

# TRAINING COURSES PLAN FOR YEAR 2025

## **TE-IMS-700-FM-07T**



	Prepared by	Reviewed by	Approved by
Name	Mrs. Gehan Ahmed	Eng. Ezz Nadi	Eng. A/Helmy
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Signature			
Date	01/12/2024	01/12/2024	01/12/2024

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# **PREFACE**



## **Preface**

It is our pleasure to submit the training plan for year 2025. The training courses had been designed to fulfill the market requirements, however Target Engineering is ready to design and conduct any tailored course that your esteemed company might need.

Our ultimate target is to sell our experience and quality and not only a training course.



# **GENERAL**



#### **GENERAL RULES**

#### $\Rightarrow$ REGISTRATION

- Registration to be done by Fax (02) 25164044 or by e-mail (gehane.ahmed@target-engineering.com).
- Those who have not cancelled reservation two working days prior to the course are subject to the entire fees.
- Each company will receive attending sheet for the trainees.

#### $\Rightarrow$ **GENERAL**

- Target will provide a training manual & certificate for each
   Trainee. In addition, Target will not issue a training certificate for any trainee who does not attend (3) days at least from the training.
- During the training day, a refreshment drinks and snacks will be serviced, In addition to a lunch meal.

#### $\Rightarrow$ **NOTES**

- 1. Target doesn't provide any soft copy from training manual.
- 2. Target can arrange any of mentioned training courses in the schedule on the suitable time for any client, provided that the number of trainees will not be less than (5) trainees.



## ⇒ COURSES DURATION

4 - 5 working days, based on the course.

## ⇒ COURSES LOCATION

Target's office.

## $\Rightarrow$ ADDRESS

20D/1, Yahia Abd El Razek St., Laselki, New Maadi, Cairo – Egypt.

## TEL.

(202) 25167711 / (2012) 27326174 (2012) 73656561/62/63

## $\blacksquare$ FAX

(202) 25164044



# TECHNICAL COURSES Schedule & Breakdown



**TE-IMS-700-FM-07T** 

# <u>Technical Courses Schedule</u>

<u>Item</u>	Course Title	Ref.	First Session	Second Session
1	MEASUREMENT FUNDAMENTALS	100/01	05 - 08 January, 2025	06 - 09 July, 2025
2	CONTROL SYSTEMS	100/02	12 -15 January, 2025	13- 16 July, 2025
3	ELECTRICAL INTERLOCKING SYSTEMS	100/03	02 - 05 February, 2025	03 - 06 August, 2025
4	ANTI-SURGE CONTROL SYSTEMS	100/04	09 - 12 February, 2025	10 - 13 August, 2025
5	BASICS OF PLC	100/06	06 – 09 April, 2025	07 - 10 September, 2025
6	INSTRUMENTS FOR HAZARDOUS AREAS	100/07	13 – 16 April, 2025	14 - 17 September, 2025



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# <u>Technical Courses Schedule</u>

Item	Course Title	Ref.	First Session	Second Session
7	VALVE SIZING & ORIFICE CALCULATIONS	100/08	04 - 07 May, 2025	02 - 05 November, 2025
8	FIRE & GAS DETECTION SYSTEM	100/10	11 - 14 May, 2025	09 - 12 November, 2025
9	DCS & SCADA SYSTEMS	100/11	18 - 21 May, 2025	16- 19 November, 2025
10	SAFETY SHUTDOWN SYSTEMS	100/15	01 - 04 June, 2025	01 - 04 December, 2025
11	INSTRUMENTS DOCUMENTS	100/16	15 - 18 June, 2025	07 - 10 December, 2025



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# <u>Technical Courses Schedule</u>

Item	Course Title	Ref.	First Session	Second Session
12	MANAGEMENT OF CONTROL SYSTEMS	100/17	12 - 15 January, 2025	20 – 23 July, 2025
13	MAINTENANCE OF INSTRUMENT & SYSTEMS	100/18	19 - 22 January, 2025	27 - 31 July, 2025
14	DET-TRONICS, EAGLE QUANTUM F&G SYSTEM	100/19	27– 30 April, 2025	05– 08 October, 2025
15	STANDARDS & SPECIFICATIONS FOR INSTRUMENTATION AND CONTROL	100/20	02 – 05 February, 2025	17 - 20 August, 2025
16	WOODWARD GOVERNOR 505/505E	100/22/E	25 - 28 May, 2025	23 - 26 November, 2025
17	WOODWARD GOVERNOR 505D/505XT	100/22D/XT/	16 – 19 February, 2025	24 - 20 August, 2025
18	WOODWARD GOVERNOR 2301D	100/23D	22 – 25 June, 2025	14 - 17 December, 2025



## **TE-IMS-700-FM-07T**

# <u>Technical Courses Schedule</u>

Item	Course Title	Ref.	First Session	Second Session
19	WOODWARD GOVERNOR 2301E	100/23E	05 - 08 January, 2025	06 - 09 July, 2025
20	POWER MANAGEMENT	100/24	04 - 07 May, 2025	12 – 15 October, 2025
21	GE 90-30 PLC's	100/25	29 June - 03 July, 2025	21 - 25 December, 2025
22	GE 90-70 PLC's	100/26	19 - 23 January, 2025	24 -28 August, 2025
23	GE VERSAMAX PLC'S	100/27	19 – 23 April, 2025	26 - 30 October, 2025
24	GE CIMPLICITY MACHINE EDITION	100/28	16 - 20 February, 2025	31 August – 04 September, 2025
25	GE CIMPLICITY HMI	100/29	06 – 10 April, 2025	30 November – 04 December, 2025



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# <u>Technical Courses Schedule</u>

<b>Item</b>	Course Title	Ref.	First Session	Second Session
26	WOODWARD GOVERNOR 5009	100/30	02- 05 February, 2025	03 - 06 August, 2025
27	TROUBLESHOOTING TECHNIQUES	100/32	11 - 14 May, 2025	02 - 05 November, 2025
28	START-UP GUIDE FOR INSTRUMENT STAFF	100/33	13 – 16 April, 2025	21 – 24 September, 2025
29	LOOP CHECKING & TUNING BASICS	100/34	25 – 28 May, 2025	09 - 12 November, 2025
30	ADVANCED LEVEL & AUTOMATIC TANK GAUGING	100/35	26 - 29 January, 2025	13- 16 July, 2025
31	VALVES TECHNOLOGY	100/36	01 - 04 June, 2025	28 - 31 December, 2025



