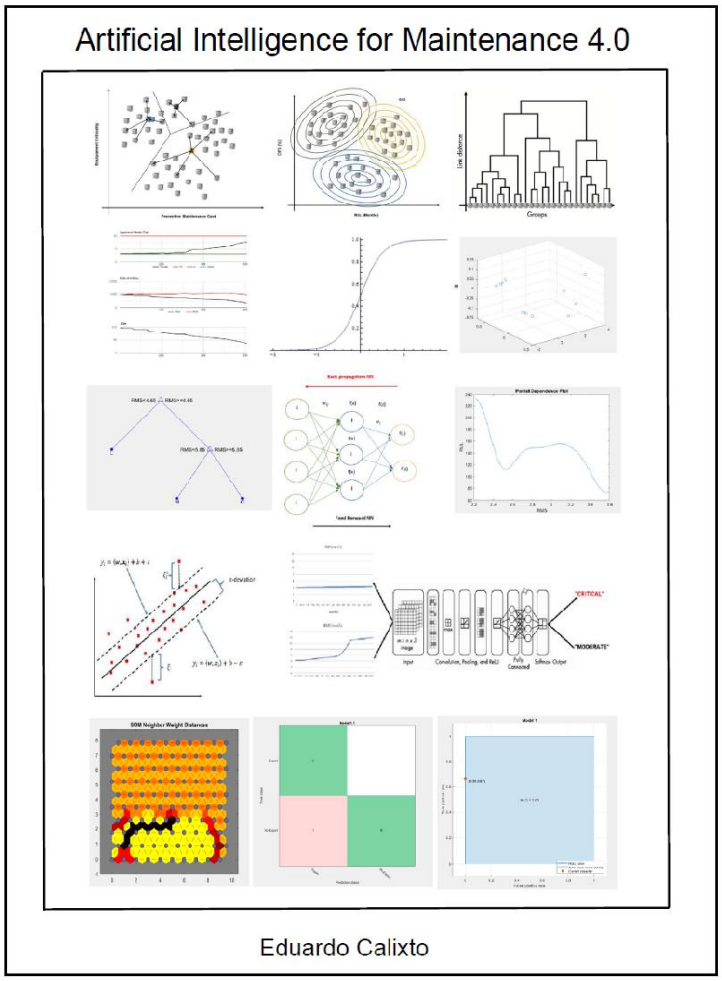
EDUARDO CALIXTO
CONSULTANT

Distance Learning Program 2020 for Process Industry

Title: Physical Asset High performance achievement:

Artificial intelligence, Asset Management, Asset Integrity Management, Reliability Engineering, Maintenance Management (FMEA+RCM+CMMS), Process Safety & Risk Management abd Human Reliability.



Self-paced online training on virtual class – Second Edition

Title: Artificial Intelligence, Asset Management and Reliability & Maintenance Program

Agenda:

Module 1: 5th-9th October 2020: Artificial Intelligence for Maintance 4.0. – *Software: MatLab (optional)*

Module 2: 12th-16th October 2020: Asset Management for Process and Oil and Gas Industry. *(including the new module about Artificial Intelligence) – Software: Integrity PRO*

Module 3: 19th-23th October 2020: Asset Integrity Management for Process and Oil and Gas Industry. – *Software: Integrity PRO*

Module 4: 26th-30th October 2020: Reliability and Maintenance Program for Process and Oil and Gas Industry. – *Software: Blocksim – HBK/Reliasoft. (demonstration)*

Module 5: 2nd-6th November 2020: RAM analysis for Process and Oil and Gas Industry. – *Software: Blocksim – HBK/Reliasoft.*

Module 6: 9th-13th November 2020: Lifetime Data Analysis for Process and Oil and Gas Industry. – *Software: Weibul++ – HBK-Reliasoft.*

Module 7: 16th-20th November 2020: FMEA and RCM for Process and Oil and Gas Industry. – *Software: FMEA/RCM ++ – HBK/Reliasoft.*

Module 8: 23th-27th November 2020: Risk Management and analysis methods for Process and Oil and Gas Industry. – *Software: Blocksim – HBK/Reliasoft*

Module 9: 30th- 04th November 2020: Human Reliability Analysis for Process and Oil and Gas Industry.

Dedailed information in the link below:

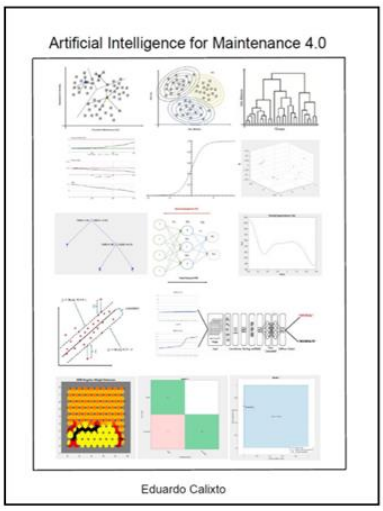
https://www.eduardocalixto.com/distance-learning-program-2020-1/

Please contact us for more information:

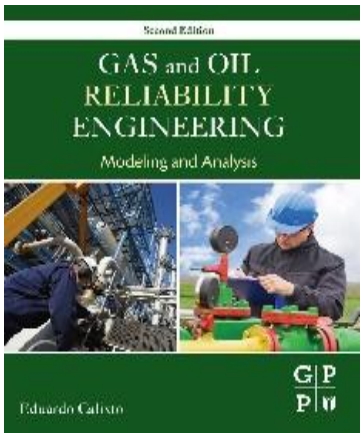
https://www.eduardocalixto.com/contact/

Training Content

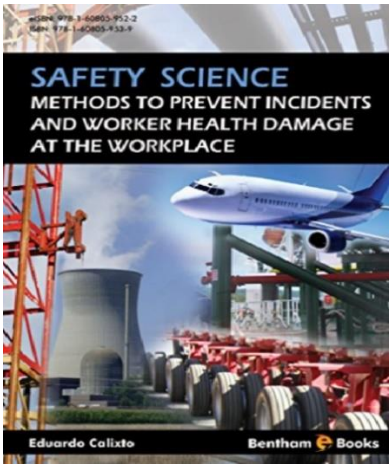
The new Dr. Eduardo Calixto Book: Artificial Intelligence for Maintenance 4.0



“The Best Seller Book “ Gas and Oil Reliability Engineering Modeling and analysis”



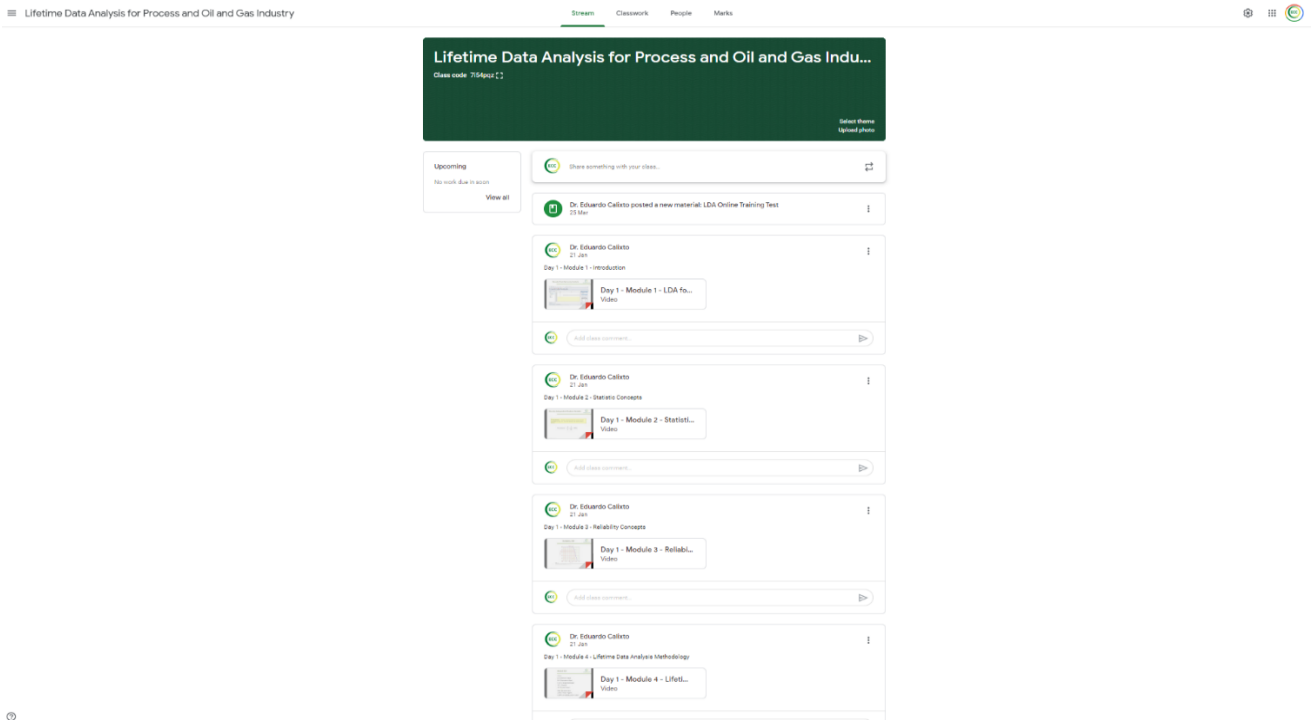
“Safety Science: Methods to prevent Incident and worker Health Damage at workplace”



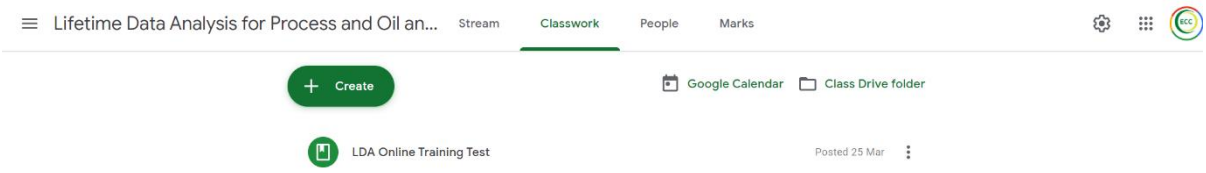
www.amazon.com

“How does It works in practice”

“Self-Paced Training: After your participation is confirmed, you get access to the virtual class and watch the videos, in case of doubt you type your question.”



