



SeguEN

Empowering the Next Generation of Leaders

TRAINING COURSE CATALOG

At SeguEN, we understand the value of talent development and offer a variety of cutting-edge training courses designed to equip you with the skills needed to thrive in today's dynamic technology landscape.

2025





SeguEN

Technology for a Sustainable Future

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ABOUT SEGUEN

SeguEN Technologies is a US-based company dedicated to providing innovative technology solutions for the energy sector. We deliver technology, engineering, business support and comprehensive upskilling programs to the upstream oil and gas industry. Our mission is to achieve superior quality outcomes by integrating deep expertise in upstream oil and gas with the latest advancements in data science.



Advisory Support Services.

- ✓ Unconventional Reservoir Characterization
- ✓ Reserve Evaluations
- ✓ Numerical Reservoir Modeling
- ✓ Machine Learning Applications for O&G
- ✓ Rate and Pressure Transient Analysis
- ✓ Asset Management
- ✓ A&D Evaluations



Process Automation and Digital Product Development.



Training and Development.





TRAINING FORMATS

IN-PERSON

- Immerse yourself in a dynamic learning environment with Seguen's live, in-person training courses. Led by industry experts, our customizable courses provide hands-on experience, collaborative learning opportunities.
- **"FOR THE ONE" Program:** One-site private training for the same price as a traditional off-site course. For the One Program is only offered in select US-locations. See page 6 for more details.

LIVE ONLINE

Experience the flexibility and convenience of Seguen's live online training courses. Learn from industry experts from anywhere in the world, engage in interactive sessions, and gain valuable skills without compromising your schedule or location.

CUSTOMER REVIEWS



"The workshop was conducted in a very clear and dynamic way; the instructor has an excellent command of the subject.
Very well done." – Petroleum Engineer Team Lead

"Excellent instructor with ample and relevant experience." – Geologist PEMEX



COURSE CATALOG 2024-2025

1

Select your course

Choose from the courses below and complete enrollment in our 'For the One' program.

2

Chose the date and format

2

Mix and Match

Courses can be combined to accommodate your preferred number of training hours and format (F2F, VL).

Content is customizable for an additional fee.

Plans and Pricing

In Person (F2F): USD 3000 /8 hrs of instruction plus travel expenses

Virtual Learning (VL): Please contact us for dates and pricing

Course	Discipline	Level	Hands-on Component	VL Duration	F2F Duration	Software Required
Introduction to Deep Learning	Multi-disciplinary	Mid	✓	8 hrs	16 hrs	Python Tensorflow Keras
Machine Learning for Petroleum Engineers	Multi-disciplinary	Mid	✓	16 hrs	24 hrs	Python
Advanced Data Interpretation in Reservoir Engineering with Python	Reservoir Engineering	Mid, Advanced	✓	16 hrs	24 hrs	Python
Python Mastery for Data Cleaning Automation: A Hands-On Guide	Multi-disciplinary	Advanced	✓	16 hrs	24 hrs	Python
Fundamentals of Unconventional Reservoirs	Multi-disciplinary	Foundational		8 hrs	8 hrs	
Type Curve and Rate Transient Analysis (RTA and NRTA)	Reservoir Engineering	Intro-Mid	✓	16 hrs	24 hrs	On Demand: Whitson, Harmony or Kappa
Optimizing Production with Python: A Multidisciplinary Approach	Reservoir & Production Engineering	Intro-Mid	✓	12 hrs	16 hrs	Python
Data Science Techniques for Prediction of Well Performance	Reservoir & Production Engineering	Mid	✓	12 hrs	16 hrs	Python
GenAI in Oil and Gas: Practical Applications and Business Impact	Business Leaders	Mid		8 hrs	8 hrs	

SeguEN Technologies is a US-based company dedicated to delivering consulting, technology and upskilling opportunities for upstream O&G.





FOR THE ONE IN PERSON, PRIVATE COURSES

For the One Program offered only in select US locations.