## **TE-IMS-700-FM-07T**

# <u>Technical Courses Schedule</u>

Item	Course Title	Ref.	First Session	Second Session
32	تكنولوجيا الصمامات	100/36 A	15 - 18 June, 2025	07 - 10 December, 2025
33	GE PAC8000 CONTROLLER	100/37	09 - 13 February, 2025	10 - 14 August, 2025
34	EASYGEN-3000	100/38	19 – 22 April, 2025	12 – 15 October, 2025
35	WOODWARD/PROTEC 203	100/39	18 - 21 May, 2025	16- 19 November, 2025
36	WOODWARD PEAK-150 STEAM TURBINE CONTROL	100/40A	27– 30 April, 2025	05– 08 October, 2025
37	WOODWARD PEAK-200 STEAM TURBINE CONTROL	100/40B	26 – 29 January 2025	20 – 23 July, 2025



## **TE-IMS-700-FM-07T**

# <u>Technical Courses Schedule</u>

Item	Course Title	Ref.	First Session	Second Session
38	PRINCIPALS OF MECHANICAL GOVERNORS AND WOODWARD HYDRAULIC AMPLIFIER	100/41	22 – 25 June, 2025	21 - 25 December, 2025
39	<b>❖ NEW</b> LINER HEAT DETECTORS (LHD)	100/42	15 - 18 June, 2025	07 - 10 December, 2025
40	<b>❖ NEW</b> WOODWARD VERTEX COMPRESSOR/STEAM TURBINE CONTROLLER	100/43	29 June - 03 July, 2025	07 - 10 September, 2025
41	TECHNICAL PRESENTATIONS	400/02	13 – 16 April, 2025	14 - 17 September, 2025
42	GAS TURBINES	500/01	02 - 05 February, 2025	26 - 30 October, 2025
43	PREVENTIVE MAINTENANCE PLANNING	500/02	18 - 21 May, 2025	02 - 05 November, 2025



**TE-IMS-700-FM-07T** 

COURSE TITLE : Measurement Fundamentals

*COURSE REF. NO.* : 100/01

## **COURSE OBJECTIVES**

• To know how to read PID drawings.

- To know the different measurement techniques for
  - > Pressure
  - > Level
  - > Flow
  - > Temperature
- To know the control valves function / action / parts.
- To understand modes of control.

- \* New graduated instrument engineers.
- ❖ Instrument technicians.
- Process/operation engineers and operators.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Control Systems

 $COURSE\ REF.NO.$  : 100/02

#### **COURSE OBJECTIVES**

• To understand the different control modes.

- To acquire the tuning skills.
- To understand the principle of pneumatic control technique.
- To understand the principle of electronic control technique.
- To understand the principle of intelligent controller.
- To discuss the special control schems such as CASCADE, RATIO, SPLIT.
- To understand the control valves principle of operation.

- ❖ Instrument engineers with 2-3 years experience.
- ❖ Instrument technicians who attended the course 100/01.
- ❖ Process/operation engineers with 2-3 years experience



**TE-IMS-700-FM-07T** 

COURSE TITLE : Electrical Interlocking Systems

*COURSE REF.NO.* : 100/03

#### **COURSE OBJECTIVES**

• To know the different elements of the electrical circuits.

- To explain how to read and understand the electrical diagrams (wiring diagrams)
- To know how to design interlocking circuits.
- To know the fail-safe approach.
- To study practical examples of sequencing circuits, pump station control circuits, and lubrication oil loop of a rotating machine.
- To master the ways of converting the relay circuits to logic circuits and vice versa.

- ❖ New graduated Instrument/Electrical engineers.
- ❖ Instrument/Electrical technicians with 2-3 years experience.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Anti-Surge Control Systems

*COURSE REF.NO.* : 100/04

#### **COURSE OBJECTIVES**

• To discuss different compressors types.

- To explain centrifugal compressor characteristics.
- To understand surge phenomena.
- To explain capacity & surge control systems.
- Case study for surge control system.
- To understand all aspects related to anti-surge valve.
- Design of a simple control system.
- To explain how to performs site test for a compressor.
- To discuss different surge control systems layouts.
- To understand the interaction capacity & surge control systems.

- ❖ Instrument engineers.
- Mechanical engineers
- Process/Operations engineers



**TE-IMS-700-FM-07T** 

COURSE TITLE : Programmable Logic Controllers

(PLC)

*COURSE REF.NO.* : 100/06

## **COURSE OBJECTIVES**

• To know the main parts of the PLC hardware and their functions (e.g. CPU, Memories, I/O Modules, etc.)

- To understand the different numbering systems.
- To know the different programming techniques used in PLC applications.
- To understand the different protocols.
- To study in details the ladder program principles.
- To know the installation and the troubleshooting practices.
- On-hand practices.

- ❖ Instrument engineers.
- ❖ Instrument technicians with 4 years experience
- Process/operation engineers.
- ❖ Operators who deal with PLC.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Instruments for Hazardous Areas

*COURSE REF.NO.* : 100/07

## **COURSE OBJECTIVES**

• To know the hazardous area classification.

- To know the gas groups.
- To know the temperature classification.
- To be aware with the different types of protection.
- To know the intrinsically safe interfaces.
- To study the zener barrier.
- To know the cables requirements for intrinsically safe installation.
- To know how to inspect and test intrinsically safe system.
- To be familiar with the approvals and the certificates.

- ❖ Instrument engineers.
- **!** Electrical engineers.
- ❖ Project engineers.
- ❖ Safety officers/engineers.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Valve Sizing and Orifice

Calculations

*COURSE REF.NO.* : 100/08

## **COURSE OBJECTIVES**

• To learn how to size an orifice plate for Gas/Liquid.

- To study the procedures to calculate the flow coefficient of an existing orifice, for gas/liquid.
- To study the valve sizing for different applications and how to avoid the most common problems created by the wrong sizing (e.g. cavitation, shocking, high noise,..etc.)
- To learn the noise prediction techniques.
- To learn how to use computer programs for orifice calculations and valve sizing.
- On-hand practices.

- ❖ Instrument engineers.
- Process/operation/production engineers.
- ❖ Project engineers.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Fire and Gas Detection Systems

*COURSE REF.NO.* : 100/10

## **COURSE OBJECTIVES**

• To study the flame detection techniques (UV/IR detectors).

- To know the features of different controllers
- To be aware with test equipment and other auxiliary units.
- To study the gas detection principles.
- On-hand practices.

- Operation / production engineers.
- ❖ Instrument engineers.
- ❖ Safety officers/engineers.



**TE-IMS-700-FM-07T** 

COURSE TITLE : DCS and SCADA Systems

*COURSE REF. NO.* : 100/11

#### **COURSE OBJECTIVES**

- To know the DCS architecture.
- To be familiar with the main parts of the DCS.
- To study the Human Machine Interface.
- To study the future of DCS.
- To get an overview to the details a typical DCS architecture.
- To know the main parts of SCADA.
- Hands-on (configuration, animation of graphical screens) with real simulation.

