# DUNKERQUE LNG DUNKERQUE LNG IMPORT TERMINAL DUNKERQUE, FRANCE

LNG Send-out capacity design:

6.5 MTPA

Vaporizers:

8 ORVs

Tanks:

3 x190,000 m3 (9%Ni Full Containment Tanks)

Contract:

Lumpsum FEED + technical Assistance during

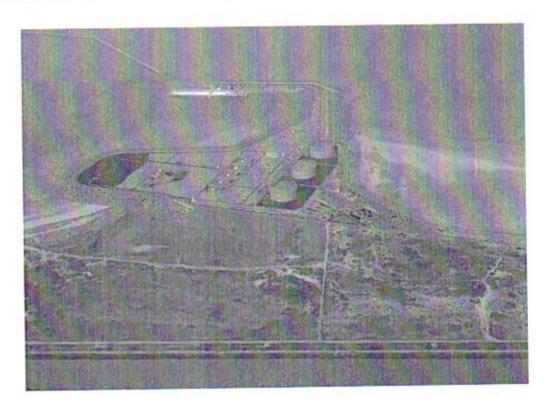
construction and commissionning

Subcontractor:

ARTELIA (Marine Studies)

Finished in 2010

Open Rack Vaporizers supplied with warm water taken from nearby nuclear power plant and transported to site through a 5 km underground tunnel.





# KLAIPEDOS NAFTA KLAIPEDA LNG Reloading Station for ships & trucks KLAIPEDA, LITHUANIA

LNG Send-out capacity design: 0.4 MTPA

## Project description:

- Unloading of LNG carriers from 1,400 m3 up to 25,000 m3 in capacity with LNG arms and transfer lines at a maximum flowrate of 1000 m3/h.
- Storage of LNG in Horizontal Pressurized Vessels 1000 m3 net each
- LNG truck loading facilities from 250 000 to 500 000 m3/year
- LNG ship bunkering facilities at a maximum flowrate of 500 m3/h
- Fuel gas production for local purposes using Boil Off Gas or LNG vaporizers

#### Scope of work:

The engineering services were split into several different tasks:

- Task I Technological Design Concept Study and preliminary budget cost estimates
- Task II Front End Engineering Design (FEED), Quantitative Risk Assessment, CAPEX and OPEX estimates, implementation schedule, project risks analysis
- Task III EIA screening and amendment of the detailed plan
- Task IV Additional consultations



# SUNAGAS SUDAN LNG TERMINAL PORT SUDAN, SUDAN

LNG Send-out capacity design:

5 MTPA

Project

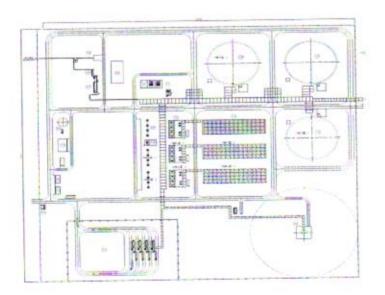
description:

# Feasibility study - 2014

- technology comparaison analysis for vaporization type, storage tanks ( membrane Vs full containment), onshore/offshore terminal
- Preliminary Layout and PFDs
- CAPEX/OPEX cost estimate

#### FEED study 2016 - ongoing

Based on onshore terminal, with ORV vaporisation





# HAZIRA LNG HAZIRA LNG TERMINAL HAZIRA, INDIA

#### **EPC PHASE**

Client	SHELL
Location	Gulf of Khambat, Gujarat (India)
Contract Period	2002 - 2005
Contract Amount	USD 250 million
	SOFREGAZ in partnership with TECNIMONT and SN TECHNIGAZ

Project Description:

- 2 x 160,000 m<sup>3</sup> full containment LNG tanks
- One jetty for 135,000 m<sup>3</sup> LNG carriers,
- 2 MTA vaporization facilities

# EXPANSION PHASE STUDY

## Project description:

The construction of HAZIRA LNG Terminal was achieved in 2005 with a Vaporization and Send-out capacity of 3 MTPA.

The first expansion project was achieved in 2013 and consists in increasing the vaporization and send-out capacity up to 5 MTPA.

The current expansion project consists in increasing the vaporization and send-out capacity up to 7 MTPA and prepares future expansion up to 10 MTPA.

## Scope of work:

Identification of Operating Cases that governs the design of the expansion

Key Studies Report

These studies consist in an analysis of different areas of concern with identification of maximum capacity and debottlenecking alternatives

Basis of Design

This study consist in integration of previous result in order to serve as input for the FEED Contractor

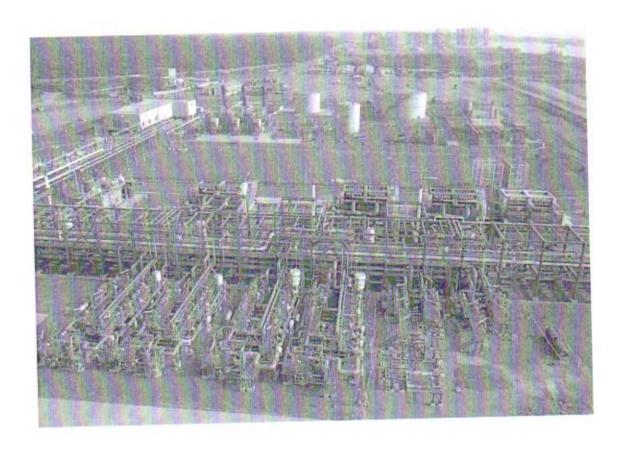
Expansion Strategy



Construction strategy to be implemented in order to minimize interference during construction works and reduce plant shut-down requirement for tie-ins

Cost Estimate

+/- 30 % accuracy for the EPC phase.



# SABETTA PORT

# Technical evaluation of quay wall design

Ramboll has performed a technical evaluation of a new port at Sabetta on Yamal Peninsula in northern Russia. The port will provide berth, manufacturing and storage facilities for construction and maintenance of the planned Yamal LNG field.

The total length of the berth is approximately 750m and a water depth of 13m. The quay structures and the pavement are designed for loads from heavy duty mobile cranes and SPMTs handling heavy modules for the offshore structures.

The technical evaluation was carried as a third party check based on Eurocode. The current design was based on Russian codes. The review was carried out due to challenging site conditions combined with limited specific site investigations and a tight time schedule.

The evaluation included:

- Review of metocean data.
- Evaluation of geotechnical conditions and properties based on present soil investigations.
- Assessment of the proposed pavement design.
- Evaluation of the stability and capacity of the main structural elements in the proposed design including assessment of settlements and deformations of apron and quay structures.

# Project countries Russian Federation

Customer

LLC MRTS Engineering

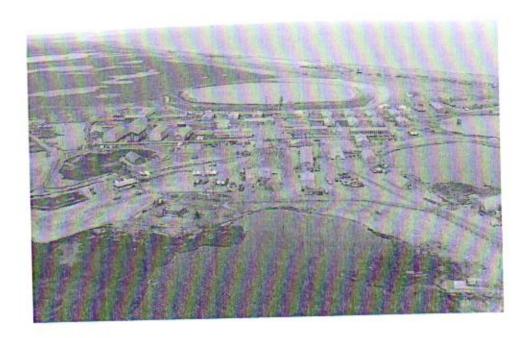
Location

Sabetta, Yamal Peninsula

Period 2012

Services provided

Technical evalution of quay and pavement design



# PORT OF BEIRUT, QUAY 12-14 - DETAILED DESIGN

The Port of Beirut has been rebuilt a number of times to accommodate for the growing sizes of modern container vessels. Expansion is crucial to ensure that the harbour can accommodate for the largest container vessels.

Ramboll has been responsible for all design works related to the expansion of the new Quay 12-14 – including the construction of a new 500 m complicated deep water block quay wall, dredging works in front of the new quay wall to ensure a water depth of 15.5 m, reclamation of the old harbour basin to make space for an additional 20 hectares container terminal, as well as new fenders, bollards, crane rails, pavements.

Ramboll has prepared detailed design for the Contractor Pihl Hourie / Aarsleff Lebanon, and participated in the Approval proces with Port of Beirut.

#### Services provided

Detailed Design of marine structures:

- new 500 m deep water block quay wall
- dredging works in front of the new quay wall to water depth of 15.5 m
- reclamation works (approx.
   2 million m3)
- fenders, bollards, crane rails
- pavements (20 hectares container terminal)

#### CUSTOMER

Aarsleff Lebanon (Branch of Per Aarsleff A/S)

#### LOCATION

Beirut

#### PERIOD

2013-2014

#### PROJECT BUDGET

420,000 EUR

# OVERALL PROJECT VALUE

120,000,000 EUR

IMAGE Port of Beirut, View to existing Quay 16 which will connect to the new Quay 12-14



TRANSPORT

# Value added for the customer

Design services were delivered at a tight schedule, before the arrival of the cutter suction dredger and production of the large number of 100 t concrete blocks.

Ramboll assisted during the approval process ensuring a smooth process, so that the time schedule was met for satisfaction of all parties.

#### Project countries Lebanon



IMAGE
Port of Belrut, new Quay 12-14, Project Site.

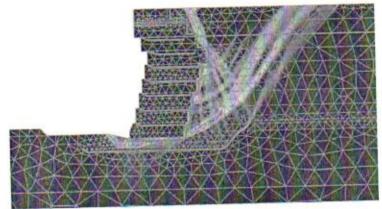
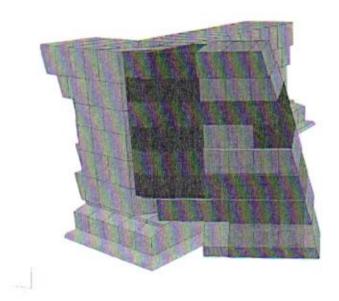


IMAGE Port of Beirut, new Quay 12-14, Stability Analysis.



tMAGE
Port of Bairut, new Quay 13-14, 3D modelling of block structure (corner detail).

# FUJAIRAH 2040 MASTER PLAN PORT REVIEW

Ramboll is preaparing a Master Plan for the Emirate of Fujairah (UAE).

Port of Fujairah includes one of the worlds largest oil terminals, and is the second largest bunkering port in the world. The port also contains a dry bulk terminal for export of aggregates and armour rock from the many quarries in the Emirate, a Marine services terminal, a container terminal and general cargo terminal.

Etihad Rail is planning to connect the port directly to the national rail system, improving the conditions and potential for increased export of especially aggregates and containers.

A specific Port Review has been prepared, elaborating on existing port facilities, potential strategic developments and suggestions for port expansions and reservation of land.

#### Services provided

Economic Review,
Demand and cargo forecasts,
Stakeholder meetings,
Mapping of existing port facilities,
Projection of required future port
facilities and infrastructure,
Port Expansion Plans

# Project countries

United Arab Emirates

#### CUSTOMER

Government of Fujairah LOCATION Fujairah (UAE) PERIOD 2013-2014

PROJECT BUDGET

IMAGE Port of Fujairan, Main Entrance



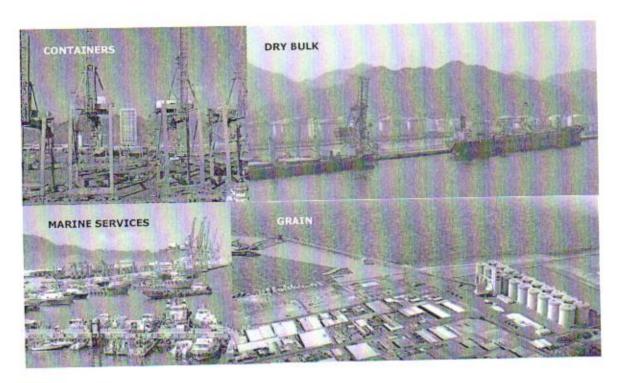


IMAGE Port of Fujairah, Existing port facilities

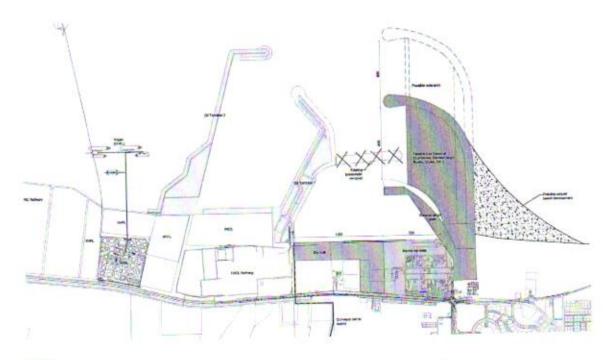


IMAGE
Port of Fujairah, Proposed Port Expansion

# SKÆRBÆK (DENMARK), LPG LOADING JETTY - LOCATION STUDY AND CONCEPTUAL LAYOUT

DONG Oil Pipe A/S intends to establish a new LPG loading facility in Port of Skærbæk. The LPG is a byproduct from the process of stabilizing incoming "live crude oil" from the Danish North Sea offshore oil fields.

Ramboll has performed a location study in order to determine the optimum location and layout of the loading jetty.

The location study includes a brief analysis of design vessels, maneuvering and navigational conditions, wind and wave conditions and a description of the possible berthing structures.

Finally, the analysis lead to a cost estimate and a simple SWOT-analysis describing the strengths, weaknesses, opportunities and threats related

to the different location possibilities.

The existing users, geotechnical conditions, social impact, environmental and archaeological constraints etc. have been analyzed and taken into account.

Draft Layouts of the different locations were presented. Finally a cost estimate for the different locations has been prepared.