\$1800

Upskill Your Workforce Without the Hassle

- ✓ Become a member.
- ✓ Choose your training.
- ✓ Set the date.
- ✓ We'll deliver engaging, hands-on sessions at your location.



SeguEN

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We get it. You want to invest in your team's development, but it's often a struggle to meet minimum enrollment numbers to justify the costs.

For just \$1800, we'll bring an 8 hour, in-person training session right to your office. That's right, one-site training for the same price as a traditional off-site course.

And the best part? **Every additional employee you enroll is at a fraction of the cost.**

Additional fees apply for customization.

Contact us to learn more.

1

Select your course

Choose from the courses below and complete enrollment in our 'For the One' program.

2

Chose the date

We'll work with you to schedule our training.

3

We come to you

We'll deliver in-person training at your location.

→ How it works

1. Become a member
2. Select the course(s)
3. Select the date(s)
4. We come to you

→ What you get

1. On-site training
2. Updated content
3. Industry-recognized experts
4. Practical components
5. Choose the courses that work for your specific needs.

→ Additional Costs

1. Travel costs outside Houston area.
2. Venue and food (optional).
3. Additional fees for customization.

→ Disciplines

1. Reservoir Engineering
2. Production Optimization
3. Business Development
4. Asset Management
5. Data Science
6. Unconventional Reservoirs

Plans and Pricing

Membership: \$1000/year, fee goes towards price of first course.

8hr course: \$1,800 for the first participant, \$350/additional participant

16hr course: \$3,195 for the first participant, \$500/additional participant

Course	Discipline	Level	Hands-on Component
Introduction to Deep Learning	Multi-disciplinary	Mid	✓
Machine Learning for Petroleum Engineers	Multi-disciplinary	Mid	✓
Advanced Data Interpretation in Reservoir Engineering with Python	Reservoir Engineering	Mid, Advanced	✓
Python Mastery for Data Cleaning Automation: A Hands-On Guide	Multi-disciplinary	Advanced	✓
Fundamentals of Unconventional Reservoirs	Multi-disciplinary	Foundational	
Optimizing Production with Python	Multi-disciplinary	Mid	✓
Rate Transient Analysis (RTA and NRTA)	Reservoir Engineering	Intro-Mid	✓
Data Science Techniques for Prediction of Well Performance	Reservoir & Production Engineering	Mid	✓
GenAI in Oil and Gas: Practical Applications and Business Impact	Business Leaders	Mid	

SeguEN Technologies is a US-based company dedicated to delivering consulting, technology and upskilling opportunities for upstream O&G.





TERMS AND CONDITIONS

REGISTRATION: Due to limited seats in each course, it is recommended that participants register at least one month in advance. Tuition is due at time of enrollment. For virtual learning options, we will accept paid registrations up to the last business day before a confirmed class, provided there are seats available. Registrants will receive a confirmation email within 48 hours of registration.

TUITION, IN PERSON PRIVATE COURSES: Course registrations are valid until 12 months from the start date of the class, at which time payments become non-refundable. An invoice can be provided via email as long as payment is received before the start of class. Tuition is payable in USD and does not include the cost of accommodation and travel.

TRANSFERS: Registration fee can be applied to a different course within 12 months of initial purchase. Notification of the transfer must be received at least two (2) weeks prior to the original course start date.

SUBSTITUTIONS: Substituting a student for another is accepted without penalty if notification is received at least seven (7) days prior to the course start date. SeguEN reserves the right to substitute course instructors as necessary.

CANCELLATIONS & REFUNDS: Tuition, less the non-refundable registration fee of US \$150.00, will be reimbursed provided the cancellation is received at least 30 days prior to the first day of class. Course tuition is non-refundable for cancellations received less than 30 days in advance.



