especially new attendees, to increase their value from the PCIC conference by actively participating in the various Standards Working Group meetings. You are welcome to attend as a guest, or better yet, join as a member to influence the outcome of the next edition, or to work on the development of a completely new standard. Active participation provides a greater insight and understanding of the industry issues that are addressed in the development and updating of these Standards.

The PCIC Technical Subcommittees solicit and review technical papers that support the exchange of electrical applications technology related to the petroleum and chemical industry. If you are not presently a member of one of these subcommittees, we also invite you to attend one of the Tuesday afternoon sessions that are of interest to you, and to join as a member.

The individual meeting schedule is listed below. PCIC registered attendees are invited to attend any of these meetings, except for those restricted to specific groups or subcommittee members, which are indicated by an ***asterisk (*) and gray background***

Most meetings are in the Conference Center,
The Meetings in the hotel center tower are marked with (CT) ***and floor number, those in the hotel are on the 2nd Floor*** (2nd fl)

Please note*: Rooms are subject to change. Please check the final program or PCIC2025 APP to confirm.*

Thursday September 18, 2025.		**Room**
8:00 a.m. – 5:00 p.m.	API RP 505 – Area Classification	State Room 1
8:00 a.m. – 5:00 p.m.	API Standard 541 - Form-wound Squirrel Cage Induction Motors 375kW (500HP) and Larger	State Room 2
Friday September 19, 2025.		
8:00 a.m. – 3:00 p.m.	API RP 505 – Area Classification	State Room 1
8:00 a.m. – 3:00 p.m.	API Standard 547 – General Purpose Form-wound Squirrel Cage Induction Motors – 185kW (250HP) through 2240kW (3000HP)	State Room 2
3:00 p.m. – 5:00 p.m.	API SOEE (Subcommittee on Electrical Equipment)	Majestic 4-5 (CT 37)
Saturday September 20, 2025.		
9:00 a.m. – 11:00 a.m.	IEEE 1814 – RP for Electrical System Design Techniques to Improve Electrical Safety	Majestic 6-7 (CT 37)
11:00 a.m.– 1:00 p.m.	IEEE 1683- Guide for Enhanced Safety MCCs	Majestic 6-7 (CT 37)
1:00 p.m. – 2:00 p.m.	IEEE 1068 - Standard for Repair and Rewinding of AC Electric Motors	Majestic 6-7(CT 37)
1:00 p.m. – 3:00 p.m.	IEEE 1584.2 - Guide and Checklists for the Data Collection for Performing an Arc Flash Hazard Calculation Study	Houston Ballroom C
1:00 p.m. – 5:00 p.m.	IEEE 2969 – Guide for Continuous Thermal Monitoring for SWGRs and MCCs up to 52kV	Majestic 3 (CT 37)
2:00 p.m. – 4:00 p.m.	IEEE 841 & 841.1 - Standards for Severe-Duty, TEFC Squirrel Cage Induction Motors - up to 500HP	Majestic 6-7 (CT 37)
3:00 p.m. – 5:00 p.m.	IEEE Trace Heating Standards - P515, P515.1, P60079-30-1 & -2, P62395-1 & -2, P844	Majestic 8 (CT 37)

4:00 p.m. – 5:00 p.m.	IEEE 1349 – Guide for Electric Machines in Hazardous (Classified) Locations	Majestic 6-7 (CT 37)
Sunday September 21, 2025.		**Room**
8:00 a.m. – 9:00 a.m.	*IEEE-IAS-PCIC Standards Working Group Officers Breakfast**	*Majestic 1 (CT 37)*
8:00 a.m. – 9:00 a.m.	*ExCom Awards Nominating Subcommittee**	*Majestic 2 (CT 37)*
9:00 a.m. – 11:00 a.m.	*ExCom Facilities Planning and Finance Subcommittees joint meeting**	*Majestic 4-5 (CT 37)*
9:30 a.m. – 12:00 p.m.	IEEE 1566 - Standard for Performance of Adjustable Speed AC Drives Rated 375 kW & Larger	State Room 2
11:00 a.m. – 12:00 p.m.	*Eugene Fagan Fund**	*Majestic 2 (CT 37)*
1:00 p.m. – 4:00 p.m.	*Advisory & Awards Subcommittee Meeting**	Majestic 4-5 (CT 37)
1:00 p.m. – 3:00 p.m.	Codes and Regulations Subcommittee Meeting	Austin Ballroom 1 (2nd fl)
3:00 p.m. – 4:00 p.m.	Vendor Hospitality Pre-event Meeting	Austin Ballroom 1 (2nd fl)
4:00 p.m. – 5:00 p.m.	Tutorials Subcommittee Meeting	Majestic 2 (CT 37)
Monday September 22, 2025.		
7:00 a.m. – 8:00 a.m.	*Authors' Breakfast* (see page 7)*	*Lonestar Ballroom C1*
7:00 a.m. – 8:15 a.m.	Attendees' Breakfast	Lonestar Ballroom B
7:00 a.m. – 8:00 a.m.	*IEEE-IAS-PCIC Orientation Breakfast – EDS / FTA (Must pre-register to attend, see page 9)*	*Lonestar Ballroom C4*
8:00 a.m. – 12:00 p.m.	*IAS Board Meeting**	*Chaparral Boardroom (CT 38)*
8:00 a.m. – 11:15 a.m.	General Technical Session I	Dallas Ballroom BC
11:45 a.m. – 1:30 p.m.	PCIC Awards Luncheon	Lonestar Ballroom BC
2:00 p.m. – 5:00 p.m.	General Technical Session II	Dallas Ballroom BC
2:00 p.m. – 5:00 p.m.	Emerging Technology Technical Session I	Dallas Ballroom D1-2
2:00 p.m. – 5:00 p.m.	Marine Technical Session I	Dallas Ballroom D3
2:00 p.m. – 5:00 p.m.	Midstream Technical Session I	Dallas Ballroom A3
2:00 p.m. – 5:00 p.m.	Production Technical Session I	Dallas Ballroom A1-2
6:00 p.m. – 7:30 p.m.	Conference Social	Grand Hall
Tuesday September 23, 2025.		
7:00 a.m. – 8:00 a.m.	*Authors' Breakfast* (see page 7)*	*Lonestar Ballroom C1*
8:00 a.m. – 12:00 p.m.	*IAS Board Meeting**	*Chaparral Boardroom (CT 38)*
7:00 a.m. – 8:15 a.m.	*Women Professionals Breakfast* (see page 6)*	*Lonestar Ballroom C4*
7:00 a.m. – 8:15 a.m.	Attendees' Breakfast	Lonestar Ballroom B
8:15 a.m. – 11:15 a.m.	Chemical Technical Session I	Dallas Ballroom A1-2
8:15 a.m. – 11:15 a.m.	International Technical Session I	Dallas Ballroom D3
8:15 a.m. – 11:15 a.m.	Mining Industry Technical Session I	Dallas Ballroom A3
8:15 a.m. – 11:15 a.m.	Refining Technical Session I	Dallas Ballroom D1-2
8:15 a.m. – 11:15 a.m.	Safety Technical Session I	Dallas Ballroom B
11:15 a.m. – 12:45 p.m.	PCIC Attendees Lunch (*Grab & Go*)	Lonestar Ballroom B
11:15 a.m. – 12:45 p.m.	*Emeritus Luncheon* (Emeritus Subcommittee members only)*	*Lonestar Ballroom C1*
11:15 a.m. – 12:45 p.m.	*Abstract Selection Lunch**	*Majestic 1 (CT 37)*
11:15 a.m. – 12:45 p.m.	*EDS / FTA Lunch* (Must pre-register to attend, see page 9)*	*Lonestar Ballroom C4*
12:45 p.m. – 2:15 p.m.	Standards Subcommittee Meeting	Dallas Ballroom B

2:15 p.m. – 3:45 p.m.	Chemical Subcommittee Meeting	Dallas Ballroom C
Tuesday September 23, 2025. (continued)		
2:15 p.m. – 3:45 p.m.	Emerging Technologies Subcommittee Meeting	Dallas Ballroom D1-2
2:15 p.m. – 3:45 p.m.	International Subcommittee Meeting	Dallas Ballroom D3
2:15 p.m. –3:45 p.m.	Marine Industry Subcommittee Meeting	Lonestar A2
2:15 p.m. – 3:45 p.m.	Midstream Subcommittee Meeting	Lonestar A3
2:15 p.m. – 3:45 p.m.	Mining Industry Committee Meeting	Dallas Ballroom A3
2:15 p.m. – 3:45 p.m.	Production Subcommittee Meeting	Dallas Ballroom A1-2
2:15 p.m. – 3:45 p.m.	Refining Subcommittee Meeting	Dallas Ballroom B
3:45 p.m. – 5:15 p.m.	Safety Subcommittee Meeting	Dallas Ballroom C
Wednesday September 24, 2025.		
7:00 a.m. – 8:00 a.m.	*Authors' Breakfast* (see page 7)*	Lonestar Ballroom C1
7:00 a.m. – 8:15 a.m.	Attendees' Breakfast	Lonestar Ballroom B
8:15 a.m. – 11:15 a.m.	Chemical Technical Session II	Dallas Ballroom A1-2
8:15 a.m. – 11:15 a.m.	International Technical Session II	Dallas Ballroom D1-2
8:15 a.m. – 11:15 a.m.	Mining Industry Technical Session II	Dallas Ballroom A3
8:15 a.m. – 11:15 a.m.	Refining Technical Session II	Dallas Ballroom D3
8:15 a.m. – 11:15 a.m.	Safety Technical Session II	Dallas Ballroom B
11:45 a.m. – 1:30 p.m.	PCIC Luncheon	Lonestar Ballroom BC
2:00 p.m. – 5:00 p.m.	Emerging Technology Technical Session II	Dallas Ballroom B
2:00 p.m. – 5:00 p.m.	Marine Technical Session II	Dallas Ballroom D1-2
2:00 p.m. – 5:00 p.m.	Midstream Technical Session II	Dallas Ballroom A1-2
2:00 p.m. – 5:00 p.m.	Mining Industry Technical Session III	Dallas Ballroom A3
2:00 p.m. – 5:00 p.m.	Production Technical Session II	Dallas Ballroom D3
5:15 p.m. – 7:15 p.m.	*IEEE-IAS-PCIC Executive Committee & Local Committee* Turnover Meeting*	*Chapparal (CT 38)*

20 25
DALLAS
IEEE PCIC

Thursday September 19, 2025.		
7:00 a.m. – 8:00 a.m.	*PCIC Executive Committee Breakfast**	*Chapparal (CT 38)*
6:45 a.m. – 7:30 a.m.	*Tutorial Presenters' Breakfast* (see page 7)*	*Dallas Ballroom A1*
8:00 a.m. – 9:00 a.m.	*IEEE-IAS-PCIC Annual Business Meeting**	*Chapparal (CT 38)*
7:00 a.m. – 8:00 a.m.	*Tutorial Attendees Breakfast* (Tutorial Attendees Only)*	*Dallas Ballroom B*
8:00 a.m. – 11:45 a.m.	Tutorial 2025-1 – IEEE 1812 Guide for Testing Permanent Magnet Machines.	Dallas Ballroom A3
8:00 a.m. – 11:45 a.m.	Tutorial 2025-2 – Cost-Benefit Analysis of Active Arc Mitigation Technologies in Low and Medium Voltage Switchgear	Dallas Ballroom D1
8:00 a.m. – 11:45 a.m.	Tutorial 2025-3 – Design and Execution of a Quality Switching Order for Personnel and Equipment Safety	Dallas Ballroom D3
9:00 a.m. – 4:00 p.m.	*PCIC Executive Committee Meeting**	*Chapparal (CT 38)*
12:00 p.m.– 1:00 p.m.	*PCIC Executive Committee Lunch**	*Chapparal (CT 38)*
12:00 p.m.– 1:00 p.m.	*Tutorial Luncheon* (Tutorial Attendees and Presenters Only)*	*Dallas Ballroom B*
1:00 p.m.– 4:45 p.m.	Tutorial 2025-4 – Motor Protection Fundamentals	Dallas Ballroom A3
1:00 p.m.– 4:45 p.m.	Tutorial 2025-5 – Harmonic Engineering & Design Challenges for Distribution Circuit and Grid Design	Dallas Ballroom D1
1:00 p.m.– 4:45 p.m.	Tutorial 2025-6 – Synchronous Electric Motors for Petroleum and Chemical Process Industry	Dallas Ballroom D3

20 25
DALLAS
IEEE pcic

IEEE

IAS IEEE INDUSTRY APPLICATIONS SOCIETY IEEE

pcic IEEE • IAS Petroleum and Chemical Industry Committee

2025 IEEE-IAS-PCIC CONFERENCE TECHNICAL PROGRAM

The following is a list of technical papers that will be presented at the 2025 IEEE PCIC Conference in Dallas, Texas. Any last-minute changes to the final program can be found on the PCIC 2025 Dallas Conference App. All paper presentations take place at the Sheraton Dallas Hotel.