- ❖ Instrument engineers.
- **&** Electrical engineers.
- Process engineers.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Safety Shutdown Systems

*COURSE REF.NO.* : 100/15

## **COURSE OBJECTIVES**

• To differentiate between function of process control versus safety control.

- To understand the protection layers.
- To get a better understanding for safety integrity.
- To know how to carry out initial system evaluation.
- To discuss the safety systems technology.
- To get the best approach for justification of a safety system.
- To discuss the engineering of a safety shutdown system.
- To know the practices of Installing a safety shutdown system.

- ❖ Instrument engineers.
- Process/operation engineers.
- ❖ Safety officers/engineers.
- \* Technicians and operators with 3 years experience.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Instruments Documents

*COURSE REF.NO.* : 100/16

## **COURSE OBJECTIVES**

• To know the different types of documentation.

- To discuss the elements of symbolism and identification.
- To cover process flow diagrams.
- To cover P & I diagrams.
- To cover loop diagrams.
- To cover wiring diagrams.
- To cover construction drawings.

- ❖ Instrument engineers/technicians.
- Process/operation engineers and operators.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Management of Control Systems

*COURSE REF.NO.* : 100/17

## **COURSE OBJECTIVES**

• To discuss the justifications of control system upgrading.

- To know in details benefits of advanced process control (APC) systems.
- To know the best approaches for selecting the new control system.
- To get a better understanding for cost justification analysis.
- To discuss auditing plant control requirements.

- ❖ Project engineers.
- ❖ Instrument engineers.
- ❖ Maintenance manager.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Maintenance of Instrument &

Systems

*COURSE REF.NO.* : 100/18

## **COURSE OBJECTIVES**

• To know fundamental principles of maintenance.

- To discuss the different types of instrumentation & control system maintenance.
- To get a better understanding for maintenance management.
- To be aware about the minimum requirements for configuration and programming.
- To acquire the required skills for calibration & tuning.
- To understand the relation between maintenance and troubleshooting.
- To acquire the basics of maintenance safety.

- ❖ Instrument engineers.
- ❖ Instruments technician.



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COURSE TITLE : Det – Tronics, Eagle Quantum F&G

System.

*COURSE REF.NO.* : 100/19

## **COURSE OBJECTIVES**

• To understand the functions of the different components.

- To master the system software.
- To know how to configure the system.
- To discuss the troubleshooting techniques.
- Hands-on EQP system including (H.W and S3 software).

- ❖ Instrument engineers.
- ❖ Project engineers.
- ❖ Instrument technicians, with 5 years experience.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Standards & Specifications for

Instrumentation and Control

*COURSE REF.NO.* : 100/20

## **COURSE OBJECTIVES**

• To understand the purpose and philosophy of the company standards.

- To discuss the front-End engineering definitions and requirement that should be in the standards.
- To get a better understanding what should be in the standards related to detailed engineering.
- To know how to issue Specifications of instruments and control.
- To discuss the international and professional installation standards.

- ❖ Instrument engineers.
- ❖ Project engineers.
- ❖ Maintenance managers.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Woodward Governor 505

*COURSE REF.NO.* : 100/22

## **COURSE OBJECTIVES**

• To explain speed control basics.

- To discuss different types of steam turbines.
- To describe 505 hardware.
- To know all available control functions of 505.
- To discuss in details 505 modes (configuration, service, run).
- To explain 505 tuning procedures.

- ❖ Instrument engineers.
- \* Turbine engineers.
- Process engineers.
- ❖ Instrument technicians.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Woodward Governor 505D

COURSE REF.NO. : 100/22D

## **COURSE OBJECTIVES**

• To explain new features of 505D.

- To discuss different types of steam turbines.
- To describe 505D hardware.
- To know all available control functions of 505D.
- To discuss in details 505D modes (configuration, service, run).
- To go through the close loop simulation feature.

- ❖ Instrument engineers.
- **\*** Turbine engineers.
- Operations engineers.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Woodward Governor 505D

COURSE REF.NO. : 100/22E

## **COURSE OBJECTIVES**

• To explain new features of 505E.

- To discuss different types of steam turbines.
- To describe 505E hardware.
- To know all available control functions of 505E.
- To discuss in details 505E modes (configuration, service, run).
- To go through the close loop simulation feature.

- ❖ Instrument engineers.
- \* Turbine engineers.
- Operations engineers.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Woodward Governor 505XT

COURSE REF.NO. : 100/22XT

## **COURSE OBJECTIVES**

• To explain new features of 505XT.

- To discuss different types of steam turbines.
- To describe 505XT hardware.
- To know all available control functions of 505XT.
- To discuss in details 505XT modes (configuration, service, run).
- To explain 505XT tuning procedures.

- ❖ Instrument engineers.
- \* Turbine engineers.
- Operations engineers.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Woodward Governor 2301D

COURSE REF.NO. : 100/23D

## **COURSE OBJECTIVES**

• To explain the speed control principles.

- To know the features of 2301D.
- To master the watch window software.
- To understand the load sharing and load shading principles.
- To be aware about 2301D troubleshooting techniques.

- \* Electrical engineers.
- ❖ Instruments engineers.
- ❖ Project engineers.
- ❖ Technicians with more than 3 years of experience in engines control and / or operation.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Woodward Governor 2301E

*COURSE REF.NO.* : 100/23E

## **COURSE OBJECTIVES**

• To explain the speed control principles.

- To know the features of 2301E.
- To master the "Control Assistance" software.
- To understand the load sharing and load shading principles.
- To be aware about 2301E troubleshooting techniques.

- \* Electrical engineers.
- ❖ Instruments engineers.
- ❖ Project engineers.
- ❖ Technicians with more than 3 years of experience in engines control and / or operation.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Power Management

*COURSE REF.NO.* : 100/24

## **COURSE OBJECTIVES**

• Construction & operation of synchronous generators.

- Synchronization principle.
- Load control modes, covering load sharing and load sheding.
- Generators protection.
- Generators maintenance.

- ❖ Electrical engineers.
- \* Turbines engineers.
- ❖ Instruments engineers.
- Process & operation engineers.
- \* Technicians with 5 years experience.



**TE-IMS-700-FM-07T** 

COURSE TITLE : GE 90 - 30 PLC'S

*COURSE REF.NO.* : 100/25

#### **COURSE OBJECTIVES**

• 90-30 hardware components.

- System hardware configuration.
- Instruction sets of programming.
- Developing ladder programs.
- Communication capabilities.
- Installation practices.
- Troubleshooting techniques.
- Hands-on programming and troubleshooting with real 90-30 PLC.

#### WHO SHOULD ATTEND

\* Engineers and high skilled technicians with fair knowledge of PLC's concepts.