“Learning Verification: you will get a final test in the classwork and after you finish it and load in the Virtual Class it will be assessed by the Training Instructor (Dr. Eduardo Calixto)”.



“Certification: After you final test is approved you will get the certification for each online training and if you complete the whole program an additional certification with the title “Asset Management and Reliability Engineering “ will be reseased.”


LIFETIME DATA ANALYSIS FOR PROCESS AND OIL AND GAS INDUSTRY TRAINING CERTIFICATION

THIS CERTIFIES THAT

xxxxxxxxxxx

has successfully completed the required training course of Lifetime Data Analysis Training application for Process and Oil and Gas Industry approved by them Dr. Eduardo Calixto and is therefore awarded this

DIPLOMA

Given this ___ day of _____, 20__

Trainer

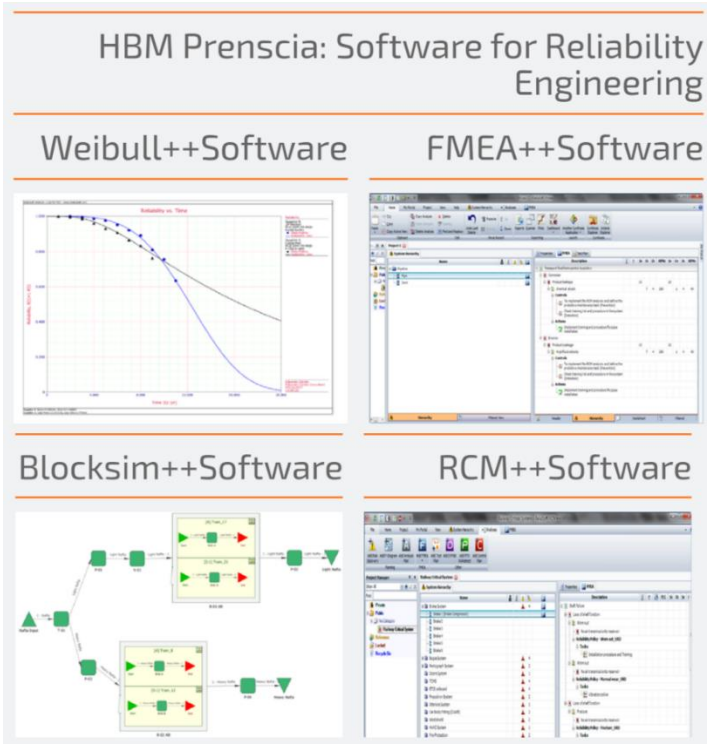
Principal

EDUARDO CALIXTO

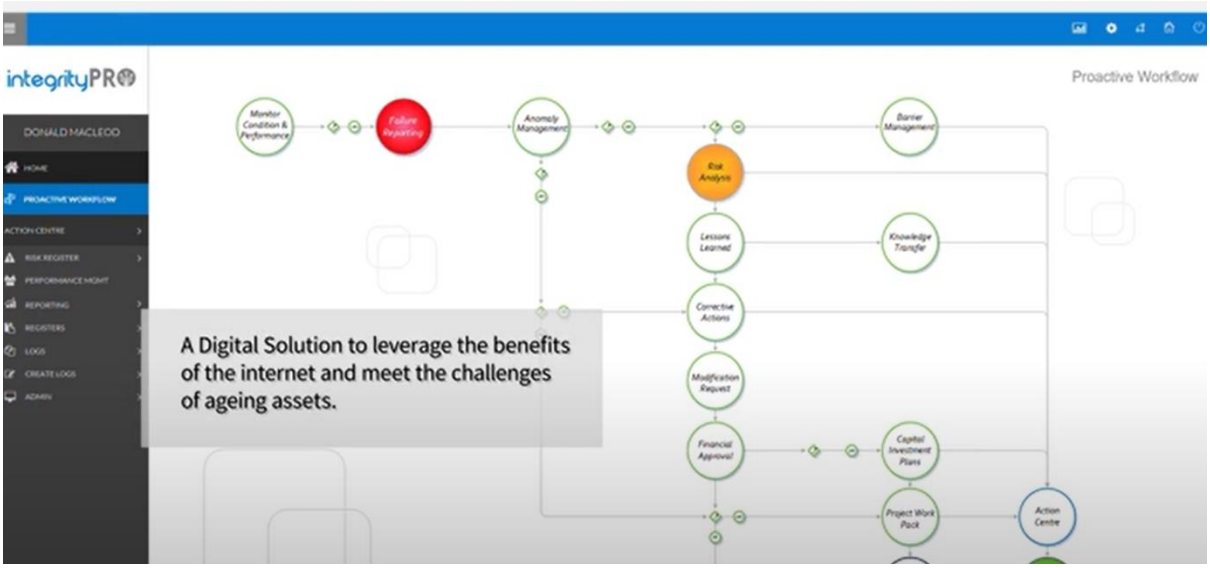
“Softwares”

During the program the attendees will have access to the following:

“Reliability Engineering”



“Asset Management and Asset Integrity Management”



***** TheMATLAB is optional and the demo version need to be download by the participant***

"Training Modules Outlines"

EDUARDO CALIXTO

Artificial Intelligence for Maintenance 4.0

Online Training

SECURE YOUR PARTICIPATION!