CUSTOMER

DONG Oil Pipe A/S

LOCATION

Port of Skærbæk

PERIOD

2014

PROJECT BUDGET

150,000 DKK

20,000 EUR

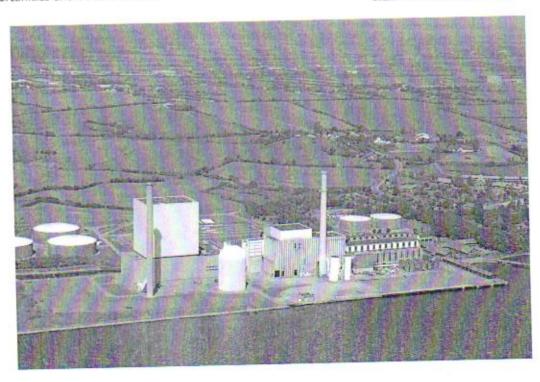
OVERALL PROJECT VALUE

10,000,000 EUR

PROJECT COUNTRIES

Denmark

IMAGE Port of Skierbæk. Location for new LPG loading facility



#### Value added for the customer

The Port Location Study will be incorporated by DONG Oil Pile into the FEED report for the entire Crude Oil process installations.

Together with an EIA and the cost estimate, the study is included in the FEED report.

#### Services provided

Port Location Study including: Capacity evaluations and functional planning.

#### Assessments of

- Coastal hydraulic conditions,
- Maneuvering and navigation conditions,
- Land use constraints,
- Geotechnical conditions,
- Archaeological constraints,
- Environmental considerations,
- Social Impact etc.

Identification of Three potential Port Locations.

SWOT Analysis.

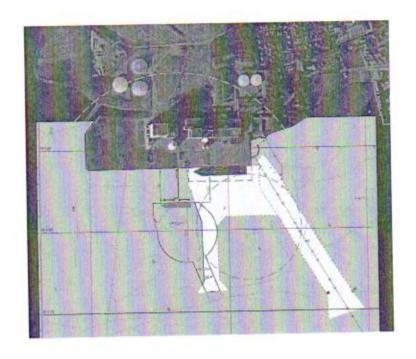


IMAGE Location Study - Evaluation of maneuvering and berthing conditions

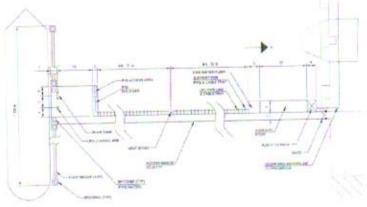


IMAGE
Preliminary Layout of the new LPG Loading Facilities

# ASNÆS OIL TERMINAL (DENMARK) -REHABILITATION OF OIL QUAY

The Oil Quay in the Asnaes Oil Terminal is operated by Inter Terminals.

The Oil Pier is originally built in 1956 and consists of a 200 m quay and 3 berthing dolphins (built in 1972). Water depth at the quay is 9,5 m.

Inter Terminals are planning for berthing of larger oil tankers with required draught of 12 m.

Thus, deepening of the harbour basin and fairway is required.

Ramboll are carrying out the port planning and design for an upgrade of Asnaes Oil Terminal.

The investigation and design works includes:

- Investigation of the general conditions of the quay walls, dolphins and a loading platform
- Stability calculations of the quay structures in order to determine the achievable deepening in front of the Oil Terminal to increase the draught
- Planning and Design of rehabilitation of 200 m quay
- Design of Quick Release
   Mooring Hooks including new reinforced concrete foundations
- Design of new fenders
- Dredging and related environmental investigations

#### CUSTOMER

Inter Terminals

#### LOCATION

Zealand, Denmark

#### PERIOD

2014-2015

#### SERVICES PROVIDED

Ports and marine structures, Special Inspections, Planning and design of rehabilitation works, Planning and design of deepening of harbour basin and fairway, environmental services

#### PROJECT BUDGET

145.000 EUR



# STIGSNAES GULF HARBOUR, OIL TERMINAL (DENMARK) - REHABILITATION OF OIL PIER

The Oil Pier in the Stigsnaes Gulf Harbor Oil Terminal is operated by Inter Terminals.

The Oil Pier is originally built in 1964 and consists of a 220 m access pier and 500 m berthing pier with 2 pier heads and dolphins. Water depth at the pier head is 12-16 m.

Ramboll has carried out site investigations of the deep water pier, in order to determine the optimum maintenance strategy.

The engineering works included site inspections, analysis of concrete cores, bearing capacity calculations of critical reinforced concrete beams, rehabilitation proposals for beams, concrete

piles and dolphins including construction cost estimates.

Upgrade of fender systems is also a part of the project (at quay no. 2).

#### CUSTOMER

Inter Terminals

#### LOCATION

Zealand, Denmark

#### PERIOD

2014-2015

#### SERVICES PROVIDED

Ports and marine structures, Special Inspections, conceptual design of rehabilitation works

#### PROJECT BUDGET

145.000 EUR



# NEW CONTAINER TERMINAL, NUUK (DESIGN AND BUILD)

This project concerns the construction of a new container terminal built on greenfield land to the east of the city of Nuuk. The container terminal covers an area of 60.000 m<sup>2</sup>, and will fit 600 TEU container ground slots and 100 FEU ground slots for reefer containers.

The container terminal will have a main quay with 13.0 m water depth and a length of 310 m, and a secondary quay with 8.0 m water depth and a length of 50 m. The quay wall consists of steel sheet pile walls anchored in two levels, topped with a concrete capping beam.

The terminal will contain all necessary quay equipment for container handling including fenders, bollards, lighting, rescue posts etc. The quay wall is designed so that reinforcement, allowing for future STS-crane operations, is possible.

The seabed in the future terminal area varies but is located as low as level -13.0 whereas rock surface on the land side is located as high as level +20.0. Hence, the part of the terminal area built in water is filled with crushed rock produced from rock blasted above level +3.6 m.

To minimize the need of sheet pile walls, revetments are introduced along quay stretches where mooring is not possible. CUSTOMER

Per Aarsleff A/S

LOCATION

Nuuk, Greenland

PROJECT COUNTRIES

Denmark

PERIOD

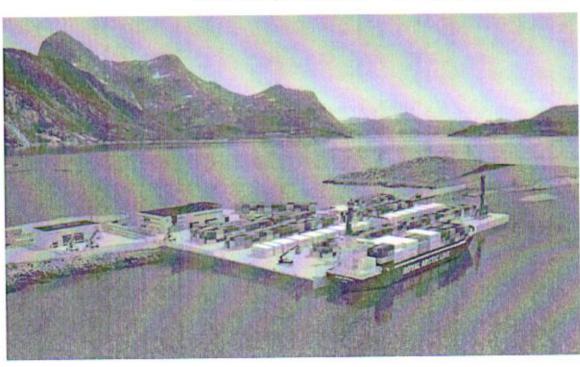
2014-2015

PROJECT BUDGET 1,300,000 EUR

OVERALL PROJECT VALUE

55,000,000 EUR

IMAGE
Visualisation of the new container terminal



#### TRANSPORT

# RAMBOLL

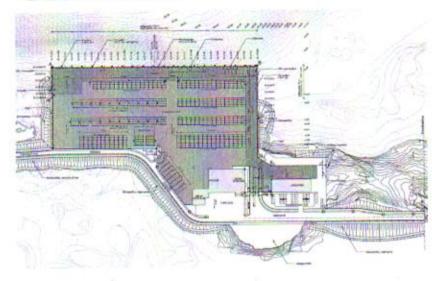
#### Services provided

Ramboll has filled the role of technical advisor for the Danish contractor Per Aarsleff A/S, who won the tender for the Design and Built contract based on Ramboll's Tender Design.
Ramboll has thus been responsible for the complete detailed technical design of the entire new terminal, including:

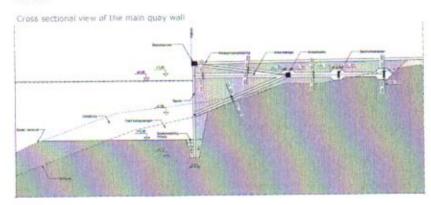
- On-land and underwater blasting and dredging
- Engineering of crushed rock fill and backfilling requirements
- Analysis of possible load scenarios in order to determine the governing load scenario for the quay wall design
- Design of steel sheet piles supported in multiple anchor levels, incl. assessments of sheet pile deformations
- Design of sheet pile anchoring, incl. wailing, tie rods and anchor plates
- Design of concrete anchor beam and capping beam capable of redistributing bollard forces
- Design of separate foundations for 200 t storm bollards and other quay equipment
- Design of scour protection and revetments
- Setting up a full 3D-model of the container terminal incl. blasting and filling levels, quay walls and anchoring, scour protection, revetments, access roads, pavements etc.

#### IMAGE

Plan view of the new container terminal



#### IMAGE



# FEASIBILITY STUDY AND PRELIMINARY DESIGN FOR GSEZ MINERAL TERMINAL, FISHING TERMINAL AND SHIP REPAIR YARD (GABON)

As a part of major initiative to propel the economic growth in Gabon, the Republic of Gabon has aggressively been working on the improvement of the import and export capabilities of the seaports along the coast.

In order to overcome logistic limitations and constrains of existing Port of Owendo, Olam International has partnered with Government of Gabon in establishing a new port, named "Gabon Special Economic Zone Mineral Port S.A.".

The new port to be developed includes a Mineral Terminal for export of Manganese Ore. The location of the Mineral Terminal has many advantages; it is connected directly via roads and main rail line to the mining areas of Gabon, and the geographic location in the Gabon

Estuary close to the Atlantic Ocean is perfect for exporting the manganese ore to international markets.

Further GSEZ are investigating the possibilities for establishing a Fishing Terminal and a Ship Repair Yard adjacent to the Mineral Terminal.

A team of experts from Ramboll Denmark, Ramboll Finland and Ramboll Management Consulting have performed Market Studies for the Fishing Terminal and Ship Repair Yard, Techno-Commercial Analysis and Preliminary Design for the entire new port located in the Gabon Estuary south of Libreville.

The manganese ore will be transported to the Mineral Terminal by trains via the existing Trans-Gabon railway.

#### CUSTOMER

Gabon Special Economic Zone Mineral Port S.A.

#### LOCATION

Libreville, Gabon

#### PERIOD

2015-2016

#### PROJECT BUDGET

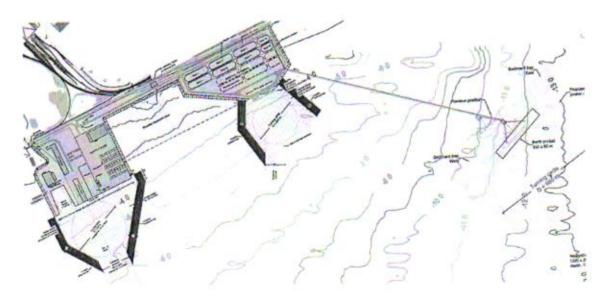
620,000 EUR

#### OVERALL PROJECT VALUE

300,000,000 EUR

#### IMAGE

Preliminary Layout of the Gabon Special Economic Zone Mineral port 5.A.



Initially, the exporting of the ore will be carried out with 2,500 DWT self-propelled barges using a small barge berth. Eventually the new Mineral Terminal is designed for annual export of 10 million tons manganese ore from a jetty berth accommodating bulk carriers with capacity up to 50,000 DWT.

Fishing Terminal and Ship Repair Yard will be established in the northern port area.

#### Value added for the customer

Ramboll has assessed the viability of the establishment of a Fishing Terminal and Ship Repair Yard, and prepared the basis for the further detailed planning and design in the coming stages of the entire Gabon Special Economic Zone Mineral Port S.A.

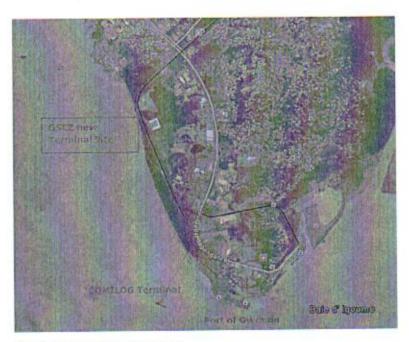


IMAGE: Preliminary Layout of the Gabon Special Economic Zone Mineral port S.A.

#### Services provided

Market Studies for Fishing Terminal and Ship Repair Yard.

Techno-Commercial Analysis for Fishing Terminal, Ship Yard and Mineral Terminal, including

- Capacity evaluations and functional planning
- Assessment of coastal hydrodynamic and sediment transport conditions, manoeuvring and navigation conditions, land use constraints, geotechnical conditions etc.
- Port Master Planning
- Conceptual Design
- CAPEX and OPEX estimates
- SWOT Analysis

Preliminary Design.



IMAGE: GSEZ Project Site with existing COMILOG Mineral Terminal in the background.

# FEASIBILITY STUDY FOR A NEW SEAPORT - HAMBANTOTA (SRI LANKA)

Preparing the basis for the implementation of a new greenfield seaport

A major greenfield seaport is developed at Hambantota, on the south coast of Sri Lanka.

The port is planned for an eventual water depth of 23m, and is intended to support the growing demand for servicing large vessels.

The port area is 15km2 and will contain a wide variety of components, including dry and liquid bulk, break bulk, vehicles and containers. Harbour basins are located inside a lagoon and the entrance channel will be protected by two new breakwaters.

A full detailed feasibility study was performed, incl. all technical and economical/financial issues.

A Port Master Plan was elaborated, comprising an Oil terminal, Coal terminal, Bulk terminal, Ro-Ro terminal, Container terminal and Cruise terminal. Further, a conceptual plan for the first development (Phase 1A) was elaborated.

Based on the prepared final feasibility study report in 2007 by Ramboll, first phase of the port has been constructed by Chinese contractors, and inaugurated in 2011.