COURSE DESCRIPTIONS

F2F: In Person Instruction (Face 2 Face)

VL: Virtual learning

Course	Level	VL	F2F	Pg
Introduction to Deep Learning	Mid	8 hrs	16 hrs	9
Machine Learning for Petroleum Engineers	Mid	8 hrs	16 hrs	10
Advanced Data Interpretation in Reservoir Engineering with Python	Mid-Advanced	16 hrs	24 hrs	11
Python Mastery for Data Cleaning Automation: A Hands-On Guide	Advanced	16 hrs	24 hrs	12
Fundamentals of Unconventional Reservoirs	Foundational	8 hrs	8 hrs	13
Data Science Techniques for Prediction of Well Performance	Mid	12 hrs	16 hrs	14
Type Curve and Rate Transient Analysis (RTA and NRTA)	Intro-Mid	16 hrs	24 hrs	15
Optimizing Production with Python: A Multidisciplinary Approach	Intro-Mid	12 hrs	16 hrs	16
GenAI in Oil and Gas: Practical Applications and Business Impact	Mid	8 hrs	8 hrs	17

INTRODUCTION TO DEEP LEARNING

Learn the fundamentals of deep learning, including neural network types, architectures, applications and optimization measures. Apply these concepts with a hands-on exercise and learn about metrics to evaluate network predictions. Expand your understanding on history and ethical use of AI. The course is designed for those who have prior knowledge of Python programming and a basic understanding of linear algebra and probability.

- ★ Understand the fundamental concepts of deep learning.
- ★ Identify key techniques and neural network (NN) architectures.
- ★ Learn (NN) components: Neurons, hidden layers, activation functions, backpropagation, overfitting, and regularization.
- ★ Hands-on exercises using Keras and TensorFlow



Target Audience: Intermediate to advanced technical professionals seeking to grasp the foundational principles of deep learning with a practical component using Keras and/or TensorFlow.

Prerequisites: Prior knowledge of Python programming, basic understanding of algebra and linear probability and understanding of data structures.



**16hrs In-Person or
8hrs Virtual Training**

Course Agenda:



Practice examples

Introduction to Deep Learning

- What is deep learning?
- Brief history and evolution of deep learning.
- Real-world applications of deep learning.
- Differences between AI, ML and deep learning.
- Artificial Neural Networks (ANNs)
- Neurons and layers in a network.
- Activation functions and their importance.
- Supervised and unsupervised learning concepts.

Neural Network Training

- Introduction to Keras and TensorFlow
- Gradient descent and backpropagation
- Practical example: Introduction to classification models in Keras.
- Theoretical concepts: Optimization techniques and hyperparameter tuning
- Practical example:** Optimization techniques and hyperparameter tuning using Keras
- Other applications: Computer vision, Natural language processing.

Designed to provide a comprehensive understanding of Machine Learning and its applications in the petroleum industry, the course focuses on production and reservoir engineering. Participants will form multidisciplinary teams to represent asset teams within an operating company. These teams will tackle the challenge of adding value while keeping costs low. Navigating limited resources and poor data quality, teams will apply machine learning concepts and devise strategies to enhance asset value.

- Machine Learning methods for petroleum applications .
- Exploratory data analysis to identify and overcome data gaps.
- Statistical techniques (e.g.; filtering, clustering, classification, & decision trees)
- Requirements of a multivariate model: homoscedasticity, linearity, normality, etc.
- Model metrics, and optimization: Bias, the 'curse of dimensionality' and 'overfitting'.



Target Audience: Intermediate-level course designed for technical professionals, including data analysts, reservoir and operations engineers.



16 hrs In Person
8hrs Virtual Training

Prerequisites: Fundamental understanding of reservoir or production engineering. Basic programming skills, particularly in Python, are also required.



BONUS
python™ **Practice examples**

Course Agenda:

History and fundamentals concepts.

Features, training, testing, key algorithms, supervised and unsupervised learning.
Identify, collect, manipulate, transform, normalize, clean, and validate data.
Strategies to overcome data gaps: Data imputation, ensemble models, active learning
Algorithms and fundamental EDA libraries in Python.

Team challenge: Find value using machine learning.

Practice: Exploratory Data Analysis (EDA) in Python and Colab

Classification, regression, and decision trees.

Basic requirements for a multivariate model
Measures of uncertainty and reliability in model predictions.
Metrics used to evaluate model performance

Benchmarking metrics and model optimization.