Website: http:/www.eduardocalixto.com

Email: ec@eduardocalixto.com

Why Shoud attend this training ?

- To understand the current status of Maintenance Engineering concepts, knowledge, methofologies and Management based on CMMS.
- To understand the concept of Prognostic Health Management that aims to predict the Remaining Useful Life (RUL) and State of Health (SoH) of equipment that operates over their design stress limits.
- To understand the Unsupervised Manchine Learning Methods (USML) such as Principal Component Analysis, Multidimentional Scaling Analysis, K-Means, Gaussian Mixture, Hierarchical Cluster, Neural Network Self-Organized Map and their application to cluster equipment data and optimize maintenance schedules.
- To understand the Supervise Machine Learning Classification SMLC) methods such as K--Nearest Neighbor, Decision Tree, Naive Bayes, Neural Network Classification, Linear Discriminant Analysis, Suport Vector Machine and Logistic Regression Classification. In addition, the application of such methods to classify risk, criticality and rank different level of equipment degradation to alarms of RUL.
- To understand the Supervised Manchine Learning Regression methods such as Linear Regression, Ridge and Lasso Regression, Stepwise Regression, Decision Tree Regression, Support Vector Machine Regression, Gaussian Regression and Neural Network Regression. In addtion, several examples of RUL prediction will be demostrated using the software MATLAB.
- To understand the concept of Esemble methods such as Boosting, Bagging, Stack and Randon forest with an example of application.
- To understand the concept of Convolutional Neural Network with an example of image classification aplied to RUL using the degradation images.
- To understand the concept of Asset Management Intelligence based on the Asset Management 4.0 solution .

Who Shoud attend this training ?

Asst management Managers, Asset Integrity Managers, Maintenance Managers, Reliability Managers, Reliability Engineers, , Maintenance Engineers, Process Engineers, Safety Engineers, Production Engineers.

Trainer : Dr Eduardo Calixto, CRP, CFSE.,

He's Reliability and Safety Engineer Expert with over 18years experiences in Oil & Gas, Railway, Aerospace and Mining Industries. He has Doctoral Degree in Energy and Environmental, Master in safety System Management, Bachelor in Industrial Engineering. Author of the best seller Book Gas and Oil Reliability Engineering: Modeling and Analysis (material content of this training).

IRIS ACADEMY RAM/LCC Professional

CFSE

AFSP

CRP

EDUARDO CALIXTO

Artificial Intelligence for Maintenance 4.0

Online Training

SECURE YOUR PARTICIPATION!

Website: http:/www.eduardocalixto.com

Email: ec@eduardocalixto.com

Day 1 - Training Outline:

- Module 1: Introduction
- Module 2: Maintenance Concepts
- Module 3: Prognostic Health Management
- Module 4: Artificial Intelligence Introduction
- Module 5: USML - Principal Component Analysis
- Module 6: USML - Multidimensional Scaling
- Module 7: USML - K-Means
- Module 8: USML - Gaussian Mixture
- Module 9: USML - Hierarchical Cluster
- Module 10: USML - NN Self-Organized Map
- Module 11: SMLC - Neural Network Classification
- Module 12: SMLC - K-Nearest Neighbor
- Module 13: SMLC - Decision Tree
- Module 14: SMLC - Naive Bayes

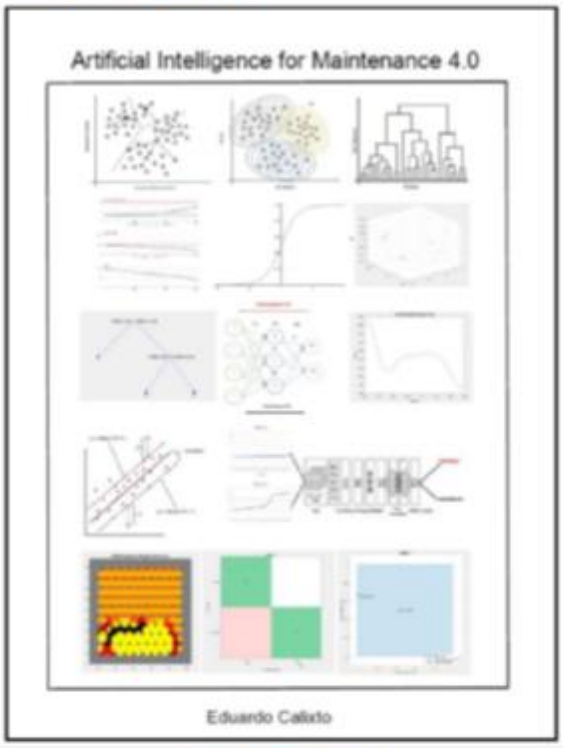
Day 2 -Training Outline:

- Module 15: SMLC - Linear Discriminant Analysis
- Module 16: SMLC - Support Vector Machine
- Module 17: SMLC - Logistic Regression Classification
- Module 18: SMLR - Linear (Ridge & Lasso) Regression
- Module 19: SMLR - Stepwise Regression
- Module 20: SMLR - Decision Tree Regression
- Module 21: SMLR - Support Vector Machine Regression
- Module 22 SMLR - Gaussian Regression
- Module 23 SMLR - Neural Network Regression
- Module 24 - Ensemble Methods
- Module 25 - Convolutional Neural Network
- Module 26 - Asset Management 4.0

What's the training benefits ?

