American Petroleum Institute

2025 API PIPELINE CONFERENCE & EXPO

PIPELINE, CONTROL ROOM AND CYBERNETICS

PROGRAM GUIDE

APRIL 28-30, 2025
Marriott Austin Downtown
Austin, Texas

It's just GOOD BUSINESS

The era of transformative change is reshaping the competitive landscape for all – resulting in a window of vast opportunities and risks across the value chain.

The imperative for what will shape good business going forward rests upon the ability to rightly order our energy toward meeting the diverse needs of all customers.

Join us as we continue to redefine business to optimize efficiency for affordable access, manage the rapid innovation pace within responsible risk thresholds, and lead through social realities of our diverse communities. This multidimensional period will require hyper focus, unified leadership and Just Good Business in areas of operations, technology, and divergent geopolitical approaches and priorities. Those who opt-out during this inflection period will risk falling short in the long game of securing our energy future.

Scott Tinker
Global Energy Explorer
Host of "Energy Switch"

Martha Acosta, Ed.D
"The Godmother of HOP"
marthaacosta.com

A Few **HIGHLIGHTS** and Why **YOU SHOULD NOT MISS IT!**

A MARQUEE OIL & GAS INDUSTRY PROGRAM made easy for attendees to navigate by tracks and interests.

CENTRALLY LOCATED EXHIBIT HALL with top service providers and suppliers educating attendees on latest products and services.

Present your ideas and work to others, while getting feedback and potentially **NEW PERSPECTIVES** for continuous improvement.

Build your **KNOWLEDGE & EXPERIENCE FOR FUTURE OPPORTUNITIES** that show engagement within a specific field of work.

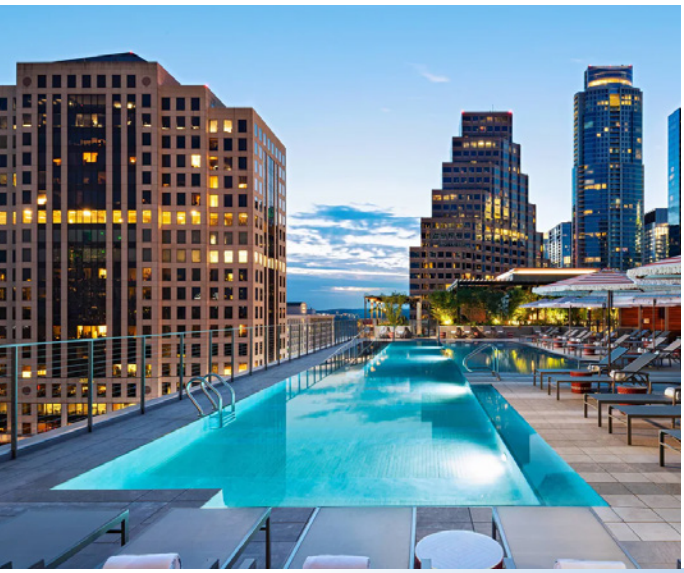
NEW! COMBINED CONFERENCE curated with the inclusions of control room and cybernetics into a full 2.5 day experience across diverse pipeline topics.

Acquire **INSIGHTS INTO THE LATEST TRENDS AND TECHNOLOGIES** that are crucial for a successful business.

SCHEDULE AT-A-GLANCE

NEW!
Pipeline, Cybernetics, and Control Room topics expanded from 1.5 days (Pipeline, then Cybernetics/Control Room) to a **fully combined 2.5 day Program covering all tracks.**

