

A OMS

Our Mission

Dynamic and result-driven professionals with 30+ years experience of products development / commissioning, project management, sales and marketing, end-users training in advanced process control, refinery off-site automation (advanced blending control and optimization, oil movement & storage, tanks farm management), process simulation and information management system in oil and gas consulting industry.

Our major focus is to provide the worldwide refining sector a world-class project management, integration and consulting service and automation solutions for refinery offsite operations based on Microsoft platform, MS products, third party expert systems and application frameworks. We are dedicated to our customers in providing them value for their investments, both in terms of time and money, giving them reasons to refer us with pride and total satisfaction.

At Global OMS, we believe that honesty, professional integrity and clear communications always pave the way for long and beneficial relations with our customers. We never sacrifice long-term vision with short-term gain.



Company Profile

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- Founded in 4qtr 1998 in Houston, USA
- Dr. Suresh Agrawal, Founder and CEO
- Corporate Office in Houston, Texas
- 50+ years of Combined Experience in Refinery Offsite Automation

About Our Company

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Our Founder & CEO

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Dr. Suresh S. Agrawal

Dr. Suresh S. Agrawal is founder and CEO of Offsite Management Systems LLC (www.globaloms.com) and has developed, installed and managed many innovative and technologically advanced automation software products, and integrated solutions for the automation of offsite operations of Chemical, Oil and Gas (COG) industries in countries like India, Mexico, Columbia, USA and Eastern and Western European countries.

He graduated from Indian Institute of Technology, Mumbai, India with a Bachelor of Chemical Engineering in 1972. He obtained a Master of Chemical Engineering from Illinois Institute of Technology, Chicago, USA in 1975 and gained his Ph.D. degree in Chemical Engineering from Illinois Institute of Technology, Chicago, USA in 1981.

Dr. Agrawal has 40+ years of experience at senior technical / management positions with international companies and he has successfully managed many advanced refinery process control projects in numerous countries. He has published and presented 30+ papers in international publications and conferences in the areas of advanced process control for refinery offsite operations. He has also acted as a consultant to several refining and process industries worldwide and delivers training seminars in the areas of his expertise in the automation and management of refinery offsite operations. He can be reached at s.agrawal@globaloms.com or +1-832-821-8001.

About Our Company



Our Services for Downstream Refining Industry

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- Consulting
- Master Plan Study
- Bench-Marking
- Custom Development
- Project Management
- Implementation
- Integration
- Training

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Consulting Services

With 30+ years of experience and expertise, OMS provides the oil and gas consulting services to downstream refining industry for its offsite operations management and automation. These refinery oil and gas consulting services include the following but are not limited to:

- Site visit to review its operational practices and automation systems
- Analysis of blends data (one-year worth data recommended) to estimate lost benefits in qualities giveaways and recommend strategies to capture those lost benefits
- Bench-mark the refinery's state of fuels blending system by calculating two indices, Automation Effectiveness, and Operational Efficiency. <u>Click here</u> for information on this offer from OMS.
- Review of FEED for blending upgrade project and recommend changes to optimize the benefits from the upgrade project. <u>Click here</u> for more information.
- Review the suitability of blending models (linear vs non-linear) and optimizes (linear vs non-linear) used the refinery's fuels blending system levels. <u>Click here</u> for more information.
- Identify the sources of blending errors for excessive reblends and giveaways and recommend strategies to minimize them. <u>Click here</u> for more information.
- Develop a master plan study document

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Master Plan Study

OMS can conduct detailed master plan studies for the following systems:

- Tanks Farm Management
- Integrated Fuels Blending control, optimization and scheduling system
- Oil movement and Storage System
- Hydrocarbon Management (HM) system for the oil loss reconciliation
- Integrated Refinery Information System (IRIS)
- Please <u>click here</u> for OMS webinars on above topics for more information.
- Please <u>click here</u> for OMS white papers on the above topics.

