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Petroleum Refining-Production Planning, Scheduling, and Yield Optimization Conference

16 - 27 Aug 2027
Madrid (Spain)

Dubai - UAE: +971 4 450 5697
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Petroleum Refining-Production Planning, Scheduling, and Yield Optimization Conference

Ref.: 8173_276355 **Date:** 16 - 27 Aug 2027 **Location:** Madrid (Spain) **Fees:** 9500 **Euro**

Introduction:

This comprehensive petroleum refining-production planning, scheduling, and yield optimization program is meticulously designed to tackle the prevalent challenges associated with production planning, scheduling, and yield optimization in petroleum refineries, an area that professionals in this sector frequently contend with.

The intricacies of petroleum production optimization, a cornerstone in refining operations, are thoroughly discussed, providing participants with many planning and scheduling examples to facilitate understanding. Participants will also receive pertinent information on the subject matter, elevating their grasp of yield optimization meaning and the practical optimization of petroleum production systems.

Furthermore, attendees will gain an insightful overview of refining process yields, tracking the journey from crude oil input to finalized products. This segment presents a detailed examination of major refining procedures, delving into feedstock characteristics, preparation methodologies, operating conditions, catalyst utilization, yield outputs, product properties, and economic aspects.

This petroleum refining-production planning, scheduling, and yield optimization program's orientation leans heavily towards the practical optimization of refinery operations while imparting an in-depth understanding of the terminology and economic principles underpinning the refining sector.

Targeted Groups:

- Refining professionals such as technologists are those involved in refining operations and engineering disciplines.
- All individuals involved in Production, Planning, and Scheduling.
- Process engineers and technologists active in planning and scheduling roles must engage in industry-relevant issues.
- Operations Personnel, including Shift Supervisors.
- Marketing Specialists and Refinery Planners.
- Blend masters and mixing experts.
- Technologists specialized in Refining.
- Engineers and other professionals desire an advanced understanding of the complex refining processes.
- Accountants, marketers, and other professionals are keen on deciphering the complexities and jargon associated with Production Planning and scheduling in Petroleum Refineries.
- Individuals aiming to refresh their knowledge of contemporary methods employed in this vital field pursue the implementation of faultless strategies for organizational benefit.

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Conference Objectives:

By the conclusion of this petroleum refining-production planning, scheduling, and yield optimization conference, participants will:

- Acquire a profound knowledge of production planning and scheduling tools essential for the streamlined planning of crude and product deliveries.
- Understand the nuances between planning and scheduling within petroleum production optimization.
- Recognize scheduling principles in production planning and leverage optimization techniques to enhance refining efficiency and yield outcomes.
- Hone the skills necessary for crude selection and optimization to bolster profitability.
- Develop expertise in applying blending techniques with Excel.
- Learn to discern various refinery architectures and how refining complexity affects optimization and profitability.
- Gain insights into quality giveaways and employ practical Excel spreadsheets for blending calculations to minimize quality giveaways.
- Utilize cutting-edge software empowering industry professionals to select diverse crude diets, thus optimizing refinery capacity utilization and financial performance.
- Act as a foundational course in the petroleum refining industry, acquainting industry professionals with all processes integral to transforming petroleum into final products.
- Equip new engineers with rudimentary tools to understand the intricate nature of rendering and operations.

Targeted Competencies:

By the conclusion of this petroleum refining-production planning, scheduling, and yield optimization conference, the target competencies will:

- Understand crude oil intricacies.
- Know of refinery configuration and complexity.
- Comprehension of Key Refinery Process Operations.
- Awareness of Environmental Issues Influencing Refinery Operations.
- Master of optimization strategies and techniques.
- Enhance planning and scheduling operations to boost profitability.
- A primer into the Petroleum Refining sector for optimizing process fluid yields.
- Familiarity with all Processes Tied to Converting Petroleum into Finished Items.
- Tools for Grasping the Intricate Nature of Refining and its Operations.

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Adding Value Through Yield Optimization and Advanced Scheduling Techniques:

Optimizing yields and advancing scheduling methods in petroleum refineries is imperative to drive profitability and efficiency. Yield optimization in the context of petroleum refining pertains to the strategic management of operations to maximize the conversion of crude oil into valuable products. With the integration of advanced production planning and scheduling techniques, refineries can achieve a more precise orchestration of their operations, aligning with market needs and enhancing their economic footprint.