Cross-validation, grid search, random search, ensemble methods, Bayesian optimization.
Practice: Optimization and model selection.

ADVANCED DATA INTERPRETATION IN RESERVOIR ENGINEERING WITH PYTHON

This advanced course delves into the methodologies and Python libraries essential for data interpretation in reservoir characterization of unconventional reservoirs. Through a series of detailed sessions, real-world case studies, and hands-on examples, you'll acquire the expertise to navigate the complexities of contemporary reservoir management.

- ★ Advanced data integration and interpretation techniques.
- ★ Validate and control data quality for accurate reservoir characterization.
- ★ Learn to identify and overcome data gaps.
- ★ Understanding of benefits and setbacks of pressure-transient and rate-transient analysis for reservoir characterization.
- ★ Real-world applications and emerging trends, enhancing strategic decision-making.



Target Audience: Mid to senior-level professionals seeking advanced skills in multi-disciplinary data interpretation.

Prerequisites: Familiarity with fundamental geological and fluid properties for reservoir evaluation. Familiarity with python programming.

Course Agenda:

Integration and Interpretation Techniques:

- Fundamentals of data integration
- Sources and quality of data
- Data Integration and Interpretation techniques
- Bottomhole Pressure and multiphase rate data measurements.
- Gathering reliable data from well tests and reservoir monitoring
- Identify, collect, transform, normalize, and validate data.

Practice: Exploratory Data Analysis (EDA) in Python and Colab

Overview of bottomhole pressure correlations.

Practice: Bottomhole pressure calculation examples in Python

Challenges and characteristics of unconventional reservoir systems

Flow descriptions, defining Rock quality index (RQI), multi-mechanistic flow domains.

Complexities of multi-well development well count, stacking and spacing scenarios.

Practice: Well production diagnostics with Python

Overview of subsurface characterization workflows for unconventional reservoirs

PTA for unconventional reservoirs: Superposition principles and type curve matching.

Case study 1: 'Pressure buildup in unconventional reservoirs: friend or foe?'

Overview of RTA for unconventional reservoirs.

Case study 2: Combining PTA and RTA for comprehensive reservoir characterization

Case Study 3: 'PTA and RTA for diagnostics of well performance.'

Group discussion: Insights from examples and use cases, key issues and opportunities.

Future developments in reservoir interpretation



24 hrs In Person
16hrs Virtual Training



Practice examples



Case studies and group discussions

PYTHON MASTERY FOR DATA CLEANING AUTOMATION: A HANDS-ON GUIDE

This comprehensive course provides a hands-on introduction to Python for process optimization, with a focus on data cleaning, preprocessing, and automation. You'll learn powerful tools like Luigi and Django for workflow management and web application development. By the end of the course, you'll be equipped to streamline your data analysis processes and build efficient data-driven applications.

- ★ Handle missing data, detecting outliers, normalizing and standardizing data.
- ★ Create and select the most relevant features for your analysis.
- ★ Master Luigi and Django to streamline data preprocessing workflows.
- ★ Learn best practices for data cleaning, preprocessing, and automation to ensure data quality and efficiency.
- ★ Apply your skills to solve data-related challenges.



Target Audience: Technical professionals in the oil and gas industry, interested in automating repetitive tasks and streamlining workflows.

Prerequisites: Basic Python programming knowledge
Familiarity with data science concepts (e.g., data types, variables, functions)

Course Agenda:

Python for Data Science:

- Data Structures and Libraries
- NumPy arrays, Pandas Dataframes and Series
- Matplotlib and Seaborn for data visualization
- Handling missing data, outlier detection and treatment, data normalization and standardization
- Z-score, IQR, and other methods
- Feature Engineering

Introduction to Luigi and Django:

- Luigi basics, workflow definition and execution
- Tasks and dependencies
- Parameterization and configuration
- Practice:** Create a simple Luigi workflow to extract, transform, and load data.
- Luigi Best Practices: Error handling and logging, Task parallelization and scheduling
- Integration with other tools (e.g., Airflow)
- Practice:** Implement error handling and logging in a Luigi workflow
- Django Overview: Model-View-Template (MVT) architecture
- Creating Django projects and apps
- Basic CRUD operations
- Django for Data-Driven Applications
- Integrating Django with databases, building data-intensive web applications
- Using Django REST framework for API development
- Practice:** Build a Django app that displays a dashboard with visualizations of a dataset.