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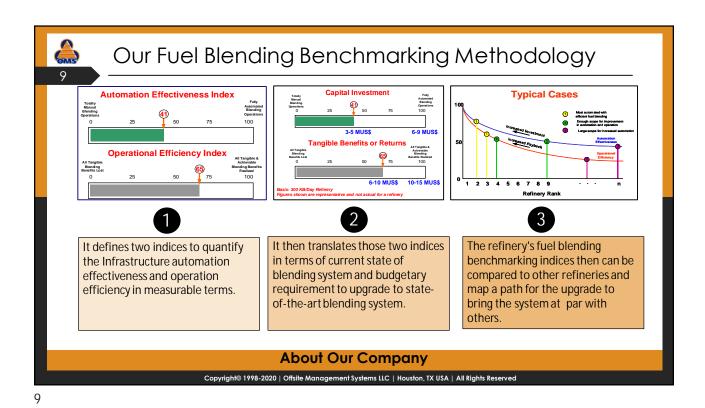
Bench-marking

We benchmark the state of fuels blending system in a refinery to compare with other refineries by using two indices, Automation Effectiveness And Operational Efficiency. These two indices also gauges budgetary investment required either to convert manual to automated system or upgrade automated system to state-of-the-art blending control system.

Refinery management and operations are always faced with the following questions:

- Are re-blends and quality giveaway minimized?
- Are blends profitable?
- What is the payback for additional automation?
- How does our blending performance compare to other refineries?

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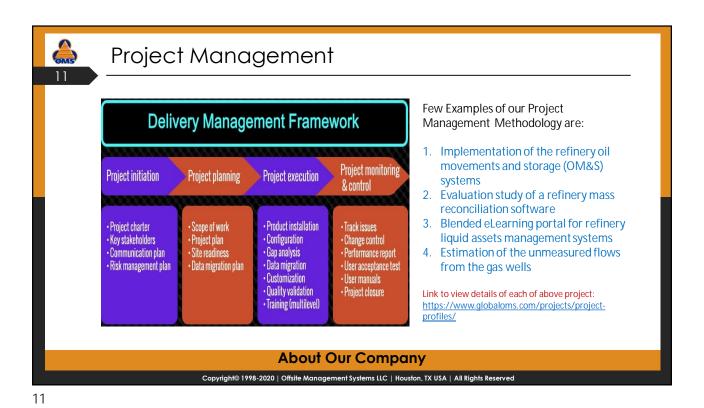


Custom Development

OMS has expertise and experience to custom develop applications for the automation of upstream and downstream processes using

• VB6, .NET framework, SQL Databases
• FORTRAN
• MS Office products (Excel, Word, Access, PowerPoint, Visio) and VBA applications
• Third Party ActiveX components, COM/DCOM
• Mathematical Programming (LP/NLP)
• Mathematical multi-variable, non-linear regression systems
• Open-source graphical packages

Please click here to view some of our project profiles involving custom developments using above modules and systems



MCOR Strategy for the Refining Operations

Strategic Roadmap for the Effective and
Efficient Refinery Offsite Operations

OPTIMIZE
PRODUCTION

MANAGE
INFRASTRUCTURE

MANUFACTURING

PRODUCTION

EFFECTIVENESS

EFFICIENCY
PROFITABILITY

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System Implementation

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OMS has and can implement automation projects and/or modules for downstream refining operations in the areas of offsite operations. We have used Waterfall or Agile methodologies for the implementation of the following projects (only partial list):

- Re-commissioning of Invensys' Oil Movement Management (OMM) and Tanks information Systems (TIS) for Shell's Frederica Refinery
- Blended e-learning Portal for Invensys' Oil Movement Management (OMM) and Tanks information Systems (TIS) for Shell refineries
- Bench-marking study for the mass reconciliation for two of Shell refineries
- Estimation of unmeasured of flow from gas wells using non-linear multi-variable regression techniques
- Commissioning of integrated Fuels Blending control, optimization and scheduling systems for PEMEX refineries
- Commissioning of integrated Fuels Blending control, optimization and scheduling systems for CEPSA refineries

Profiles of some projects can be viewed by Clicking here.