You do not need to know any algorithm language or have a deep mathematic knowledge. Everything will be clear explained step by step with examples. After this training you will be able to haave a deep understanding about the different Artificial Intelligence methods expalined during the training to apply in your daily routine such as optmize your maintenance schedule, classify maintenance database in categories and predict the RUL, SoH and other parameters based on regression methods by using the MATLAB

Book Training Content:



www.amazon.com

EDUARDO CALIXTO

Asset Management for Process and Oil and Gas Industry

SECURE YOUR PARTICIPATION!
Website: http:/www.eduardocalixto.com
Email: ec@eduardocalixto.com

Why Shoud attend this training ?

- To understand the Asset Management concept for high performance achievement.
- To understand the concept of PAS 55 and ISO 55000 standards.
- To understand the importance of Reliability, Maintenance and Asset Integirty programs as part of the asset management.
- To understand the asset performance index in different organizational levels.
- To understand the asset management, audit and evaluation process based on ISO 55000 standard.
- To understand the reliability 4.0 and FRACAS 4.0 concept as basic of data collection, failures assessment and automatic reliability and reliability growth automatic prediction.
- To understand the Artificial Intelligence concepts applied to maintenance 4.0.
- To understand the concepts of Prognostic Health Management concept and example (Software ARULE).

To understand and apply the concept of Maintenance Management (Software Aladdin)

- To understand the preventive actions risk evaluation to prioritize the most important actions.
- To understand the maintenance Management and steps such as Maintenance plan and maintenance work order concept

Who Shoud attend this training ?

Reliability Managers, Reliability Engineers, Asset Managers, Maintenance Managers, Maintenance Engineers.

Training Outline:

Day 1:

- Module 1: Introduction
- Module 2: Asset Management concept
- Module 3: Concept of PAS 55 and ISO 55000
- Module 4: Asset Performance KPI`s
- Module 5: Reliability & Maintenance Engineering program
- Module 6: Asset Integrity Management Program
- Module 7: Prognostic Health Management (ARULE)
- Module 8: Artificial Intelligence: Applied to Maintenance 4.0

Day 2:

- Module 8: Maintenance Management (Aladdin Software)
- Module 9: Asset Management Process
- Module 10: FRACAS and Reliability 4.0
- Module 11: Operational Risk Assessment.
- Module 12: Inspection, PM, CM and WO register
- Module 13: Routine management for Asset Management.
- Module 14: Lessons learned, Team Management and Leadership
- Module 15: Asset mangement Electronic reports
- Module 16: Asset Managemeent Audit
- Module 17: Asset Managemeent Exercise practice Integrity PRO

Trainer : Dr Eduardo Calixto, CRP, CFSE.,

He's Reliability and Safety Engineer Expert with over 18years experiences in Oil & Gas, Railway, Aerospace and Mining Industries. He has Doctoral Degree in Energy and Environmental, Master in safety System Management, Bachelor in Industrial Engineering. Author of the best seller Book Gas and Oil Reliability Engineering: Modeling and Analysis (material content of this training).

IRIS ACADEMY RAM/LCC Professional

CFSE

AFSP by SGS-TÜV Saar

CRP

EDUARDO CALIXTO

Asset Integrity Management for Process and Oil and Gas Industry

SECURE YOUR PARTICIPATION!
Website: http:/www.eduardocalixto.com
Email: ec@eduardocalixto.com

Why Shoud attend this training ?

- To understand the Asset Integrity Management concept for high performance achievement.
- To understand the concept of KP3, PAS 55 and ISO 55000 standards.
- To understand the importance of Reliability, Maintenance risk management and Human factor as part of the asset management.
- To understand the asset performance index in different organizational levels.
- To understand the asset integrity management, audit and evaluation process based on ISO 55000 standard.
- To understand the FRACAS concept as basic of data collection and failures assessment.
- To understand and apply the Reliability 4.0 concepts to automatic prediction.
- To understand and apply the concept of Maintenance Management (Software Aladdin)
- To understand the concept of Artificial Intelligence applied to asset integrity

Who Shoud attend this training ?

Reliability Managers, Reliability Engineers, Asset Managers, Maintenance Managers, Maintenance Engineers.