SUNDAY APRIL 27	MONDAY APRIL 28	TUESDAY APRIL 29	WEDNESDAY APRIL 30
3 - 6 PM REGISTRATION	6:30 AM - 5 PM REGISTRATION	6:30 AM - 5 PM REGISTRATION	6:30 AM - 12 PM REGISTRATION
EXECUTIVE ROUNDTABLES *Invite Only*	EXHIBIT HALL OPEN	EXHIBIT HALL OPEN	TECHNICAL TRACKS NEW! PIPELINE, CONTROL & CYBERNETICS
PRIVATE RECEPTION *Invite Only*	OPENING SESSION "THE GODMOTHER OF HOP - MARTHA ACOSTA" + SAFETY AWARDS	KEYNOTE "A CONVERSATION WITH SCOTT TINKER"	CONFERENCE & EXPO ADJOURNS
	TECHNICAL TRACKS NEW! PIPELINE, CONTROL & CYBERNETICS	TECHNICAL TRACKS NEW! PIPELINE, CONTROL & CYBERNETICS	
	WELCOME RECEPTION	NETWORKING RECEPTION	



GET FAMILIAR WITH OUR CONFERENCE HOME FOR THE NEXT DAYS

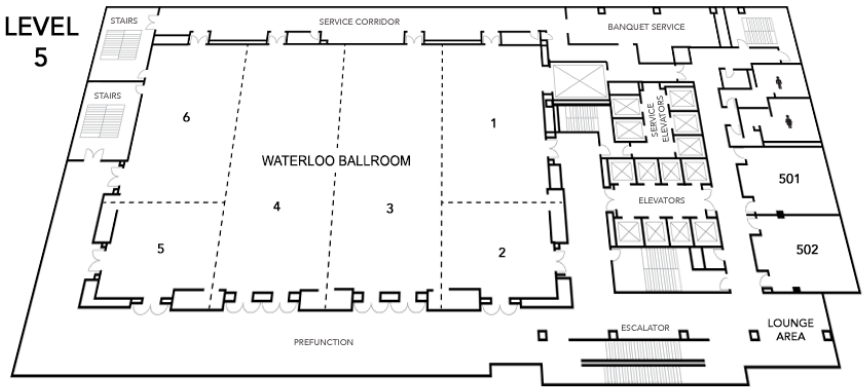
MARRIOTT
AUSTIN DOWNTOWN

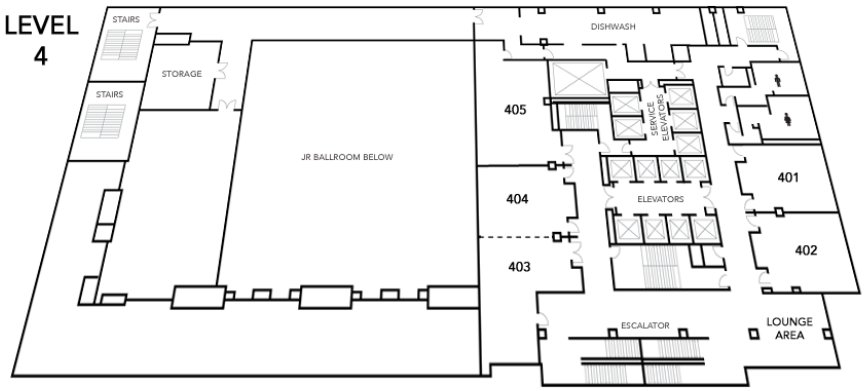
Settle in and get familiarized with your home for a great experience, top content and networking for the next few days.

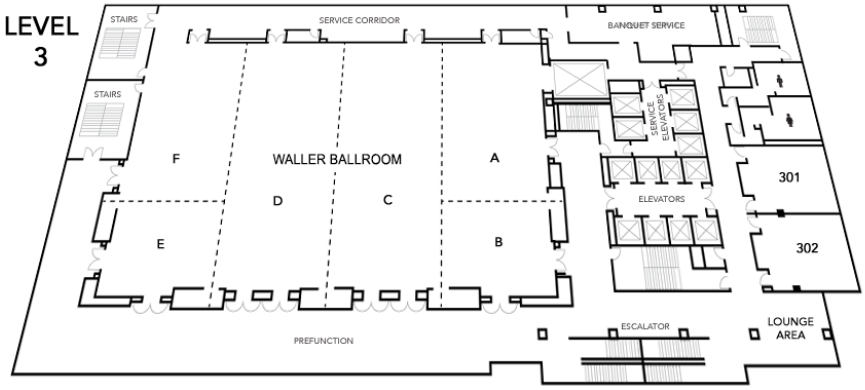
Located within walking distance from famed 6th Street, popular shops, and hottest restaurants, the Austin Marriott Downtown is the ideal location for our conference in Austin.