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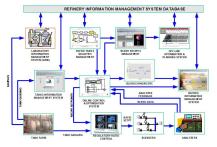
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System Integration

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The automation of refinery offsite operations requires the integration of many components, systems and interfaces in order to commission a fully integrated automation system. OMS and can integrated and interface the following systems to commission integrated fuels blending control, optimization and scheduling system, Tanks farm management, etc.

- Tanks Inventory Information System and tanks gauging system
- DCS based Regulatory Blend Control (RBC), online/offline blend controls and Optimization Systems
- Oil Movement Management and Control Systems
- Mass Reconciliation Systems such as Sigmafine (PIMSoft), MAB (Invensys)
- Interface with Blending optimization with Excel VBA and third party software
- Interfaces with plant database to data access into various modules and systems

Click here to see some project profiles.

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Training

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OMS offers the following oil and gas training and education programs for the refinery offsite operation staff for their continuing education to enhance their skills, keep upto-date with the emerging technology. These oil and gas educational training programs are designed to new hires, experienced staff and management to improve the refinery's bottom-line by performing their work with knowledge and information.

- 1. Strategic training courses offered both onsite (in-house) and offsite (public), <u>Click</u> here for a list of courses
- 2. Monthly Webinars on selected topics. <u>Click here</u> for a list of past and future schedule of webinars.
- 3. Self-paced study manuals are available for downloadable purchase. <u>Click here</u> for a list of manuals.
- 4. online courses and e-learning *Click here* to visit our eLearning Portal

Click here to learn about these options.

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Our Clients and Projects-1

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Client	Project Description	System
Shell Oil Products, Houston, Texas	 Provide Subject Matter Expertise to separate Shell oil refinery at Port Arthur to change ownership. This involved separating and configuring Infrastructure like 150+ network printers, Lab Management System, Server management, Interfaces with Vendor systems, Outlook integration, Interfaces with PI System and process etc. 	
	 Conduct a study and issue detailed report oil accounting and Mass reconcilitation Methodologies in Shell Refineries and develop a business case to implement Invensys' MAB (Material Balance Solution) software product 	Windows 7
	 Manage and provide Subject Matter Expert (SME) services for the development of Blended e-Learning System for Invensys' Tanks Information System and Oil Movement Manager System on SharePoint 	Windows 7
	 Recommissioning of Tanks Information System and Oil Movement Manager System for Shell's Frederica, Denmark Refinery 	TDC-3000 & Windows 7
S-Oil Refinery and Honeywell, South Korea	Review and approve the design of Gasoline Blender System	TDC-3000 & Windows 7
Multiphase Solutions Inc, Houston	.NET / SQL server 2008 based development of a non-linear multi-variables regression system to estimate the flows of individual oil/gas wells from limited individual and total flow field measurements	Windows Vista
Flint Hills Resources refinery, Corpus Christi	Blending Automation Master Plan Study	
Petromedia Refinery, Romania	Blending Feasibility Study	

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Our Clients and Projects-2

Client **Project Description** System Singapore Refining Company, Singapore Tanks Quality Tracking Systems for Kero, Diesel and Gasoline Windows 2000, SQL Server 2000, TDC-3000 Singapore Refining Company, Singapore Gasoline Blending Technical and Economical Feasibility Study Petrochemical Corporation of Singapore Naphtha Blending Study Regulatory Blending, Offline On-line Blending for Gasoline, Ecopetrol, Cartagena Refinery, Columbia ABB Advant, Enraf, NT Diesel and Fuel oils, Tanks farm management system, Crude Ecopetrol, Barrancabermeja Refinery, Columbia Regulatory Blending, Offline On-line Blending for Gasoline, ABB Advant, Enraf, NT Diesel and Fuel oils, Tanks farm management system, Crude HPCL, Visakhapatnam Refinery, India Regulatory Blending, On-line Blending, Off-line Blending & Oil ABB Advant, Enraf, NT Movement Indian Oil Corporation Panipat Refinery, India Regulatory Blending, On-line Blending ABB Advant, Enraf, NT Chemopetrol Litvinov, Czechoslovakia Regulatory Blending, On-line Blending, & Off-line Blending ABB Advant, Enraf, NT