Training Outline:

Day 1:

- Module 1: Introduction
- Module 2: Asset Management concept
- Module 3: Concept of KP3 Program and ISO 55000
- Module 4: Asset Integrity Management Concepts
- Module 5: Asset Integrity performance KPI´s
- Module 6: Risk Management program
- Module 7: Reliability & Maintenance program
- Module 8: Human factor assessment
- Module 9: Artificial Intelligence applied to AIM

Day 2:

- Module 9: Safety Ciritcal Element Definition
- Module 10: FRACAS and Reliability 4.0
- Module 11: Asset Integrity Management process.
- Module 12: Inspection, PM, CM and WO register
- Module 13: Routine management for Asset Integrity Management.
- Module 14: Lessons learned, Team Management and Leadership
- Module 15: Asset Integrity Managemeent Audit
- Module 16: Case Study and exercise (Integrity PRO)

Trainer : Dr Eduardo Calixto, CRP, CFSE.,

He's Reliability and Safety Engineer Expert with over 18years experiences in Oil & Gas, Railway, Aerospace and Mining Industries. He has Doctoral Degree in Energy and Environmental, Master in safety System Management, Bachelor in Industrial Engineering. Author of the best seller Book Gas and Oil Reliability Engineering: Modeling and Analysis (material content of this training).

IRIS ACADEMY RAM/LCC Professional

CFSE 160721 001

AFSP by SGS-TÜV Saar

CRP

EDUARDO CALIXTO CONSULTING

Reliability & Maintenance Program Implementation for Process and Oil and Gas Industry

SECURE YOUR PARTICIPATION!

Website: http:/www.eduardocalixto.com

Email: ec@eduardocalixto.com

Why Shoud attend this training ?

- To understand the Reliability & Maintenance program elements such as R&M requirement, R&M organizational Infrastructure, Methods and deliverables, R&M Plan;
- To understand the Reliability & Maintenance implementation barriers such leadership, culture, resources and organizational structure;
- To understand the different types of FMEA such as DFMEA, SFMEA, PFMEA,;FMEA;
- To understand the FMEA Management elements
- To understand the RCM concepts and the link with FMEA as well as the link with the CMMS and Asset management system;
- To understand the RCM Management lements;
- To understand the FRACAS concepts, the link with FMEA analyis and it implementation before operation phase;
- To understand the Lifetime Data Analysis Concepts and application as input for RAM analysis and the warranty verification and validation;
- To understand the RAM analysis concepts and application to predict system performance;
- To understand the Asset management process and the importance input and support from the R&M program.

Who Shoud attend this training ?

Reliability Managers, Reliability Engineers, Asset Managers, Maintenance Managers, Maintenance Engineers. Maintenance

Training Outline:

Day 1:

- Module 1: Introduction
- Module 2: Reliability & Maintenance concepts
- Module 3: Reliability & Maintenance Program
- Module 4: Reliability & Maintenance barriers
- Module 5: FMEA concepts
- Module 6: FMEA application cases
- Module 7: FMEA Management
- Module 8: RCM concepts
- Module 9: RCM application cases
- Module 10:RCM Management

Day 2:

- Module 1: FRACAS concepts
- Module 2: FRACAS cases
- Module 3: LDA concepts
- Module 4: LDA cases
- Module 5: RAM Analysis concepts
- Module 6: RAM Analysis cases
- Module 7: Human Reliability Analysis
- Module 8: Asset management Process

Trainer : Dr Eduardo Calixto, CRP, CFSE.,

He's Reliability and Safety Engineer Expert with over 18years experiences in Oil & Gas, Railway, Aerospace and Mining Industries. He has Doctoral Degree in Energy and Environmental, Master in safety System Management, Bachelor in Industrial Engineering. Author of the best seller Book Gas and Oil Reliability Engineering: Modeling and Analysis (material content of this training).

IRIS ACADEMY RAM/LCC Professional

CFSE 160721 001

AFSP by SGS-TÜV Saar

CRP

EDUARDO CALIXTO CONSULTING

RAM Analysis for Process and Oil and gas Industry

SECURE YOUR PARTICIPATION!
Website: http:/www.eduardocalixto.com
Email: ec@eduardocalixto.com

Why Shoud attend this training ?

- To understand and apply the Reliability, operational availability and maintainability concept as basic of equipment specification and asset performance Index.
- To understand and apply the RAM methodology applied to different asset lifecycle phases.
- To understand and apply how to organize and assess the historical failure and repair database.
- To understand how to use specialist opinion to predict Reliability and maintainability.
- To understand and apply the methods to define type Probability Density function (PDF) in order to predict PDF parameters, reliability, failure rate, MTTF, MTBF, MTTR.
- To model the equipment in component level applying RBD and FTA.
- To understand and apply the effect of preventive maintenance and inspection in equipment reliability and operational availability.
- To understand and apply the concept of preventive maintenance optimization
- To understand how to integrate FMEA, RCM and RAM analysis to support asset management.
- To understand the RAM System and equipment modeling and system product production modeling.

Who Shoud attend this training ?

Reliability Managers, Reliability Engineers, Asset Managers, Maintenance Managers, Maintenance Engineers.