**TE-IMS-700-FM-07T** 

COURSE TITLE : GE 90-70 PLC'S

*COURSE REF.NO.* : 100/26

#### **COURSE OBJECTIVES**

• 90-70 hardware components.

- System hardware configuration.
- Instruction sets of programming.
- Developing ladder programs.
- Communication capabilities.
- Installation practices.
- Troubleshooting techniques.
- Hands-on programming and troubleshooting with real 90-70 PLC.

#### WHO SHOULD ATTEND

\* Engineers and high skilled technicians with fair knowledge of PLC's concepts.



**TE-IMS-700-FM-07T** 

COURSE TITLE : GE Versamax PLC'S

*COURSE REF.NO.* : 100/27

#### **COURSE OBJECTIVES**

• Versamax hardware components.

- Hardware configuration.
- Instruction sets of programming.
- Developing ladder programs.
- Communication capabilities.
- Installation practices.
- Troubleshooting techniques.
- Hands-on programming and troubleshooting with real Versamax PLC.

#### WHO SHOULD ATTEND

\* Engineers and high skilled technicians with fair knowledge of PLC's concepts.



**TE-IMS-700-FM-07T** 

COURSE TITLE : GE Cimplicity Machine Edition

*COURSE REF.NO.* : 100/28

#### **COURSE OBJECTIVES**

- Introduction.
- Creating a project.
- Configuring the PLC's hardware.
- Configuring a communication connection.
- Developing logic for the PLC.
- Working with toolchest.
- Working with variables.
- Interacting with a PLC-on line.
- Hands-on programming and troubleshooting with real PLC.

#### WHO SHOULD ATTEND

Engineers and highly skilled technicians with good background in PLC's and high computer skills.



**TE-IMS-700-FM-07T** 

COURSE TITLE : GE Cimplicity HMI

*COURSE REF.NO.* : 100/29

#### **COURSE OBJECTIVES**

- Introduction.
- How to create a new project.
- Device configuration.
- Security configuration
- Points.
- Alarms.
- Point control panel.
- Cim edit screens.
- Alarm management.
- Data base logging.
- Trend control.
- Historical alarm viewer.
- Hands-on programming and troubleshooting of HMI connected to real PLC.

#### WHO SHOULD ATTEND

❖ Instruments engineers with good back ground in PLC's and good computer skills



**TE-IMS-700-FM-07T** 

COURSE TITLE : Woodward Governor 5009

*COURSE REF.NO.* : 100-30

#### **COURSE OBJECTIVES**

• To understand TMR concept.

- To be familiar with system hardware.
- To understand PCI software.
- To get good experience about OpView.
- To discuss in details different applications.

- ❖ Control engineers.
- **\*** Turbines engineers.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Troubleshooting Techniques

*COURSE REF.NO.* : 100/32

#### **COURSE OBJECTIVES**

• How to develop troubleshoot skills.

- The basics of failures.
- Logical / analytical troubleshooting frameworks.
- Tools and test equipment.
- Troubleshooting scenariors.
- Troubleshooting hints.

- ❖ Instrument engineers.
- ❖ Instrument technicians.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Start-Up Guide for Instrument Staff

*COURSE REF.NO.* : 100/33

#### **COURSE OBJECTIVES**

• To Know the role of instrument staff in a start-up.

- To understand the applicable safety practices and standards.
- To be aware about documenting the start-up process.
- To know how to verify and manage changes.
- To master start-up plan.

- ❖ Project engineers.
- ❖ Instrument engineers.
- ❖ Instrument Technicians.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Loop Checking & Tuning Basics

*COURSE REF.NO.* : 100/34

#### **COURSE OBJECTIVES**

To understand loop checking concept.

- To prepare for loop checking during FAT and Start-up.
- To be aware about performance benchmarking.
- To acquire tuning basics.
- To master tuning methods.
- To understand the adaptive control.
- To know tuning requirement for different applications.

- ❖ Instrument engineers.
- Process engineers.
- ❖ Instrument technicians.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Advanced Level Measurements & Automatic Tank

Gauging

*COURSE REF.NO.*: 100/35

#### **COURSE OBJECTIVES**

• Hydrostatic level measurement.

- Capacitive level measurement.
- Ultrasionic level measurement.
- Radar gauges.
- Level Switches.
- Inventory management system and automatic tank gauges.

- ❖ Instrument engineers.
- ❖ Instrument technicians with more than 5 years experience.
- Process/operation engineers.
- Operators with more than 5 years experience.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Valves Technology

*COURSE REF.NO.*: 100/36

#### **COURSE OBJECTIVES**

• To fully understand the valve's function.

- To discuss the different types of valves, and their applications.
- To go deeply in valve components and function of each one.
- To discuss valve inherent problems such as noise, cavitation, etc.
- To master valve installation practices.
- To discuss valve troubleshooting techniques.

- ❖ Instrument engineers.
- ❖ Instrument technicians with more than 5 years experience.
- Process/operation engineers.
- Operators with more than 5 years experience.



#### **TE-IMS-700-FM-07T**

• اسم البرنامج : تكنولوجيا الصمامات

• رقم البرنامج : بالبرنامج •

• أهداف البرنامج:

- الألمام التام بوظائف صمامات التحكم.

مناقشة أنواع الصمامات المختلفة وتطبيقاتها.

الدراسة التفصيلية لكل مكون من مكونات الصمامات.

- دراسة المشاكل الداخلية المتعلقه بالصمامات كالبخر والنحر.

- التعرف على إحنياطات تركيب الصمامات.

مناقشة كيفية تتبع الأعطال الخاصة بالصمامات.

## • من يمكنه حضور البرنامج:

1) الفنيين من قسم الأجهزة والآلات الدقيقة ذو خبرة أكثر من 5 سنوات.

2) مشغلي الأجهزة وفنيين الإنتاج ذو خبرة أكثر من 5 سنوات.



**TE-IMS-700-FM-07T** 

COURSE TITLE : GE PAC 8000 Controller

*COURSE REF.NO.* : 100/37

#### **COURSE OBJECTIVES**

- Overview of PAC8000
- PAC8000 Controllers and IO Modules
- System Architecture
- 8000 IO Workbench
- Tag Creation
- Hardware Configuration;
- Strategy Development
- Analysis Tools
- Downloading; Debugging; Online Changes
- Project Management Tools
- Trusted Host Table
- Key switch; Modes
- Controller Passwords; User Administration

#### WHO SHOULD ATTEND

Instruments engineers with good back ground in PLC's and good computer skills



**TE-IMS-700-FM-07T** 

COURSE TITLE : EASYGEN-3000

*COURSE REF.NO.* : 100/38

#### **COURSE OBJECTIVES**

• System overview and functional description.