Your sessions are located throughout Levels 3, 4 and 5 – check your schedule of sessions for specific information.

The Exhibit Hall is located on Level 2 at Moontower Hall.







REGISTERED ATTENDEES CAN SEE FULL SCHEDULE & LOCATIONS IN CONFERENCE APP

2025 API PIPELINE CONFERENCE & EXPO

TECHNICAL SESSIONS

GENERAL SESSION

will be held in Waller Salon A-D.

STAKEHOLDER ENGAGEMENT & OUTREACH

This track fosters information sharing on engagement information for community involvement and multi stakeholder efforts or tools used for advancement in safe pipeline operations. Example topics may include leading practices for engagement with communities throughout the lifecycle of a pipeline(s), API Recommended Practices (RP) 1162, Public Awareness Programs for Pipeline Operators and RP 1185, Pipeline Public Engagement, environmental justice and Tribal/ First Nation considerations, emergency responder education, and damage prevention outreach.

TRACK SESSIONS:

- How do you Eat and Elephant (RP 1185)... One Bite at a Time
- Integrating Overlapping Regulatory Programs Through Modernizing Processes and Technology
- Pipeline and Hazardous Materials Safety Administration's (PHMSA's) Efforts to Enhance Public Engagement
- Myths of Pipeline Response
- PHMSA's Damage Prevention and Excavation Enforcement Programs
- Emerging Strategies for Environmental Justice Engagement in Today's Environment
- "ONEsight: A Vision into the reality of Public Engagement & Awareness, starting internally"
- Building Bridges: Proactive Community Engagement Strategies for Pipeline Operation Success
- Operators Share their RP 1185 Implementation Journeys, Successes and Lessons Learned
- Canadian Public Awareness Effectiveness Research Pilot Study
- Community Acceptance of Carbon Dioxide Pipelines: Lessons from Leading Projects
- Leveraging Geofencing Technology for Pipeline Safety and Public Awareness
- PANEL: ER: CO2 plus hands-on Learning
- Moving Stakeholders from NIMBY to YIMBY: A Roundtable Discussion

OPERATIONAL EXCELLENCE

This track explores how oil and gas pipeline leaders are operating their assets safely, reliably, sustainably and cost effectively from safety performance improvements to best-in-class standards and systems. Example topics may include processes for identifying high consequence areas, in line inspection lessons learned, pipeline safety management systems, safety culture, Management of Change, leak detection analysis and remediation for risk reduction for asset, operational, and enterprise risk management.

TRACK SESSIONS:

- Emerging Trends in Pipeline Safety Regulations at the State Level
- Convergence of North American Pipeline Regulations
- Ensuring Operational Excellence of Three Natural Gas Transmission Pipelines During Construction of The Underpass Tunnel Toll Road by Implementing Pipe Hanger System
- Methodology evolution and application for pipeline stress corrosion cracking susceptibility analysis and investigation
- Implementation methodology for intervention planning
- Effective Records Mapping across Compliance Programs
- Hazardous Liquid Facility Pipeline Inspections
- Life Cycle Cost Analysis: Obstacles, Estimation Methods, And Cost Efficiency Gains
- The Five Phases of Safety Cultural Growth and Its Application to Oil and Gas Pipelines
- Proactive Pipeline Integrity Management Of Complex And Simultaneous Geotechnical And Hydrotechnical Hazards
- Approaches to Assessing Management System Maturity
- API Standards in action. Unitil will discuss the practical application of API 1185 as well as incorporating fundamental principles of API RP 1173 in design, construction and commissioning of critical gas pressure regulating facilities.
- AC Induced Corrosion of Buried Pipelines
- Leveraging Data to Drive Predictability into the PSMS Risk Equation
- Pipeline Facility Pressure Retaining Fixed Equipment Lifecycle Inspections
- Streamlined Development of an API RP 1173 Based Management System
- New Construction and Material Records Best Practices
- Optimizing Operational Efficiency through Fault Tree Analysis: Anomaly Control and Prevention
- 5 years of SSWC data
- Pipeline Facility Geohazard Risk Assessment, Mitigation, and Post-Event Inspection
- Assessing the Effectiveness of Isolation Valves and Integration into a Decision Support Dashboard
- A Risk-Based Approach for Evaluating Piping Support Structures
- Survive & Thrive: How Pipelines Can Navigate an Embattled & Evolving ERCOT
- Building an Integrated Management System: A Path to Operational Excellence
- Hard Spot Program Update: Continued Data Integration and Risk Analysis to Prioritize Hard Spot Response
- Optimizing Pipeline Integrity through Machine learning based Predictive Models
- Pipeline Safety Management Systems (SMS): Contractor Assessment Program, Small Operator Assessment Program, 2023 Benchmarking and Industry Updates
- South Bow Facility Pipe Integrity - Vibration and Stress Program Overview
- A Decision-Making Methodology for Managing Pipeline Assets
- Review of Threats and Code Requirements for Composite Pipes in Oil and Gas Transmission Lines
- Just Culture – Culture of learning and sharing.
- Shorted Pipe Casings and Increased Focus in Regulations
- Liquid Pipeline Capacity and Overpressure Protection Strategies: Active Surge Prevention and Passive Surge Protection
- PSMS – Process to Task to Performance – An approach for driving PSMS to the boots on the ground.
- Do's and don'ts of ILI validation per API Std 1163. Lessons learned the hard way!

ENVIRONMENTAL, SOCIAL & GOVERNANCE

This track provides industry insights on both current and forward-looking strategies, changes, and approaches to environmental responsibility and broader ESG measures. Examples topics may include energy evolution, habitat management and conservation programs, ESG risks, system hardening and resiliency, methane emission quantification and other sustainable practices by operators.

TRACK SESSIONS:

- Midstream Conservation Panel
- Industry Efforts in Conservation
- Driving ESG Excellence through Integrated Management Systems
- Satellite Intelligence: NOW Delivering Operational Excellence and Advanced ESG Performance
- SCADA-Based Application for Gas Emissions Data Control and Management

TECHNOLOGY & INNOVATION

This track highlights operational technologies, tools and other innovations that allow organizations to advance their operations, asset integrity, risk management, and business continuity and growth. Example topics may include new inspection tools and engineering practices, leak detection technologies, emergency responder applications and emerging fuel developments.

TRACK SESSIONS:

- Engineering Assessment of Dents Without Dent Profiles: Prioritizing Resources and Leveraging Existing Data
- Research and the Future – The Information Age
- Internal Corrosion of Pipelines in Oil Service
- Pipeline Girth Weld Separation in Lean Gas Service
- Leveraging the Future: NAESB's Strategic Initiatives for a Sustainable Gas Industry
- Get the Most out of Your ILI Data: Optimizing a Dig Plan with Probabilistic Analysis and FEA
- Validation of A Portable Field Instrument for In-ditch Pipe Body Toughness Determination
- Converging Gas Pipeline Modeling and Commercial Excellence: A Seamless Integration
- From Dust to Digital – Data Collection "Lessons Learned" for Integrity Management and Informed Decision Making
- Enhancing Pipeline Isolation: The Advantages of Double Independent Isolation Modules for Improved Sa
- Non-Metallic Interfaced Pipe Support Free From Corrosion and Maintenance
- Harnessing Data Science for Weather and Outside Force Threat Management
- Unification of NNPH Stress Corrosion Cracking, Corrosion Fatigue, and Free Hydrogen Environment Growth Models
- Automated Close Interval Survey Analysis and External Corrosion Monitoring with Multiple Data Sources
- The Value and Science behind MDS™ Pro Assessment Techniques, with a focus on Advanced Analysis Techniques
- Monitoring Pipeline Movement Using Magnetic-Based Technology: A Comparative Study
- Girth Weld Assessment: Real-World Examples of Challenging Anomalies vs Manufacturing Indications
- Energy Transition Introduces Hard Spot Challenges
- Assessing Mechanical Damage with an Ultra-High Resolution ILI System
- Gulf of Mexico Riser Inspections Using a Self-Propelled Ultrasonic Solution
- AI-enabled aerial patrol boost operational safety, reduce risk, and enhance critical infrastructure protection.
- Ideal Parameters to Achieve Drag Reduction in Multiphase Applications
- Identification of regions highly susceptible to release due to bottom-side internal corrosion
- Development of ILI Tool and Robust UT Probes for Assessment of Crack Type Anomalies in Ammonia Carrying Pipelines

- Automation of Pressure Cycling Analysis for Gas Transmission Pipelines
- Navigating Complex Geometries with Advanced Phased Array Ultrasonic Testing: Evaluating PAUT Accuracy, Challenges, and Limitations in Flaw Detection
- Evaluation of Geohazards Using a Novel In-Line Inspection Technology
- – A unique simulator environment using hydraulic models for testing autonomous pipeline operations at Phillips 66.
- Recent advances in ROW inspection automation – From liquid leak detection to vegetation management
- Ultrasonic Mode Imaging – Nonintrusive Interrogation of Inaccessible Pipe
- AI-Enhanced Pipeline Aerial Patrol
- Advanced Edge-Based Polling and Protocol Conversion
- Measurement and Monitoring of Chlorine Gas Emissions from Deep Well Anode Vent Tube Outlets
- Simplified Pipeline Digital Twinovation
- Corrosion at Pipe Supports: Causes and Solutions

WORKFORCE DEVELOPMENT

This track offers insight into diverse workforce development strategies in the pipeline industry. Example topics include succession planning to support knowledge transfer, attracting new workers to the industry, talent retention strategies, managing a multigenerational workforce, Operator Qualification (OQ) and inspector certification programs, establishing competency based learning programs, using technology to train, and expanding formal training to include knowledge-based workers.

TRACK SESSIONS:

- Panel : Organized Labor Workforce Programs
- Building Competency in Management Systems: A Competency Model and Development Program for Pipeline Industry Professionals
- Skills Expansion Program – Empowering Front-Line Field Employees for Enhanced Performance and Growth
- Regulatory History of the OQ Rule and the role of API RP 1161

LOW CARBON ENERGY OUTLOOK

This track explores the topics associated with the safe and efficient transportation and storage of carbon dioxide (CO2), hydrogen (H2) and other low carbon and renewable sources while examining how both new and existing energy pipeline infrastructure may enable the addition of a next generation of low carbon fuel supply. Example topics include safety related R&D, standards to address operations and integrity, odorant considerations, leak detection methods, self-powering technologies, pipeline materials, emergency preparedness and response guidance, dispersion modeling and modifications to infrastructure and other factors to ensure safe operations of CO2 and low carbon fuels.