#### Customer

Sri Lanka Ports Authority (SLPA)

#### Location

Hambantota, Sri Lanka

#### Period

2004-2007

#### Project budget

1,100,000 USD

820,000 EUR

#### Overall project value

5,600,000,000 EUR





## RAMBULL

#### Services provided

Ramboll carried out detailed feasibility studies which included:

- Coastal surveys
- Assessments of port land use and constraints
- Field investigations, incl. geotechnical borings and seismic investigations
- Numerical modeling and assessments of coastal processes
- Traffic forecasts
- Conceptual design of marine structures
- Environmental impact assessments (IEE and EIA)
- Socio-economic assessments
- · Port and terminal planning
- Infrastructure and hinterland planning
- Port Master Plan
- Conceptual design of marine structures
- · Viability assessments
- Commercial and financial project structuring



IMAGE

#### **Partners**

Rogge Marine Consult G.M.B.H; Jacobs Consultancy; Niras; Lanka Hydraulics Institute (LHI); Resources Development Consultants Ltd. (Sri Lanka)

#### Project manager

Ralph Guldberg Bjørndal



Elaborated Port Master Plan for the new port



IMAGE
Photo from initiation of dvil wasks:
The Sin Lankan president and a delegation

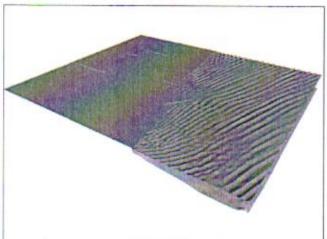


IMAGE
Modelling of wave tranquility and sedimen
transmit for the new scaport

# NORTH SEA LNG SUPPLY INFRASTRUCTURE

Esbjerg Port has together with the Danish Maritime Authority decided to pursue the establishment of an LNG supply chain in the North Sea to service the maritime sector and other sectors within transport. Ramboll has provided the following services:

- Conducting interviews with selected stakeholders to explore the potential, risks and incentives by investing in an LNG in Esbjerg and the UK
- Facilitating a stakeholder workshop with the purpose to align expectations and gain commitment from the stakeholders
- Provision of high level activities to be conducted during the project
- Drafting a first budget for the project to be used in funding application

Project countries Denmark Customer
Esbjerg Havn
Location
Esbjerg
Period
2012
Services provided
Project consultancy
Project budget
175.000 DKK
25.000 EUR





# FU hua Gan

## Construction Manager

Date of Birth:

Dec 1989

Birth place:

China

Nationality:

Chinese

Education:

Bachelor of Port, Channel & Coast Engineering from the Dalian University of

Technology, 2012

#### Summary of Experience:

Fu hua Gan commands more than 7 years' extensive experience covering port planning & maritime engineering, in china and overseas. His unique expertise encompasses engineering design, project management, construction supervision and site representative.

#### Career Highlights:

2012.07-Present

CCCC-FHDI Engineering Co., Ltd.

Hambantota Port Development Project, Sri Lanka (10/2012-01/2018)

Mr.GAN participated in the phase I oil terminal and the final construction, and participated in the second phase project construction from the beginning to the completion. GanFuHua successively responsible for the issue of oil terminal services building and equipment installation, phase I yard, the phase II cofferdam impervious wall, revetment, foundation pit monitoring, curtain grouting, yard paving, storage area network and terminal electrical system, port attached housing, port road, communication, navigation, wide shoulder big stone oblique wave dike, concrete construction and management of the project such as offshore artificial island, and in the later as the site head management on all matters of construction. Both field charge construction, construction management, and with the subcontract and the total package engineering measurement, and communication with the owner to the contractor to coordinate, GanFuHua expertise and the ability to control the work has been greatly improved. Mr.GAN have won many honors such as excellent new employee, young post expert, construction summary first prize and so on. Meanwhile, Mr.GAN have enriched his experience in construction and contributed to the output value of the phase II project.

Port City Project, Sri Lanka (06/2017-01/2018)

Mr.GAN responsibled for the construction and management of the project exhibition hall, responsible for the optimization design and BOQ, audit team materials procurement, supervision, site construction organization and construction progress, ensure that the exhibition hall to start construction as scheduled and run smoothly.

Metro colombo solid waste management project(11/2017-01/2018)

As the production manager, Mr.GAN participated in the design optimization of the whole project, the preparation of the construction organization planning scheme and the pre-construction geological survey, which ensured the smooth implementation of the project.

South China Sea Institute of the CAS China-Sri lanka Scientific and educational platform center (06/2017 - 02/2018)

As the project Manger, Mr.GAN participated in the whole process of project site selection, drawing design and optimization, business negotiation, construction bidding and construction management. The promotion and guarantee of the smooth implementation of the project have been highly recognized by the leaders of both sides.

Malaysian HRC Jetty Expansion Project (03/2018-date)

This project is located in the hinterland of malacca strait, offshore of the Malaysian city of aram, about



# Career Resume

2km offshore, and the contract amount is usd 40 million. This project requires the transformation of an oil terminal or an oil terminal. Mr.GAN is responsible for the optimization analysis of the construction plan design, and the plan is selected, and the construction schedule plan is prepared to assist in the compilation of project cost.



# LU WEIWEI Deputy Project Manager

Date of Birth:

October, 1981

Birth place:

China

Nationality:

China

Education:

MEng Degree, Hydraulic Structure Engineering of Tianjin University, 2007

Awards/Honors:

Certified Registered Consulting Engineer in PRC, 2012 Certified Registered Civil Engineer in PRC, 2015

Certified International Project Manager Professional (IPMP Level C), 2015

#### Summary of Experience:

Graduated from Tianjin University in 2007 and jointed China Harbour Engineering Company Ltd. Having more than 11 years' experience covering port planning & maritime engineering in China and overseas. Experience encompasses port planning and maritime engineering design, project management and feasibility studies.

#### Career Highlights:

#### 2017.09-Present

Project:

Tibar Bay Port Project (Detail Design)

Location:

East Timor

Position held: Deputy Project Manager

The new container terminal is in the Tibar Bay, approx.10 km west from capital Dili of East Timor. The proposed terminal will provide berths for 3500 TEU to 7000TEU container vessel sand. The length of the quay line is 630m. The project is in the high seismic zone and special seismic design required.

As the Deputy Project Manager in the detail design phase is responsible for the management of the design team, and deeply involved in the marine structure design work.

#### 2015.05-Present

Project:

Nigeria Lekki Project (Detail Design)

Location:

Nigeria

Position held: Deputy Project Manager

The scope of work includes three 120,000DWT container berth, one MOF berth, 1.5km long breakwater, dredging and reclamation work, pavement, buildings and utility works. The EPC contract value is about 760 million USD.

As the Deputy Project Manager in the detail design phase is responsible for the management of the design team, and deeply involved in the marine structure design work.

#### 2014.12-Present

Project:

Oil Tanker Jetty of National Oil Storage Facilities Project in Walvis Bay Namibia (Detail

Design)

Location:

Namibia

Position held: Deputy Project Manager

The design scope of work includes two 60,000DWT oil tanker berth, 1.6km trestle, handling facility and

As the Deputy Project Manager in tender phase, and now is the design manager of detail design phase is responsible for the management of the design team, and deeply involved in the marine structure design work.





#### 2014.06-Present

Project:

Walvis Bay new container terminal project (Detail Design)

Location:

Namibia

Position held: Deputy Project Manager

This project is a container terminal project, which is designed for 100,000DWT container terminal. The scope includes 600m quay line, revetment, dredging, reclamation and ground improvement, stacking yard, buildings, STS cranes, water supply and waste treatment, power supply and so on.

Is responsible for the management of the design team, and deeply involved in the marine structure design work.

#### 2012.06-2012.12

Project:

Hambantota port development project phase II in Sri Lanka (Preliminary Design)

Location:

Sri Lanka

Position held: Deputy Design Manager

The scope of work includes two 100,000DWT container terminals, two 10,000DWT container feeder terminal, two 100,000DWT multi-purpose terminal, and artificial island, stacking yard, buildings, water supply, power supply, gate, road and bridge and so on.

As deputy design manager was responsible to assist the design manager to manage the whole design works, in preliminary design phase.

#### 2012.01-2012.09

Project:

CHEMCHINA 300,000DWT Oil terminal project in Quanzhou of China (Detail Design)

Location:

Quanzhou, China

Position held: Main Designer of Marine Structure

The designed vessel for this project is 300,000DWT oil tank, and marine structure is designed for 450,000DWT oil tank. The scope of work includes one working platform, two breasting dolphins, six mooring dolphins, one assistant working platform, and several connection steel bridges.

As main designer of marine structure was responsible for marine structure design work.

#### 2008.08-2009.07

Project:

Sanya fishing pier project in Hainan of China (Feasibility Design)

Location:

Sanya, China

Position held: Lead Designer of Marine Structure

The total length of quay line is 1020m, including fishing berths, oil supply berth, and ice supply berth and working boat berth. The scope of work includes quay structure, revetment, breakwater, approaching channel, and substation, pump station, ice factory, and fish trading centre and so on.

As lead designer of marine structure was responsible for marine structure design work for the feasibility of this project.

#### 2008.10-2008.12

Project:

SITV terminal project in Vietnam (Detail Design)

Location:

Vietnam

Position held: Lead Designer of Marine Structure

It is a container terminal project. The quay line is 729m long, which is designed for two 60,000DWT container vessels. The scope includes quay structure, revetment.



# Career Resume

As lead designer of marine structure was responsible for marine structure detail design work.



#### SHENGJUN LU

Technical Department Chief Engineer

Date of Birth:

May 13, 1986

Birth place:

China

Nationality:

China

Education:

MS, Technology, Harbour and Offshore Engineering, Hohai University China, 2012

BS, Technology, Harbour and Offshore Engineering, Hohai University China, 2009

Awards/Honors:

Registered Civil Engineer (Port & Channel Engineering) / IPMP - Level C.

#### Summary of Experience:

Graduated from Hohai University of Technology, master degree of harbour and offshore engineering and jointed the Company in 2012. Has been involved in engineering design of more than 40 design programs at home and abroad, which include breakwater, revetment, gravity quay wall, sheet pile quay wall, suspended deck structure and floating structure etc. Design phase include feasibility studies, preliminary design and construction drawing stage. Extensive experience covering harbour engineering, offshore wind turbine engineering, coastal and offshore engineering, and marinas in China and overseas.

#### Career Highlights:

#### 2018.06-Present

Project:

The Pasay Reclamation Development Project in Philippines

Location:

Philippines

Position held: Technical Department Chief Engineer

This project includes reclamation of 405ha area, ground improvement and revetment structures. As Technical Department Chief Engineer in the project was responsible for the reviewing, supplementing and modifying all design documents from the designer for technical issues.

#### 2017.05-2018.04

Project:

PTTLNG Nong Fab LNG Receiving Terminal Project

Location:

Ghana

Position held: Technical Department Chief Engineer

This project includes an access trestle, two LNG berths and a seawater intake/outfall structures. As Technical Department Chief Engineer in the project was responsible for the reviewing, supplementing and modifying all design documents from the designer for technical issues.

#### 2017.05-2018.12

Project:

Takoradi Port Expansion Project

Location:

Ghana

Position held: Technical Department Chief Engineer

This project includes dredged area for safe container and dry bulk vessel maneuverability, reclamation and ground improvement works, 1450m long quay wall structures. As Technical Department Chief Engineer in the project was responsible for the reviewing, supplementing and modifying all design documents from the designer for technical issues.

#### 2017.05-Present

Project:

Marine Works for the LNG Terminal, Tema Ghana project

Location:

Ghana





Position held: Technical Department Chief Engineer

This project includes dredged area for safe LNGC vessel maneuverability, 800m long rubble-mound breakwater, mooring and breasting dolphins for the FRU & FSU combination, restraining piles for the FRU barge, gas pipeline from the existing lee breakwater causeway to the FRU. As Technical Department Chief Engineer in the project was responsible for the reviewing, supplementing and modifying all design documents from the designer for technical issues.

#### 2016.01-2018.12

Project:

Marine Works for the New Port and Container Terminal, Tema Ghana project

Location:

Ghana

Position held: Technical Department Chief Engineer

This project includes 1400m length 150,000 DWT container berth, 3558m length breakwater and about 1000m length permanent revetment. As Technical Department Chief Engineer in the project was responsible for the reviewing, supplementing and modifying all design documents from the designer for technical issues.

#### 2013.01-2014.09

Project:

Libreville, Gabon, City Moore Port Extension Project

Location:

Libreville, Gabon

Position held: Designer

Libreville, Gabon, City Moore Port expansion project includes a total permanent revetment 4293.74m, where the vertical 1108.86m, slope revetment 3187.88m; temporary revetment 415.78m; seawalls 285m. As a designer has participated in the bidding and construction design phase of the project, breakwaters, revetments section stability calculation, slope and vertical breakwaters, revetments drawing generation, the amount of statistics and the preparation of hydraulic engineering design specification.

#### 2014.01-2014.10

Project:

The yacht wharf project in Qi'ao China, detailed design project

Location:

Zhuhai, China

Position held: Main Designer

As the main designer for the yacht wharf project in Qi'ao China. Reposible for the marine structure design of the yachts.

#### 2013.08-2013.10

Project:

The marine project of the nuclear power project in Xudabao Hebei, detailed design project

Location:

Xudabao, China

Position held: Main Designer

#### 2013.02-2014.05

Project: The product port project for petro China/PDVSA Joint Venture Guangdong Petrochemical 20 MMTPA Refinery Project, detailed design project

Location: Guangdong, China Position held: Main Designer

This project includes 8 oil berths, one bulk berth, one cargo berth, one working boat berth, a trestle and a breakwater. Was responsible for the structure design of the 8 oil berths and the trestle.