**24 hrs In Person or
16hrs Virtual Training**



python™

BONUS

Practice examples

FUNDAMENTALS OF UNCONVENTIONAL RESERVOIRS

This intensive course will equip you with the fundamental skills to evaluate development strategies for unconventional reservoirs. You will learn from the success stories of some of the most prolific unconventional basins. Immerse yourself in a world of opportunities that go beyond the development of conventional reservoirs and be part of the world's energy transformation.

- ★ Learn the key elements of successful development of unconventional reservoirs.
- ★ Learn about the types of reservoirs (shale oil, shale gas, and tight sands)
- ★ Recognize the characteristics, techniques, and development methods applied unconventional Reservoirs.
- ★ Recognize reservoirs with unconventional potential in other basins.
- ★ Learn future trends and emerging technologies for unconventional reservoirs.



Target Audience: Technical professionals in the oil and gas sector immersing in the quest for unconventional reservoir development.

Prerequisites: Familiarity with the geological properties and fluid characterization for reservoir evaluation.



**8 hrs In Person or
Virtual Training**

Course Agenda:

Characterization of unconventional reservoirs:

- History and evolution of unconventional reservoir development.
- Definition and classification of unconventional reservoirs (e.g, shale oil, shale gas and tight sands)
- Comparative view with conventional reservoirs.
- Strategic and economic importance of unconventional reservoirs.
- Geological characteristics: hydrocarbon potential, elastic properties, fracture volumes, anisotropies.
- Successful exploration and development techniques.
- Reservoir fluid characterization concepts
- Advanced methods for characterization: core testing, imaging, and use of AI for facies classification
- Lessons learned and challenges

Optimization of unconventional reservoirs:

- Unconventional resources outside the United States
- Basic tools and methods for successful evaluation of unconventional resources.
- Horizontal drilling concepts, hydraulic fracturing design and implementation
- Logistics and cost mitigation measures.
- Optimization concepts: Stacking, spacing and its relation to completion volume.
- EOR for unconventional reservoirs.
- Digitalization, Machine Learning, GenAI for oil and gas.

DATA SCIENCE TECHNIQUES FOR PREDICTION OF WELL PERFORMANCE

This course is ideal for professionals who are looking to leverage data science to enhance performance prediction and optimization strategies. By the end of the course, participants will confidently apply data science techniques to optimize performance and make informed decisions in their respective roles within the industry.

- ★ Identify key challenges in forecasting production from unconventional reservoirs.
- ★ Explore AI applications and benefits in managing reservoir assets.
- ★ Understand the practical implications and results of ML-based optimization.
- ★ Assess real-world applications of data-driven reservoir management.
- ★ Understand ethical issues and considerations in the application of data science.
- ★ Gain insights into the future direction of predictive modeling.



Target Audience: Mid to advanced-level technical professionals, including reservoir engineers, data analysts, and production engineers.



**16 hrs In Person or
12 hrs Virtual Training**

Prerequisites: Foundational understanding of reservoir engineering, data analytics, machine learning and basic programming skills, particularly in Python.



Case studies



BONUS

python™ **Practice examples**

Course Agenda:

Advanced Interpretation Techniques for Complex Reservoirs:

- Characterization of Complex Reservoirs
- Overview of tools and techniques for reservoir characterization and production forecasting.
- Challenges in forecasting production from unconventional reservoirs.
- Role of Data Science and Machine Learning
- Role of machine learning, and artificial intelligence in modern reservoir management.
- Case Study: Benefits and challenges of data driven models

Fundamental machine learning algorithms and their applications in reservoir management:

- MVR, Tree Based and Deep Learning Methods
- Python, Keras and TensorFlow for data analytics
- Predictive Modeling for Reservoir Performance
- Case Study: Predictivity of well performance using advanced data science methods.
- Practical Example: Production optimization using machine learning
- Ethical considerations in data science
- Future developments in reservoir characterization and prediction of well performance

TYPE CURVE AND RATE TRANSIENT ANALYSIS (RTA AND NUMERICAL RTA)

This comprehensive course provides a deep dive into the principles and applications of Type Curve and Rate Transient Analysis (RTA and NRTA) for evaluating and forecasting the performance of oil and gas wells. Participants will gain a solid understanding of the techniques used to analyze production data, diagnose well performance, and optimize production strategies.

- ★ Understand the principles of decline curve analysis, RTA, and Numerical RTA.
- ★ Analyze production data and diagnose well performance.
- ★ Estimate reservoir properties and forecast future production.
- ★ Utilize software tools for efficient analysis.
- ★ Confidently interpret results and make informed decisions.



Target Audience: Petroleum engineers, reservoir engineers, production engineers, geologists, and other professionals involved in oil and gas production analysis and forecasting.

Prerequisites: Foundational understanding of reservoir engineering, and production operations in oil and gas, specifically unconventional reservoir development.

Course Agenda:

Introduction to Production Data Analysis

- Overview of different analysis techniques
- Introduction to RTA and NRTA
- Data requirements and quality control
- Fundamentals of Decline Curve Analysis
- Understanding production decline behavior
- Empirical decline curve models (Arps, hyperbolic, exponential)
- Estimating decline parameters, forecasting future production
- Type Curve Analysis and Matching Techniques
- Interpreting type curve results

Rate Transient Analysis (RTA) and Numerical RTA

- Diagnostic plots (rate vs. time, rate vs. cumulative production)
- Flow regimes and estimates of reservoir properties (permeability, skin, drainage area)
- Modern Rate Transient Analysis (Numerical RTA)
- Pressure-normalized flow analysis, rate-time superposition, multi-well analysis
- Introduction to industry-standard software (examples: IHS Harmony, Whitson, Kappa Saphir)
- Case studies:** Practical applications of RTA and NRTA analysis
- Best practices and common pitfalls



**24 hrs In Person or
16 hrs Virtual Training**



Case studies

OPTIMIZING PRODUCTION WITH PYTHON: A MULTIDISCIPLINARY APPROACH

Leverage Python for multidisciplinary data analysis, extract valuable insights using Python's powerful capabilities and learn detailed evaluation methods like nodal analysis, rate and pressure transient analysis (RTA and PTA). By coupling the field-scale insights gleaned with well-level analysis, you will be equipped to make informed decisions and optimize production effectively.

- ★ Mastery of advanced multidisciplinary data interpretation methods.
- ★ Ability to validate and control data quality for production optimization.
- ★ Fundamentals of python coding to identify and overcome data gaps.
- ★ Understanding of benefits and setbacks of nodal analysis, pressure-transient and rate-transient analysis for production and reservoir characterization.
- ★ Real-world applications and emerging trends in reservoir management.



Target Audience: Engineers and Geoscientists who want to master Python to identify and address critical data gaps and individuals aiming to learn advanced techniques like Nodal Analysis, RTA, and PTA to optimize production.

Prerequisites: Basic understanding of reservoir engineering principles and Python programming. Experience with fundamental data interpretation methods in upstream O&G.

Course Agenda:

Fundamentals of Data Integration

- Sources and Quality of data
- Gathering reliable data from well tests and reservoir monitoring
- Exploratory data analysis concepts
- Practice: Exploratory Data Analysis (EDA) in Python and Colab

Data Integration and Interpretation Techniques

- Integrating formation and fluid data with well test results
- Bottomhole pressure and multiphase rate data measurements.
- Overview of bottomhole pressure correlations.
- Practice: Bottomhole pressure calculation examples in Python

Integration and Interpretation Techniques

- Nodal analysis: Overview of Nodal Analysis methods
- Overview of Pressure-Transient Analysis (PTA)
- Overview of Rate-Transient Analysis (RTA)
- Forecasting production behavior using RTA methods
- Combining Nodal analysis, PTA and RTA for reservoir characterization
- Real-World Applications, emerging trends and future developments in reservoir interpretation.



