

## A TRAINING PROPOSAL



## OIL AND GAS TRAINING FOR CAPACITY DEVELOPMENT

**PIPELINE & PROCESS ENGINEERING  
LEAK DETECTION TECHNOLOGIES  
AND ENVIRONMENTAL SUSTAINABILITY**

  
**SyntexAcad**

Syntexacad Training Solutions ...creating partnership

4 Kanike close off Awolowo Road, S/W Ikoyi, Lagos Nigeria  
Tel: +234 8033416316 | Email: [syntechsysworld@gmail.com](mailto:syntechsysworld@gmail.com)  
Website: [www.syntechsys.com](http://www.syntechsys.com)

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 **Syntechsys**<sup>™</sup>  
global network



	2:30-5:30	Class 3	Class 1	Class 2
	5:30-6:00	Evaluation		

#### 4.1 COST OF TRAINING PROGRAMME PER PERSON

ITEM S	COST/RATE PER PERSON (₦)
Training Facilitators	N250,000.00
Accommodation	N100,000.00
Feeding	N50,000.00
Training Fee	N100,000.00
Training Kit	N20,000.00
Instructional Materials	N30,000.00
Participant Fee	N50,000.00
Tea Break	N10,000.00
<b>TOTAL AMOUNT</b>	<b>N610,000.00</b>
<b>GRAND TOTAL (50)</b>	<b>N30,500,000.00</b>

**COST OF TRAINING:  
THIRTY MILLION FIVE HUNDRED THOUSAND NAIRA**

**PAYMENTS SHOULD BE MADE TO GTB**

**ACCOUNT NAME: SYNTECHSYS INTERNATIONAL LIMITED**

**ACCOUNT NUMBER: 0001339049**

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1.0 EXECUTIVE SUMMARY

Syntechsyst International is providing a training program on basic introduction to Oil and Gas, specialized courses on pipeline leak detection, environmental waste management, fate and effects on environmental modeling.

The company aims at delivering excellent training based on standards that provide knowledge, ideas and exposure to young graduates and professionals required for creating an environment for growth, sustainability and profitability in the oil and gas industry.

1.1 COMPANY’S PROFILE

Syntechsyst International, started in March, 2003, is a technical company that provides onshore and offshore pipeline technology services as well as production facilities services solutions to the energy and process companies in Nigeria and globally. The company also offers training programs and seminars for medium to large sized corporations. Its mission is to deliver excellent services and products based on standards in the petroleum industry as a technical consultant. Syntechsyst offers strategic advantages over most indigenous oil and gas firms through its services from indigenous skilled researchers, engineers, and workable synergies with partners in the oil and gas industry and reposing confidence in our business associates, communities, and creating an environment for profitability, growth and sustainability.

4.0 TRAINING SCHEDULE

INTRODUCTION TO OIL AND GAS				
Day 1		Oil & Gas Overview	Pipeline Engineering Overview	Process Engineering Overview
	7:30-10:30	Class 1	Class 2	Class 3
	10:30-10:45	Coffee/Tea Break		
Day 2	10:45-1:45	Class 2	Class 3	Class 1
	1:45-2:30pm	Lunch Break		
	2:30-5:30	Class 3	Class 1	Class 2
Day 2				
	5:30-6:00	Evaluation		
		SPECIALIZATION IN OIL AND GAS		
		Civil/Structural Engineering	Instrumentation and Control	Mechanical Engineering
Day 2	7:30-10:30	Class 1	Class 2	Class 3
	10:30-10:45	Coffee/Tea Break		
	10:45-1:45	Class 2	Class 3	Class 1
Day 2				
	1:45-2:30pm	Lunch Break		
	2:30-5:30	Class 3	Class 1	Class 2
Day 4	5:30-6:00	Evaluation		
		LEAK DETECTION MODELLING		
		Petroleum Economics	Electrical Engineering	Leak Detection & HSE
	7:30-10:30	Class 1	Class 2	Class 3
Day 4				
	10:30-10:45	Coffee/Tea Break		
	10:45-1:45	Class 2	Class 3	Class 1
Day 5	1:45-2:30pm	Lunch Break		