#### 2012.08-2013.11



# Career Resume

Project:

Yuedong LNG project, detailed design project

Location: Guangdong, China Position held: Main Designer

Was responsible for the structure design of the water inlet system, the breakwater and the quay wall. The water inlet system includes a water channel, a filtering structure and a water pump room.



#### SHENGJUN LU

Technical Department Chief Engineer

Date of Birth:

May 13, 1986

Birth place:

China

Nationality:

China

Education:

MS, Technology, Harbour and Offshore Engineering, Hohai University China, 2012

BS, Technology, Harbour and Offshore Engineering, Hohai University China, 2009

Awards/Honors:

Registered Civil Engineer (Port & Channel Engineering) / IPMP - Level C.

#### Summary of Experience:

Graduated from Hohai University of Technology, master degree of harbour and offshore engineering and jointed the Company in 2012. Has been involved in engineering design of more than 40 design programs at home and abroad, which include breakwater, revetment, gravity quay wall, sheet pile quay wall, suspended deck structure and floating structure etc. Design phase include feasibility studies, preliminary design and construction drawing stage. Extensive experience covering harbour engineering, offshore wind turbine engineering, coastal and offshore engineering, and marinas in China and overseas.

#### Career Highlights:

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Position held: Technical Department Chief Engineer

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Project:

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Location:

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Technical Department Chief Engineer Position held:

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Project:

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Location:

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Technical Department Chief Engineer Position held:

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Location:

Position held:

Technical Department Chief Engineer

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Location:

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Location:

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Position held: Main Designer

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Project:

The marine project of the nuclear power project in Xudabao Hebei, detailed design project

Location:

Xudabao, China

Position held: Main Designer

#### 2013.02-2014.05

Project: The product port project for petro China/PDVSA Joint Venture Guangdong Petrochemical 20

MMTPA Refinery Project, detailed design project

Location: Guangdong, China Position held: Main Designer

This project includes 8 oil berths, one bulk berth, one cargo berth, one working boat berth, a trestle and a breakwater. Was responsible for the structure design of the 8 oil berths and the trestle.

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# Career Resume

Project:

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Location: Guangdong, China Position held: Main Designer

Was responsible for the structure design of the water inlet system, the breakwater and the quay wall. The water inlet system includes a water channel, a filtering structure and a water pump room.



Tian Jin Taifeng Tongjing Garden SOHO E, Suite 208 Teda, Tiajin 300457, China Qing Dao 29th Block C Huishang International Mansion No.467 Yangtze River M.Rd, Development Zone, Zhu Hai No.3 Haigong Road, Gaolan Port, Zhuhai

#### Summary

More than 7 years of structural engineering working experience.

Excellent skills in Auto CAD, ANSYS, PDMS, SACS, MOSES and TEKLA.
Registered Structural Engineer Class I.
Education Background

Hebei Normal University of Science and Technology Institute of Urban Construction, Bachelor of Civil Engineering.

Work Experience

2007.9-2011.6:

2011/07 - Present:

Petro-Offshore Engineering Structure /Deputy Chief Engineer

- Pakistan Single Point Mooring and Offshore Pipeline Project. Pipeline Engineer, responsible for drawing, document management and onsite technical support.
- Kenya Mombasa New Kipevu Oil
  Terminal (Kot) Project
  Deputy Chief Engineer, responsible for
  drawing, report, MTO, document
  management and on-site technical
  support.
- Riser Design Project for COOEC
   Pipeline Engineer Lead, responsible for drawing, calculation report and model.
- Taipei Taoyuan Shalung SPM No. 2
   Subsea Pipeline Repair project.

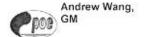
- Pipeline engineer lead, responsible for procedure MTO, drawing, calculation report and onsite technical support.
- Vietnam Thien Ung 1,155ton LQ Feed
   Design Project for Technip, Responsible
   for structure drawing and lifting,
   transportation, sea-fastening analysis
   report.
- LQ 3D Model Project for BOMESC.
   Responsible for structure PDMS model.
- Transportation Analysis for Pipe, Pile and Conductor on Barge Project for CNOOC. Responsible for stability and sea-fastening analysis report.
- Sea-fastening Analysis for Stinger
   Storage Stands and Stinger on
   HYSY201 for CNOOC. Responsible for sea-fastening analysis report and drawing.
- Installation design of HYCX WHPA
   Project for CNOOC, including 1,200ton
   MSF module, 2,500ton UPPER module
   and 850ton LQ. Responsible for lifting,
   ballast, transportation, barge tow
   stability, sea-fastening and barge deck
   strength check. Supporting trestle of
   spreader framing design.
- Sea-fastening Analyses of FLNG-1
  990ton ETMS Project for PJOE.
  Responsible for ballast, transportation,
  stability, sea-fastening analyses and
  deck strength check.



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- Installation design of BZ28-2S BZ34-1
   Jacket Project for CNOOC, including
   2,500ton CEPA jacket, 1,250ton
   WHPB jacket and 1,080ton WHPF
   jacket. Responsible for lifting, ballast,
   transportation, stability, sea-fastening,
   deck strength check and pile drivability,
   stick-up analysis.
- Installation design of JZ9-3 WHPC
  Project for CNOOC, 2,700ton.
  Responsible for lifting, ballast,
  transportation, stability, sea-fastening
  and deck strength check report.
- Installation design of BZ28-2S Project for CNOOC, including 5,200ton WHPB, 560ton DES and 470ton MUD Module. Responsible for lifting,ballast, transportation, stability, sea-fastening and deck strength check report.
- Installation Design of JZ25-1S
   WHPC/D Project for CNOOC,
   including 2,500 ton WHPC WEST &
   3,100ton EAST, 1,060ton LQ and
   1,200ton DSM and 2,190ton WHPD
   EAST & 2,900ton WEST, 1070ton LQ,
   1220ton DSM. Responsible for lifting,
   ballast, transportation, stability, seafastening and deck strength check
   report. Mooring system, pulling system,
   skidway, sea fastening arrangement
   and loadout steps, lifting setting
   installation drawing.

- Shop design of HZ25-8 DPP Topside Module Project for CNOOC. 15,000 ton (80x40x30m). Responsible for lifting analysis of structure deck and padeye design.
- Shop Design of LF7-2 DPP Topside
   Module Project for CNOOC. 11,500 ton
   (56x65x21.5m). Responsible for lifting
   analysis of structure deck and padeye
   design.
- SPMT Transportation Analysis for HY14-1 WHPA 1,600ton (43x24x23m) Project for COOEC. Responsible for SPMT transportation analysis report.
- KIPIC Project of CFHI. Responsible for structure module calculation report, 3D model and drawing.



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#### Summary

2007~now, work as structure engineer of engineering department in Tianjin Petro-offshore Engineering Co., Ltd. More than three years of installation design for jackets, decks and living quarters. Work as field engineer in pipeline installation and pre-commissioning projects in Angola, Myanmar and Paksitan.

Education Background

09/2003—07/2007: Hebei University, Bachelor of Civil Engineering

Language skills:

English: CET-6, Reading & writing proficient and listening & speaking average

Software skills:

SACS:

Proficient

OFFICE:

Proficient

AutoCAD:

Proficient

ANSYS:

Average

SESAM:

Average

OFFPIPE:

Average

AGA:

Average

#### Work Experience

2007/7—present Petro-Offshore Engineering | General Manager

- Project Manager for subsea Pipeline of Mombasa
   New Kipevu Oil Terminal Project, This project
   includes engineering, Procurement, construction
   and installation of 5 oil pipelines.
- Installation Manager for Single Point Mooring Project of Nigeria, this project is change a new rail ring for the SPM which's diameter is more

than 20m and the water depth is 1,000 meters.

- Installation Manager for Single Point Mooring Project of Pakistan, this project including construction design, land pipeline construction, subsea pipelines, offshore installation and the commissioning of PLEM and single-point mooring. This project is the first Single Point Mooring Project in Pakistan.
- Deputy Project Manager for Tao Yuan Refinery Shalung offshore Replacement Pipeline (No.1)Project. The project including a new 4.725 km 42" offshore pipeline installed by CPC (Chinese Petroleum Corp) to replace the old one for Taoyuan Refinery. The project requires removing and reinstalling the existing SPM. The PLEM and old pipeline (about 150m) will be removed, and then mechanical end seal plug will be installed for the old pipeline.
- Peputy Project Manager for Tao Yuan Refinery Shalung offshore Replacement Pipeline (No.2)Project. The project including 843m 42" offshore pipeline installed by CPC (Chinese Petroleum Corp) to replace the old one for Taoyuan Refinery. The project requires removing and reinstalling the existing SPM. The new pipeline will be installation to connection the old pipeline and the old PLEM.



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- Project manager for cleaning, gauging, hydro testing project of 130 km, 24", Yadana to Yangon onshore Natural gas pipeline for Myanmar Oil and Gas Enterprise (MOGE). Project included additional 8" & 14" pipelines.
- Project Manager for YC Riser Cleaning .
   Submarine Pipeline Cleaning and Hydrotesting.
- FEED for "F" Drilling and Production Platform for CPC in 119 meters of water depth. This project is done at Technip, Malaysiss. Responsible for designing the stressed skin living quarters.
- LIWAN DEEPWATER Project, as deputy project manager responsible for design, Jumper & spool construction.
- Pipeline Replacement of CNOOC LF13-2
   Project, 12km 8-12 inches pipe in pipe pipelaying, as deputy project manager responsible for design, coordination and site management.
- CITIC Australian Desalination Plant Project, as project manager responsible for shop design and detail design management and coordination.
- Sonangol Angola Submarine Pipeline Project, as construction manager responsible for piping design and site management.
  - The project used bundled surface tow method to install 4 product pipelines and 2 water pipelines. It also included 1 submarine cable and platform process piping.
- CFD11-6 and PL19-3 Gas Export Project, as the project management dewatering drying

- nitrogen purging and pneumatic test of two 12" pipelines.
- Shop Design of JZ25-1S CEP Project, 9600 ton (62x39x28m) topside module in China Sea for CNOOC. Responsible for design, management and coordination.
- Structural detail design of living quarters,
   BZ19-4 for CNOOC. As deputy project manager.
- Structural detail design of living quarters,
   BZ29-4 for CNOOC. As deputy project manager.
- Structural detail design of living quarters,
   BZ34-1N for CNOOC. As deputy project manager.
- Participated in the Detail Design of drilling modules, SZ36-1 for COSL.
   Check of design drawings includes deck framing plan, decking plating, joint details etc.
- Detail design of base frame structure for RO module in Australia desalination plant pre-assembly project.
- Roll-up design for jacket of PY30-1.
- Detail Design of drilling modules, SZ36-1 for COSL.
- TLP&SPAR fabrication method research Project, for COOEC.
- Shop Design of JX1-1 WHPB Project, 3500 ton topside module in China Sea for CNOOC. Responsible for all discipline management and coordination.



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 Shop Design of SZ36-1 WHPK Project, project manager responsible for all discipline management and coordination and on-site support.



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### Summary

More than 8 years of Structural design working experience, Installation and project management experience on-site construction management, proficient in detailed design including simulating structure model with XSTELL software, providing structure drawings and reports.

### **Education Background**

2005.9-2008.6:Heilongjiang Agriculture and Economy University of Mechatronic Engineering, Pass examination of Numerical control (Nc) technology. 2008.09-2011.12.30:The PLA Information Engineering University, Management Information Systems obtain bachelor's degree.

### Language Skills

### English:

- Chinese Standard Test Level CET-4;
- · Proficient Reading & Writing;
- Average Listening & Speaking.

### Software Skills

Auto CAD:

Proficient

OFFICE:

Proficient

PDMS:

Proficient

SACS
 Proficient

Pro/E
 Proficient

Xsteel

Proficient

Sldworks

Proficient

Vegas

Proficient

### Work Experience

2008/10—2011/10: Petro-Offshore Engineering | Assistant Structural Engineer, Structural Department

2011/10—2013/09: Petro-Offshore

Engineering |

Deputy Engineering Manager. (Shop Design)

2013/09—Present: Zhu Hai Petro-Offshore Engineering | General Manager.

- Pakistan 28 inch Subsea Pipeline and SPM Installation Project: Deputy project manager responsible for subsea installation work.
- YC Riser Pipe Cleaning Sea Pipeline
   Cleaning and Hydro-testing Project.
   Responsible for the Riser pipe cleaning hydro-testing, Sea pipeline,
   Expansion bend pipe cleaning hydro-testing, gauging, drying and inerting.



- engineer for Tao Yuan Pipeline offshore Shalung Refinery Replacement Pipeline (No.2)Project. The project including 843m 42" offshore pipeline installed by CPC (Chinese Petroleum Corp) to replace the old one for Taoyuan Refinery. The requires removing project reinstalling the existing SPM. The new installation be will pipeline connection the old pipeline and the old PLEM.
- COSL SZ36-1 Drilling Machine Detailed Design
   Responsible for the structural design including drawings, Material Take-off and Weight control reports.
- COSL SZ36-1 Drilling Machine
   Fabrication Design
   Responsible for the structural design including drawings, Material Take-off, scenario and checking the drawings.
- COOEC BZ19-4 WHPB LQ Fabrication
   Design
   Responsible for the structural design including drawings, Material Take-off, scenario and checking the drawings.
- COOEC BZ29-4,34-1 WHPB LQ
   Fabrication Design
   Responsible for the structural design

- including drawings, Material Take-off, scenario and checking the drawings.
- COOEC JX1-1 WHPB/M Fabrication
   Design
   Responsible for the structural design including drawings, Material Take-off, scenario, checking the drawings and corresponding delivery on site.
- Penglai Seawater Desalinization Project Responsible for the Fabrication Design.
- BOMESC PANCAKES FOR 1P~5P 2S~4S
   Project Principal Responsible for the
   whole project progress including
   drawing check and corresponding
   delivery on site.
- BOMESC PIPERACK 1C~7C 6S
   STRUCTURE DRAWINGS Project
   Principal
   Responsible for the whole project
   progress including drawing check and corresponding delivery on site.
- COOEC LF7-2 DPP Topside and living Quarters Shop Design: Responsible for project management, the whole project progress including drawing check, corresponding delivery on site, Work arrangement, project progress control.
- COOEC HZ25-8 DPP Topside and living
   Quarters Shop Design: Responsible



for project management, the whole project progress including drawing check, corresponding delivery on site, Work arrangement, project progress control.