GENERAL TECHNICAL SESSION I	
Monday, September 22, 2025 – 8:00 a.m. to 11:15 a.m.	**Presiding: Paul Sullivan, PCIC Chair**

PCIC-2025-01 **Can Artificial Intelligence Help Solve Your Electrical Engineering Problems?**

Chet Sandberg	C L Sandberg & Associates
James D. Hill	Dow Chemical (retired)

PCIC-2025-02 **Introduction to IEEE 841.1-2023: A new Standard for Severe-Duty Squirrel-Cage Induction Motors – 0.75 KW (1 HP) to and including 370 KW (500 HP)**

Donald Dunn	Waldemar S. Nelson & Company
Richard Holub	DuPont
Paul Hamer	Chevron – Retired
John Malinowski	ABB - Retired

PCIC-2025-03 **Evaluation of how Inverter to Motor Power Cable Types and Termination Methods Affect System Performance**

Kevin Wahl	Southwire Company
Rick Akey	ABB, Inc.
Rick Hoadley	ABB, Inc.
Mohandtahar Irid	SouthwireCompany
Steve Wetzel	Southwire Company

GENERAL TECHNICAL SESSION II	
Monday, September 22, 2025 – 2:00 p.m. to 5:00 p.m.	**Presiding: Robert Durham, PCIC Vice-Chair**

PCIC-2025-04 **A Synchronous Motor Primer**

Nathaniel Sepulveda	Tony Demaria Electric, Inc.
Mark Chisholm	WEG Electric Corp
Gary Donner	Tony Demaria Electric, Inc.
Jessica Maldonado	Tony Demaria Electric, Inc.

PCIC-2025-05 **Developing a Synchronous Motor Maintenance Strategy**

Samuel Chiu	Chevron Phillips Chemical
Anirudh Annavajhala	Sulzer EMS
Imran Jangda	Chevron Phillips Chemical
Jixil Johnson	Chevron Phillips Chemical

PCIC-2025-06 **The Cost of Specifications: Reducing Motor Features Based on Process Criticality Without Sacrificing Reliability**

Abel Cavazos	ABB
Timothy Wayne Paschall	ABB
Jeremy Smith	BP P&O Projects

PRODUCTION TECHNICAL SESSION I	
Monday, September 22, 2025 – 2:00 p.m. to 5:00 p.m.	**Presiding: Matthew Marchiano, Chair**

PCIC-2025-07 Next Generation of Decarbonization for the Electrical Power Train of Frac Pumper

Jose Simpson	ABB
Lewis Callaway	NOV
Matti Paaso	National Service Alliance - Houston, LLC
Ghanshyam Shrestha	ABB

PCIC-2025-08 Detection and Isolation of Broken Conductors in Power Distribution Systems: A Key Wildfire Mitigation and Public Safety Strategy

Tanushri Doshi	Schweitzer Engineering Laboratories, Inc.
Charlie Cerezo	San Diego Gas & Electric
Anthony Rahiminejad	Schweitzer Engineering Laboratories, Inc.
Rohit Sharma	Schweitzer Engineering Laboratories, Inc.

PCIC-2025-09 IEEE RP 1017.4 - A Brand-New ESP Motor Standard

Robert Durham	THEWAY Labs
Marcus O. Durham	THEWAY Labs
Sean Cain	Extract ALS
Pruitt Durham	Valero

EMERGING TECHNOLOGY TECHNICAL SESSION I	
Monday, September 22, 2025 – 2:00 p.m. to 5:00 p.m.	**Presiding: Richard Anderson, Chair**

PCIC-2025-10 Advance Power Quality Awareness with High-Resolution Continuous Waveform Streaming and Recording

Richard Kirby	Schweitzer Engineering Laboratories, Inc.
Drew Cannon	Schweitzer Engineering Laboratories, Inc.
Ganga Ramesh	Schweitzer Engineering Laboratories, Inc.
Phil Stoaks	Schweitzer Engineering Laboratories, Inc.

PCIC-2025-11 Mechanisms and Return of Experiences of Electric Discharges in Ball and Sleeve Bearings of PWM-FED Machines with Focus on Wind Turbine DoubleFed Induction Generator

Lionel Durantay	GE Power Conversion
Christophe Grosselin	GE Power Conversion
Bill Lockley	Lockley Consulting Ltd.
Gaëtan Miclo	GE Power Conversion

PCIC-2025-12 Bus Protection Schemes in Digital Switchgear

Chinmay Modak	ABB Inc
Vincent Duong	ABB Inc
Harshavardhan Karandikar	ABB Inc
Joemoan Xavier	ABB Inc

MIDSTREAM TECHNICAL SESSION I	
Monday, September 22, 2025 – 2:00 p.m. to 5:00 p.m.	**Presiding: Manish Verma, Chair**

PCIC-2025-13 **Review of Energizing High Power Medium Voltage AC Drives**

Stan R. Simms	Eaton
Gabriel Braga	PWP Lab
Thomas A. Farr	Eaton
Irving A. Gibbs	Eaton

PCIC-2025-14 **An Analysis of Critical Midstream Electrical Assets to Mitigate Process Shutdown Failures**

Richard Neph	Targa Resources Inc.
James E. Bowen	MMT Services Inc.
Thomas Malone	MMT Services Inc.

PCIC-2025-15 **MV ASDs Application Integration Takeaways from FEED to EPC**

Mustafa Alhadad	Bechtel Energy
Gautami Bhatt	Bechtel Energy
Jon Nipar	Bechtel Energy

MARINE TECHNICAL SESSION I	
Monday, September 22, 2025 – 2:00 p.m. to 5:00 p.m.	**Presiding Karen Johnson, Chair**

PCIC-2025-16 **Offshore Electrification: Power from Shore with Active Front End Grid Forming Static Frequency Converters.**

Jeremy Andrews	Innomotics GmbH
Terje Knutsen	Equinor

PCIC-2025-17 **Deep Dive: Reliably Delivering the Benefits of CSI Variable Speed Operation for Medium Voltage Motors over Extremely Long Distances**

Robert Bickford	Rockwell Automation
Paul Dreghici	Rockwell Automation
Fred Jason	Rockwell Automation
Jeff Tod	Rockwell Automation

PCIC-2025-18 **From Turbines to Electric: A Comprehensive Guide to Electrifying Drivers**

Navid Binesh	ABB
Kalyan Malnedi	Elliott Group
Andrea Meroni	ABB
Matt Taher	Bechtel Energy Inc.

CHEMICAL TECHNOLOGIES SESSION I	
Tuesday, September 23, 2025 – 8:15 a.m. to 11:15 a.m.	**Presiding: Robbie McElveen, Chair**

PCIC-2025-19 **Guidance for Effective Medium Voltage Motor Purchase**

Barton J. Sauer	Innomotics. LLC
Rodney Kottwitz	Philips 66 - Retired

PCIC-2025-20 **Beyond the Thermal Model: Motor Protection in Specialized Applications, Soft Starters, Synchronous Motors, and VFDs**

Alexander Novoa	Occidental Petroleum Corp.
David K. Kimbrough, Jr.	Occidental Petroleum Corp.

PCIC-2025-21 **Medium Voltage PWM ASD Waveform Effects on Large Motors**

Frank DeWinter	DeWinter Tech LLC
Richard Paes	Rockwell Automation
Mukul Rastogi	Innomotics
Gerald Scheuer	ABB Switzerland

INTERNATIONAL INDUSTRY TECHNICAL SESSION I	
Tuesday, September 23, 2025 – 8:15 a.m. to 11:15 a.m.	**Presiding: Rakan El-Mahayni, Chair**

PCIC-2025-22 **Protection Challenges of Connecting a Third-Party Solar Farm to a Refinery Power System**

Duane Leschert	Worley
Vladan Bijeljanin	Shell Scotford
Alan Bishop	Siemens Canada

PCIC-2025-23 **Application of EMSA for Condition Monitoring of Medium-Voltage Motors, Generators, Transformers, Bus and Cables, Case Studies**

James Timperley	J E Timperley Consulting
Eratsi E. Alonzo	AES Puerto Rico
Peter O. Longo	AI Advanced Electrical Systems
José M. Vallejo	AI Advanced Electrical Systems

PCIC-2025-24 **Evaluating NGR Sizing in Medium-Voltage Systems; is 400 A Always the Right Answer?**

Cory Helfrich	Saudi Aramco
Ahmed Alhumoud	Saudi Aramco
Rakan El-Mahayni	Saudi Aramco

REFINING TECHNICAL SESSION I	
Tuesday, September 23, 2025 – 8:15 a.m. to 11:15 a.m.	**Presiding: Patrick Loupe, Chair**

PCIC-2025-25 **Substation Through Fault Testing**

Brian J. Cassidy	Chevron
Tanis Reed	Chevron

PCIC-2025-26 **LED Lighting: What we Know, What we Don't Know, What's a Concern, and What's Next.**

Marty Cole	Hubbell Canada ULC
Cristian Suvagau	BC Hydro

PCIC-2025-27 **Arc Flash Analysis for Electrification Projects: How far Upstream and Downstream Should be Re-Evaluated – A Refinery Case Study**

Tony Acayan	Fluor Enterprises, Inc.
Sina Ghods	Fluor Enterprises, Inc.
Albert Marroquim	ETAP
Varsha Rajpurohit	Fluor Enterprises, Inc.
Jimmy Singh	Marathon Petroleum Corp

SAFETY TECHNICAL SESSION I	
Tuesday, September 23, 2025 – 8:15 a.m. to 11:15 a.m.	**Presiding: Tony Parsons, Chair**

PCIC-2025-28 Updating Arc-Flash Analysis for Offshore Platform to IEEE STD 1584™-2018

Alok Gupta	BP America Inc.
Chris Chaney	BP America Inc.
Walter Gonzalez	ETAP
Raghu Veeraraghavan	ETAP

PCIC-2025-29 Arc-Flash Protection System Design Revisited

Matthew Watkins	Schweitzer Engineering Laboratories, Inc.
Nilushan K Mudugamuwa	Schweitzer Engineering Laboratories, Inc.
Neel Shah	Schweitzer Engineering Laboratories, Inc.
Anurag Upadhyay	Tengizchevroil

PCIC-2025-30 Substation Transformer Failure – Case Study

Brian J. Cassidy	Chevron
Orlando Chavez	Chevron
Juan Cruz Massari	Chevron
Gary Krigbaum	Chevron
Tanis Reed	Chevron

MINING INDUSTRY COMMITTEE TECHNICAL SESSION I	
Tuesday, September 23, 2025 – 8:15 a.m. to 11:15 a.m.	**Presiding: Nicole Neuman, Chair**

PCIC-2025-31 Low Voltage Modular Inverter System for Mining Applications

Joshua Jagnanan	Toshiba International Corporation
Terry Voigt	Toshiba International Corporation

PCIC-2025-32 Maintaining and Monitoring Stator End-Windings on Electrical Rotating Machines

Alexandre B. Romanato	GE Vernova - Power Conversion
Saeed Ul Haq	GE Vernova - Power Conversion
Renato M. Yabiku	GE Vernova - Power Conversion

PCIC-2025-33 Case Study: Real Life Arc-Flash Mitigation Event on 380 VAC Switchgear

Eduardo Palma	Schweitzer Engineering Laboratories, Inc.
Mario Gutiérrez	Schweitzer Engineering Laboratories, Inc.
Alvaro Gabriel Santi Flores	YPFB Refinación S. A.