This petroleum refining-production planning, scheduling, and yield optimization conference segment are tailored towards delivering practical tools and knowledge to attendees, enabling them to implement state-of-the-art optimization petroleum technologies encompassing aspects of liquefied petroleum gas production, refining various oil and petroleum products, and maintaining compliance with environmental standards. Understanding the intricate definition of Refining petroleum becomes a cornerstone for professionals who aim to excel in this sector by leveraging advanced production planning and scheduling tools to streamline refinery operations.

Participants will explore what constitutes a yield optimizer, delving into its functionality and impact within the refining landscape. With production planning and scheduling training, industry stakeholders can boost operational excellence and ensure consistent delivery of quality products in a competitive and ever-evolving marketplace.

The convergence of theory and practice at this petroleum conference will be a unique learning opportunity for all attendees, ranging from practical optimization professionals to strategists keen on identifying the best methods and technologies for optimizing petroleum production systems.

Conference Content:

Unit 1: Application of Planning and Scheduling:

- Refinery Configuration.
- Hydro skimming Refinery.
- Refineries with Secondary Conversion Processes.
- Integrated Refineries.
- Planning for Existing and New Refineries.
- Optimal Choice of Crude.
- Scheduling of Crude Oil.
- Selection of Processes.
- Capacity Utilization of Crudes.
- Managing Process Operation Severity.
- Optimization of cut points.
- Strategies for Upset Situations.
- Tankage Requirements.

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Unit 2: Improving Product Movements and Releasing Tankages:

- Essential Information Requirements.
- Assay of Crude.
- Characterization of Intermediate Feeds.
- Output Yields and Properties.
- Technicalities of Different Process Units.
- Necessities of Utilities.

Unit 3: Product Blending Rules:

- Product Specification Compliance.
- New Trends in Fuel Production.
- Environmental Compliance.
- Economics of Crude Cost.
- Maximizing Product Netback.

Unit 4: Formulation of Problem:

- Understanding Refinery Flow-sheets.
- Simplifying Material Balance.
- General Problem Formulation.
- Addressing Demand Equations.
- Control of Product Inventory.
- Assurance of Product Quality.
- Fixed Composition Blending.
- Capacity Control and Constraints.
- Ensuring Availability of Feedstock.

Unit 5: Application to a Refinery Worksheet:

- Managing Petroleum Product Movements and Exchanges.
- Tackling Marginal Depot Supply and Movements.
- Exploration of Commonly Used Methods and Recent Developments.
- Solutions Through Mathematical Approaches.
- Linear Programming Techniques.
- The Graphic Method.
- Vendor-Specific Software Solutions.

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Unit 6: Crude Oil Yields Refinery Technology:

- Origins and Characterization of Crude Oil.
- Detailed Crude Oil Assay and Properties.
- Varieties of Crude Oil Products.
- Refined Product Specifications.
- Gasoline.
- Kerosene/Jet Fuel.
- Fuel Oil/Diesel Fuels.
- Petrochemical Feedstocks.
- The Complexity of Refineries.
- The Overall Refinery Flow: Understanding Process Interrelationships.

Unit 7: Petroleum Refinery Processes:

- In-depth Processing of Crude.
- Desalting Techniques.
- Atmospheric Distillation Methods.
- Vacuum Distillation Insights.
- Heavy Oils Processing - Cocking and Thermal Processes.
- Delayed Coking Operations.
- Fluid Coking Procedures.
- Flexicoking Technologies.
- Visbreaking Process Understanding.

Unit 8: Process for Motor Fuel Production:

- Fluid Catalytic Cracking.
- Hydrocracking Processes.
- Cat Cracking Techniques.
- Fundamentals of Isomerization.
- Alkylation Reactions.
- Hydrotreating Methods.
- Catalytic Reforming Insights.

Unit 9: Supporting Operations:

- Blending for Achieving Product Specifications.
- Techniques of Hydrogen Production.
- Operations in the Refinery Gas Plants.
- Handling Acid Gas Treating.
- Sulfur Recovery Plants Operations.

Unit 10: Refinery Economics:

- Strategies for Residue Reduction.
- Asphalt and Residual Fuel Economics.
- Cost Estimation Methods.
- Evaluating Economic Performance.

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Registration form on the :
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