- COOEC PY10-2 DPP Topside and living Quarters Shop Design: Responsible for project management, the whole project progress including drawing check, corresponding delivery on site, Work arrangement, project progress control.
- COOEC HY2-2 DPP Topside Shop Design: Responsible for project management, the whole project progress including drawing check, corresponding delivery on site, Work arrangement, project progress control.
- COOEC KQT WHPB/M Shop Design:
   Responsible for project management, the whole project progress including drawing check, corresponding delivery on site, Work arrangement, project progress control.



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### Summary

Over 10 years of piping engineering design, fabrication and construction experiences, proficient in PDMS 3D modeling, element database management and offshore pipeline construction management.

Education Background

2003/09—2007/06: Taiyuan University of Technology | Engineering Mechanics | Bachelor of Engineering Language skills:

English: CET-6, Reading & writing proficient and listening & speaking average

### Software skills:

SACS:

Proficient

OFFICE:

Proficient

AutoCAD:

Proficient

PDMS:

Proficient

ANSYS:

Average

SESAM:

Average Average

OFFPIPE:
 Work Experience

2007—Present: Petro-Offshore Engineering | Deputy General Manager

- Construction Manager for subsea Pipeline of Mombasa New Kipevu Oil Terminal Project, This project includes engineering, Procurement, construction and installation of 5 oil pipelines.
- Hengyi Brunei Subsea Pipeline and SPM Installation Project,

Project Manager responsible for review the construction design, such as Fabrication yard layout drawing, Pipeline lay analysis report, Pipeline towing analysis report. The project including a new 8.2 km 44" offhsore pipeline

and SPM syste installated by COOEC for Hengyi PMB Island Refinery

- Tao Yuan Refinery Shalung offshore Replacement Pipeline (No.1) Project. Construction Manager. The project including a new 4.725 km 42" offshore pipeline installed by CPC (Chinese Petroleum Corp) to replace the old one for Taoyuan Refinery. The project requires removing and reinstalling the existing SPM. The PLEM and old pipeline (about 150m) will be removed, and then mechanical end seal plug will be installed for the old pipeline.
- Tao Yuan Refinery Shalung offshore Replacement Pipeline (No.2) Project.
   Construction Manager. The project including 843m 42" offshore pipeline installed by CPC (Chinese Petroleum Corp) to replace the old one for Taoyuan Refinery. The project requires removing and reinstalling the existing SPM. The new pipeline will be installation to connection the old pipeline and the old PLEM.
- Sonangol Angola Submarine Pipeline Project
  Pipeline Engineer responsible for design
  submarine pipeline design including
  construction, installation and hydro-test,
  gauging and pigging for Sonangol Oil Berth
  in Luanda, Angola.
- Pakistan 28 inch Subsea Pipeline and SPM Installation Project.



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Deputy manager responsible for the work of land.

- Myanma Oil and Gas Enterprise Project Construction Manager responsible for cleaning gauging hydrotesting and drying of 128 Km 24" pipeline.
- 8" & 14" Yangon Onshore Gas Pipeline Project
   Deputy Project Manager responsible for cleaning gauging hydrotesting and drying of one 8" pipeline and two 14" pipelines.
- Petrobras Drilling Model Detail Design Project
  Lead Piping Engineer responsible for all
  PDMS module, P&ID and PFD drawings and
  material take-off. The project is done for
  Loadmaster US.
- Technip Thien Ang LQ Basic Design Project Lead Piping Engineer responsible for all PDMS module, P&ID and PFD drawings and material take-off.
- CITIC Australian Desalination Plant Project Lead Piping Engineer responsible for all PDMS module, ISO drawings and material take-off.
- CNOOC BZ19-4 WHPB LQ Detail Design Lead Piping Engineer responsible for piping detail design and creating PDMS module.
- CNOOC BZ29-4/34-1 WHPB LQ Design Lead Piping Engineer responsible for piping detail design and creating PDMS module.
- CNOOC SZ36-1 WHPK Design
   Lead Piping Engineer responsible for piping shop design including ISO drawings, MTO,
   Test pressure drawings and field technical support.

- CNOOC JZ25-1 CEP Design
   Lead Piping design responsible for piping shop design including ISO drawings, MTO, Test pressure drawings and field technical support.
- CNOOC JX1-1 WHPB Design
   Lead Piping design responsible for piping design including ISO drawings,
   MTO, Test pressure drawings and field technical support.
- CNOOC LF7-2 DPP LQ shop Design Lead Piping design responsible for piping shop design including ISO drawings, MTO, Test pressure drawings and field technical support.
- BOMESC Chemical Injection Skid participated the piping and equipment modeling of PDMS.
- The Loadmaster PDMS Model Design Project,
   Responsible for PDMS model design.
- HZ25-8 DPP LQ shop design project: piping shop design, Responsible for check ISO drawings and piping supports drawings, material take-off.
- Yamal shop design project: Mainly responsible for approved the drawing and material of piping.
- CNOOC CFD11-6 and PL19-3 Gas Export
   Project
   Manager responsible for dewatering drying nitrogen purging and pneumatic test of two 12" pipelines,



Tianjin Taifeng Tongjing Garden SOHO E, Suite 208 Teda, Tiajin 300457, China Qingdao 29th Block C Huishang International Mansion No.467 Yangtze River M.Rd, Development Zone,

Zhuhai: No.3 haigong road, Gaolan Port, Zhuhai

### **CARSTEN HAUCK**

### Senior Pipeline Engineer

Mr. Carsten Hauck is an experienced senior pipeline engineer. He holds a bachelor's degree in Civil Engineering from University of applied science in Oldenburg (Germany).

Mr. Hauck's employment history is in the oil and gas industry both onshore and offshore. Working as a discipline engineer for Technip, he was responsible for pipeline engineering services in all design stages for international companies. In 2008 he joined GL Group where he mainly worked on certification / verification or marine warranty survey projects for offshore pipelines. Since 2010 is Mr. Hauck working self-employed and is offering his broad experience in onshore and offshore pipeline.

Overall, he has accumulated more than 15 years of professional work experience in providing engineering and consultancy services in the oil and gas sector with special focus on pipelines.



### Senior Pipeline Engineer/ Freelancer (GERMANY) Associated with Ramboll

- Preparation of conceptual and detail pipeline design (onshore/offshore)
- Review of pipeline (onshore/offshore) design, fabrication and installation documents
- · Review of subsea cable & umbilical installation documents
- Independent pipeline design calculation acc.to different recognized standards
- Route selection and route investigation surveys
- Preparation of cathodic protection subsea pipelines and offshore structures
- Due Diligence, Feasibility Studies, Site supervision

2008 - 2010

### Senior pipeline engineer for on- and offshore pipeline systems / Germanischer Lloyd Industrial Services now DNVGL (GERMANY)

- Document review for offshore pipeline certification / verification projects incl. independent calculation
- Installation document review for marine warranty survey projects (offshore pipelines and cables)
- Project management and offer preparation for certification projects



CONTACT INFORMATION
Carsten Hauck

Ramboll Hannemanns Allé 53 2300 Copenhagen Denmark

ENERGY

RAMBOLL

2003-2008

### Discipline engineer for onshore pipeline systems / Technip Germany GmbH, GERMANY (now MMEC)

- · Experienced in all engineering stages (proposals, feasibility studies, FEED and EPC
- Design management
- Preparation of project reports, material and construction specifications, MTO's and MR's
- · Mechanical design
- Route selection and onsite investigations
- Technical procurement (technical bid evaluation, vendor document review)

2000 - 2003

### Working Student / Institute für Rohrleitungsbau in Oldenburg

- Organization team for pipeline & piping exhibition "Rohrleitungsform.in Oldenburg"
- · Support of research activities (e.g. pipe material test)

EDUCATION 2000-2004

Civil Engineering (BSc)

FH OOW, Oldenburg, Germany

LANGUAGE SKILLS

German (mother tongue), English, Russian

PROJECTS

10/2018 - 03/2019

Design verification Bu Haseer Full Field Development (UAE)

Scope: Design verification service for  $2 \times 10^{\circ}$  offshore water injection pipelines and  $1 \times 12^{\circ}$  offshore well fluid pipeline incl. spool piece and riser, shore approach and  $10^{\circ}$  onshore pipeline section, 33kV subsea cable

Responsibility: Review of material and construction specification, design drawings, design reports related to offshore pipeline and subsea cable design

09/2018 - 12/2018

Design certification 2 x 5" coil tubing pipelines (Egypt)

Scope: Design certification service for 2 x 5" offshore gas pipelines incl. spool piece and riser Responsibility: Review of material and construction specification, design drawings, design reports related to subsea pipeline design

06/2018 - 06/2019

Design certification 2 x 28" gas pipeline (Turkey)

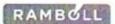
Scope: Design certification service for 2 x 28" offshore gas pipelines incl. riser, landfall and onshore section

Responsibility: Review of material and construction specification, design drawings, design reports

04/2018 - 08/2018

Gas Transport and Distribution Network (Germany)

Scope: Due diligence study considering technical, operational and environmental aspects for gas transport and distribution network with an total length of around 7.00km in Germany Responsibility: Evaluation of asset (pipeline network) condition considering following aspects: corrosion, pipeline integrity, operation and maintenance, cathodic protection system, rehabilitation; Highlight possibilities for improvement



01/2018 - 10/2018

Sharjah LNG (UAE)

Scope: FEED and EPC tendering contract incl. design of marine jetty, 18km subsea gas pipeline and onshore pressure regulating and metering station

Responsibility: Preparation of FEED design package subsea pipeline incl. philosophies, functional specification, preliminary design report and typical drawings, SoW, tender clarification & evaluation, Preparation of Supply Specification

01/2018 - 11/2018

Replacement of EGL 442 (Germany)

Scope: Architect Engineer Contract incl. permitting, detail engineering and procurement about replacement of 125km 20" high pressure distribution gas pipeline in southern Germany incl. line valve station and gas pressure regulation and metering station without interruption of operation Responsibility: Preparation of techn. design reports and specification, construction concepts, permit engineering

10/2017 - 09/2018

Re-routing PN 70 gas pipeline (Germany)

Scope: Architect Engineer Contract incl. detail engineering, procurement and construction supervision about re-routing of 200m, 8" high pressure distribution gas pipeline in a city area in southern Germany without interruption of operation (tie-in using hot tapping)w

Responsibility: Preparation of construction concept, clarification with technical authorities, permit engineering

09/2017 - 10/2018

Oil Cavern Storag (Germany)

Scope: Contract about preparation of vendor due diligence incl. description of main facilities and evaluation of their condition, description and evaluation of OPEX; main facilities comprise central pump station, 3 pipelines and around 100km flow lines

Responsibility: Site visit, Preparation of draft and final report, coordination with client

06/2016 - 09/2017

NORDLINK (Germany)

Scope: Construction contract incl. permit engineering to perform all necessary installation works to install a 60km long onshore high voltage DC cable from shore to onshore converter station in northwest of Germany

Responsibility: Project support, coordination works

11/2016 - 04/2017

DOLWIN2 REPAIR PROJECT (Germany)

Scope: Construction contract to perform all necessary earthworks incl. construction road to repair all cable joints along 80km long onshore high voltage DC cable from shore to onshore converter station in northwest of Germany

Responsibility: Project support, construction management, coordination works, as-built documentation,

06/2016 - 10/2016

EUGAL PROJECT REVIEW (Germany)

Scope: Project review for a 56" pipeline 485km long incl. hydraulic design, pipeline design, project management, schedule, permit/authority engineering, purchasing to verify projects plausibility, highlight project risks and propose mitigations

Responsibility: Review of documents and attending Q&A sessions, preparation of analysis and reports as





### part of final report

### 05/2016 - 07/2016

### NEW COOLING TOWER GODORF (Germany)

Scope: EPC about the replacement of two existing cooling towers by of new cooling towers for a refinery in western Germany, Tie-in of new cooling towers into the existing cooling water cycle, adjusting new and rerouting of piping connected to existing cooling towers, new cooling water condition using H2SO4 Responsibility: Field engineering mechanical, on-site coordination of piping construction works, as-built documentation,

### 03/2016 - 05/2016

### NOUAKCHOTT TERMINAL UPGRADE(Mauretanian)

Scope: PMC for Mauritanian Petroleum Ministry for the upgrade of existing oil and gas terminal in Nouakchott incl. new jetty, 6 onshore pipelines and tanks

Responsibility: Preparation of tender documents

### 08/2015 - 12/2015

### LNG TERMINAL PROJECT(Pakistan)

Scope: Preparation of feasibility study for an offshore LNG terminal incl. offshore (10km) and onshore (80km) pipeline

Responsibility: Develop operating philosophy and basis of design, provide input for cost estimation (MTOs), provide general input on pipeline components, above ground installations and pipeline installation for final report, route corridor selection