CHEMICAL TECHNICAL SESSION II	
Wednesday, September 24, 2025 – 8:15 a.m. to 11:15 a.m.	**Presiding: Eric Chastain, Vice-Chair**

PCIC-2025-34 Condition Monitoring System for Adjustable Speed Drives

Liviu Mihalache	Innomotics, LLC
Mukul Rastogi	Innomotics, LLC

PCIC-2025-35 **Quantifying, Measuring, and Capturing CO2 in Refining Process**

Malou de Kergret	Schneider Electric
Ahmed Sfar	Schneider Electric
Rajesh D. Sharma	Schneider Electric

PCIC-2025-36 **Unleashing the Potential of Battery Energy Storage: Basic Design, Applications, and Economic Considerations**

Chinmay Morankar	TMEIC
Manish Verma	TMEIC

INTERNATIONAL INDUSTRY TECHNICAL SESSION II	
Wednesday, September 24, 2025 – 8:15 a.m. to 11:15 a.m.	Presiding: Sidra Malik, Vice-Chair

PCIC-2025-37 **Meeting Corona Free and Partial Discharge Free Requirements as Per IEEE and CSA Standards for Medium Voltage Switchgears**

Aniket Shirode	ABB Inc
Gary Haynes	ABB Inc.
Harsh Karandikar	ABB Inc.
Amar Kini	ABB Inc.

PCIC-2025-38 **Difficulties in Developing a Global Standard for Liquid Filled Power Transformers**

Fred L. Dixon	LyondellBasell
Volkan Bukey	Hitachi Energy
Raymond Van Herpen	LyondellBasell

PCIC-2025-39 **The Practical Lightning Protection Study for Crude Oil FRT**

Youngsu Kim	SK energy
Junil Yi	SK energy

REFINING TECHNICAL SESSION II	
Wednesday, September 24, 2025 – 8:15 a.m. to 11:15 a.m.	Presiding: Tony Acayan, Vice-Chair

PCIC-2025-40 **Techniques for Time Synchronization and Significance in Industrial Facilities**

Christine Crites	GE Vernova
Danny Kliebert	The Dow Chemical Company
Robert Muziol	GE Vernova
Michael Pilon	GE Vernova

PCIC-2025-41 **Retrofit of End-of-Life Switchracks for Improved Reliability and Cost Efficiency**

Aaron Koecher	Burns & McDonnell
David McCauley	Phillips 66
Joaquin Ordonez	Phillips 66
Vincent Wedelich	Burns & McDonnell

PCIC-2025-42 **Analysis of Online Partial Discharge Data Trending and Patterns Classification for Life Extension: A Survey of Large AC Rotating Machines Installed in Petroleum and Chemical Industry**

Saeed Ul Haq	GE Power Conversion
Keith Lyles	Marathon Petroleum
Madu TS Moorthy	GE Power Conversion
Greg Stone	Consultant

SAFETY TECHNICAL SESSION II	
Wednesday, September 24, 2025 – 8:15 a.m. to 11:15 a.m.	**Presiding: Jim Phillips, Vice Chair**

PCIC-2025-43 **Getting Arc Flash Safety Right the First Time – 101**

Atul Arunkumar Shenoy	Burns & McDonnell
Carles Miller	Burns & McDonnell
Richard Neph	Targa Resources Inc.
Patrick Wilhelm	Burns & McDonnell

PCIC-2025-44 **Passive MV MCC Arc Resistant Construction Without Opening to the Environment**

Stan R. Simms	Eaton
Ian J. Andrup	Eaton
Richard Bhalla	Eaton
Thomas A. Farr	Eaton

PCIC-2025-45 **Egress Accommodation for Factory Assembled Structures – Revision 2025**

Alan Clemenson	Anvil Corp
Alex Bresnan	Anvil Corp
Joe Coder	BP
Luca Magenes	Powell
Mitchell Roegele	BP

MINING INDUSTRY COMMITTEE TECHNICAL SESSION II	
Wednesday, September 24, 2025 – 8:15 a.m. to 11:15 a.m.	**Presiding: Essam Elsahwi, Vice-Chair**

PCIC-2025-46 **Power Converter Control in Battery-Supported Renewable Energy Systems In Mining**

Yunxun Mo	The University of Newcastle
Galina Mirzaeva	The University of Newcastle

PCIC-2025-47 **HV Circuit Breakers in Extreme Electrical Conditions - Using the New Ampere-Second Criteria in Non-Standard Systems**

John Webb	ABB Inc.
Victor Savulyak	Kema Labs
Jan Weisker	Siemens Energy

PCIC-2025-48 **Renewable Hub Integration with Hydrogen and Industrial Consumers**

Mohit Kumar	Bechtel Energy Inc.
Terry Tadlock	Bechtel Energy Inc.

PRODUCTION TECHNICAL SESSION II	
Wednesday, September 24, 2025 – 2:00 p.m. to 5:00 p.m.	**Presiding: Brandon Cassimere, Vice-Chair**

PCIC-2025-49 **Mobile Battery Energy Storage Systems for Onshore Drilling Electrification**

Tanis Reed	Chevron
Nate Norris	Current Power
Marcel Snijder	Patterson-UTI Drilling Company
Jorge Valdez	Chevron

PCIC-2025-50 **Harnessing the Power of IEC 61850 for Future-Proofing Substation Communications**

Michael Pilon	GE Vernova
Christine Crites	GE Vernova
Robert Muziol	GE Vernova
Thomas Wetmore	Irving Paper

PCIC-2025-51 **The Real Cost of Motor Specifications: Energy and GHG**

Adnan Ashraf	ABB Limited
Miguel I Sarris	Doris Group (USA)

EMERGING TECHNOLOGY TECHNICAL SESSION II	
Wednesday, September 24, 2025 – 2:00 p.m. to 5:00 p.m.	Presiding: Masoud Hajiaghajani, Vice-Chair

PCIC-2025-52 **Framework for Evaluation and Adoption of Emerging Battery Energy Storage Technologies in Oil and Gas Industry**

Abdulaziz Altalhi	Saudi Aramco
Hossam Aldossary	Saudi Aramco
Faisal Al-Dubaikel	Saudi Aramco
Hashem Jaber	Saudi Aramco

PCIC-2025-53 **Hydrogen Build up in Subsea Cables Causing Hazardous Locations Inside Enclosures - A Case Study**

Ryan Wilson	TEC Group
Javier Garza	Bartec
Irina Vaseva	Chevron

PCIC-2025-54 **Application of Transformer Differential Protection at Industrial Facilities – Fundamentals and Advancements**

Mike Ramlachan	GE Vernova
Casey Washington	GE Vernova
Craig Wester	GE Vernova

MIDSTREAM TECHNICAL SESSION II	
Wednesday, September 24, 2025 – 2:00 p.m. to 5:00 p.m.	Presiding: Dane Martindale, Vice-Chair

PCIC-2025-55 **Innovative Cooling Scheme for Medium Voltage Drive**

Brad Johnson	Yaskawa America, Inc
Melvin Neufeld	Enbridge Pipelines, L.L.C.

PCIC-2025-56 **Long Electrical Lead Times: The New Normal and Strategies to Address them**

Jeff Gaspar	Siemens Ag.
Patrick Bawer	Fibrebond Power
Angela (Montgomery) Eaglin	Cheniere Energy Inc.
Atul A. Shenoy	Burns & McDonnell

PCIC-2025-57 **Electrical heat tracing data generation: Toward building intelligence into real time circuit health and performance monitoring solutions**

Lei Wu	Chemelex
Ogunlana Ajayi	Shell Canada Limited
Kedar M. Deshpande	Chemelex
Nithin Hegde	Chemelex
Daniel Wright	Chemelex

MARINE TECHNICAL SESSION II	
Wednesday, September 24, 2025 – 2:00 p.m. to 5:00 p.m.	**Presiding: Clinton Roache, Vice-Chair**

PCIC-2025-58 **An Intelligent Framework for Optimal Feature Selection of PD Signals Produced by Electrical Defects in MV Switchgear**

Waqar Hassan	Eversource Energy
Evis Babo	Eversource Energy
G. Amjad Hussain	University of Dubai
John A. Kay	Independent Consultant
Adam Knight	TRC Solutions LLC

PCIC-2025-59 **Synchronous Motors – A Simple Solution to Greater Energy Efficiency**

Carl Nilsson	ABB AB, Large motors and generators
Steve Barass	ABB Inc.

PCIC-2025-60 **Estimated Environmental Impact of AC Electrical Machine Reconditioning and Rewinding**

Bharat Mistry	IPS Fleet Engineering
Peyun Kok	ACA Global
Javier Portos	Integrated Power Services
Tom Reid	Integrated Power Services

MINING INDUSTRY COMMITTEE TECHNICAL SESSION III	
Wednesday, September 24, 2025 – 2:00 p.m. to 5:00 p.m.	**Presiding: Jose Simpson, Vice-Chair**

PCIC-2025-61 **Common-Mode Voltage in Power Electronic-Based Drives: Sources and Mitigation Strategies**

Galina Mirzaeva	The University of Newcastle
SM Muslem Uddin	The University of Newcastle
Peter Stepien	ResTech Pty Ltd

PCIC-2025-62 **Comprehensive Cybersecurity for Variable Frequency Drives Standards, Practices, and Implementation Revision Jan 2025**

Manju Venugopal	Rockwell Automation
Robert Carriere	Rockwell Automation
Suvama Dixit	Rockwell Automation
Michael Rindsig	Rockwell Automation

PCIC-2025-62 **Arc Resistant Switchgear – Effect of Plenum Routing and Recommended Design Practices**

Aniket Shirode	ABB Inc.
Pawel Bajerski	ABB Sp. z o. o.
Harsh Karandikar	ABB Inc.
Amar Kini	ABB Inc.

Notes

IEEE ▪ IAS
Petroleum and Chemical Industry Committee

The premier international forum for the exchange of electrical technology applications for the petroleum and chemical related industries

73rd Annual PCIC Technical Conference
Philadelphia, Pennsylvania USA
September 21 – 24, 2026

2026 PCIC Conference – Call for Papers

The PCIC is the premier conference for practicing electrical engineers and other professionals that deals with electrical installations in the oil and gas industry. It is highly regarded for providing top-quality papers on various relevant subjects aimed at the all-important electrical industry.

Abstracts are being requested on topics related to the practical application of new electrical technology, standards, equipment, and systems of interest in the petroleum and chemical industries within the scope of the PCIC Technical Subcommittees. All papers must be "PCIC Presentation First" as original works that have not been previously presented. Papers will be subject to thorough technical and peer reviews. Papers accepted will be published in the conference record. Papers deemed appropriate may be directed to the IEEE Transactions on Industry Applications or the IEEE Industry Applications Magazine for additional publication. Abstract titles are limited to 200 characters. Abstracts are limited to 2000 characters.

