



OMS-02 Strategic Fuels Blending Management and Technology Training Course

INTRODUCTION

It is becoming difficult for refining industry worldwide to cope with strict fuel quality and emission control requirements and regulations by local and foreign consumers and authorities. Unstable and high crude oil prices add further to their plights. Refiners are resorting to methods to conform to low sulphur, low toxic content fuel specifications, and finding that advanced control, and optimization system in addition to process unit modification and additions is a one of the suitable, workable, and economical solutions. However, successful implementation of an advanced control and optimization system for gasoline, diesel and fuel oil products requires that plant both operators and engineers alike understand in details the technology and operations of such system available in the market place today.

The information imparted during the seminar will affirm the existing knowledge and increase learning and comprehension of fuel blending systems, thereby contributing toward efficient and economic management. The seminar will cover all technical, operational, modeling, and economical aspects of fuels blending control and optimization systems.

One of the salient features of this seminar is to discuss the problems of blending operation, if any, in the registrant's own refinery and receive valuable feedback from the world's leading blending expert. Attendees are encouraged to take advantage of this session. A questionnaire is given to the registrants to prompt their interaction for this session.

TRAINING OUTLINE

• Day-1 Overview of blending operation

1. Overview of Refining
2. Refinery Offsite Operations
3. Fuel Blending Operations in Refining
4. Blending Problems and Challenges
5. Blenders Configurations
6. Tank Farm and Automatic Tank Gauging System
7. Pumps, MOV's and Control Valves
8. Additives Control and Monitoring
9. Blend Header Design Considerations
10. Quality Relationships and Measurements
11. Lab Analysis of Stock and Product Qualities
12. Online Analysis of Stock and Header Qualities
13. Model Based Tank Qualities Measurement
14. The Mysteries of Octane
15. Octane Measurement by Knock Engine
16. Integrated Analyzers Technology and Applications
17. Octane Measurement by Spectrum based technology
18. Comparison of Knock engine versus Spectrum based methods
19. NIR and NMR versus CFR analyzers - Selection and Cost Effectiveness

• Day-2 Advanced Blend Control, Optimization and Planning

1. Linear Blend Models
2. Non-linear Blend Models
3. Methods to Handle Blend Non-linearity
4. Control Matrix of Qualities
5. Spectrum based Blend Indexes
6. Advanced Blend Control Strategy
7. Blend Optimization
8. How to estimate and update Blending values
9. Gasoline, Diesel and Fuel Oils Specifications
10. Biofuels - A perspective Part-I Gasohol
11. Biofuels - A perspective Part-II
12. Optimum Blend Control System Strategy
13. Regulatory Blend Control Operations
14. Blend Trim Control

15. Refinery-wide Planning & Scheduling
16. Ethanol Blending
17. Offline Blend Planning and Optimization
18. Demonstration of An Offline Blend Optimizer System
19. Lab Exercise to solve an LP problem of a small refinery

• Day-3 Blending Project Justification and Implementation

1. Advanced Online Blend Control & Optimization
2. Control and Optimization of run-down blending system
3. Data Reconciliation and Feedback
4. Technology Set of Hardware and software
5. System Architecture - Integration and Interfaces
6. Where and how to start
7. Methodology to Assess the Current State of Blending
8. Identifications of Automation Areas
9. The Quality giveaway - Concept, Cost and reduction Benefits
10. Project Implementation Phases & Strategy
11. How to realize and sustain benefits
12. Required Enterprise Changes
13. Special Topic - Blending and Hydrocarbon Management
14. Putting it All Together
15. Discussion Forum - Individual Refinery Blending Operations
16. Feedback and Certificate Awards

The training course covers about 50+ comprehensive topics of 30 minutes each and spans over three days between 9AM-5PM.

COURSE INSTRUCTOR

Dr. Suresh S. Agrawal is founder and president of Offsite Management Systems LLC and has developed and installed innovative and technologically advanced automation software products, and integrated solutions for the automation of offsite operations of Chemical, Oil and Gas (COG) Industries. Dr. Agrawal has 25+ years of experience at senior positions with companies, including being Director of Refinery Offsite Operations at ABB Industrial Systems Inc., Houston, TX. He has also worked with reputable companies such as 3X Corporation, New Jersey and Exxon Corporation, New Jersey. Dr. Agrawal has successfully managed many advanced offsite refinery control projects in numerous countries. He has a doctorate degree (Ph.D.) in Chemical Engineering from the Illinois Institute of Technology, Chicago, and a Bachelor's Degree in Chemical Engineering from Indian Institute of Technology (I.I.T.), Mumbai, India. He has published more than 30 technical papers in the area of advanced control of refinery onsite / offsite operations.

2017-2020 Course Schedule:

Dates	Venue
6-8 Jun, 2017	Singapore
12-14 Jun, 2018	Houston, Texas
11-13 Jun, 2019	Singapore
9-11 Jun, 2020	Dubai, UAE

Registration: [Click here](#) to visit the course page and then click on above Seminar dates to register and pay online. An email will be sent to you after successful registration.

For further information, please contact

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