Training Outline:

Day 1:

- Module 1: Introduction
- Module 2: RAM concept
- Module 3: RAM methodology concept
- Module 4: Lifetime data analysis (LDA)
- Module 5: LDA case studies
- Module 6: RBD and FTA Models
- Module 7: RBD and FTA case studies

Day 1:

- Module 8: Preventive Maintenance Modeling
- Module 9: Inspection Modeling
- Module 10: Spare part Modeling
- Module 11: LCC Modeling
- Module 12: RAM Simulation
- Module 13: RAM critical equipment
- Module 14 RAM Sensitivity Analysis
- Module 15: RAM Modelling: Equipment Level
- Module 16: RAM system product´s production modelling: System Level

Trainer : Dr Eduardo Calixto, CRP, CFSE.,

He's Reliability and Safety Engineer Expert with over 18years experiences in Oil & Gas, Railway, Aerospace and Mining Industries. He has Doctoral Degree in Energy and Environmental, Master in safety System Management, Bachelor in Industrial Engineering. Author of the best seller Book Gas and Oil Reliability Engineering: Modeling and Analysis (material content of this training).

IRIS ACADEMY RAM/LCC Professional

CFSE

AFSP by SGS-TÜV Saar

CRP

EDUARDO CALIXTO

Lifetime Data Analysis (LDA) for Process and Oil and Gas Industry

SECURE YOUR PARTICIPATION!

Website: http:/www.eduardocalixto.com

Email: ec@eduardocalixto.com

Why Shoud attend this training ?

- To define the probability density functions such as exponential, lognormal, logistic, loglogistic, Weibull, Normal, Gumbel, Gama, others based on LDA;
- To apply the goodness of fit test such as Plot method, Regression, likelihood, Chi-square, Komogorov Smirnov and Cramer von mises during LDA;
- To implement a FRACAS that enable the LDA;
- To understand the QALT methods fconcepts or equipment under different stress level;
- To understand the RGA Concepts to measure the effect of maintenance and operation on equipment performance;
- To apply PDA methods to predict reliability based on equipment degradation such as corrosion and, crack;
- To apply Warranty Analysis to assess vendors products;
- To learn how to create a reliability database.

Who Shoud attend this training ?

Reliability Managers, Reliability Engineers, Asset Managers, Maintenance Managers, Maintenance Engineers.

Training Outline:

Day 1:

- Module 1: Introduction
- Module 2: Statistic concept
- Module 3: Reliability Concepts
- Module 4: LDA Methodology
- Module 5: Goodness of Fit tes
- Module 6: Probability Density Functions
- Module 7: Probabilistic Degradation Analysis
- Module 8: Preventive Maintenance effect on Reliability
- Module 9: - Reliability Generic Databases.

Day 2:

- Module 1: Accelerated test data analysis Model
- Module 2: Reliability Growth Analysis
- Module 3: Warrant Analysis Concepts
- Module 4: FRACAS concept and online application
- Module 5: LDA Case Studies
- Module 6: RGA Case Studies
- Module 7: PDA and WA Case Studies

Trainer : Dr Eduardo Calixto, CRP, CFSE.,

He's Reliability and Safety Engineer Expert with over 18years experiences in Oil & Gas, Railway, Aerospace and Mining Industries. He has Doctoral Degree in Energy and Environmental, Master in safety System Management, Bachelor in Industrial Engineering. Author of the best seller Book Gas and Oil Reliability Engineering: Modeling and Analysis (material content of this training).

IRIS ACADEMY RAM/LCC Professional

CFSE 160721 001

AFSP by SGS-TÜV Saar

FMEA and RCM Analysis for Process and Oil & Gas Industry

SECURE YOUR PARTICIPATION!
Website: http:/www.eduardocalixto.com
Email: ec@eduardocalixto.com

Why Shoud attend this training ?

- To understand the failures, risk and criticality concepts.
- To understand and implement the different application of FMEA and FMECA concepts
- To understand and implement the Design Failure Mode and Effect analysis (DFEMA).
- To understand and implement the Process Failure Mode and Effect analysis (PFMEA).
- To understand and implement the System Failure Mode and Effect analysis (FMEA).
- To understand the FMEA application to FRACAS.
- To understand the Maintenance concepts.
- To understand and apply the Reliability Centered Maintenance (RCM) concepts.
- To understand the RCM input to RAM analysis, LCC and spare part definition.

To understand and implement the RCM output to LCC analysis.

To understand and implement the RCM out put to spare parts modeling.

To understand and implement the RCM output to RAM analysis.

Who Shoud attend this training ?

Reliability Managers, Reliability Engineers, Safety Engineer, Asset Managers, Maintenance Managers, Maintenance Engineers.

Training Outline:

Day 1:

- Module 1: Introduction
- Module 2: FMEA concept and Standards
- Module 3: Risk, RPN and Criticality
- Module 4: SFMEA/DFMEA/ PFMEA/ FMEA concept
- Module 5: FMEA Management
- Module 6: FMEA applied to FRACAS
- Module 7: FMEA Case Studies

Day 2:

- Module 1: Maintenance Concepts
- Module 2: RCM concepts and standards
- Module 3: RCM input to RAM analysis
- Module 4: RCM input to LCC
- Module 5: RCM input to Spare parts
- Module 6: RCM Management
- Module 7: RCM input to Asset Management
- Module 8: RCM application cases
- Module 9: FMEA and RCM application software case studies

Trainer : Dr Eduardo Calixto, CRP, CFSE.,

He's Reliability and Safety Engineer Expert with over 18years experiences in Oil & Gas, Railway, Aerospace and Mining Industries. He has Doctoral Degree in Energy and Environmental, Master in safety System Management, Bachelor in Industrial Engineering. Author of the best seller Book Gas and Oil Reliability Engineering: Modeling and Analysis (material content of this training).