- Installation practices.
- System configuration.
- Troubleshooting.

- ❖ Instruments engineers.
- ❖ Electric engineers.



**TE-IMS-700-FM-07T** 

COURSE TITLE : WOODWARD/PROTEC 203

*COURSE REF.NO.* : 100/39

#### **COURSE OBJECTIVES**

- To understand the principal of operation.
- To discuss hardware and wiring details.
- To discuss installation practices.
- To be familure with programming procedures.
- To highlight the troubleshooting approaches.

- \* Turbines engineers.
- ❖ Instruments engineers
- \* Electric engineers.



**TE-IMS-700-FM-07T** 

COURSE TITLE : WOODWARD PEAK-150 STEAM

TURBINE CONTROL

COURSE REF.NO.: 100/40A

#### **COURSE OBJECTIVES**

■ To understand Peak-150 hardware.

- To go through the software program of Peak-150.
- To know the installation practices
- Troubleshooting guide.

- \* Turbines engineers.
- ❖ Instruments engineers.
- \* Process engineers.
- ❖ Instrument technicians with at least 5 years experience.



**TE-IMS-700-FM-07T** 

COURSE TITLE : WOODWARD PEAK-200 STEAM

TURBINE CONTROL

COURSE REF.NO.: 100/40B

#### **COURSE OBJECTIVES**

To understand Peak-200 hardware.

- To go through the software program of Peak-200.
- To know the installation practices
- Troubleshooting guide.

- \* Turbines engineers.
- ❖ Instruments engineers.
- \* Process engineers.
- ❖ Instrument technicians with at least 5 years experience.



**TE-IMS-700-FM-07T** 

COURSE TITLE : PRINCIPALS OF MECHANICAL GOVERNORS

AND WOODWARD HYDRAULIC AMPLIFIER

*COURSE REF.NO.*: 100/41

#### **COURSE OBJECTIVES**

• To understand the principals of operation of the mechanical governors.

- To know the adjustments of the mechanical governors.
- To know the installation practices.
- Troubleshooting guide.

- Mechanical engineers
- \* Turbines engineers.
- \* Process engineers.
- ❖ Mechanical technicians with at least 5 years experience.



**TE-IMS-700-FM-07T** 

COURSE TITLE : LINER HEAT DETECTORS (LHD)

*COURSE REF.NO.*: 100/42

#### **COURSE OBJECTIVES**

• To know the applications where LHD will be used.

- To know the difference between analog and digital LHD.
- To understand LHD principal of operation.
- To be aware about different LHD cables types and features.
- To understand principals of operation for interface modules.
- To know the difference between class A and class B initiating devices.
- To review LHD installation practices.
- To discuss inspection, testing and calibration of LHD

- Instruments engineers
- ❖ Instruments technicians with at least 5 years experience



**TE-IMS-700-FM-07T** 

COURSE TITLE : WOODWARD VERTEX COMPRESSOR/STEAM

TURBINE CONTROLLER

*COURSE REF.NO.*: 100/43

#### **COURSE OBJECTIVES**

• To give a good idea about Vertex controllers types and applications.

- To discuss Vertax hardware components.
- To discuss all installation practices.
- To go through the Vartex principle of operation.
- To explain the Vartex configuration procedures.

- ❖ Instruments engineers.
- Operations / process engineers.
- \* Rotating equipment engineers.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Woodward Governor 505D

*COURSE REF.NO.* : 100/44

#### **COURSE OBJECTIVES**

• To explain new features of 505D.

- To discuss different types of steam turbines.
- To describe 505D hardware.
- To know all available control functions of 505D.
- To discuss in details 505D modes (configuration, service, run).
- To go through the close loop simulation feature.

- ❖ Instrument engineers.
- **\*** Turbine engineers.
- Operations engineers.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Technical Presentations

*COURSE REF.NO.* : 400/02

#### **COURSE OBJECTIVES**

• To be aware about different presentation types.

- To know how to plan a technical presentation.
- To understand how to present for different audience.
- To highlight the importance of supporting materials.
- To understand, how to prepare the presentation handouts.

- ❖ Project engineers.
- Middle Management Staff.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Gas Turbines

*COURSE REF.NO.* : 500/01

#### **COURSE OBJECTIVES**

- To know the types of gas turbines.
- To know the main parts of a gas turbine.
- To know the parameters affect the turbine performance.
- To know the details of the ancillary support systems

  (e.g. Lub. Oil system, Cooling air system, Hydr. Oil system,....etc.)
- To know the start / stop sequence.
- To be aware about the protection systems.
- To highlight the different types of the speed governor.
- To know the types of the fuel valves.
- To discuss the driven equipment (e.g. generator, pumps, compressors) and their protection systems.
- To know the maintenance and troubleshooting practices.

- ❖ Instrument engineers.
- \* Electrical engineers.
- ❖ Mechanical engineers.
- Process/operation engineers.
- \* Technicians with 10 years experience.



**TE-IMS-700-FM-07T** 

COURSE TITLE : Preventive Maintenance planning

*COURSE REF.NO.* : 500/02

#### **COURSE OBJECTIVES**

• Major types of maintenance

- Designing a preventive maintenance program.
- Planning and estimating.
- On Condition maintenance.
- Shutdown planning.
- Scheduling.
- Computer assistance.

- ❖ Maintenance engineers.
- **A** Planning engineers.
- ❖ Maintenance technicians with 10 years experience.



**TE-IMS-700-FM-07T** 

# **REFERENCE LISTS**



**TE-IMS-700-FM-07T** 

### <u>REFERENCE LIST</u>

#### **WHO ARE OUR CLIENTS?**

- ♦ ABU-QIR FERTILIZERS & CHEMICAL INDUSTRIES COMPANY
- ♦ ABU QIR PETROLEUM COMPANY
- ♦ AGIBA PETROLEUM COMPANY
- ◆ AL-AMAL PETROLEUM COMPANY (AMAPETCO)
- ◆ ALEXANDRIA FERTILIZERS COMPANY (ALEXFERT)
- ◆ ALEXANDRIA PETROLEUM MAINTENANCE COMPANY (PETROMAINT)
- **♦** APACHE
- ♦ ARMA FOOD INDUSTRIES
- ♦ BADR PETROLEUM COMPANY (BAPETCO)
- ♦ BIRLA CARBON EGYPT
- ◆ BELAYIM PETROLEUM COMPANY (PETROBEL)
- ♦ BIRLA CARBON EGYPT
- ♦ CB& I
- ♦ ECUMED PETROLEUM COMPANY (TUNISIA)
- ◆ EGYPT BASIC INDUSTRIES CORPORATION (EBIC)
- ♦ EGYPTIAN LIQUEFACTION NATURAL GAS (ELNG)