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Our Clients and Projects-3

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Client	Project Description	System
PEMEX Cadereyta Refinery, Mexico	Regulatory Blending, On-line Blending, Off-line Blending & Oil Movement	Fisher, Enraf, HP Unix
PEMEX Tula Refinery, Mexico	Regulatory Blending, On-line Blending, Off-line Blending & Oil Movement	Fisher, Enraf, HP Unix
CEPSA Algeciras Refinery, Spain	Regulatory Blending, On-line Blending, Off-line Blending & Oil Movement	RTPMS, TDC-2000, ENRAF
CEPSA Tenerife Refinery, Spain	Off-the-unit Distillate Blending / Optimization, Tank Farm Inventory Management, Gasoline Blending Control & Optimization.	RTPMS, TDC-2000, ENRAF
Exxon Refinery, Rotterdam	Multi-Blends off-the-unit Blending Control and Optimization, RTPMS OM&S Projects, Crude Blending, Crude Unit optimization	IBM RTPMS, Foxboro Spectrum
Exxon Corporation, New Jersey	 Design, develop and commission a detailed designer and simulator of centrifugal compressor system 	IBMS-4381, TSO, MVS
	 Consult and Lead a team of engineers to evaluate DOE version of ASPEN process simulator to replace Exxon's in-house process simulator 	

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Our Publications

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Paper Title	Publication
☐ Crude Blending	Hydrocarbon Engineering, 09/2020
□ Butane Blending	Hydrocarbon Engineering, 03/2020
Continuing Education for Downstream Refining professionals	Hydrocarbon Engineering, 09/2019
How to Benchmark the State of A Refinery's Fuels Blending System? Part-II Case Study	Hydrocarbon Engineering, 03/2019
How to Benchmark the State of A Refinery's Fuels Blending System? Part-I Methodology	Hydrocarbon Engineering, 09/2018
Optimum design of fuels Blend header	Hydrocarbon Engineering, 03/2017
Advances In Tank Quality Measurements Can Help Cut Operational Costs	Hydrocarbon Processing, 06/2007
Implementation and Benefits of Online Tanks Quality Tracking System in a Singapore Refinery	Hydrocarbon Asia, Jan/Feb 2005
☐ Advanced Gasoline Blending-II	Oil and Gas Journal, Feb, 2005
☐ Advanced Gasoline Blending-I	Oil and Gas Journal, Feb, 2005
Advanced Closed loop Controls of Refinery Off-site Operations	Hydrocarbon Engineering, 09/1997
Implementation of Advanced on-line Blend Control, Optimization and Planning System in Mexican Refineries	NPRA, 11/1996
Economics Justifications of an Integrated Oil Movement & Storage Control System	ISA, 11/1196
Scope of An Integrated Oil Movement & Storage (OM&S) Control System	ISA, 11/1995
Integrate blending Control, Optimization and Planning	Hydrocarbon Processing, 8/1995
Scope and Feasibility of Integrated Crude Blending Control and Optimization System	ISA, 11/1994

Download link: https://www.globaloms.com/white-papers/

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Our Software Products

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- Tanks Quality Tracking System with non-linear blending Models and can be interfaced with third party Database for blending control and Optimization
- 2. Excel Based Blending Calculator using non-linear blending Models for all fuel types
- 3. Excel / VB.net Based Offline blend Optimizer with non-linear blend Models and non-linear Optimizers using SLP and true non-linear optimizers
- 4. vb.net DLL for all blending Models which can be used in Excel or Vb.net applications
- 5. Excel /VB.Net based Post Blend Performance System
- **6. Non-linear Regression System** to optimize the blend model parameters using Historical blend batch data
- 7. Blending Models Manual enlists all blend Model equation and description