### 01/2014 - 03/2015

### ITE Gas Pipeline (Turkey)

Scope: FEED Verification (as part of Detailed Engineering) for a 1800km long 56" natural onshore gas pipeline in Turkey from iranian border to greek border

Responsibility: Review of material and construction specification, typical drawings, geotechnical reports

### 09/2014 - 12/2014

### Ungheni-Chisinau Gas Pipeline(Moldavia)

Scope: Preparation of feasibility study for EIB and EBRB for a 130km long onshore pipeline connecting Ungheni and Chisinau in Moldavia

Responsibility: Route corridor analysis, cost estimation, onsite investigation

### 03/2014 - 12/2015

### Egina (Nigeria)

Scope: Certification of EPC; subsea 2 production loops thermally wet insulated with flowlines, spools, 3 water injection lines with flowlines, spools, well jumpers, FLETs and ITAs; 1gas export line with flowline, spools and tied-in to AKPO export pipeline

Responsibility: Review of material specification, mechanical&cathodic protection design calculations, vendor and construction documents

### 04/2014 - 06/2015

### Platform LAM E and associated pipelines (Turkmenistan)

Scope: Certification of two rigid subsea pipelines (14" and 10", multiphase) in total about 10km including rigid riser at platform, water depth range between 20 and 30m

Responsibility: Review of material specification, design reports, mechanical & cathodic protection design calculations, Independent verification of pipe stress and on-bottom stability

**ENERGY** 

### 04/2013 - 03/2014

### Moho Nord UFR (Congo)

Scope: EPC contract including green- and brownfield subsea works: 11 rigid pipelines (oil export, gas export, water injection and gas lift) in total more than 200km; 10 rigid jumpers and 1 rigid spool; water depth range from shore to 1200m; Sweet and sour service

Responsibility: Preparation of subsea pipeline and jumper design reports; Preparation of design calculations as wall thickness, on-bottom stability, expansion, lateral buckling and free span, jumper design, cathodic protection design calculation

### 07/2013 - 12/2013

### RHIP FEED (Oman)

Scope: Verification of RHIP FEED Project, Comprising: Production of oil & gas from the Harweel Oil reservoirs and gas & condensate from the Rabab Gas reservoir by means of Miscible Gas Injection (MGI) in the Harweel reservoirs and Partial Recycle in the Rabab reservoir; Export of sweet gas to the Salalah gas pipeline

Responsibility: Review of material specification, mechanical design calculation, alignment sheets design drawings (typicals, AGI layouts) vendor and construction documents; cathodic protection design calculation

### 12/2010 - 08/2013 OML-58

### Upgrade Project (Nigeria)

Scope: Certification services for one (1) onshore gas pipeline (42", 45km non-sour service) incl. hot tap and scraper stations

Responsibility: Review of material specification, design calculation, alignment sheets and design drawings, vendor and construction documents; Independent calculation

### 02/2011 - 08/2012

### London Array (UK)

Scope: Marine Warranty Survey for 209km 33kV infield cable and 214km 150kV export cable Responsibility: Review of installation procedures and calculations

### 06/2010 - 12/2011

### Burullus Phase VIIIa (Egypt)

Scope: Verification services for nine (9) subsea well heads incl. rigid flow line, flexible flow lines and

Responsibility: Review of design and vendor documents; Independent calculation

### 02/2009 - 07/2009

### Abu Dhabi Crude Oil Pipeline (UAE)

Scope: Certification of Safe Operation of three offshore loading pipelines (48", 50bar max WD 55m) Responsibility: Project management; document review of design, vendor and installation documents

### 06/2008 - 07/2009

### North Bardawil Project (Egypt)

Scope: Marine Warranty Survey for one subsea pipeline (16", max. WD 320m), one PLEM, two umbilicals incl. 4 SUTUs and protection frames

Responsibility: Review of installation procedures and calculations (lifting, rigging...)

### 04/2008 - 07/2009

### Repacement of 24 Water Injection Lines (UAE)

Scope: Certification of Safe Operation of 24 offshore water injection lines incl. riser at platforms
Responsibility: Review of design, vendor and installation documents, mechanical and cathodic protection
design calculation



06/2008 - 07/2009

### Bouri Sealine (Libya)

Scope: Certification services for 3 offshore pipelines (4" condensate, 10" gas non-sour, 16" sour gas)

incl. riser at platforms and SSIV

Responsibility: Review of design and vendor documents, mechanical and cathodic protection design

calculation

03/2009 - 12/2009

### Alpha Ventus Windpark (Germany)

Scope: Marine Warranty Survey for infield and export offshore cable installation

Responsibility: Review of installation procedures and calculations, Cable load-out inspection

05/2008 - 07/2009

### Burullus Phase VI (Egypt)

Scope: Verification service for six subsea flowlines (6") and one export line(22") with max WD of approx.

500m

Responsibility: Review of design and vendor documents

06/2008 - 03/2009

### Delta 4 Project (Romania)

Scope: Certification of Safe Operation of 3 offshore flowlines incl. riser at platforms

Responsibility: Review of design, vendor and installation documents; Inspection of flow line and riser

installation

04/2008 - 03/2009

### Integrated Gas Development (UAE)

Scope: Verification of 2 offshore gas lines (24") incl. riser at platforms and 2 x 2" piggyback inhibitor

lines

Responsibility: Review of design, vendor and installation documents

07/2007 - 01/2008

### ANARAN Development Project (Iran)

Scope: FEED inclusive Gas-Oil-Separation-Plant, gathering and export lines: 2 export pipelines (20" 360km 100barg export oil, 16" 140km 150barg sour gas), 30 gathering line (8" x 200barg length approx. 200km well fluid), 3 water supply lines (10" x 20barg), 2 water injection lines (10" x 325barg)

Responsibility: Route selection and design management; Preparation of material &construction

specification, MTOs, design reports as route selection, cathodic protection

06/2007 - 03/2007

### AZAR Field Development Project (Iran)

Scope: FEED inclusive Gas-Oil-Separation-Plant, gathering and export lines: 2 Export pipelines (16" 360km 90bar export oil, 14" 140km 90bar sour gas), 19 gathering line (8" total length approx. 80km well fluid), 1 water supply line (10" 12km) and 1 water disposal line

Responsibility: Lead Engineer, Route selection incl. onsite investigation; MTOs and MR, design reports as

route selection, cathodic protection

04/2005 - 07/2007

### AMAL Water Injection Project (Libya)

Scope: EP contract for Water Treatment and Injection Facility: 4 injection pipelines (6" 256bar injection water), 3 gathering pipelines (6" – 10" 24bar oily water with high salt content)

Responsibility: Lead Engineer; Preparation of material&construction specifications; MTOs, material requisitions, mechanical design, cathodic protection design, vendor document review

09/2003 - 03/2007

### North East Bab Development Project Phase 1 (UAE)

Scope: EPC Oil field development including flow lines, gas injection, water injection, gas lift network, transfer lines, export pipeline; total of 540km pipelines (more than 100 lines), of which are approx. 25km offshore in shallow water, the others onshore in Sabkha and desert area Responsibility: Preparation of design and installation drawings incl. bill of materials

04/2006 - 08/2006

### SHWE/ SHWE PHYU Gas Field Development (Myanmar)

Scope: Feasibility study for an onshore gas export pipeline optional to China, India, Bangladesh or

Responsibility: Route selection, design management, design reports as route selection

07/2005 - 01/2006

### KCTS (Kazakhstan)

Scope: Verification study for the installation of a 1,200 kpbd, 750 km Crude Oil Pipeline with Pumping Stations and On- and Offloading Terminals in Kazakhstan and Azerbaijan

Responsibility: Route selection incl. onsite investigation, design reports & documents as route selection

05/2005 - 07/2005

### BLOCK 1 (Turkmenistan)

Scope: EPC Contract for a gas treatment plant including an onshore gas export pipeline Responsibility: Route selection incl. onsite investigation, design reports as route selection

03/2005 - 05/2005

### ANARAN Export Pipeline (Iran)

Scope: Feasibility Study of crude oil transport pipeline in Iran, approx. 180km, verification of conceptual design and coast estimation

Responsibility: Lead engineer, preparation of final report, route selection, design reports as route selection

MEMBERSHIPS

none



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Family Name	BONNETY	Nationality	French	
First Name	Bertrand	Year of Birth	1973	

**EDUCATION** 

Year	1997	Institution	Université de Technologie de Compiègne (UTC)	
Diplom	a – Degi	ree Obtained	Chemical Engineer Master Degree	
Year			Other Courses	

Mother tongue: French Language skills: 1 (poor) - 3 (good) - 5 (fluent)

Language Reading Speaking Wri			Writing
English	4	4	4
German	2	2	1
Indonesian	1	2	1

PROFESSIONAL PROFILE - KEY QUALIFICATIONS

Broad Experience in	Upstream Oil & Gas facilities (Process and Utilities) Onshore, Platform, Floating facilities (e.g. FPSO, FLNG) Hull and Topsides. Pipeline flow assurance
Countries France, Indonesia (6 years), South Korea (2 years)	
Other Skills	IT (Java 8 SE, JavaFX, MySQL, SQL, UML, Design Pattern, Visual Basic)

### PRESENT POSITION

### **Head of Process Discipline**

**EXPERIENCE PATH** 

Period	Company	Position	
2016 - date SOFREGAZ		Process Discipline Leader	
2014 - 2016	SAMSUNG HEAVY INDUSTRIES	Process Senior Manager	
2012 - 2016	SAIPEM Indonesia	Process Lead Engineer	
2008 - 2012	SAIPEM France	Process Lead Engineer	
2006 - 2008	SAIPEM France	Process Senior Engineer	
2003 - 2006	SAIPEM Indonesia	Process Technical Advisor	
1999 – 2003	SAIPEM France	Process Engineer	
1998 – 1999	AUXITEC INDUSTRIE	Process Engineer	
1997	SOLVAY s.a. Process Engineer		
1995	SUN CHEMICAL (former COATES LORILLEUX)	Process Technician	



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### PROFESSIONAL EXPERIENCE RECORD

Period	Company	Position		
2016 – date	SOFREGAZ	Process Discipline Leader		
Period	Client - Country - Project	Job description		
2019	LNGC Lead Process Engineer, Detailed engineer LNGC cargo and nitrogen system.			
2019	PRINCIPIA - Azerbaijan - Asheron	Lead Process Engineer for a Flow Assurance study.		
2018	PERENCO – Small Scale LNG plant	Conceptual study. Lead the Utility area related to the gas pretreatment and liquefaction.		
2018	WARTSILÀ — Honduras — Energia del Atlántico	Lead Process Engineer. Propane, butane, ethane and LNG Terminal, with a ship and truck reloading system and ethane/LNG regassification unit to supply natura gas to a power plant.		
2018	FRSU regassifaction modules	Lead Process Engineer. Proposals. Development of an LNG regassification modules for several clients to be installed on an LNGC.		
2018	LNG Terminal FEEDs review	PMC. Review of 2 LNG Terminal FEED Process documents prepared by engineering companies.		
2017	BOTAS - Turkey - Marmara LNG Terminal Extension	Lead Process Engineer		
2017	PETROCI – Ivory Coast – Gas Development Project	Process Engineer. Life Cycle Cost analysis for a conceptual selection study of onshore & offshore pipelines, FSRU, FSU, onshore regas project.		
2016	ADGAS/TECNIMONT – UAE – Haliba Field Development / Pipeline FEED Endorsement	Process Lead Engineer Hydraulic multiphase pipeline verification		
2016	HAMINA LNG Oy — Finland —Hamina LNG Terminal	Proposal for a LNG Terminal.		
2016	GRTgaz – France – Loretto Proposal for a propane storage and regazific			
2016	SUNAGAS – Sudan –Sunagaz FEED for an LNG Terminal. Process documen			
Period	Company Position			
2014 - 2016	SAMSUNG HEAVY INDUSTRIES	Process Senior Manager		
Period	Client - Country - Project Job description			
2016	Internal – South Korea	FLNG Studies: Optimize the FLNG capacity through Life Cycle Cost studies (NPV, IRR). FLNG Cooling System (near shore).		
2015	Internal – South Korea	Develop and validate the Process department tools (guidelines, calculation notes).  Java Software development.  Conduct training.		
2014	TOTAL - Nigeria - Egina FPSO	Follow the Process 3rd parties' studies: blowdown, HIPPS and Topside dynamic simulation.		
Period	Company	Position Position		
2012 - 2014	SAIPEM Indonesia	Process Lead Engineer		
Period	Client - Country -Project	Job description		
2013-2014	INPEX — Indonesia — Abadi Masela FLNG	FEED Competition. FLNG Topside Utilities Design and interfaces with the Hull. Seawater, cooling water and steam systems, desalination, air, nitrogen, produced water treatment, chemical injections, power generators, flares, vents.		
2013	ENI — Indonesia — Jangkrik Onshore Receiving Facility	In charge of 5 process engineers.  FEED Design Competition. Receives the gas and condensate pipelines from the Jangkrik FPU. Gas and Condensate		