#### **TE-IMS-700-FM-07T**

◆ EGYPTIAN NATURAL GAS COMPANY (GASCO)

◆ EGYPTIAN PROJECTS OPERATION & MAINTENANCE (EPROM)

**♦** EL GAMMAL FOR PAINTING

♦ EL-NASR FILTILIZERS (SEMADCO)

♦ EL NASR CO. FOR INTERMEDIATE CHEMEICALS

♦ EVACO

◆ GEBEL EL ZEIT PETROLEUM COMPANY (PETROZEIT)

♦ GEISUM OIL COMPANY (GEISO)

◆ GEMSA PETROLEUM COMPANY (GEMPETCO)

◆ GENERAL PETROLEUM COMPANY (GPC)

◆ GULF OF SUEZ PETROLEUM COMPANY (GUPCO)

♦ HELWAN FERTILIZERS COMPANY

♦ KELLOGG BROWN & ROOT (KBR)

♦ KHALDA PETROLEUM COMPANY (KPC)

♦ KUWAIT OIL COMPANY (KUWAIT) (KOC)

♦ MANTRAC EGYPT

◆ MIDDLE EAST OIL REFINERY (MIDOR)

♦ NILE SUGAR

◆ OFFSHORE SHUKHIER OIL COMPANY (OSOCO)



#### **TE-IMS-700-FM-07T**

- ◆ PETROLEUM PIPELINE COMPANY (PPC)
- ♦ POWER HOUSE COMPANY
- ◆ RAS LANOUF REFINARY (LIBYA)
- ◆ SEAGAS SERVICES COMPANY (SEAGAS)
- ♦ SEREPT COMPANY (TUNISIA)
- ◆ SIDI KERIR PETROCHMICALS COMPANY (SIDPEC)
- ◆ SOUTH DABAA PETROLEUM COMPANY (DAPETCO)
- ♦ SUDANESE HYDROGENERATION COMPANY
- ♦ SUEZ OIL COMPANY (SUCO)
- ♦ THYNA PETROLEUM SERVICES (TUNISIA) (TPS)
- ♦ TSK ELECTRONICA
- ◆ UNITED GAS DERIVATIVES COMPANY (UGDC)
- ◆ UNITED SUGAR COMPANY EGYPT (USCE)



#### **TE-IMS-700-FM-07T**

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
1	Khalda	Khalda	Oil & Gas	X		1	Egypt	92
2	Khalda	Khalda	Oil & Gas	X		13	Egypt	93
3	Agiba	Agiba	Oil & Gas	X		11	Egypt	94
4	Alamal	Alamal	Oil & Gas	X		3	Egypt	94
5	Bapetco	Bapetco	Oil & Gas	X		1	Egypt	94
6	Gupco	Gupco	Oil & Gas	X	X	24	Egypt	94
7	Osoco	Osoco	Oil & Gas	X		4	Egypt	94
8	Suco	Suco	Oil & Gas	X		7	Egypt	94



#### **TE-IMS-700-FM-07T**

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
9	Agiba	Agiba	Oil & Gas	X	X	11	Egypt	95
10	Alamal	Alamal	Oil & Gas	X		3	Egypt	95
11	Bapetco	Bapetco	Oil & Gas	X		2	Egypt	95
12	Geisum	Geisum	Oil & Gas	X		2	Egypt	95
13	Gupco	Gupco	Oil & Gas	X		21	Egypt	95
14	Osoco	Osoco	Oil & Gas	X		2	Egypt	95



**TE-IMS-700-FM-07T** 

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
15	Petrobel	Petrobel	Oil & Gas	X		4	Egypt	95
16	Suco	Suco	Oil & Gas	X		15	Egypt	95
17	Agiba	Agiba	Oil & Gas	X	X	16	Egypt	96
18	Alamal	Alamal	Oil & Gas	X		1	Egypt	96
19	El Gamal	El Gamal	Industrial	X		1	Egypt	96
20	Geisum	Geisum	Oil & Gas	X	X	36	Egypt	96
21	Gupco	Gupco	Oil & Gas	X		23	Egypt	96



### **TE-IMS-700-FM-07T**

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
22	Petrobel	Petrobel	Oil & Gas	X		5	Egypt	96
23	PPC	PPC	Oil & Gas	X		8	Egypt	96
24	Semadco	Semadco	Industrial	X		1	Egypt	96
25	Suco	Suco	Oil & Gas	X		19	Egypt	96
26	Agiba	Agiba	Oil & Gas	X		4	Egypt	97
27	Evaco	Evaco	Oil & Gas	X		2	Egypt	97
28	Geisum	Geisum	Oil & Gas	X		10	Egypt	97



#### **TE-IMS-700-FM-07T**

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
29	Gupco	Gupco	Oil & Gas	X		22	Egypt	97
30	Petrobel	Petrobel	Oil & Gas	X		10	Egypt	97
31	PPC	PPC	Oil & Gas	X		20	Egypt	97
32	Semadco	Semadco	Industrial	X		5	Egypt	97
33	Suco	Suco	Oil & Gas	X	X	24	Egypt	97
34	Agiba	Agiba	Oil & Gas	X	X	33	Egypt	98
35	Bapetco	Bapetco	Oil & Gas	X		4	Egypt	98



**TE-IMS-700-FM-07T** 

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
36	Geisum	Geisum	Oil & Gas	X		8	Egypt	98
37	Gupco	Gupco	Oil & Gas	X	X	33	Egypt	98
38	Petrobel	Petrobel	Oil & Gas	X		14	Egypt	98
39	Suco	Suco	Oil & Gas	X		44	Egypt	98
40	Semadco	Semadco	Industrial	X		1	Egypt	98
41	Agiba	Agiba	Oil & Gas	X	X	22	Egypt	99
42	Geisum	Geisum	Oil & Gas	X		2	Egypt	99



**TE-IMS-700-FM-07T** 

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
43	Gupco	Gupco	Oil & Gas	X		27	Egypt	99
44	Petrobel	Petrobel	Oil & Gas	X		10	Egypt	99
45	Petroziet	Petroziet	Oil & Gas	X		8	Egypt	99
46	Suco	Suco	Oil & Gas	X		16	Egypt	99
47	Woodward	KOC	Oil & Gas		X	20	Kuwait	99
48	Woodward	KOC	Oil & Gas		X	20	Kuwait	99
49	Agiba	Agiba	Oil & Gas	X		3	Egypt	2000



#### **TE-IMS-700-FM-07T**

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
50	Gasco	Gasco	Oil & Gas	X	X	84	Egypt	2000
51	GE	TPS	Oil & Gas		X	7	Tunis	2000
52	Gupco	Gupco	Oil & Gas	X		11	Egypt	2000
53	Petrobel	Petrobel	Oil & Gas	X		1	Egypt	2000
54	Petroziet	Petroziet	Oil & Gas	X		3	Egypt	2000
55	Suco	Suco	Oil & Gas	X		15	Egypt	2000
56	Agiba	Agiba	Oil & Gas	X		2	Egypt	2001