About Our Company



Our Business Model

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Model	Features
Time and material- based consulting assignment	 Tiered hourly rates with minimum 100 hours of retainership Higher the retained hours, lower the hourly rates until reaching minimum rate Can be cancelled after block of assigned hours are delivered Offers flexibility to Consult-As-You need for the project Tiered rates are guaranteed only for continuous assignment. Any breaks will reset the rates. All Expenses payable additionally
Lump-sum turn-key assignment	 Retained consulting to deliver project objectives starting from kick-off to final delivery and certifications Gets the benefits of our expertise at every phase and step of the project Involved Vendor management ensures Vendor System functionality to meet your needs Negotiable terms and conditions Inclusive of all charges and expenses
	About Our Company

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Recommended Vendor Solutions

No	System	Vendor
1	Tanks Information Management System	PIMSSOFT, Schneider
2	Tanks Composition Tracking System	PIMSSOFT, OMS
2	Oil Movement Control and Monitoring System	PIMSSOFT, Schneider
3	Planning and Scheduling System	Aspen
4	Mass Reconciliation	PIMSSOFT, Schneider, Aspen
5	Offline Blend Optimizer	OMS
6	Online Blend Control and Optimization	Aspen, Schneider
7	Tanks Quality Tracking System	OMS
8	Post Blend Performance Monitoring	OMS
9	Blend Model Parameters Regression System	OMS
10	Interfaces Database with Excel	OMS

About Our Company



How we can help you...

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Kick-off and Discovery Phase

- Review your requirements for a complete system implementation
- Create a road map and timeline
- Review required systems from vendors and compare them with your requirements

Project

Management Phase

- Assist with Vendor contracts and deliverables
- Interface with all stakeholders
- Manage and Supervise Implementation of Vendor System
- Integrate all System and Interfaces

Design, Development and execution

- Design and Create documents, progress reports, Vendor System bugs
- Coordinate with Vendors and end-users to resolves bugs
- Formulate users training program for Vendor System and Over-all systems architect

Commissioning and Training

- Assist in Commissioning and hand-over
 - Initiate Project Signoff Activity and Documents

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Need more Information?

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Contact: Dr. Suresh S. Agrawal, Founder & CEO

Email: Info@globaloms.com

info@oms-eLearning-academy.com

s.agrawal@globaloms.com

Phone: +1 (832)-821-8001 (Office)

+ 1 (281) 650-3707 (Mobile) +1 (866) 850-4035 (Fax)

Website: www.globaloms.com

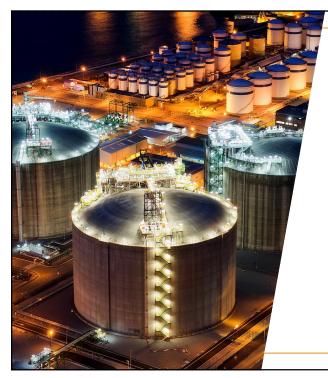
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<u>www.oms-eLearning-Academy.com</u> (will be launched on 2/20/2021) www.omsdev.oms-eLearning-academy.com (Staging Site for preview)

About Our Company









Our Mission

A downstream oil refinery has two distinct areas of operations namely, onsite operations and offsite operations. Onsite operations focuses on process units to manufacture intermediate products (not sellable directly), whereas offsite operations involves product movement with the plant, make final sellable products like fuels (gasoline, diesel, fuel oil etc.) and directly affects the refineries bottom-line to a greater extent. If these operations are not run efficiently, the refinery would lose the tangible benefits of 30-40M\$/Year.

The mission of OMS eLearning academy is to share knowledge with all levels of professionals working in refinery offsite operations, and to help refineries maximize profit. Hence, the academy offers a series of four courses (MCOR) in the OMS eLearning Academy, which teaches to Manage, Control, Optimize and Reconcile the refinery offsite operations to capture those tangibles which are otherwise lost benefits. These courses were developed for every job level from executive, manager, engineers, fresh employees and even fresh graduates who want that extra niche to enter the job market in the refining industry.