**24 hrs In Person or
16 hrs Virtual Training**



Case studies



BONUS
python™ **Practice examples**

GENAI IN OIL AND GAS: PRACTICAL APPLICATIONS AND BUSINESS IMPACT

Delve into the core concepts of GenAI, exploring its capabilities and limitations in practical terms. Discover how GenAI can revolutionize operations across the value chain through concrete examples and real-world applications. By the end of this session, you will gain the strategic insights needed to harness GenAI's power and drive significant value for your organization.

- ★ Introduction to GenAI and its applications in oil and gas
- ★ The value of data and its role in GenAI
- ★ Quantifying the ROI of GenAI investments
- ★ Challenges and risks associated with GenAI
- ★ The future of GenAI in the oil and gas industry



Target Audience: High-level strategic decision-makers and executive in the oil and gas industry aiming to understand emerging technologies like GenAI and its potential business impact.

Course Agenda:

Introduction and The Value of Data in Oil and Gas

- Oil and gas industry's traditional data challenges.
- Transformative potential of data science.
- The role of GenAI in unlocking data value.

Understanding GenAI

- What is GenAI? How does it differ from traditional AI?
- Key components: Large Language Models (LLMs), foundation models
- Real-world examples of GenAI in other industries (e.g., art, content creation)
- The role of humans in the GenAI process (prompt engineering, model evaluation, etc.)
- Data quality and availability, bias, fairness, ethical implications and cybersecurity risks
- Talent acquisition and development

GenAI's Potential in Oil and Gas: Key Considerations for Implementation

- Quantifying the ROI of GenAI investments
- Risk Identification and Mitigation
- Human in the Loop Validation
- Case Study I: Production Optimization and Asset Integrity
- Case Study II: Drilling Operations Risk Assessment

The Future of GenAI in Oil and Gas

- Potential breakthroughs and advancements
- Integration with other technologies (e.g., IoT, augmented reality)
- Industry collaboration and standardization
- Mitigating GenAI's risks through robust governance and ethical frameworks

FOR BUSINESS LEADERS!



**8 hrs In Person or
8 hrs Virtual Training**



Case studies.



ABOUT THE INSTRUCTOR

Claudia Molina is a distinguished petroleum engineer with over 20 years of experience in characterizing and developing complex reservoirs.

She has led projects in the most prolific basins in the United States and Canada, applying her expertise in reservoir engineering, production, and data science to optimize production and maximize asset value.

Claudia has achieved a high level of proficiency in overseeing complex technical, financial, and operational disciplines. She has been a pioneer in applying new technologies to characterize and develop unconventional reservoirs.

With extensive experience in hydraulic fracturing, reserve evaluation, and development optimization, Claudia has led complex technological assessments, multidisciplinary and multicultural project teams, generating successful commercial activities in the United States and internationally.

Claudia serves as President of SeguEN Technologies, focused on providing cutting-edge technology, engineering, business support, and comprehensive training programs for the petroleum industry. Previously, she has worked as part of Chief Engineering Teams, focused on evaluation of new technologies and practical applications of subsurface characterization methods for unconventional basins.

She was responsible for identifying technological needs, facilitating subsurface technology exchanges, and build technical assurance protocols. She fostered collaboration with key service providers, startups, and consortia as part of the company's technology surveillance program. She was also responsible for advancing and strengthening reservoir engineering training at the corporate level.

Ms. Claudia Molina holds a Master's in Data Science from Harvard University, a Petroleum Engineering degree and an MBA from the University of Oklahoma. Claudia is bilingual (Spanish/English), is a member of the Society of Petroleum Engineers (SPE), serves on the steering committee of the SPE forum series, and is the Training Chair for SPE's Data Science and Engineering Analytics (DSEATS) and Technical Program Chair for SPE's H2 Technical section.





Technology for a Sustainable Future