The following information must be included with all paper proposals:

1. Complete all pertinent information on the abstract collection webpage.
2. A maximum of five (5) authors per paper with four (4) or less authors preferred.
3. Post your abstract using unformatted text. Copying and pasting bullets or other special formatting may result in a less than ideal presentation.
4. **Important Notice:** An acknowledgement will be sent to confirm receipt of all proposals from this system. If you do not receive this communication, contact Robert Durham, PCIC Vice-Chair, robert.durham@ieee.org

Submission Deadlines:

- Authors submit abstracts to Technical Program Chair via the PCIC website ---------- August 30, 2025
- PCIC notifies authors of acceptance status ---------- October 11, 2025
- Authors submit **finished paper** for peer review ---------- February 7, 2026
- Authors submit final manuscripts for final check ---------- April 5, 2026

For additional key dates for authors, see the Authors Resources page on the PCIC website.

Abstract interest polling by registered conference attendees this year will be performed prior to the Orlando Conference via an online platform. After the interest levels are compiled, the General Subcommittee will select seven papers for the General program. The remaining abstracts will then be sent to the individual technical subcommittees based on the authors request for committee and topic prior to 2:00 p.m. on **Tuesday, September 23, 2025**. Prospective authors are invited to speak to their abstract at their assigned Technical Subcommittee's meeting on Tuesday afternoon.

If the paper is accepted, at least one author must register and attend the conference in 2026 to present the paper. Other co-authors attending must also register for the conference (at a minimum: for the day of their presentation).

To Submit a paper abstract, go to: https://forms.gle/Ahkmi7hhZKqXasb49
For more information, visit the IEEE/IAS-PCIC website at https://ieeepcic.com/.

Contact for questions: Robert Durham, PCIC Vice-Chair and PCIC Technical Program Chair: **email**: robert.durham@ieee.org.

2026 PCIC Conference Call for Papers (Continued)

Below are the topics of specific interest of the different PCIC subcommittees and the Mining Industry Committee.

Chemical Subcommittee
Technical papers related to the application, installation and/or operational experiences related to electrical technology for the general chemical industry.

Emerging Technologies Subcommittee
Technical papers that grow and preserve the knowledge base used in the electrolytic production of metals and chemicals and papers that introduce or further explore emerging technologies including LNG, renewable energy technologies, oil sands and shale, methanol, ethanol, hydrogen, and subsea technologies.

General Program Subcommittee
Technical papers of broad interest to the petroleum and chemical industry.

International Subcommittee
Technical papers related to petroleum and chemical industry applications outside of North America.

Marine Industry Subcommittee
Technical papers related to ships, barges, and other floating structures used in the petrochemical industry.

Midstream Subcommittee
Technical papers related to pipelines, pumping stations, and terminals as well as other means of transporting oil and gas.

Mining Industry Committee
Technical papers related to electrical applications and operations in mines.

Production Subcommittee
Technical papers related to onshore and offshore, fixed and floating drilling, well head, and production facilities.

Refining Subcommittee
Technical papers related to petroleum refineries and petrochemical facilities.

Safety Subcommittee
Technical papers related to all aspects of electrical safety affecting the petrochemical industry.

For Additional Information see Author Resources
https://ieeepcic.com/conference/author-resources/

2025 IEEE-IAS-PCIC Conference Tutorials

The PCIC 2025 Tutorial Subcommittee is sponsoring six half-day tutorials on Thursday, September 25, 2025. For those who apply for a Continuing Education Certificate (**CEU**) evaluation, forms will be distributed prior to the start of each tutorial. The completed evaluation forms must be returned to the presenter at the end of each session (see page 14 for more details). Included in your tutorial registration fee is breakfast from 7:00 a.m. to 8:00 a.m., lunch from 12:00 p.m. to 1:00 p.m. and light refreshments during breaks. These are excellent networking opportunities to meet the other tutorial attendees.

First-time attendees registered for the entire conference are eligible to attend one tutorial for the reduced rate of $50.00. A second tutorial can be attended by paying full registration cost. This must be indicated on the registration form and completed prior to September 1, 2025, or the full tutorial fee will apply.

NOTE: *Pre-registration for tutorials is necessary as it allows the presenter to prepare sufficient handout materials. If space permits, conference attendees not pre-registered can attend tutorials by paying full price at the registration desk (however, printed handout material may be subject to availability).*

Tutorial PCIC 2025-1: IEEE 1812 Guide for Testing Permanent Magnet Machines.
Thursday, September 25, 2025. **8:00 a.m. – 11:45 a.m.**

Abstract: The IEEE Std 1812 was published in December of 2023. Since then, the industry is working on the adoption of this guide and may have questions regarding the origination, details, and interpretation of some of the included requirements. The objective of this tutorial is to inform the target audience with details and the origination of specified requirements and help answer their questions. This may further help in the faster adoption of this standard.

Instructors:
Dr. Yao Duan (Senior Member, IEEE) currently serves as Senior Chief Specialist at Toshiba International Corporation in Houston, TX, focusing on control development for Adjustable Speed Drives, Uninterruptable Power Supplies, and Energy Storage systems. He obtained his Ph.D. and M.S. in Electrical and Computer Engineering from Georgia Tech, and a B.S. in Electrical Engineering from Tsinghua University. He has authored numerous publications in IEEE journals and holds several US patents on control of permanent magnet motors. Dr. Yao Duan is actively involved in the IEEE community, having served as Chair of the IEEE Power and Energy Society Motor Subcommittee and as an Associate Editor for IEEE Transactions on Industry Applications and Energy Conversion. He also chaired the IEEE Working Group P1812 on Testing of Permanent Magnetic Machines.

Dr. Goutham Selvaraj (Senior Member, IEEE) earned a three-year Diploma and a B.E. in Electrical and Electronics Engineering from India, an M.S. in Electrical Engineering from The University of Texas at Dallas, and a Ph.D. in Electrical Engineering from the University of Houston.
Since 2014, he has been with Toshiba International Corporation (TIC), Houston, TX, where he currently serves as Chief Specialist in the RD&E Department. Dr. Selvaraj holds two U.S. patents and has received notable awards, including the Outstanding Achievement Award—Toshiba CASD/Oil & Gas (2018), the Toshiba Innovation Award (2020), and the Outstanding Presentation Award at IEEE APEC (2021). His research interests include control of low- and medium-voltage industrial drives for oil and gas, geothermal and subsea applications, aerospace power electronics, more electric aircraft power systems, and embedded control of power electronics and electrical machines.

Tutorial PCIC 2025-2: Cost-Benefit Analysis of Active Arc Mitigation Technologies in Low and Medium Voltage Switchgear
Thursday, September 25, 2025. **8:00 a.m. – 11:45 a.m.**

Abstract: Recent developments in laws and legislation, along with updates to standards and changes in insurance premium calculations in the ANSI/IEEE market, have significantly reshaped modern protection strategies for switchgear with respect to both personnel and equipment. These evolving requirements are driving a shift towards more advanced, proactive solutions in arc flash mitigation. This tutorial will explore the evolution and technical advancements of arc flash mitigation technologies, ranging from passive solutions to active

systems such as ultra-fast grounding arc extinguishing technologies and fault current limiters. Through in-depth theoretical explanations and detailed application demonstrations, participants will gain valuable insights into how these innovations can dramatically reduce downtime, enhance safety, and minimize equipment damage. A thorough cost-benefit analysis will highlight the balance between upfront investments and long-term operational savings, offering a comprehensive view of the financial and technical impacts of these technologies.

Instructors:
Harsh Karandikar, Ph.D., Senior Member IEEE, Fellow ASME. Dr. Harsh Karandikar has over 30 years of experience in research, engineering and product management of industrial products and services and with a focus in the last decade on technologies for medium voltage electrical power distribution. He currently is the Global Product Manager for Medium Voltage ANSI switchgear and for ANSI Digital Initiatives for ABB's Distribution Solution business. He has over 70 technical publications including at PCIC. He presented the tutorial "Introduction to Digital Switchgear" at PCIC 2022. Harsh holds a Ph.D. from the University of Houston.

Alexander Kischinski, M.Sc. Alexander joined ABB Germany in 2022. He currently is the Product Manager for the German factory grid components in North America and was located at ABB USA in North Carolina for the majority of 2024. Before joining ABB, he worked as a research assistant at the Institute for High Voltage Engineering at the Technical University Dortmund, focusing on the development and testing of DC high voltage cables. Alexander holds a master's degree in industrial engineering with a specialization in electrical engineering from the Technical University Dortmund.

Tutorial PCIC 2025-3: Design and Execution of a Quality Switching Order for Personnel and Equipment Safety
Thursday, September 25, 2025. 8:00 a.m. – 11:45 a.m.

Abstract: Developing and executing a well-written switching order is critical for personnel and equipment safety while working within the electrical industry. This event shares key insights and promotes conversation among industry professionals while providing skills and knowledge in this area. Instructors with 70+ years of experience will highlight techniques and approaches to writing switching orders. The tutorial includes a summary of the 2024-44 PCIC Paper "The Art and Science of Switching Orders" and an interactive exercise for real-world scenarios. Participants will review a one-line diagram, write a switching order, check its accuracy, and understand the review process. The engaging environment will foster dialogue while sharing experiences, best practices, and lessons learned to improve safety and efficiency across the petrochemical, oil and gas, utility, and all electrical industries.

Instructors:
Brian Cassidy (Senior Member IEEE) has a Bachelor of Science Degree in Electrical Engineering from the University of Texas at Austin, a Master's Degree in Electrical Engineering from the University of Houston, a Master's Degree in Engineering with an emphasis in Project Management from the University of Maryland, and a Master's Degree in Business Administration from Angelo State University. Brian is a Registered Professional Engineer in the State of Texas since 1993 and a Certified Project Management Professional. Brian's career has spanned over 40 years in the Petro-Chemical and Oil and Gas industries where his emphasis has been on power distribution. He has written and reviewed well over a thousand switching procedures. Brian is a Senior Electrical Power Engineer for Chevron in Houston, TX where he supports Chevron's Mid Continent Business Unit.

Zach McKinney graduated from Angelo State University in 2001. After serving in the United States Navy as an Electricians Mate in the nuclear engineering program, he worked as a shift electrician and control systems specialist in the steel industry. He joined Chevron in 2009 working in remote site automation, custody transfer measurement, and electrical power systems. He completed his BSEE at Arizona State University in 2019 and is currently a senior engineer at Chevron focusing on construction, commissioning, and utility interconnections of lower carbon power solutions. He is a PhD candidate at Texas A&M and is a registered Professional Engineer with the State of Texas.

Tutorial PCIC 2025-4: Motor Protection Fundamentals
Thursday, September 25, 2025. 1:00 p.m. – 4:45 p.m.

Abstract: A detailed tutorial on fundamental principles and techniques in the protection of induction motors. Principles associated with thermal as well as current & voltage based protection elements will be explored.

Instructors:
Peter C. Pietramala, P. Eng P.Eng. (IEEE S '88, M '89) received the B.S.E.E. degree from the University of Alberta, Edmonton, Alberta, in 1988, and the M.S.E.E. degree from the University of Idaho, Moscow, Idaho, in 2012. He is currently a Senior Power Systems Specialist with Eaton Corporation in the Power System Engineering Department. He has over 32 years of experience in both heavy industrial and utility power systems and has specialized in analytical studies in power system transients, dynamics, and system planning studies as well as industrial, substation, and transmission design and protection applications.

Pat Robinson, CET, graduated from the electrical technologist program at NAIT in Edmonton in 1995. 30 years working directly in protection and control for Altelec, he does multiple sessions per year on motor thermal protection with customers, consultants and education institutions in Alberta.