- Exploration and Production LifeCycle
  - Natural Gas Operations
  - Pipeline/Production Platforms and Operations
  - Drilling/ Pipelines Facilities Maintenance
- b. Petroleum Economics (DAY 2)
  - q Overview of Oil and Gas Operation
  - q Oil and Gas Monetization Policy
  - q Joint Venture Agreement
  - q Overview of Oil and Gas Operations (oil and gas value chains)
  - q Oil and Gas Exploration Economics
  - q Oil and Gas Refinery Downstream Operations Economics
  - q Natural Gas Investments (LNG, GTL e.tc)
- c. Health, Safety and Environment (DAY 3)
  - q Chemical Safety and Handling of Hazardous Materials
  - q Basic Fire Fighting
  - q Personal Protective Equipment (PPE)
  - q First Aid and Cardio Pulmonary Resuscitation CPR
  - q Emergency Response/Preparedness
  - q Risk Assessment/Management
  - q Accident Investigation
- d. Training & Competence Development 1(DAY 4)
  - q Technical Operation Documentation
  - q Preparation for Operation
  - q Computer Based Training
  - q Emergency Preparedness Course
  - q Competence Verification
  - q Verification of Procedures
- e. Training & Competence Development 1I(DAY 5)
  - q Testing/modification of control logic
  - q Process Optimization
  - q Simulator Specification
  - q Manning Study & Evaluation
  - q Documentation Requirement
  - q Set up preparation and planning
  - q Offshore Safety Operations

## 1.2 MISSION

Our mission is to provide training programmes to foster knowledge, ideas and exposure in young graduates and professionals required for creating an environment for growth, sustainability and profitability in medium to large size oil and gas companies

## 1.3 THE COMPANY

The Company Syntechsyst International is a Nigerian Company which was formed in March 2003 under its original corporate name at CAC

**1. OFFICE OF THE COMPANY.** The Company's business office is located at 4 Kanike Close, off Awolowo Rd, S.W Ikoyi, Lagos, Nigeria

**2. PRIMARY CONTACT: DR KINGSLEY ABHULIMEN**

Tel No: 2348033416316  
syntechsystworld@gmail.com  
syntexacad@gmail.com



## 2.0 OBJECTIVES AND BENEFITS OF SYNTECHSYS TRAINING PROGRAMMES

The objective of the training programme is to support our client manpower development needs vide:

1. Pipeline Engineering programmes for sustainable development for oil and gas flow assurance
2. Providing training that aligns with the master plans and schemes to promote capacity development for graduate trainee, fostering the implementation of all measures approved for the development of participants in line with the Nigerian Oil and Gas Content Development programmes to actualize the vision that builds a sustainable future.
3. Create employment for young graduates in the Oil and Gas industry through the skill acquisitions in the Oil and Gas Sector.
4. The training addresses the need requirements associated with oil and gas operations affecting the development and sustain ability off the Niger Delta and member states where Oil/Gas operators have their business and ensure sound and efficient management of resources of the Niger Delta region.

### SYNTECHSYS

#### OIL AND GAS CAPACITY TRAINING PROGRAMME

REGISTRATION FOR THIS COURSE CLOSSES TWO WEEKS BEFORE THE DATE OF THE PROGRAMME

ALL REGISTRATIONS AND PAYMENTS MADE ON OR BEFORE 30 DAYS TO PROGRAMME DATE WILL ATTRACT 5% DISCOUNT

WE ALSO RUN IN-HOUSE PROGRAMMES ON THIS COURSE

#### COURSE FACILITATOR:

**Dr Agbim**

**Dr. Kingsley Abhulimen**

Department of Chemical Engineering, University of Lagos  
Hommatson Ltd.