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Our Academy Director



Dr. Suresh S. Agrawal
Course Director
OMS eLearning Academy

Dr. Suresh S. Agrawal is founder and CEO of Offsite Management Systems LLC (www.globaloms.com) and has developed, installed and managed many innovative and technologically advanced automation software products, and integrated solutions for the automation of offsite operations of Chemical, Oil and Gas (COG) industries in countries like India, Mexico, Columbia, USA and Eastern and Western European countries.

He graduated from Indian Institute of Technology, Mumbai, India with a Bachelor of Chemical Engineering in 1972. He obtained a Master of Chemical Engineering from Illinois Institute of Technology, Chicago, USA in 1975 and gained his Ph.D. degree in Chemical Engineering from Illinois Institute of Technology, Chicago, USA in 1981.

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Onsite vs Offsite Operations



Onsite Operations

Onsite operations deals with productions of intermediate products in the following process units (only few mentioned) used to make final shippable products in offsite operations.

- · Crude Oil, Vacuum Distillation
- Naphtha hydrotreater
- · Alkylation, Isomerization, hydrotreater
- Gas Treaters
- Fluid catalytic cracking, Hydrocracker
- Delayed coking, fluid Coker



Offsite Operations

Offsite operations deals with the following activities related to before and after processing in the process units.

- Receipt of raw crude and dispatch of final finished blended products
- Blending (crude and fuels)
- Tanks Management (Inventory and level, fugitive emissions)
- Oil Movement of materials
- Terminal Operations (marine, trucks, pipeline, railroad) Operations)
- Reconciliation of Hydrocarbons

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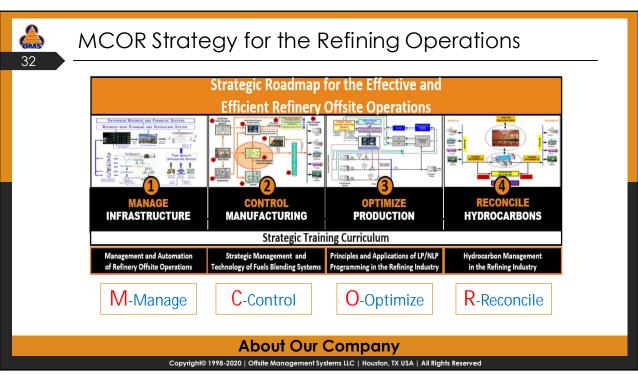


Our Academy Focused Areas

- Fuels Blending Control Systems
- Tankfarm Management
- Oil Movement and Storage Systems
- Blending Models and optimization
- Online Analyzers and Multiplexing
- Lab Analysis of product qualities
- Field Equipment

- Planning and Scheduling
- Mass Reconciliation
- Spectrum based Analyzers
- Octane Engines
- Blending Errors reduction
- Minimization of Quality Giveaway and prevent violations
- Regression of Blend Parameters
- Historical Analysis of Blending Performance







eLearning for All



Offers eLearning for All Professionals Working at All Skill Levels in the **Downstream Refining Industry**



Executives Managers

Engineers

- Operators
- Analysts Technician
- EPC Vendors DCS Vendors
- Consultants Students
 - New Employees
 - Trainees
- **About Our Company**

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Economics of eLearning

eLearning

eLearning is Economical and Independent of Device, Place, Pace and Schedule than Public Courses



- 35-30% Cost of Public Courses
- Any Mobile or Desktop Devices
- Progressive eLearning
- Hybrid or Live Streaming Option
- No restriction on place or schedule
- Never loose your place in eLearning
- Can review after Completion
- Interactive Q&A

About Our Company



Academy Format



- Audio-Video Format
- English / Spanish Subtitles
- Pause on one Device, Continue Another
- Progression or Review Modes
- Interactive Q&A online and via Forum
- Topic Quizzes
- Final Course Quiz
- Courses Certificate and CEU
- Course Transcript
- Detailed Topic Datasheets