Tutorial PCIC 2025-5: Harmonic Engineering & Design Challenges for Distribution Circuit and Grid Design
Thursday, September 25, 2025. 1:00 p.m. – 4:45 p.m.

Abstract: As new technologies for load-based structures continue transitioning to modern diode bridge and IGBT based rectification configurations, electrical harmonics play a key consideration in power quality specifications and design of the distribution grid.

- Many utilities within the US, and around the world, are increasingly requiring customers to comply with the relevant harmonic standards in their region. In the United States and Canada, IEEE Std 519-2022 is the foundation of most provider-based PQ requirements for low frequency harmonic applications (3 kHz or less). For high frequency applications (150 kHz and above) IEC 61800-3 can be applicable and referenced. The result being that there is an entire bandwidth of potential harmonic frequencies where no active standards make recommendations for current or voltage harmonic limits (3 kHz – 150 kHz). The closest thing is that IEEE Std 519 has an allowance to include harmonics above 50th when 'necessary'.
- Little is taught or covered about the applicational challenges of harmonic mitigation and the "best practices" in design and specifications to ensure proper load structure power quality.

*IEEE published paper references will be included for reference and referral.

Instructors:
Michael McGraw is an Independent Consultant on Harmonic Applications. Previously he was US Regional Manager for Mirus International, from 2018 – 2022, handling project development and engineering application for harmonic mitigation projects for Mirus, as well as sales and program development. He was an Independent Engineering representative for Mirus International from 2009 – 2018, and President and Founder of NSOEM, Inc. 1996 - 2018 specializing in Offshore, O&G, and MV Motor Starting application of magnetic systems and harmonic mitigation. He is a member of the IEEE – IAS and has previously published IEEE papers presented at the PCIC 2010, 2014, 2015, 2016, 2018, and 2019. Presently scheduled to present at the 2024 IEEE-PCIC.

Alex Hoevenaars is the Principal Applications Engineer at Mirus International Inc., specializing in the treatment of power system harmonics. Prior to joining MIRUS in 2012, Alex was an Electrical Consulting Engineer at CH2M HILL in Toronto, where he gained an effective and practical understanding of power systems and the need for power quality solutions. He graduated from Queen's University in Kingston, ON Canada with a BScE degree in 2007. He is a Professional Engineer and member of IEEE.

Austin Miller currently serves as the Power Quality Sales Manager at Mirus International Inc., overseeing the U.S. market. Before joining Mirus International Inc. in 2023, he gained valuable experience as an application engineer specializing in power system harmonics at CTM Magnetics. Austin earned his Bachelor of Science in Mechanical Engineering with a minor in Entrepreneurship and Innovation from Drexel University in 2018. He is a member of the IEEE.

Tutorial PCIC 2025-6: Synchronous Electric Motors for Petroleum and Chemical Process Industry
Thursday, September 25, 2025. 1:00 p.m. – 4:45 p.m.

Abstract: Large synchronous electric motors have been used to drive mechanical equipment in the petroleum and chemical process industries for well over a century. They are a mature product used for various applications such as centrifugal compressors, reciprocating compressors, pumps, extruders, fans, blowers and so on. They are typically medium or high voltage form wound motors that are custom designed and intended to be of service for decades. Each application has specific operating requirements which dictate specific design details to suit the applicable load conditions. While these large synchronous motors are far outnumbered by smaller induction motors in any process facility, they are generally process critical in nature and have a significant impact on facility production when not in service. Therefore, the selection of a suitably designed and reliable motor becomes imperative. The authors would like to discuss in more detail these synchronous motors including topics such as application, construction, insulation systems, design, starting, testing, excitation and operation/maintenance.

Instructors:
Bharat Mistry received his Bachelor of Engineering degree from, Surat, India in 1972. Since 1988, he has been a registered Professional Engineer in Ontario, Canada. Presently retired from General Electric Company from 2017. He has served industries for more than 35 years in the area of regulatory compliance engineering, design and application of large electric rotating machines for hazardous/non-hazardous locations. Published many IEEE/IAS/PCIC papers and Tutorials. He serves on many technical standards such as IEEE 1349, IEEE 303, CANENA, IEC 60079 and C22.2 No. 100.

Saeed Ul Haq received his B.Sc. degree in Electrical Engineering from UET, Peshawar, Pakistan, in 1991, M.A.Sc. degree from the University of Windsor, Windsor, ON, Canada, in 2001, and his Ph.D. degree from the University of Waterloo, Waterloo, ON, in 2007. During his Ph.D. program, his main research interest was to study the insulation problems in drive-fed medium-voltage motors. Dr. Haq is a registered Professional Engineer in the Province of Ontario, Canada., he joined the GE Large Motors & Generators Technology team at Peterborough, Ontario, Canada, as an Insulation Engineer. His area of interest is in the development of insulation systems for large rotating electric machines.

Madu Thiru graduated from Pondicherry University (India) in 1997 with a Bachelor degree in Electrical and Electronics Engineering. In 1998, he joined Memorial University of Newfoundland where he did graduate studies on power electronics and variable speed drives. In 2000, he joined GE Large Motors in Peterborough, Ontario, Canada. He has held many roles in the organization. He currently holds the position of Rotating Machines Leader for Global services. His work focuses on Services offerings, Large Synchronous and Induction motor designs, designing retrofits, engineering studies, failure analyses and repair solutions in the field of Large Motors.

Chris O. Schartner received his B.Sc. degree in electrical engineering from the University of Alberta, Edmonton, AB, Canada, in 1997. In 1997 he began his career with GE in Peterborough, ON, Canada, in the large motors design group. He has since been involved in the design of large synchronous machines (motors, generators and condensers) for the petrochemical, refining, pipeline, air separation, mining, metals, pulp and paper and utility industries. Mr. Schartner is a Registered Professional Engineer in the Province of Ontario, Canada.

Daniel O. Manns received his Ba.Sc. degree in engineering science from the University of Toronto, Toronto, ON, Canada, in 2003. In 2011 he received a Master's degree in power engineering from the University of Waterloo, Waterloo, ON, Canada. In 2003 he began his career with GE in Peterborough, ON, Canada, as an insulation engineer. He has since served in various roles within the organization, and currently leads the engineering team for large synchronous motors. Mr. Manns is a Registered Professional Engineer in the Province of Ontario, Canada.

2026 IEEE-IAS-PCIC Conference – Call for Tutorial Proposals

73rd Annual PCIC Technical Conference
Philadelphia, Pennsylvania USA
September 21 – 24, 2026

The Tutorial Subcommittee strives to offer a tutorial slate that will appeal to a wide cross section of PCIC attendees depending upon their experience, discipline, and responsibilities. All tutorials are presented by experts and are intended to help experienced professionals update or refresh their knowledge base and to accelerate development of those new to the profession. The tutorial program is intended to provide all PCIC attendees with an opportunity to expand their PCIC experience, providing even more value from the conference because of their participation in the tutorials.

Any individual (s) interested in presenting a tutorial of topics relevant to PCIC attendees, is encouraged to fill out the form below. PCIC guidelines for non-commercialism available at the PCIC website are required to be followed for all presentations and handout materials. Due to limited time available for tutorials, each tutorial shall be of four hours duration.

The Lead Instructor is responsible for submitting the completed form electronically to the Tutorial Subcommittee Chair.
All tutorial instructors are required to register for the PCIC Conference (for the day they are presenting their tutorial at a minimum).

Schedule:

- Lead Instructors submit proposals to Tutorial SC Chair .... November 3, 2025
- Tutorial SC Chair notifies lead instructor of tutorial status .... January 30 ,2026
- Lead Instructor submits CV of all Instructors .... March 2, 2026
- Lead Instructor submits finished tutorial for non-commercialism check .... August 14, 2026

Simple Steps to follow to submit a tutorial proposal:

- Complete the 2026 PCIC Tutorial Proposal form below, and email it to:
    - Janet Flores – Chair, at jflo2007@gmail.com
        - cc. Donna Bartling Vice Chair, at donna.bartling@yahoo.com
- Or go to https://ieeepcic.com/conference/tutorial-proposal-form/ and complete the on-line form 2026 Tutorial Proposal

Tutorial Proposal Form – for PCIC 2026

Please see the notes below before submitting - Submit Biography of each instructor with the proposal.

1.) Title of Tutorial: *(maximum of 100 characters including spaces)*

____

2.) Abstract *(maximum of 1000 characters including spaces)*

____

3.) Lead Instructor: *(see notes 3, 4 below)*

Name: ________________________ Title: ______________________

Company: ______________________ Telephone: ____________________

Address: ____

____

City/State/Zip: ____

Email: __________________________

4.) Other Instructor(s) Name & Company affiliation: *(see note 5 below)*

____

____

5.) Send To: Janet Flores – Chair, PCIC Tutorial Subcommittee

email: jflo2007@gmail.com, cc: donna.bartling@yahoo.com

Notes:

1) The title should accurately reflect material to be addressed in the tutorial. It should be limited to a maximum of 100 Characters with spacing.

2) The abstract limited to 1000 characters with spaces should summarize material to be covered in the tutorial and should be in complete sentences (no bulleted list). Please note that tabs, fonts and bullets may be lost in formatting. Only the use of spaces and carriage returns will be retained.

3) **Lead Instructor is responsible for all submissions and serves as the main contact for all tutorial** related correspondence. The Lead Author shall ensure all presentation and handout material (printed or electronic) is free from any commercialism to comply with PCIC policies. This includes the removal of all commercial logos in the presentation slides and disabling any company screen savers.

4) The **Lead Instructor** shall submit Biographies of all the instructors. The biography of the instructors should be limited to one thousand characters with spaces. If there are more than two instructors, the total characters with spaces for all instructors should not exceed two thousand. Please note that tabs, fonts, and bullets may be lost in formatting. Only the use of spaces and carriage returns will be retained.

5) In addition to the paper copies, PowerPoint slides should be printed with a maximum of two slides per page for clarity.

6) The number of instructors for the tutorial should be a minimum of two and a maximum of four (including the lead instructor) with not more than two from any one company or organization.

IEEE

IAS IEEE INDUSTRY APPLICATIONS SOCIETY IEEE

pcic IEEE • IAS Petroleum and Chemical Industry Committee

Guest Tour Information

Dallas is a city with so many attractions available to enjoy. After a lot of hard work, your PCIC Local Guest Tours Committee has selected what they believe is an excellent selection of tours for you to select from.

The guest tours offered by the PCIC Local Committee are available for Saturday September 20, 2025, through Wednesday September 24, 2025. These tours allow the guests to experience some of the great local areas of interest.

Important Notes about the PCIC Dallas Tours:

- Tours will operate rain or shine.
- Tour tickets are non-refundable but may be exchanged with, or sold to, other conference guests.
    - Exchange information will be available at the Guest Hospitality Suite.
- PCIC reserves the right to cancel tours if registrations are less than the minimum capacity levels required.
    - If a tour is cancelled a full refund will be issued.
- Some tours may require or suggest specific clothing, footwear, or safety equipment. See the tour descriptions below for more information.
    - For all outdoor tours, sunscreen with a high SPF rating is highly recommended.

The check-in for all tours will be in the Guest Hospitality Suite in Austin Ballroom 3 on the second floor of the Sheraton Dallas Hotel. Please arrive at least 20 minutes before the scheduled departure time.

Saturday, September 20, 2025

Tour 1 – Messina Hoff Wine Tour & Tasting in North Dallas — 1:00 PM – 4:00 PM — $130.00

Explore one of Texas's premier wineries, founded in 1977, where you will learn about their history and winemaking process. Then sit back and enjoy tastings of dry whites, reds, and their acclaimed Papa Paulo Port wines.