#### **TE-IMS-700-FM-07T**

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
57	Gasco	Gasco	Oil & Gas	X	X	53	Egypt	2001
58	Gupco	Gupco	Oil & Gas	X		8	Egypt	2001
59	Petrobel	Petrobel	Oil & Gas	X		20	Egypt	2001
60	Suco	Suco	Oil & Gas	X		24	Egypt	2001
61	Abu Qir Fertilizer	Abu Qir Fertilizer	Fertilizer & Chemical		X	9	Egypt	2002
62	Agiba	Agiba	Oil & Gas	X		2	Egypt	2002
63	Alamal	Alamal	Oil & Gas	X		5	Egypt	2002
64	Gupco	Gupco	Oil & Gas	X		1	Egypt	2002



#### **TE-IMS-700-FM-07T**

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
65	Petrobel	Petrobel	Oil & Gas	X		8	Egypt	2002
66	Suco	Suco	Oil & Gas	X		17	Egypt	2002
67	Abu Qir Fertilizer	Abu Qir Fertilizer	Fertilizer & Chemical		X	10	Egypt	2003
68	Agiba	Agiba	Oil & Gas	X		1	Egypt	2003
69	Gupco	Gupco	Oil & Gas	X		30	Egypt	2003
70	Petrobel	Petrobel	Oil & Gas	X		7	Egypt	2003
71	Suco	Suco	Oil & Gas	X		7	Egypt	2003
72	Agiba	Agiba	Oil & Gas	X		2	Egypt	2004



#### **TE-IMS-700-FM-07T**

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
73	Dapatco	Dapatco	Oil & Gas	X		9	Egypt	2004
74	GE	TPS	Oil & Gas		X	8	Tunis	2004
75	Khalda	Khalda	Oil & Gas		X	10	Egypt	2004
76	Petrobel	Petrobel	Oil & Gas	X		2	Egypt	2004
77	Petroziet	Petroziet	Oil & Gas	X		1	Egypt	2004
78	Suco	Suco	Oil & Gas	X		9	Egypt	2004
79	Sumed	Sumed	Oil & Gas		X	5	Egypt	2004
80	Abu Qir Fertilizer	Abu Qir Fertilizer	Fertilizer & Chemical	X		3	Egypt	2005



#### **TE-IMS-700-FM-07T**

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
81	Alamal	Alamal	Oil & Gas	X		8	Egypt	2005
82	Arma Food	Arma Food	Food Industries		X	6	Egypt	2005
83	Dapatco	Dapatco	Oil & Gas	X		10	Egypt	2005
84	Gasco	Gasco	Oil & Gas	X		2	Egypt	2005
85	Khalda	Khalda	Oil & Gas		X	20	Egypt	2005
86	Petroziet	Petroziet	Oil & Gas	X		3	Egypt	2005



**TE-IMS-700-FM-07T** 

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
87	PPC	PPC	Oil & Gas	X		4	Egypt	2005
88	Serebt	Serebt	Oil & Gas		X	18	Tunis	2005
89	Suco	Suco	Oil & Gas	X		7	Egypt	2005
90	Agiba	Agiba	Oil & Gas		X	10	Egypt	2006
91	Alamal	Alamal	Oil & Gas	X		9	Egypt	2006
92	Dapatco	Dapatco	Oil & Gas	X		13	Egypt	2006



#### **TE-IMS-700-FM-07T**

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
93	Gasco	Gasco	Oil & Gas	X		7	Egypt	2006
94	Sidi Kerrir	Sidi Kerrir	Oil & Gas	X		2	Egypt	2006
95	Suco	Suco	Oil & Gas	X		5	Egypt	2006
96	Total	Ras Lanouf Refinery, Libya	Oil & Gas		X	7	Egypt	2006
97	United Gas Derivatives	United Gas Derivatives	Oil & Gas	X		2	Egypt	2006
98	Alamal	Alamal	Oil & Gas	X		1	Egypt	2007



#### **TE-IMS-700-FM-07T**

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
99	Alexandria Fertilizers Company	Alexandria Fertilizers Company	Fertilizer & Chemical	X		3	Egypt	2007
100	Gasco	Gasco	Oil & Gas	X		13	Egypt	2007
101	Helwan Fertilizers Company	Helwan Fertilizers Company	Fertilizer & Chemical	X		5	Egypt	2007
102	Kellogg Brown & Root	Kellogg Brown & Root	Engineering	X		1	Egypt	2007
103	Khalda	Khalda	Oil & Gas		X	31	Egypt	2007
104	Petrobel	Petrobel	Oil & Gas		X	9	Egypt	2007



#### **TE-IMS-700-FM-07T**

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
105	Suco	Suco	Oil & Gas	X		15	Egypt	2007
106	Alexandria Fertilizers Company	Alexandria Fertilizers Company	Fertilizer & Chemical	X		3	Egypt	2008
107	CB&I Lummus	CB&I Lummus	Engineering	X		27	Egypt	2008
108	Dapatco	Dapatco	Oil & Gas	X		2	Egypt	2008
109	Gasco	Gasco	Oil & Gas	X		4	Egypt	2008
110	Khalda	Khalda	Oil & Gas		X	16	Egypt	2008



#### **TE-IMS-700-FM-07T**

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
111	Suco	Suco	Oil & Gas	X		29	Egypt	2008
112	United Gas Derivatives	United Gas Derivatives	Oil & Gas	X		2	Egypt	2008
113	Upper Egypt Electricity Production	El Korimat Station	Utilities	X		4	Egypt	2008
114	Agiba	Agiba	Oil & Gas	X		6	Egypt	2009
115	CB&I Lummus	CB&I Lummus	Engineering	X		16	Egypt	2009
116	Dapatco	Dapatco	Oil & Gas	X		3	Egypt	2009



#### **TE-IMS-700-FM-07T**

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
117	Egyptian Liquefaction Natural Gas	Egyptian Liquefaction Natural Gas	Oil & Gas	X		3	Egypt	2009
118	Gupco	Gupco	Oil & Gas		X	6	Egypt	2009
119	Suco	Suco	Oil & Gas	X		2	Egypt	2009
120	United Gas Derivatives	United Gas Derivatives	Oil & Gas	X		1	Egypt	2009
121	CB&I Lummus	CB&I Lummus	Engineering	X		9	Egypt	2010
122	Egypt Basic Industries Corporation (EBIC)	Egypt Basic Industries Corporation (EBIC)	Fertilizer & Chemical	X		4	Egypt	2010