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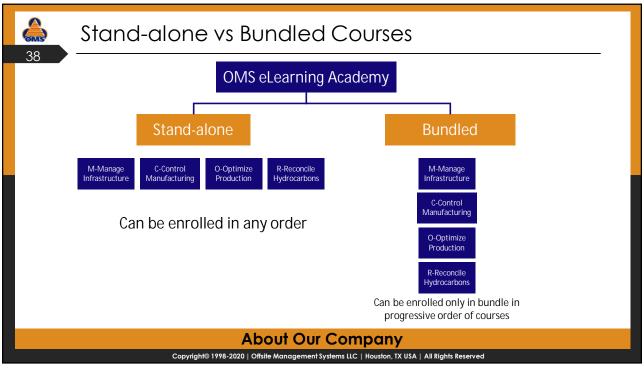
Academy Architecture

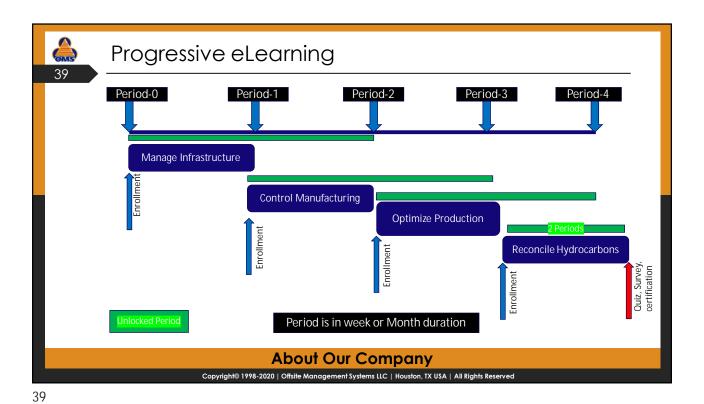


- Free Courses
- Refresher Course
- 200+ Structured stand-alone or Bundled Courses
- 20+ Specialized Courses
- Choose N Enroll 3-24 topics to create your own Custom Curriculum from 200+ topics
- Hybrid and Live Streaming

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No	Course	Count	Contents
1	Demo Courses	2	To demonstrate the delivery format and contents quality of lessons (free)
•		2	
2	Overview Videos	20+	All that you want to know about academy and its curriculum
3	Free Courses	10+	One topic free courses to review before paid enrollment
4	Refresher Course	1	12 topics free course to eTeach MCOR strategy of downstream operations
5	Structured Courses	185+	Stand-alone and bundled courses for executives, managers and all skill levels of engineers (Trainee, professional and Expert), Consultants, EPC and DCS Vendors, Integrators, Students and fresh and prospective employees
6	Specialized Courses	20+	Selected 15+ topics courses on focused areas of operations such as blending, tankfarm, analyzers, instrumentation, optimization, reconciliation, etc.
7	Choose N Enroll Custom Curriculum	200+	Make your own curriculum from 200+ topics based on your interest to eLearn
8	Online Streaming	80+	Hybrid and Live streaming of Specialized and MCOR courses





Datasheets 40 MCOR MANAGE OEA501P-RFM-Manage This video gives an overview of the professional engineer course to discuss the purpose of the course, its modules, topics and mode of learning. \$59 | 3 Topic(s) | 🔑 | 140 Slide(s) Details Enroll The enrollee can review the contents of all topics in a course before enrollment. One page datasheet for each topic plus header course sheet previews the contents. **About Our Company**



Enrollment, Payments and Discounts



- One or four Equal Payments
- Single Subscription
- Corporate Group License
- Corporate Group Subscription
- 10-15% Single Bundled Course Discount
- 10-30% Corporate Group Discount
- 50% Discounted Subscription
- Loyalty Discount

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Need more Information?

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Contact: Dr. Suresh S. Agrawal, Founder & CEO

Email:

Info@globaloms.com

info@oms-eLearning-academy.com

s.agrawal@globaloms.com

Phone:

+1 (832)-821-8001 (Office)

+ 1 (281) 650-3707 (Mobile)

+1 (866) 850-4035 (Fax)

Website:

www.globaloms.com

www.oms-eLearning-Academy.com

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