Tour 2 – AT&T Stadium Tour (Dallas Cowboys Stadium) — 1:00 PM – 4:00 PM — $120.00

Join us for a thrilling VIP Tour of the awe-inspiring AT&T Stadium, home to the world-famous Dallas Cowboys! Your guide takes you "behind the scenes" to visit the "off limits" areas of this mega structure. Relax in luxurious style in a "private suite" as your guide engages you with staggering facts and figures of the Stadium. Tour the Cowboys Locker Room; no expense spared here! No tour would be complete without a stop at the Cowboys Stadium Pro Shop to pick up a memento of your visit!

Sunday, September 21, 2025

Tour 3 – Dallas Highlights and John F. Kennedy Tour — 9:00 AM – 12:00 PM — $87.00

Think BIG! Founded in 1841 on the banks of the Trinity River, Dallas is now the fourth-largest metro area in the United States. Discover world-class art, award winning architecture, explore thriving neighborhoods and see beautiful parks on this vibrant city tour! Learn about Dallas' urban revitalization and a host of professional sports teams that call Dallas home. Step back in time with a visit to Pioneer Plaza's bronze Longhorn Cattle Drive. Experience the JFK story firsthand with a visit to Dealey Plaza and the Kennedy Memorial.

Tour 4 – Perot Museum of Nature and Science — 11:00 AM – 2:00 PM — $98.00

Immersive yourself in the exploration of one of Dallas's premier educational attractions, located in the Victory Park neighborhood. This modern museum, designed by architect Thom Mayne, spans 180,000 square feet across five floors and is renowned for its striking green architecture and hands-on approach to science and natural history.

Monday, September 22, 2025

Tour 5 – Fort Worth Highlights Tour — 9:00 AM – 2:00 PM — $98.00

Experience Fort Worth "Where The West Begins." Cowboys. Indians. Cattle. Oil. The History of Fort Worth reads like the history of the American West. Visit the heart of downtown, Sundance Square, and learn about Fort Worth's colorful past! See the JFK Tribute… which honors President Kennedy's historic stay in Fort Worth. Then off to the Stockyards National Historic District, where the Old West comes to life! Enjoy a guided walk of the Stockyards and experience the world's only daily Cattle Drive! Soak up the wild west on this historic Fort Worth Tour!.

Tour 6 – National Medal of Honor Museum — 1:00 PM – 4:00 PM — $98.00

Recently opened, the Medal of Honor Museum is dedicated to honoring the legacies of the 3,519 Medal of Honor recipients—ordinary Americans who performed extraordinary acts of valor in military service. This 100,000-square-foot facility, designed by architect Rafael Viñoly, sits on a five-acre waterfront site at Mark Holtz Lake and is supported by five massive concrete columns, each symbolizing a branch of the U.S. Armed Forces: Army, Navy, Marine Corps, Air Force, and Coast Guard. The design, with its elevated exhibition hall, evokes the burden shouldered by these heroes while highlighting their inspirational stories.

Tuesday, September 23, 2025

Tour 7 – Dallas Arboretum & Botanical Garden - Browse and Lunch **9:00 AM – 12:00 PM** **$98.00**

With over 66 acres of finely manicured grounds, the Dallas Arboretum and Botanical Gardens provides breathtaking views year-round! Enjoy a privately guided tour of the magnificent gardens; 66 acres of finely manicured grounds featuring stunning displays of seasonal color. See vistas of White Rock Lake from a peaceful bench, stroll through the colorful rose gardens, hear the sounds of the waterfalls and enjoy the local nature. Many smaller gardens, art installations and dining areas create one of Dallas' most visited attractions.

Tour 8 – Southfork Ranch **9:00 AM – 12:00 PM** **$97.00**

No trip to Dallas is complete without a visit to the legendary Southfork Ranch! Join your guide for a private tour of Southfork Ranch made famous by the TV series "Dallas"! Stroll the ranch grounds, peeking in barns and visiting the livestock. Re-live moments from "Dallas" in the "Dallas Legends" Museum". See the gun that shot J.R., Lucy's wedding dress, TV clips from the series, and other memorabilia that will make you feel right at home with the most infamous Texans of them all, the Ewings!

Wednesday, September 24, 2025

Tour 9 – George W Bush Presidential Library and Museum Tour **9:00 AM – 12:00 PM** **$98.00**

Tour the George W. Bush Presidential Library and Museum located on a 24 acre site on the Southern Methodist University campus. The museum takes visitors on an exciting tour behind the scenes of the critical decisions of the Bush presidency. "With its state-of-the-art interactive exhibits, the George W. Bush Presidential Library and Museum located in Dallas, Texas gives visitors an in-depth look at 8 years of American history, the American Presidency and important issues of public policy".

Tour 11 – Mozzarella Cheese Making Class **3:00 PM – 5:00 PM** **$95.00**

Unlike other classes that are primarily demonstration-based, this Cheesemaking Class is completely hands-on. Our students will learn techniques and skills by making Cheese in our factory just like our Cheesemakers, while having fun at the same time. Best of all you get to take home a chef's apron and all the cheese you make to enjoy again!

Notes

PCIC 2025 Conference Hotel Information

Sheraton Dallas Hotel
400 North Olive Street,
Dallas, Texas, USA, 75201
Telephone: +1 214-922-8000
Toll Free: +1-800-325-3535

The Sheraton Dallas Hotel is in the heart of downtown Dallas boasting Texas-sized hospitality. Our Dallas city center hotel is near American Airlines Center, Fair Park and within walking distance of many shops, restaurants and bars including the Deep Ellum neighborhood. Make yourself comfortable in the well-appointed rooms and suites of our hotel in downtown Dallas with everything you need to relax and work smart, from spacious desks and high-speed Wi-Fi to our Sheraton Signature Sleep Experience. On-site dining options include Draft Sports Bar and Lounge and The Parlor, for a speakeasy vibe. You can also enjoy breakfast, lunch or dinner at Open Palette or an on-the-go snack from Open Mkt. If

Traveling to Dallas by air
Dallas is served by two airports, the Dallas Love Field (DAL) and Dallas Fort Worth International Airport (DFW)

Dallas Love Field Airport (DAL)

Dallas Love Field is the headquarters for Southwest Airlines, it is the fourth largest U.S. airline in terms of domestic customers carried, operates a single terminal with just 20 commercial gates, making this relatively calm compared with what you'd encounter traveling through Dallas Fort Worth Airport. Delta airlines also operates a limited number of flights to and from DAL.

Transportation

Ride Share/Limos/Taxis; The pick-up location for Uber and Lyft, limousines, and taxis is located at the valet pavilion and Garage C Level 1. Passengers with mobility issues can speak to airport staff to arrange to be picked up at the lower-level curb or the upper-level curb outside baggage claim by

Rental Cars: Numerous rental car companies operate at Dallas Love Field. Each has a counter in the hallway leading to baggage claim, as well as shuttles that pick up and drop off customers on the lower level of the airport.

Public Transport: Dallas Area Rapid Transit's (DART) Love Link bus (Route 5) operates between Dallas Love Field airport and Inwood/Love Field rail station. This will allow you to connect to the DART Orange rail line to head to the St Paul Station in downtown Dallas (about a 30-minute journey). From there, the Sheraton Dallas Hotel is about a 3-minute walk. The DART fare is about $3.00 each way.

Dallas Fort Worth International (DFW) Airport

Dallas Fort Worth International (DFW) Airport warmly welcomes more than 73 million customers along their journey every year, elevating DFW to a status as one of the most frequently visited superhub airports in the world. DFW Airport customers can choose from 193 domestic and 67 international nonstop destinations worldwide. DFW was the first Carbon Neutral airport in North America and is still the largest in the world.

Transportation

Ride Share/Limos/Taxis; All have designated pick up points on the lower-level curbside of each terminal. Just follow the signs.

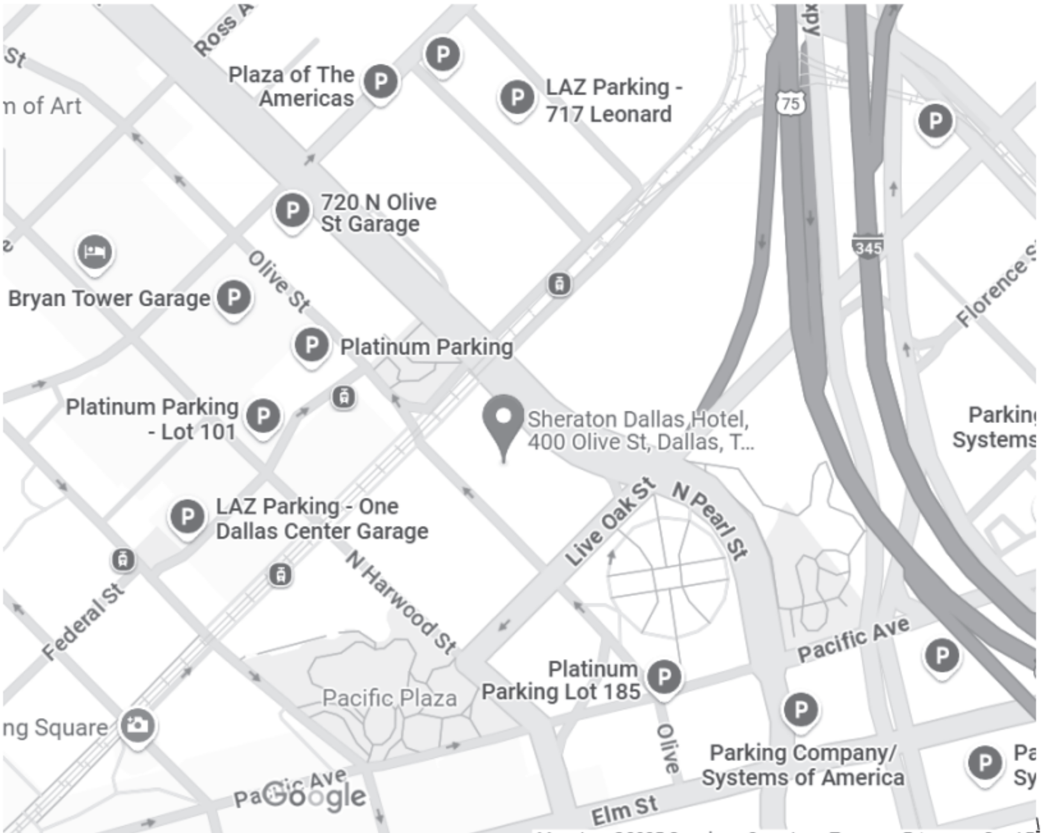
Rental Cars: Numerous rental companies operate at DFW. After collecting your baggage, follow the Rental Car signs to the designated pick-up area on the lower level of the terminal. From there, board the Rental Car shuttle bus that will take you to the Rental Car Center (approx. 10-minute journey).

Public Transport: The Dallas Area Rapid Transit's (DART) is connected directly to DFW in Terminal A, If you arrive in Terminals B, C, D or E, Terminal Link Shuttle can take you to Terminal A. Then simply follow the signs to the DART Station then take the Orange Rail Line to head to the St Paul Station in downtown Dallas (about a one-hour journey). From there, the Sheraton Dallas Hotel is about a 3-minute walk. The DART fare is $3.00 each way.

Offsite Parking near the Sheraton Dallas Hotel: The hotel offers valet parking, at $50.00 per night plus tax. and self-parking at $30.00 per night plus tax. There are charging stations available for electric cars (for a fee).