#### INTRODUCTION TO OIL AND GAS FOR WHOM:

1. BSc/HND graduates looking for employment
2. Oil and Gas Companies workers who are in non essential duties
3. Oil and Gas Service Contractors

Date: 2015

Location: Lagos, Nigeria

#### A 5 days training on Oil and Gas with case studies

##### Course Content

- a. The Oil Industry Overview (DAY 1)
    - Generic Hydrocarbon Schematic
    - Oil Industry Maze
    - Oil and Gas Joint Venture/PSC Agreements
    - Oil and Gas Industry Value Chain
- q Upstream  
q Downstream  
q Midstream

Tool and Technics and Their Application.

Introduction to earned value analysis

QA/QC and Projects

### 3.8 PROCESS ENGINEERING

Overview of Industry and role of Process Engineer in various fields.

Basic design requirement based on the type of plant/project.

Overview of Basic Design Package.

Introduction to BFD, PFD,P&ID and PDS of equipment's.

### 3.9 MECHANICAL ENGINEERING

Overview of Industry and role of Process Equipment Designer in various fields.

Basic Design requirement based on the type of plant /Project.

Overview of PFD,P&ID and Process Data

### 3.10 PIPELINE ENGINEERING

Pipeline basis

Pipeline Hydraulic Design

Pipeline fittings, Valves and Components

Pipeline Leak Detection

HSE

### 3.11 PROGRAMME FACILITATORS

The programme would be facilitated by Syntechsystm representatives

- Dr. Kingsley Abhulimen(Leak Detection Modeling)
- Dr Arinze Agbim (Oil and Gas Overview/Petroleum Economics)
- Department of Chemical Engineering, Unilag (Pipeline Engineering)
- Hommaston Limited's Facilitators (Oil & Gas Discipline Training)
- Tracs International/Riqserve (Petroleum Production)

Leak detection courses of the training that are relevant in tackling ecological and environmental problems that arise from operations particularly oil spillages due to leaks in pipeline systems in the Niger Delta region.

## 3.0 SYNTECHSYS TRAINING COURSES

The following courses key to the success of any engineering oil and gas industry have been designed to help young graduates and professionals in creating an environment for growth, sustainability and profitability.

### 3.1 LEAK DETECTION MODELLING

Modeling of a real time leak detection systems.

Communication system (e.g. SCADA).

Simulation of real time leak detection systems.

### 3.2 PETROLEUM ECONOMICS

The Role of Petroleum Economics

Development Economics

Exploration Economics

Economics of Incremental Projects

### 3.3 CIVIL/ STRUCTURAL ENGINEERING

Role of the structural engineer on offshore and onshore facilities.

Introduction to onshore and offshores.

Writing analysis reports.

Jacket (facility) integrity assessment

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### Discipline Definition

Design Project Overview

Structural project scope

Project types brownfield and green field

Discipline deliverables

Typical structural engineering activities on projects, design drafting deliverables identification and classification,

Identification of types of structural design deliverable, reference document and software, applicable codes. Installation procedure, Structural engineering functions in oil and Gas.

### 3.4 INSTRUMENTATION AND CONTROL

Definition,

Well stream controls,

Instrumentation Design Components, Instrumentation Deliverable and symbol,

Basic Process control

Process Variables,

Control Systems fundamental,

Control types and classification.

Controls systems on offshore platform, interpreting control logic,

Instrumentation Terminologies and definition

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### 3.5 ELECTRICAL ENGINEERING

Electrical systems design

Design Procedure

General one line electrical diagrams for electrical distribution

Electrical loading, Types of Systems,

Design Criteria, Introduction to Electrical MTO.

Required software and Codes.

### 3.6 HEALTH SAFETY AND ENVIRONMENT

HSE definition and basics

Benefits of HSE program.

Management commitment and Employee involvement.

Policy and Goals.

Basic Hazard Identification skills and JSA analysis, Ergonomics and RSI prevention

Hazard prevention and Control systems and methods,

### 3.7 PROJECT ENGINEERING

Career definition and basics,

Benefits of Project management on oil and gas projects.

Management commitment and Employee involvement introduction to conceptual design

Process and Knowledge Area.