EDUARDO CALIXTO

Human Reliability Analysis for Process and Oil & Gas Industry

SECURE YOUR PARTICIPATION!
Website: http:/www.eduardocalixto.com
Email: ec@eduardocalixto.com

Why Shoud attend this training ?

- To understand the Human factor concepts.
- To understand the human performance factors influencing in human error.
- To understand the human error probability prediction.
- To predict Human Error Probability and Human error rate
- To understand and implement different Human reliability analysis methods.
- To understand the influence of human error in incident and accident.

To understand the application of human error in qualitative risk analysis (PHA and FMEA).

To understand the application of human error in quatitative risk analysis (FTA and Bow Tie).

- To understand the application of human error influence in operation and maintenance activities.

Who Shoud attend this training ?

Reliability Managers, Reliability Engineers, Safety Engineer, Asset Managers, Maintenance Managers, Managers, Supervisors, Maintenance Engineers, Technicians, Operators.

Training Outline:

Day 1:

- Module 1: Introduction.
- Module 2: Human Reliability concept.
- Module 3: Human reliability standards.
- Module 4: Human Performance Factor.
- Module 5: Technique for human Error Prediction (THERP).
- Module 6: Operation Action Three (OAT).
- Module 7: Accident Sequence Evaluation Program (ASEP).
- Module 8: Human Error Reduction Technique (HEART).
- Module 9:Social technical analysis of Human Reliability (STAH-R).

Day 2:

- Module 10: Success Likelihood Index (SLIM).
- Module 11: Systematic Human Error Reduction and Prediction approach (SHERPA).
- Module 12: Standardized Human Error Reduction and Prediction Approach (SPAH-R).
- Module 13: Bayesian network.
- Module 14: Human factor influences in Safety (risk analysis).
- Module 15: Human factor influences in operation.
- Module 16: Human factor influences in Maintenance.
- Module 17: Human reliability analysis application case.

Trainer : Dr Eduardo Calixto, CRP, CFSE.,

He's Reliability and Safety Engineer Expert with over 18years experiences in Oil & Gas, Railway, Aerospace and Mining Industries. He has Doctoral Degree in Energy and Environmental, Master in safety System Management, Bachelor in Industrial Engineering. Author of the best seller Book Gas and Oil Reliability Engineering: Modeling and Analysis (material content of this training).

IRIS ACADEMY RAM/LCC Professional

CFSE 160721 001

AFSP by SGS-TÜV Saar

CRP

EDUARDO CALIXTO CONSULTING

Process Safety for Oil and Gas Industry

SECURE YOUR PARTICIPATION!
Website: http:/www.eduardocalixto.com
Email: ec@eduardocalixto.com

Why Shoud attend this training ?

- To understand the Risk concept as basic of Risk assessment and evaluation.
- To understand and implement the individual risk, societal risk and ALARP concepts.
- To understand and Implement the Risk Management concept and its different steps such as hazard identification, risk assessment, risk evaluation and risk mitigation.
- To understand and implement he qualitative Risk Analysis methods such as HAZOP, HAZID, PHA, FMEA, RBI
- To understand and implement the quantitative Risk Analysis methods such as FTA, ETA, SIL, LOPA, Bow Tie, QRA
- To understand and implement the Risk analysis methods applied to environment license.
- To understand and implement the Risk Management concept as basic of safe integrity asset performance achievement.
- To understand and implement the consequence and effect analysis

Who Shoud attend this training ?

Reliability Managers, Reliability Engineers, Safety Engineer, Asset Managers, Maintenance Managers, Maintenance Engineers.

Training Outline:

Day 1:

- Module 1: Introduction.
- Module 2: Risk Management concept and Risk criteria.
- Module 3: Occupational Hazards .
- Module 4: Preliminary Hazard Analysis (PHA).
- Module 5: Hazard and Operability Analysis (HAZOP).
- Module 6: Failure Mode and Effect and Criticality Analysis (FMEA).
- Module 7: Risk Based Inspection (RBI)
- Module 8: Statistic Concepts
- Module 9: Reliability Concepts.

Day 2:

- Module 10: Fault Tree Analysis (RBI).
- Module 11: Event Tree Analysis (ETA), Layer of Protection Analysis (LOPA) & BTA.
- Module 12: Safety Integrity Level Analysis (SIL).
- Module 13: Consequence and Effect analysis
- Module 14: Emergency Response Plan
- Module 15: Vulnerability Analysis
- Module 16: Human Factor in Process safety
- Module 17: Process Safety Management

Trainer : Dr Eduardo Calixto, CRP, CFSE.,

He's Reliability and Safety Engineer Expert with over 18years experiences in Oil & Gas, Railway, Aerospace and Mining Industries. He has Doctoral Degree in Energy and Environmental, Master in safety System Management, Bachelor in Industrial Engineering. Author of the best seller Book Gas and Oil Reliability Engineering: Modeling and Analysis (material content of this training).

IRIS ACADEMY RAM/LCC Professional

CFSE

AFSP by SGS-TÜV Saar

CRP