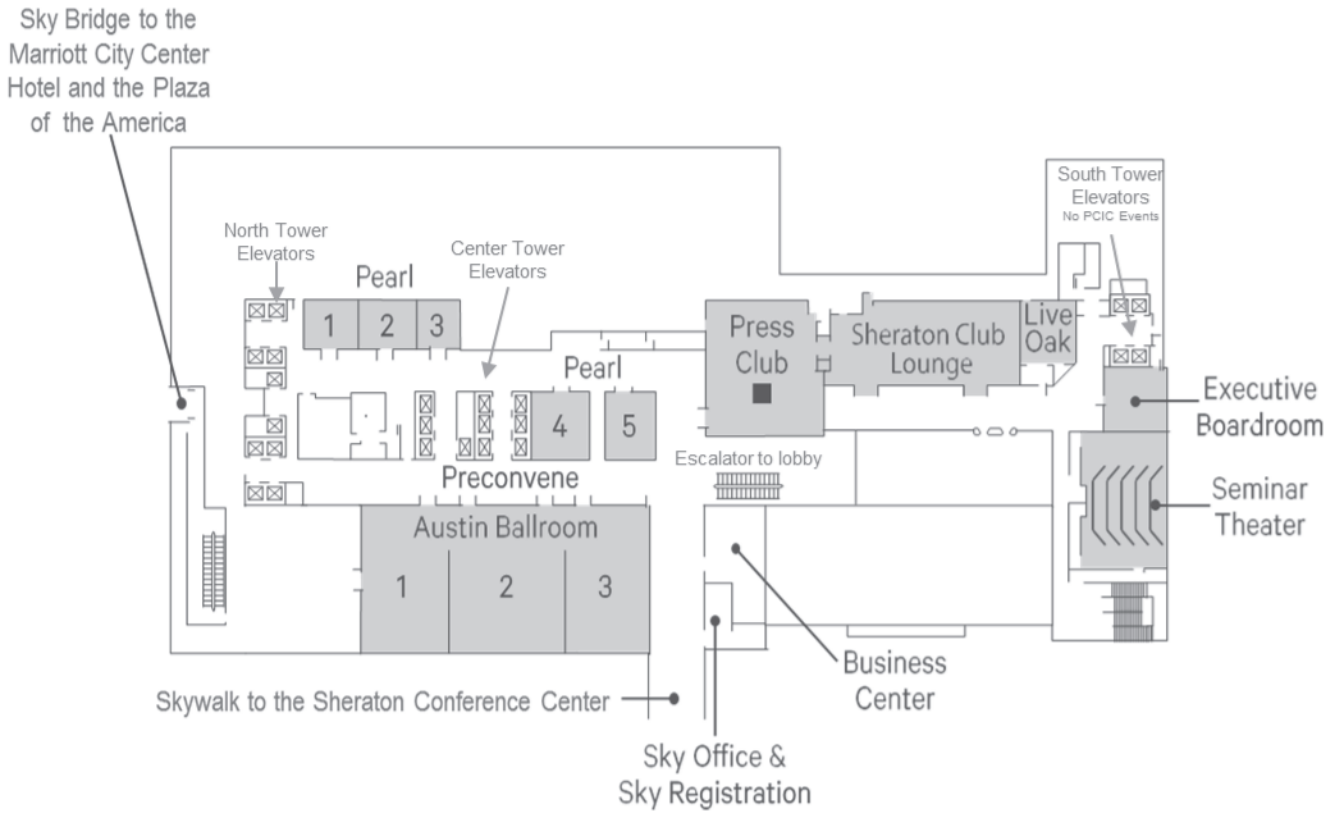
Several offsite parking lots are within a 2–15-minute walk to the Sheraton Dallas Hotel, some have in-out privileges, others do not. Prices vary between $15-25. The closest ones are listed below:

- Platinum Parking Olive & Pearl, 714 Olive Street, Dallas, TX 75201, $15.00 per day (no in-out privileges) There is limited space, no height restrictions, and is about a 2minute walk to the hotel
- Platinum Parking Lot 185, 2104 Pacific Ave, Dallas, TX 75201 for $20.00 per day. There is limited space with no height restrictions, and is about a 3-minute walk to the hotel
- Elm St. Garage, 103 S Pearl Expy, Dallas, TX 75201 for $18.00 per day. There is lots of space, has a 6'10" height restriction, and is about a 6-minute to the hotel.



<u>SHERATON DALLAS HOTEL SECOND FLOOR</u>

The second Floor of the hotel connects directly to the Conference Center across the street.
For security reasons, there is no street level access to the convention center.
This floor is accessible by elevators in all three towers of the hotel and an escalator from the lobby.
At the far end of this floor (near the North Tower elevators) is a walkway to the Marriott City Center Hotel (a PCIC overflow hotel).



Sheraton Dallas Hotel Layout and Room Locations

The Sheraton Dallas Hotel has three towers of guest rooms (North, Center, and South) and all have direct access to the second floor of the hotel. There is also a walkway on the second floor to the Marriott City Center Hotel (overflow hotel) close to the North Tower.

The Sheraton Conference Center is directly across the street from the hotel connected by a Sky Bridge on the second floor.

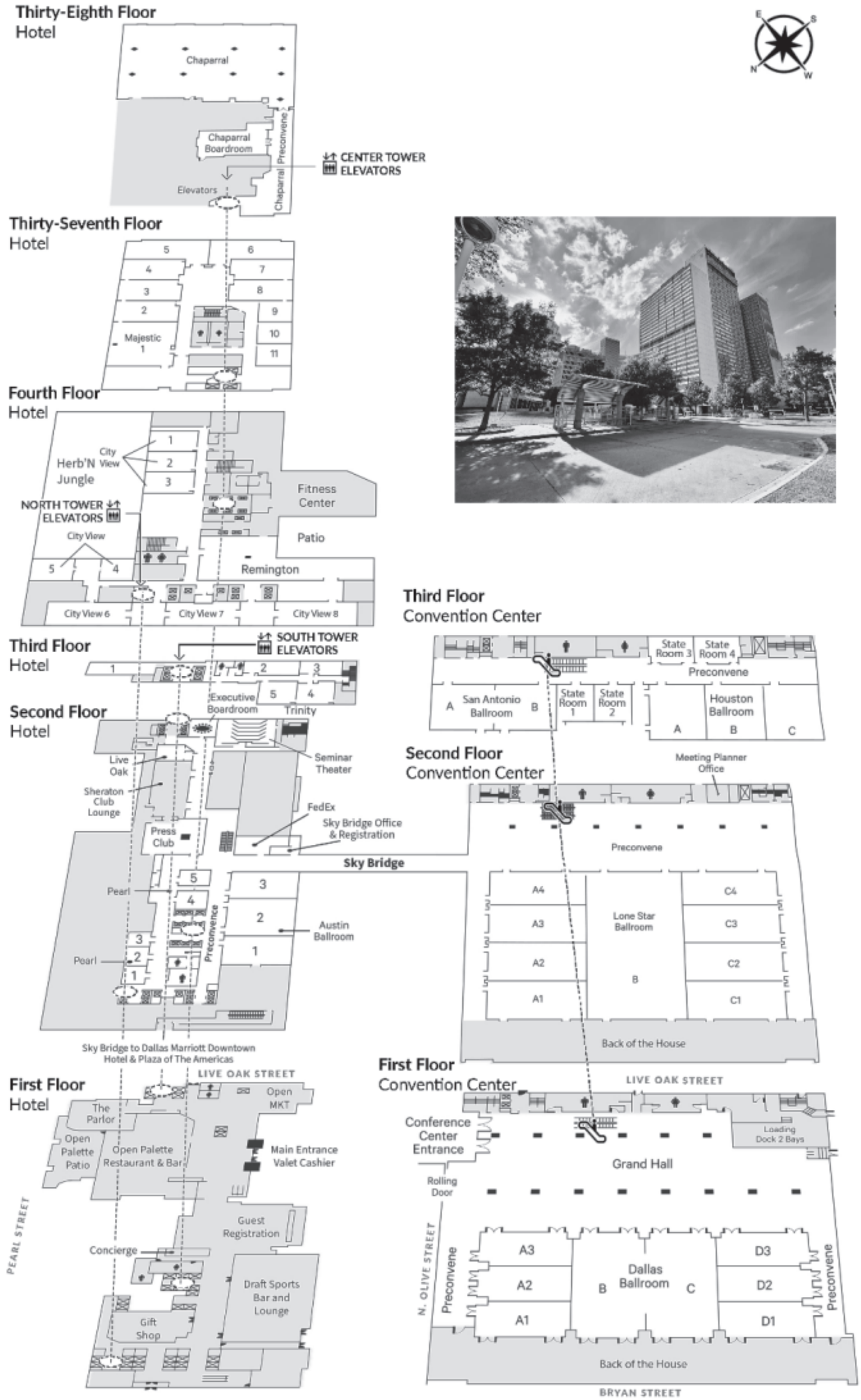
Registration, breakfasts, luncheons, technical paper sessions, and the Conference Social and are all located in the Conference Center.

Registration is on the second floor of the hotel at the entrance to the Sky Walk.

The guest Hospitality Suite is in Austin Ballroom 3 on the second floor of the hotel.

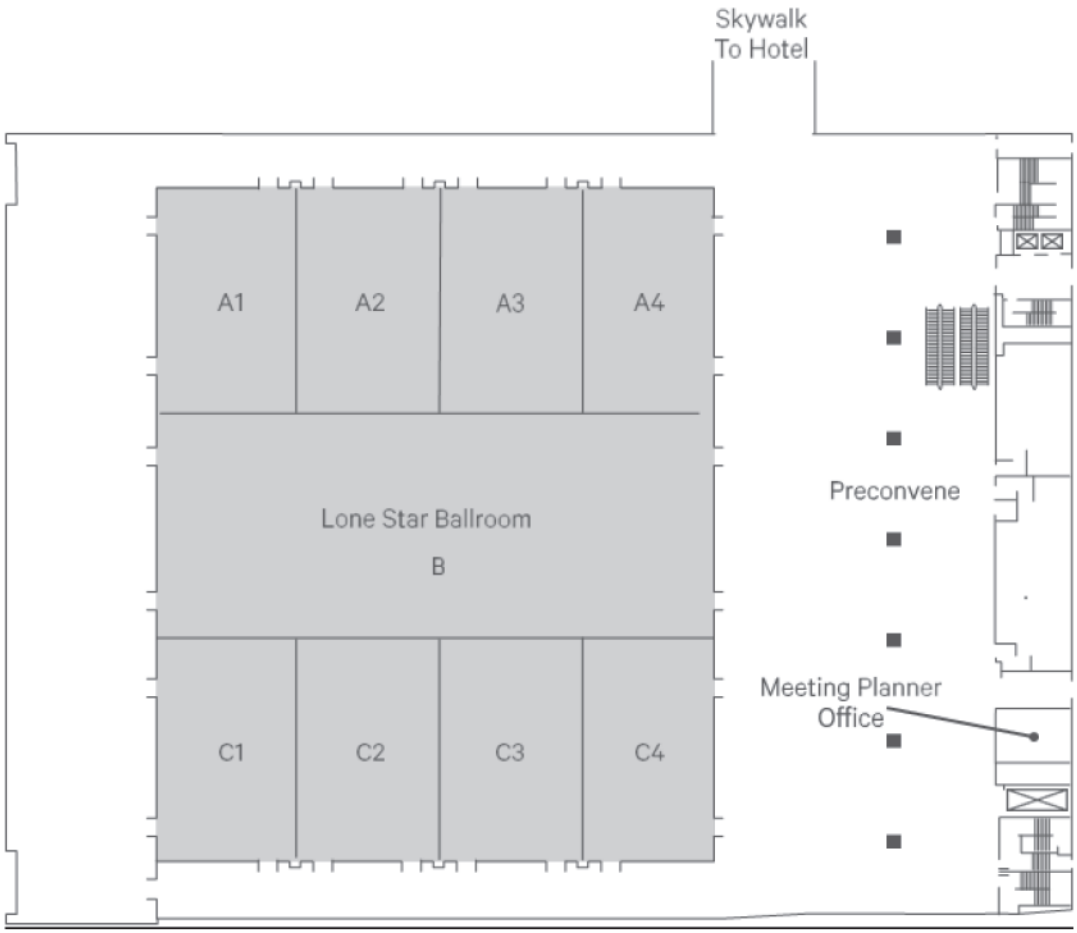
The Hospitality Suites are located on the 2nd floor (accessible by all elevators), the 4th floor (accessible by the center and north elevators) and on multiple floors of the Center Tower, including the 37th and 38th floors' meeting rooms (accessible by the Center Tower elevators only).