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		fiscal metering and analyzers, tie-in to existing gas an condensate pipelines, power generators, air, nitrogen, fresh water, open and closed drain, cold vent/flare.
2012	ENI – Indonesia – Jangkrik FPU	In charge of 2 process engineers.
	ENT - Indonesia - Jangkrik PPU	FEED Design Competition. Floating Production Unit (FPU) Topside Design: gas dehydration and export and condensate stabilisation, storage and export and interfaces with the Hull part. Inlet separation, gas dehydration and compression, condensate treatment, storage and export, MEG regeneration package, seawater system, water cooling, hot water, air, nitrogen, power generators, produced water treatment flare. Hysys simulation.
		Set objectives to the team and optimize the FPU to win the design competition.
Period	Company	In charge of 11 process engineers.
2008 - 2012	SAIPEM France	Position
Period	Client - Country -Project	Process Lead Engineer  Job description
2011-2012	TOTAL - Congo - Moho Nord FPU	
	TOTAL CONGO - MONO NORU PPO	Basic engineering, Floating Production Unit (FPU) Hull Design: seawater system, water cooling, air, diesel oil treatment, essential & emergency generators, hull tanks blanketing, fresh & potable water, sewage treatment, ballast, bilge and slop systems, HPU, Lube Oil, dead oil, methanol and xylene storages.
2010-2011	REAL PROPERTY AND ADDRESS OF THE PROPERTY ADDR	In charge of 5 process engineers.
2010-2011	KINROSS – Mauritania – Tasiast Expansion Project	Feasibility and FEED engineering. Utilities for a gold mine including HFO power plants (16 MW and 150 MW) fuel storage (at Port and at Mine) and raw water wells intake.
2010 2011		In charge of 3 process engineers. Process standard deliverables and various feasibility studies.
2010-2011	BECHTEL – Nigeria – Brass LNG Offshore Work	Proposal for the EPC. LNG, propane, butane and residual NGL loading facilities.
2009-2011		Review of the ITT dossier. Process Guarantees Verification, Qualifications. Manhour budget.
2009-2011	SONATRACH — Algeria — Hassi Messaoud LPG	EPC for the LPG Extraction Plant with 3 LPG trains — 8 MSm³/d each.
		LPG Sphere Storage and Export, Condensate Storage and Export, Fuel Gas, Flare, Air, Nitrogen, Water Potabilisation, Oily Water Treatment, Sewage Treatment, Evaporation Ponds, Chemical Injection, Diesel and Hot Oil Storage.
2000 2000		In charge of 6 process engineers
2008-2009	TOTAL - Angola - Block-2 SCP	EPC for the Gas Injection Platform — 8 MSm3/d dry gas injection capacity.
		Platform design, including Pipeline depressurization studies with OLGA.
Period	Company	In charge of 3 process engineers
2006 - 2008	SAIPEM France	Process Contact Facilities
Period	Client - Country -Project	Process Senior Engineer
2007-2008	ENI – Lybia – Mellitah and Wafa	Job description  Feasibility Study to increase the existing gas treatment
	Coastal Plant Debottlenecking	unit of Mellitah plant.
		In charge of the receiving trap and slug catcher, of the condensate stabilization unit and of the off-gas compression unit. Preparation of new PFD, equipment sizing verification and assessment of the existing flare network appropriateness with the increased gas production.
2006 - 2007	Various	Subsea Flow Assurance:
2007	7011000	
200/		Proposals for Subsea deep offshore systems.



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Period	Company	Position
2003 - 2006	SAIPEM Indonesia	Process Technical Advisor / Process Lead Engineer
Period	Client - Country -Project	Job description
2006	ENI — Australia — Blacktip Wellhead Platform	Proposal for the Detailed Engineering of one Wellhead Platform — 120 MMscfd.
		Lead engineer. Verification of the FEED dossier (P&ID, Hysys simulation, equipment, etc.). Prepare data sheets. Vendor proposals review. Optimize the proposa for a cost-effective offer.
2005-2006	CONOCO PHILLIPS — Indonesia — North Belut Wellhead Platforms	EPC for two Wellhead Platforms (WPC-C and WHP-D) -185 MMscfd each – including one Sand separator and one Sand handling system.
2006		Technical Advisor. Overpressure protection dynamic study with OLGA model for the HIPPS.
2006	RELIANCE Industries – India – KGD6 Block Field Development	Proposal for the Detailed Engineering of one Riser Platform — 2825 MMscfd export gas interconnection and three gas
		export pipelines (24").
	=	Lead Process Engineer. Verification of the FEED dossier (P&ID, Hysys simulation, equipment, etc.). Issue of data sheets.
2005 2005		Vendor proposals review. Process manhour budget.
2005-2006	THAI OIL - Thailand - New Offshore Crude Oil Unloading Facilities	EPC for the Crude oil unloading Subsea Pipeline (52").
2005 2005	201 (C.C.) Section (C.C.) (C.C	Lead Process Engineer. P&ID, HAZOP, Steady-state pipeline hydraulic study and hammer effect study.
2005-2006	CONOCO PHILLIPS — Indonesia — North Belut Wellhead Platforms	Proposal for the Detailed Engineering of two Wellhead Platforms (WPC-C and WHP-D) -185 MMscfd each -
		including one Sand separator and one Sand handling system.
		Lead Process Engineer. FEED dossier verification (P&ID, Hysys simulation, equipment, etc.). Issue of data sheets. Process
2004-2006		manhour budget.
2004-2006	BP - Indonesia - Tangguh GPF	EPC for two gas and condensate Wellhead Platforms VR-A and VR-B connected to offshore LNG plant via subsea multiphase pipelines (24").
		Lead Process Engineer for the Pipeline section. Steady- state and dynamic pipeline hydraulic studies performed using OLGA, including pipeline overpressure protection, slug at the inlet receiver and miscellaneous shutdown studies.
2004	PTT EP — Thailand — Bongkot Phases 3E and 3F	Basic Engineering for 4 wellhead platforms WP15, WP16, WP17 and WP18 - 60 MMscfd each - and 4 subsea pipelines
		(10" to 14") connected to existing Offshore facilities.
		Technical Advisor. PFD, P&ID, data sheets, SAFE charts, calculation notes, control philosophy, Hazop, process design criteria, sealine hydraulic simulation, Hysys simulation, heat & material balance and utility balance.
2004	The HONG KONG Electric – China – Lamma Power Station Extension	EPC for the Submarine 20" gas pipeline from the Shenzhen LNG Terminal to the Lamma power station.
		Lead Process Engineer. Steady-state and dynamic pipeline hydraulic studies performed using OLGA (line packing and survival time analysis).
2004	TOTAL — Myanmar — PP Condensate and WP1 Well injection surface facilities	Basic and EPC for the new condensate plant developed for a safe recovery and disposal of hydrocarbon liquid
	racinges	produced within the existing WP1 Wellhead Platform. PFD, P&ID, separators and electrical heater sizing.
2003-2004	MODEL NO.	Lead Process Engineer.
2003-2004	MOBIL Nigeria Yoho Development Production Facilities	EPC for the Integrated Production Platform and Quarter Platform Stabilized Crude to FSO via 14" line 165000 STB/SD. Gas Injection line 12" 240 MMscfd. P&ID and Vendor document review. Deluge spray nozzle system design.



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		Technical Advisor.
Period	Company	Position Position
1999 - 2003	SAIPEM France	Process Engineer
Period	Client - Country -Project	Job description
2002-2003 SONATRACH – Algeria – ROD Integrated Development		EPC for the Onshore Integrated development of the ROD, SFNE, BSF, RDB and RERN oil wells in the Berkin Basin, including the construction of processing and field installations — 80000 BOPD — and associated infrastructure.  Supervision of the dynamic simulation studies of the
		multiphasic pipeline network and the Central
2001-2002	GAS AUTHORITY of India - India -	Process Facilities (by RSI).
	Hazira/Bijaipur/Jagdishpur	Gas pipeline: 1750 km - 12" to 36", 9 terminals.
		PFD, P&ID, data sheets, technical specification and philosophy of the effluents treatment.
2002	SAKHALIN Energy — Russia — Sakhalin II Oil & Gas Fields	Engineering Definition Services for transportation & export facilities: onshore & offshore pipelines, compression & boosting stations, oil export terminal
2004		PFD, P&ID, Data sheets, Hysys simulation of the Booster Station #2 (Oil booster pumps, Gas compression), Water treatment package.
2001	TOTAL – France – FCC 2003 Shutdown Draft Scheme	Study of the main fractionator and Gas plant
2001		PRO II simulation of the following units: Amin plant, Light oil stripper, Merox, Mericat, Depropanizer.
2001	AL FOURAT PETROLEUM – Syria – Vapour Recovery Units and Water	Proposal for the Detailed Engineering.
	Injection	PFD, Data sheets, Hysys simulations (separators stages, gas compression).
2000	SONATRACH - Algeria - Bir Berkine	Proposal for Detailed engineering (onshore facility with gas dehydration, crude oil desalting, stabilisation and storage, gas lift compression, water treatment and utilities).
1000		Data sheets, Package specification and technical bid analysis (chemical injection for oil, gas and water processes, dehydration, desalter, sewer effluent treatment, potable water, oil heater, water treatment).
1999-2000	TOTAL, EDF, TEXACO - France -	Basic Engineering for the Gonfreville Refinery, integrated gasification combined cycle (450 MWe),
		Detailed pre-project studies. Responsible for the Effluents treatment.
1999	TOTAL - Iran - South Pars Wellhead Platforms WP1 and WP2	EPC for two Wellhead Platforms (WP1-WP2) and 2 x 32' sealines (105 km) — total capacity of 2000 MMscfd.
		Participation in the detailed engineering and the preparation of the process equipment specifications.
Period	Company	Position
1998 – 1999	AUXITEC INDUSTRIE	Process Engineer
Period	Client - Country -Project	Job description
1999	TOTAL – France – Desulfurization Plant Plant	Quotation for a gasoil, biological type desulfurization pilot plant.
1000		P&ID design, definition of control loops, definition of equipment items. Call for bids.
1998	NORGAL – France – LPG Delivery System Improvement	LPG delivery improvement
	System improvement	Existing system OPEX evaluation. Proposal for other delivery systems. Equipment specification.  CAPEX and OPEX evaluation for the new type of
1000		delivery system.
1998	ATO — France — Revamping of a Nitritated Condensate Treatment Unit	Revamping of a nitrated condensate treatment unit Layout study for the new equipment. Equipment specification. Call for bids and bid technical
		evaluation.
Period	Company	Position



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1997	SOLVAY s.a.	Process Engineer (internship)
Period	Client - Country -Project	Job description
SOLVAY — France — PVC drying, grinding and classifying units optimisation		Study for improving PVC production.  Application of the Process Control Benefit Study method; Quality Audit; Calculation of potential profits. Estimation of the drying air flowrate  Esprit Prognosis European project (Diagnosis of process defects by a multivariate statistical analysis).  Writing of specification documents; data analysis; Matlab data synchronization software.
Period	Company	Position Position
1995 SUN CHEMICALS (former Coates Lorilleux)		Process Technician (internship)
Period Client - Country -Project		Job description
1995	COATES LORILLEUX — France — Standardization of offset inks measurements methods	Standardization of offset inks measurements methods Comparison of testing methods for offset inks used by the Company. Proposal for a standard ethod for viscosity measurement.



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First	Family	Marchand	Nationality	French
	First	Laurent	Date of birth	December 23rd, 1981

			EDUCATION	
Year	2006	Institution		
Diplor	na - Deg	ree	Mechanical Engineer	
Year	THE PERSON NAMED IN		Other Courses	
			Other Courses	

 Language skills: 1 (poor) - 3 (good) - 5 (fluent)

 Language
 Reading
 Speaking
 Writing

 English
 5
 5
 5

 French
 5
 5
 5

PROFESSIONAL PROFILE - KEY QUALIFICATIONS

Broad Experience in

Countries visited professionally

Paris, Nigeria, Angola, UK, Finland, Norway, Egypt, Pakistan, UAE

### PRESENT POSITION Project Manager

EXPERIENCE PATH Period Company Position 2017-2019 Sofregaz **Project Manager** 2016 Saipem Flexible Package Engineer 2016 Technip Project Engineer 2012-2015 Subsea7 Interface Manager 2010-2012 Subsea7 Project Engineer 2008-2010 Technip ROV specialist 2007-2008 Gemalto POS Mechanical Department Supervisor



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### PROFESSIONAL EXPERIENCE RECORD

Period	Company	Position
2017/2019	9 Sofregaz	Project Manager
Period	Client - Country - Project	Job description
2018/2019	DESFA - Greece	Project Manager in charge of engineering coordination.
	LNG Bunkering on LNG Import	Pre-inquiries of vendors
	Terminal at Revithoussa Island FEED	Planning & cost review, Management of sub-contract and internal staff.
2018	CECI-Tawain	Project Manager in charge of engineering coordination.
	LNG Unloading facility	Pre-inquiries of vendors
2017/2010	FEED	Planning & cost review, Management of sub-contracts and internal staff.
2017/2018	FSRU - PQA - Pakistan (onshore)  This 500K\$ project comprises global design review in line with international codes and characteristics.	Project Manager for the completion of PMC (project Management Control) of a second LNG terminal in Pakistan for the account of PQA (Port Qasim Authority).
	codes and standard and assistance during construction phase.	
2017/2018	TUBA - SOC - Iraq (onshore)	Project Manager in charge of a 12M\$ project for the Engineering and Procurement (EP) of a Gas Pump Station in Iraq including booster pumps, recycling pumps, slop tank, HCO filters and all necessary piping, structural, electrical and instrumentation packages for the performance.
		the performance of the work.
		Planning & cost review, Management of sub-contracts and internal staff.
Period	Company	Position
2016	Saipem	Flexible Package Engineer
Period	Client - Country - Project	
2016	West Hub - ENI - Angola (deep water)	Job description
	rest ridb ENT - Aligora (deep water)	Package engineer in charge of a 18M\$ flexibles order (Technip) for the West Hub Project SURF package.
		Management of sub-contract, Vendor Data Base, progress schedule, payment including liquidated damages and variation order.
Period	Company	Position
016	Technip	Project Engineer
Period	Client - Country - Project	Job description
016		Project engineer in charge of the management of vendors for the Water Intake Riser EPC Package.
		Set-up the procurement execution plan.
		Preparation of sub-contracts and follow-up of the construction phase.
eriod	Company	Position
- Live		
	Subsea7	Interface Manager