TRACK SESSIONS:

- API Recommended Practice on Transportation of CO2 by Pipeline
- Collaborative Approaches for Safe and Efficient Transport of Next-Generation Energy Products
- Supercritical CO_2 Pipeline: Addressing Challenges in Real-Time Transient Modeling and Leak Detection
- U.S. Carbon Dioxide (CO2) pipelines: A Review of Policies Needed to Support U.S. Decarbonization Goals
- Computational pipeline monitoring opportunity for onshore hydrogen pipelines
- Panel: CCS Project Risk-Based Screening Process & PHMSA's CO2 NPRM – Navigating the Landscape
- CO2 Pipeline Case Study – Using RTTM for Leak Detection and Control
- The role of pipelines in a low carbon energy future

- Dense Phase CO2 Pipelines – Design Considerations
- Cutting-Edge advancement in Water Electrolysis for Efficient Green Hydrogen Production
- Carbon Emission Reduction in Petroleum Pipelines by use of Drag Reducing Agent
- Energy Pipelines and their (Potential) Roles in the Energy Transition

NEW! CONSTRUCTION

This track offers a forum to share best practices, discuss challenges, and communicate lessons learned during construction activities that occur over the lifecycle of pipeline assets. Example topics include project management (including: scope, schedule, supply chain, quality, safety, environment, and cost management), new construction, commissioning, and major maintenance activities such as API 653 tank inspections and integrity remediation projects. Presentations from companies issuing contracts, as well as contracting organizations performing work are welcome.

TRACK SESSIONS:

- Taming the Complexities of Major Urban Pipelining Projects
- Internal & External Coating Inspection Process Map in Oil & Gas Field
- DRA As An Effective And Immediate Alternative To Increase Pipeline Capacity Vs Building Parallel Pipelines
- The Case for Lifecycle Pipeline Construction Quality Management Systems
- Welding of Heavy-Walled Spherical Tees Without Stress Relieving
- Enabling Agencies to Make Informed Decisions Based Upon Enbridge Project Learnings and Experience

CYBERNETICS - LEAK DETECTION

This track aims to showcase emerging technologies and advancements for leak detection systems. Example topics may include uses cases in areas of internal and/or external leak detection systems, detection accuracy and proactive maintenance, new implementations in live environments, predictive analytics, smart algorithms, inventive applications of detection tools, and next level improvements to existing technologies.

TRACK SESSIONS:

- Intelligent Pipeline Integrity Program - iPIPE
- Fundamental understanding of the operating principles of currently available pipeline leak detection technologies.
- Leak Detection for Energy Transition
- Investing In Pipeline Equipment: A Path To A Successful Leak Detection System
- Extending Advanced Monitoring technologies to a new pipeline while maintaining them on an existing pipeline.
- Enhancing Pipeline Monitoring: Vibroacoustic Technology for Leak & TPI Detection and Pig Tracking
- Using Layered Pattern Recognition to Provide Cost Effect Leak Detection for Short Gas Pipelines
- Improving Leak Detection Performances on Gathering Systems using Segmentation Meters
- Innovative Polymer Absorption Sensor Cable For Detecting Hydrocarbon Leaks And Fire Hazards
- API RP 1175 Continuous Improvement CPM for Chevron's North Ethylene Pipeline
- Using Distributed Fiber Optic Sensing for Asset Integrity Anomaly, Condition Monitoring, and Leak Detection
- Precision in Action: Mastering Leak Detection through Optimal Tuning in CPM Systems*
- Facilitating Use Of Leak Detection Sensors Using Web-Based Remote Monitoring

CYBERNETICS- SCADA/CYBERSECURITY

This track provides information about key industry improvements to SCADA and other OT systems from processes to technologies and explores topics related to the latest advancements, challenges and strategies for securing critical energy infrastructure. Example topics may include the modernization of SCADA/OT communications, audit experiences, case studies in secure and efficient inter-company connections, SCADA/OT related projects and lessons learned, strategies for threat detection and prevention, vulnerabilities and solutions for ICS and SCADA systems, and case studies for risk management approaches.