The only access to the Convention Center is on the second floor of the hotel.
While the Sheraton Convention Center there has ground level doors, they will be locked for security reasons.

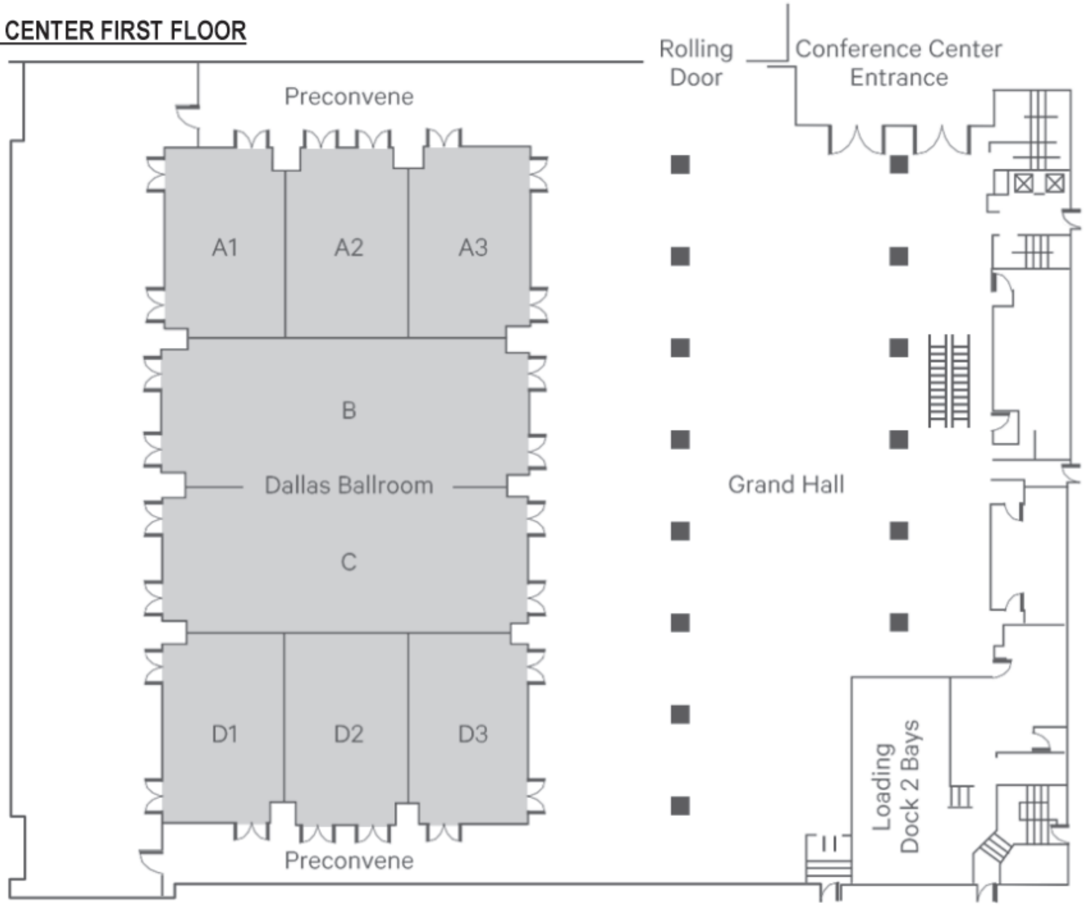


<u>CONFERENCE CENTER SECOND FLOOR</u>

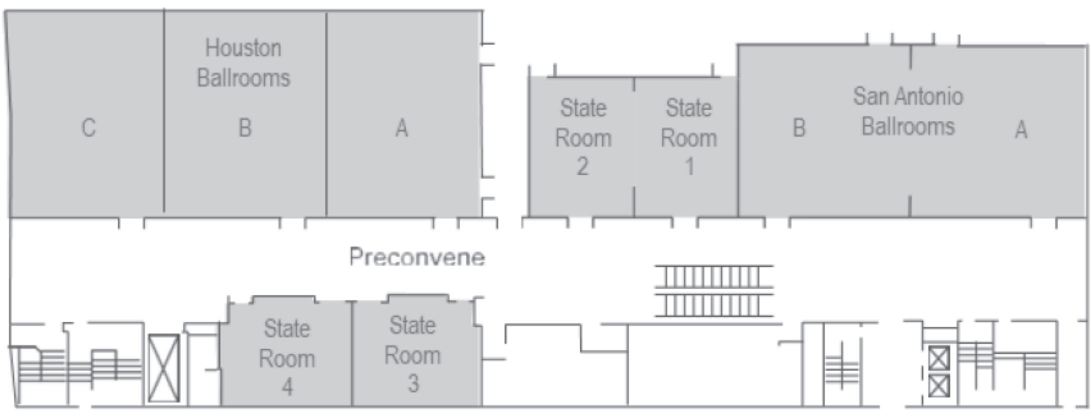
The Skywalk shown at the top of the picture leads directly to the second floor of the Sheraton Dallas Hotel
From this area you can reach the first and third floors of the Convention Center



CONFERENCE CENTER FIRST FLOOR



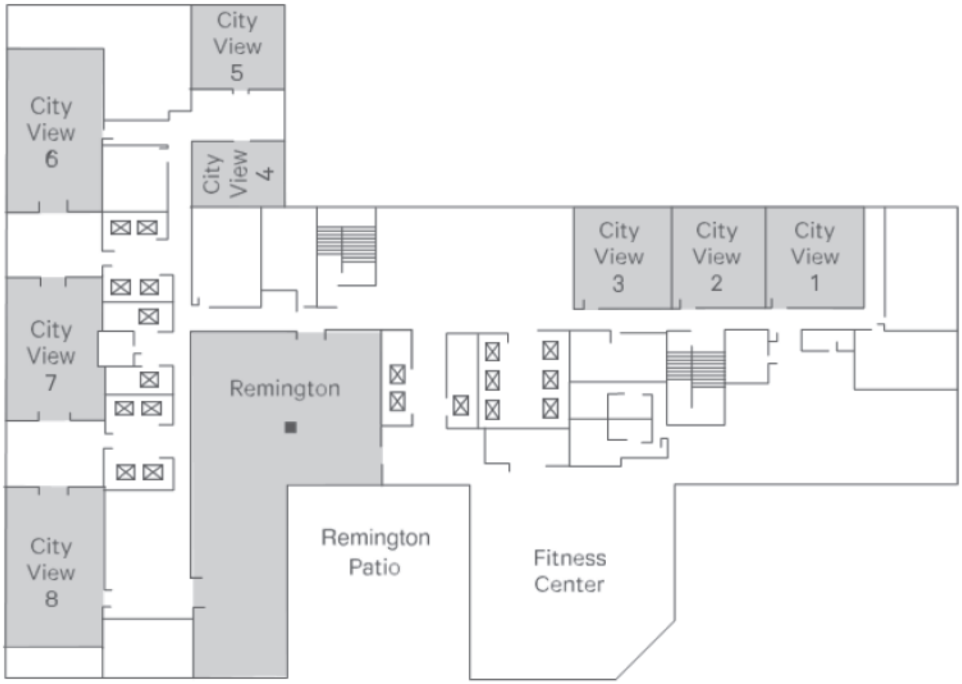
CONFERENCE CENTER THIRD FLOOR



SHERATON DALLAS HOTEL

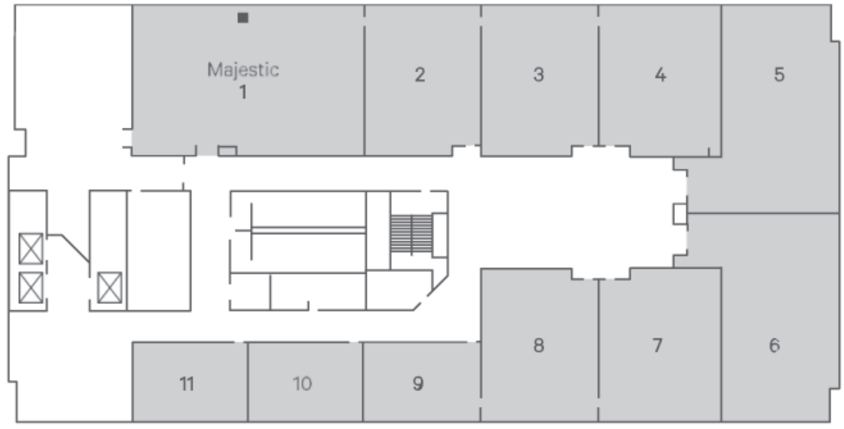
Third Floor
South Tower
Elevators only
No PCIC Events

Fourth Floor
Center and
North Tower
Elevators only

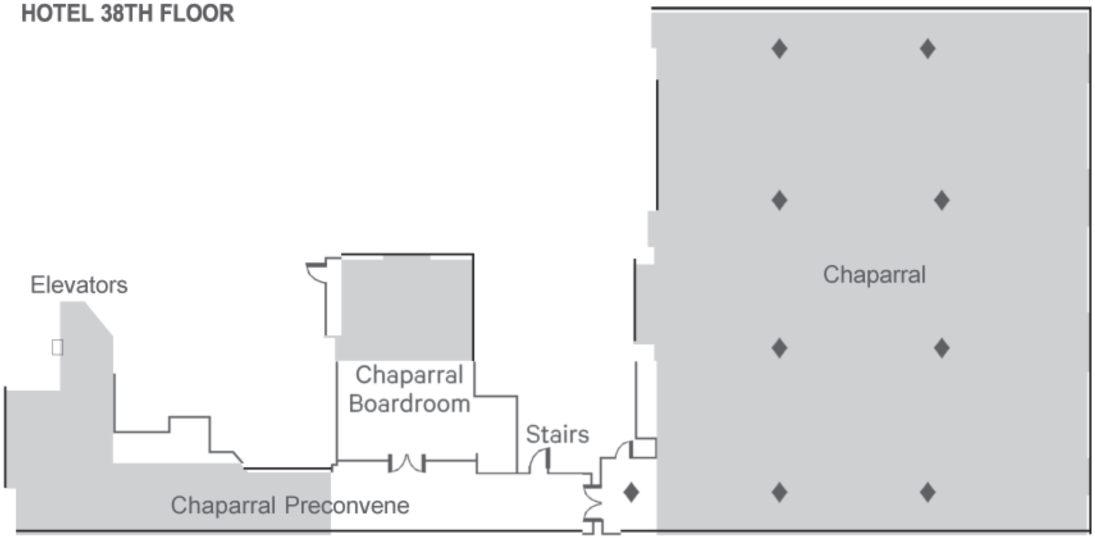


SHERATON DALLAS HOTEL
Center Tower Elevators only
Several Hospitality Suites are located in this tower up to level 26

HOTEL 37TH FLOOR



HOTEL 38TH FLOOR



It's time to start planning to attend the

73rd IEEE IAS Petroleum and Chemical Industry Committee Conference

IEEE PCIC 2026

Philadelphia, Pennsylvania USA

September 21 – 24, 2026