#### **TE-IMS-700-FM-07T**

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
123	Egyptian Liquefaction Natural Gas (ELNG)	Egyptian Liquefaction Natural Gas (ELNG)	Oil & Gas	X		2	Egypt	2010
124	Gemsa	Gemsa	Oil & Gas		X	23	Egypt	2010
125	Khalda	Khalda	Oil & Gas		X	15	Egypt	2010
126	Suco	Suco	Oil & Gas	X		12	Egypt	2010
127	Suez Oil Processing	Suez Oil Processing	Oil & Gas	X		1	Egypt	2010
128	Abu Qir Fertilizer	Abu Qir Fertilizer	Fertilizer & Chemical	X		38	Egypt	2011
129	Egyptian Liquefaction Natural Gas (ELNG)	Egyptian Liquefaction Natural Gas (ELNG)	Oil & Gas			1	Egypt	2011



#### **TE-IMS-700-FM-07T**

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
130	Suco	Suco	Oil & Gas	X		7	Egypt	2011
131	United Gas Derivatives	United Gas Derivatives	Oil & Gas	X		1	Egypt	2011
132	Abu Qir Fertilizer	Abu Qir Fertilizer	Fertilizer & Chemical	X		9	Egypt	2012
133	Arma Food Industries	Arma Food Industries	Food Industries	X		2	Egypt	2012
134	Ecumed Petroleum	Ecumed Petroleum	Oil & Gas	X		1	Egypt	2012
135	Gasco	Gasco	Oil & Gas	X		9	Egypt	2012



#### **TE-IMS-700-FM-07T**

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
136	Khalda	Khalda	Oil & Gas		X	44	Egypt	2012
137	Suco	Suco	Oil & Gas	X		2	Egypt	2012
138	United Gas Derivatives	United Gas Derivatives	Oil & Gas	X		4	Egypt	2012
139	Abu Qir Fertilizers	Abu Qir Fertilizers	Fertilizer & Chemical	X		37	Egypt	2013
140	Abu Qir Petroleum	Abu Qir Petroleum	Oil & Gas	X		10	Egypt	2013
141	Agiba	Agiba	Oil & Gas	X		2	Egypt	2013
142	CB&I Lummus	CB&I Lummus	Engineering	X		6	Egypt	2013



#### **TE-IMS-700-FM-07T**

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
143	General Petroleum	General Petroleum	Oil & Gas		X	10	Egypt	2013
144	Khalda	Khalda	Oil & Gas		X	18	Egypt	2013
145	Suco	Suco	Oil & Gas	X		3	Egypt	2013
146	Abu Qir Fertilizers	Abu Qir Fertilizers	Fertilizer & Chemical	X		15	Egypt	2014
147	Apache	Apache	Oil & Gas		X	4	Egypt	2014
148	El Nasr Co. for Intermediate Chemeicals	El Nasr Co. for Intermediate Chemeicals	Chemeicals	X		1	Egypt	2014
149	Gasco	Gasco	Oil & Gas	X		2	Egypt	2014



#### **TE-IMS-700-FM-07T**

Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
150	Gemsa	Gemsa	Oil & Gas		X	5	Egypt	2014
151	Suco	Suco	Oil & Gas	X		5	Egypt	2014
152	United Sugar Company Egypt- Savola Group	United Sugar Company Egypt- Savola Group	Food		X	16	Egypt	2014
153	Abu Qir Fertilizers	Abu Qir Fertilizers	Fertilizer & Chemical	X		9	Egypt	2015
154	Bapetco	Bapetco	Oil & Gas		X	4	Egypt	2015
155	Eprom	Eprom	Oil & Gas	X		39	Egypt	2015
156	Gupco	Gupco	Oil & Gas		X	20	Egypt	2015



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Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
157	Khalda	Khalda	Oil & Gas	X		20	Egypt	2015
158	Middle East Oil Refinery (Midor)	Middle East Oil Refinery (Midor)	Oil & Gas	X		6	Egypt	2015
159	Petrobel	Petrobel	Oil & Gas		X	10	Egypt	2015
160	Power House	Power House	APC	X		2	Egypt	2015
161	Abu Qir Fertilizers	Abu Qir Fertilizers	Fertilizer & Chemical	X		7	Egypt	2016
162	Alexandria Sugar Company Savola Group	Alexandria Sugar Company Savola Group	Food	X		6	Egypt	2016
163	Eprom	Eprom	Oil & Gas	X		54	Egypt	2016



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Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
164	SEAGAS Services	SEAGAS Services	Oil & Gas	X		6	Egypt	2016
165	TSK Grupo	East Delta Electricity Production (Sharm & Hurgada Power Stations	Utilities		X	27	Egypt	2016
166	Eprom	Eprom	Oil & Gas	X		14	Egypt	2017
167	Gasco	Gasco	Oil & Gas		X	5	Egypt	2017
168	Xceltra	Sudanese Hydro Generation Company	Utilities		X	3	Egypt	2017



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Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
169	Nile Sugar	Nile Sugar	Food	X		4	Egypt	2018
170	Khalda	Khalda	Oil & Gas	X		6	Egypt	2018
171	Eprom	Eprom	Oil & Gas	X		12	Egypt	2018
172	Birla Carbon Egypt	Birla Carbon Egypt	Petrochemical	X		4	Egypt	2019
173	Eprom	Eprom	Oil & Gas	X		12	Egypt	2019
174	Mantrac Egypt	Mantrac Egypt	Engine Manufacturer		X	3	Egypt	2019
175	Eprom	Eprom	Oil & Gas	X		5	Egypt	2020
176	Eprom	Eprom	Oil & Gas	X		10	Egypt	2021
177	Eprom	Eprom	Oil & Gas	X		11	Egypt	2022



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Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
178	Alexandria Petroleum Maintenance	GPC	Oil & Gas	X		16	Egypt	2022
179	Gasco	Gasco	Oil & Gas		X	4	Egypt	2022
180	Eprom/Midor	Eprom/Midor	Oil & Gas		X	4	Egypt	2023
181	Eprom	Eprom	Oil & Gas	X		10	Egypt	2023
182	Морсо	Морсо		X		6	Egypt	2023
183	Gemsa	Gemsa	Oil & Gas		X	7	Egypt	2024
184	Eprom/Midor	Eprom/Midor	Oil & Gas		X	8	Egypt	2024
185	Suco	Suco	Oil & Gas		X	5	Egypt	2024



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Item	Client	End user name	Industry	Training Type		# of Trainees	Country	Year
				Standard	Tailored			
186	Petrobel	Petrobel	Oil & Gas	X		16	Egypt	2025
187	Eprom/Midor	Eprom/Midor	Oil & Gas	X		5	Egypt	2025