TRACK SESSIONS:

- Architecting the Edge: Reducing Costs While Optimizing Operations & Security
- Unraveling the Barbie Movie: A Cybersecurity Analogy of Insider Threats in Mission Critical Systems
- Enhancing Pipeline Leak Detection with Secure Multi-Source Integration of SCADA and Remote Sensors
- Modern SCADA Architectures - Empowering Your Data
- Cyber-Physical Security Risk Assessment Using a Secure Asset Framework
- Operational Technology (OT) Cybersecurity Transformation as a Business Enabler
- Cyber-Security Strategies to Prevent Attacks Against Internal Control Systems of Pipelines
- Cloud SCADA in the Gas Pipeline Industry: Opportunities, Challenges, and Future Directions

CONTROL ROOM MANAGEMENT

This track focuses on stakeholder Control Room Management program development, implementation, and ongoing maintenance to achieve compliance under 195.446. Included topics: Alarm Management – alarm philosophy and system optimization, Control Room Best Practices – lessons learned and case studies, Manual Operations – implementation, lessons learned, testing and documentation, Records and Documentation – annual reviews, reporting, overall effectiveness and best practices, Regulatory Interpretations and Inspection Findings – inspection prep, lessons learned, value of self-assessments.

TRACK SESSIONS:

- Control Room Management Learnings and Best Practices Roundtable
- Control Room Management Training Roundtable
- Best Practices in Alarm Rationalization through Automated Template Design
- Control Room Team Training through Microsoft Teams: What Works and What Doesn't (Operators Only)
- CRM Best Practices – Operator's Only
- How Do You Investigate and Diagnose Leak Alarms?
- Advancing Safety and Compliance: Enhancements in Control Room Management and Point-to-Point Processes
- Enhancing Gas Pipeline Operational Efficiency: The Role of Advanced Simulations and Look-Ahead Models
- Manual Operations – What the H@%$ is it...?
  How Do We Do It Right?
- Control Room Best Practices – Learning From Others is Almost Free!
- Data-Driven Risk Management: Predicting Fatigue Risk Using a Biomathematical Fatigue Model
- Simplifying Alarm Management: Benefits of Consolidating the Alarm Lifecycle and linking CRM Records
- Holistic Solutions for Shift Scheduling Challenges: Overcoming Complexities in shift scheduling
- Optimizing 24/7 Shift Schedules: Best Practices and Trends for Control Rooms & Beyond
- What is the Best Shift Schedule for Controllers?

- RMV, Control Room, and Team Training
- Control Room Management Compliance
- Pipeline Controller Training – Change In Strategy For Changing Times
- Natural Compliance and Operations Performance in the Pipeline Control Room
- Lessons from 21 Years of Litigation Consulting and Expert Testimony

NEW! ARTIFICIAL INTELLIGENCE

Artificial Intelligence (AI) encompasses a range of technologies that enable machines to mimic human intelligence, including learning, reasoning, and problem-solving. This track explores the application of AI in the petroleum industry to optimize operations, enhance safety, and improve efficiency.

TRACK SESSIONS:

- Overcoming Pipeline Flow Modeling Challenges with Advanced Machine Learning
- Maximize pipeline throughput and optimize operations: AI IT/OT solutions from CruxOCM
- Using AI to create better faster and more accurate Pipeline schedules
- Pipeline Damage Prevention 2.0: Towards a Predictive AI Model for Preventing Leaks and Explosions
- Machine Learning for Inline Inspection Analysis
- Using advanced AI techniques and data analytics for ILI inspection of corrosion
- Integrity Analytics for Predictive Pipeline Risk Management: ROSEN's Vision, Progress, and Future Goals
- Can Artificial Intelligence Really Predict Pipeline Failures?
- AI-Driven Operational Efficiency: Optimizing Midstream Pipeline Systems with Cloud Data Platforms
- Predictive Solutions for Real-Time Electricity Prices and Coincident Peak Alerts in ERCOT
- Machine Learning Models for Predicting Pipeline Failures: Implications for Operational Reliability

To learn more visit API.org/Pipeline