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2012/2015	1.East Nile Delta Phase3 Project – PhPC – Egypt (shallow water)  2. BAOBAB Project – CNR International – Ivory Coast (deep water)	Interface coordinator for the management of Companisub-Contractor for the performance of the EPCI and T&I contracts on END3 (Technip, OneSubsea), Baobat (FMC, Oceaneering) & Lianzi (General Electric, Wellstream) Projects with regard to technical interface exchanges on subsea equipment and CPI handover worldwide.		
	3.LIANZI Project - Chevron - Congo/Angola (deep water)			
Period	Company	Position		
2010-2014	Subsea7	Project Engineer / Interface Manager		
Period	Client - Country - Project	Job description		
OFON2 Project – Total – Nigeria (shallow water) - Expatriation  Interface manager working with the sujinterface engineer in order to comply winterface package dealing with 6 other the completion of the EPCI contract (HEiffage, Ponticelli, Saipem, Marine Auth Responsible for the set-up and follow-up project life of interface management project life of interface manager working with the sujinterface engineer in order to comply winterface enginee		Interface manager working with the support of an interface engineer in order to comply with the project interface package dealing with 6 other contractors for the completion of the EPCI contract (HHI, Nigerdock, Eiffage, Ponticelli, Saipem, Marine Authorities).  Responsible for the set-up and follow-up all along the project life of interface management process.  Highlight all potential impacts with procurement, contract and engineering disciplines in line with the technical information exchanged between contractors.		
2011/2012	CLOV Project – Total – Angola (deep water)  Senior installation engineer for the driving dedicated to flexible jumpers' connection be subsea towers (SHR/HRT) and FPSO.			
2010/2011	PAZFLOR Project – Total – Angola (deep water)	Installation engineer in charge of the subsea relocatio of flextails and flowlines, installation of production and water injection umbilicals onboard 7 Eagle vessel (offshore campaign).		
Period	Company	Position		
2008-2010	Technip	ROV specialist		
Period	Client - Country - Project	Job description		
2008-2010	PAZFLOR Project –Total –Angola (deep water)			
2008-2010	AGBAMI Project – Chevron – Nigeria (deep water)	Subsea installation engineer for offshore campaign in Nigeria (2 months).  In charge of installation of flexible jumpers between subsea trees, electrical and hydraulic flying leads deployment and FPSO risers' pull-in onboard Deep Pioneer and Normand Pioneer vessels.		
Period	Company	Position		
2007-2008	Gemalto	POS Mechanical Department Supervisor		
Period	Client - Country - Project	Job description		
2007-2008		In charge of engineering of three new models of payment operating system fix and mobile.		



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Supervision of two designers and validation of drawings for manufacturing process.

Following of plastic mold relocation from manufacturer (China) to production site (Brazil, Hungary and India).

R&D of technological solution in order to be in phase with PCI V2 norm (Visa accreditation).





LI YUNHAN 李云韓 Certified Safety Engineer 注册安全工程师

HSE Director of EPC Project of LNG Jetty & Port Infrastructures at the Skikda Hydrocarbon Port 安全总监 斯基克达油气港改扩建工程项目

### Work Experience 经验简介

Li Yunhan have 5 years industrial HSE management working experience and is familiar to oil & gas industrial HSE standards and system. Li Yunhan hold intermediate certified safety engineer and NEBOSH IGC.

李云翰在在工程施工 HSE 管理岗位有 5 年工作经验,熟悉油气行业的 HSE 管理标准和体系。持有中级注册安全工程师证书以及 NEBOSH IGC 国际职业健康安全通用证书。

Used to work in Kuwait Project, Hunan Drilling Co. of Sinopec Southwest Petroleum Engineering Co as a on-site HSE Officer, then was promoted as the Project HSE Superintendent and responsible for the overall HSE management for the project, as well as the new contract commissioning work. The total contract amount of project exceeded 2 billion RMB and the amount of employee is more than 600. 曾在中石化西南工程公司湖南钻井分公司科威特项目先后担任现场安全官及项目 HSE 主管,负责统筹协调海外项目安全生产全局工作以及新签合同的启动验收工作。项目下合同总额折合人民币超过 18 亿元,管理各国施工人员超过 600 人。

Work as the HSE Director of EPC Project of LNG Jetty & Port Infrastructures at the Skikda Hydrocarbon Port, be mainly responsible for the preparation of HSE management system document, organizing HSE training, on-site safety tour and tracking the correction activities, safety equipment selection and maintenance, health risk analysis and evaluation, public security risk management, environment protection compliance management, accident prevention & survey, ensure the project standard comply with the local legislation, coordinate with client HSE management and sub-contractor to promote the continues improvement on project HSE performance

自 2019 年起担任阿尔及利亚油气港改扩建工程项目的安全总监,主要负责编制及修订 HSE 管理体系文件、组织人员培训、安全检查及整改、应急演习演练、安全设备采购维护、健康风险登记评估、公共安全风险管理、环保合规管理、事故调查及防治工作,确保项目安全环保标准符合业主要求及当地法律法规。协调解决业主 HSE 管理人员提出相关问题并组织整改工作,对分包商的 HSE 业务进行合规管理,致力于持续提高项目 HSE 业绩。

### Experience of being employed 受雇经历

July, 2019 up to now CCCC-FHDI Engineering Co., Ltd. EPC Project of LNG Jetty & Port Infrastructures at the Skikda Hydrocarbon Port HSE Director 2019 年 7 月 —至今中交第四航务工程勘察设计院有限公司 斯基克达油气港改扩建工程项目 安全总监

June, 2018-May, 2019
Hunan Drilling Co. of SINOPEC Southwest Petroleum Engineering Co., Ltd.

2018年6月 - 2019年5月 中石化西南工程公司湖南钻井分公司 科威特项目 项目安全主管

Nov, 2015-May, 2018
Hunan Drilling Co. of SINOPEC Southwest Petroleum Engineering Co., Ltd.

Kuwait Project On-site HSE Officer 2015 年 11 月 - 2018 年 5 月 中石化西南工程公司湖南钻井分公司 科威特项目 施工现场安全官

### Professional Qualification 专业资格和资质

Master Degree in Petroleum Engineering / Dalhousie University / 2015 硕士 / 石油工程 达尔豪斯大学(加拿大)/ 2015

Bachelor Degree in Oil & Gas Transportation and Storage Engineering Wuhan University of Technology / 2014 学士 / 油气储运工程 武汉理工大学 / 2014

Intermediate Certified Safety Engineer / 2020 国家中级注册安全工程师 / 2020

NEBOSH IGC / 2019 国际职业安全和健康管理通用证书 / 2019

### 主要工程经验

 2019.7-up to now CCCC-FHDI Engineering Co., Ltd. EPC Project of LNG Jetty & Port Infrastructures at the Skikda Hydrocarbon Port

Work as the Safety Director t and responsible for the overall HSE management of the project in construction and commissioning phase.

- 2019.7 至今 中交四航院阿尔及利亚斯基克达油气港改扩建工程项目 作为项目安全总监整体负责化工安装 EPC 部分施工及验收阶段的 HSE 管理工作
- 2018.6-2019.5 SINOPEC Southwest Petroleum Engineering Co. 10 drilling & workover rigs' HSE management and 5 new rigs' commissioning work.

- 2018.6 -2019.5 中石化西南工程公司科威特项目共 10 支钻修井队施工安全管理/5 支新启动井队 HSE 板块验收工作

Work as project HSE superintendent, responsible for the 5 new rigs' contract study and give the suggestion in safety & environment protection equipment purchasing, HSE procedure documents preparation, coordination with client HSE Engineer and ensure the 5 new rigs can meet the commissioning standards. Responsible for the overall Kuwait project HSE management as well.

但任科威特项目安全主管,负责5个钻修并合同的安全设备对标、采购指导、程序性文件编制等工作,主导与业主 HSE 工程师的对接协调工作,确保顺利达到业主验收要求。同时负责统筹协调整个科威特工区的施工 HSE 管理工作。

 2017.10-2018.5 SINOPEC first deep well workover rig SP21 commissioning & start up in middle east area (2+1 year contract)

Responsible for the equipment manufacturing supervision, rig commissioning especially in HSE part, worked as on-site HSE officer.

- 2016.6-2017.7 中石化中东首台深井修井机 SP21 启动验收 (2+1 年合同) 负责设备监造、HSE 板块启动验收,并担任井队现场安全官负责施工安全管理

 2015.11-2017.9 SP982 commissioning & start up, Kuwait project, SINOPEC Southwest Petroleum Engineering Co. (5+1 year contract)
 Responsible for the equipment manufacturing supervision, rig commissioning especially in HSE part, worked as on-site HSE officer.

2015.11-2016.9 中石化西南工程公司湖南钻井分公司科威特项目 SP982 (5+1年合同) 负责设备监造、HSE 板块启动验收,并担任井队现场安全官负责施工安全管理

	Name	LI YUNHAN	Sex	Male		Date of birth		September 1990	
	ID	421002199009 241437	Degree	Master		Major		Petroleum Engineering	
Тес	hnical post	Project HSE Director	Title of technical post	nical Engineer		School and date of graduation		Dalhousie University, July 2015	
			Work	exper	ience				
Start	ing and endin time	Con	ompany		Technical post		Witness and phone		
2015.11-2018.5		Hunan Drilling Co. of SINOPEC Southwest Petroleum Engineering Co., Ltd.		On-Site HSE Officer		WU TAO 13297498808			
2018.6-2019.5		SINOPEC Petroleum Ei	Hunan Drilling Co. of SINOPEC Southwest Petroleum Engineering Co., Ltd.		HSE Superintendent		WU TAO 13297498808		
2019.7-now		The state of the s	CCCC-FHDI Engineering Co., Ltd.		HSE Director 1			ZHOU IONGSHENG 13318809778	
		Basic Ir	nformation	of Co	mpleted .	Projects			
Num.	Name of pro	ject Scale	Starting and ending time	Role			mpany and its ualification phon		
1	SINOPEO Southwes Petroleun Engineering Ltd Kuwa Project work rig SP982	t 5+1 years contract, Co., total amour almost 30 over million USI	2017.09	HS	SE Officer	Co. of SINC Southwe Petroleu Engineering Ltd. Construct	Hunan Drilling Co. of SINOPEC Southwest Petroleum Engineering Co., Ltd. Construction Company		

2	SINOPEC Southwest Petroleum Engineering Co., Ltd Kuwait Project deep well workover rig SP21	almost 20	2017.10 - 2018.05	HSE Officer	Hunan Drilling Co. of SINOPEC Southwest Petroleum Engineering Co., Ltd. Construction Company	WU TAO	
3	SINOPEC Southwest Petroleum Engineering Co., Ltd Kuwait Project	Project include 10 contract, total amount more than 250 million USD	2018.06- 2019.05	HSE Superintendent	Hunan Drilling Co. of SINOPEC Southwest Petroleum	BU WEILIANG 13637406973	
4	CCCC-FHDI-EP C Project of LNG Jetty & Port Infrastructures at the Skikda Hydrocarbon Port	Total amount more than 160 million USD	2019.07 up to now	HSE Director	CCCC-FHDI Engineering Co., Ltd. Comprehensive Class A	ZHOU HONGSHEN G 13318809778	



## nebosh

# NEBOSH International General Certificate in Occupational Health and Safety

This is to certify that

### Yunhan Li

was awarded this qualification on 19 February 2019 with Credit

William Nixon Chair

lan Taylor Chief Executive

Master log certificate No: 00463706/1061549

SQA Ref: R368 04

Safety and Health England & Wales No. 2698100 Board in Occupational The National Examination Registered in A Charitable Company Charity No. 1010444





### Health and safety practical application

A unit of the:

NEBOSH International General Certificate in Occupational Health and Safety NEBOSH National General Certificate in Occupational Health and Safety

Yunhan Li

achieved this unit on

19 February 2019

William Nixon

Chair

William Mison.

lan Taylor Chief Executive

lan Tagen

Master log certificate No: GC3/00463706/1055363

SQA Ref: UE47 04



The National Examination
Board in Occupational
Safety and Health
Registered in
England & Wales No. 2698100
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Charity No. 1010444



### Management of international health and safety

A unit of the:

NEBOSH International General Certificate in Occupational Health and Safety NEBOSH International Certificate in Construction Health and Safety NEBOSH International Certificate in Fire Safety and Risk Management

### Yunhan Li

achieved this unit on

19 February 2019

William Nixon

Chair

William Misa.

Ian Taylor Chief Executive

Master log certificate No: IGC1/00463706/1052978 SQA Ref: UE48 04



The National Examination Board in Occupational Safety and Health Registered in England & Wales No. 2698100 A Charitable Company Charity No. 1010444



### Controlling workplace hazards

A unit of the: NEBOSH International General Certificate in Occupational Health and Safety NEBOSH National General Certificate in Occupational Health and Safety

### Yunhan Li

achieved this unit on

19 February 2019

William Nixon

Chair

William Mison

lan Taylor Chief Executive

lan Tagen

Master log certificate No: GC2/00463706/1054066

SQA Ref: UE46 04



The National Examination
Board in Occupational
Safety and Health
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England & Wales No. 2698100
A Charitable Company
Charity No. 1010444

### RESUME

### **MATLOOB HUSSAIN**



Cell# +971 528241255 Cell Pakistan# +92 334 138 4555 E-Mail: matloobhb@hotmail.com

### Career Objective:

In the capacity of safety supervisor, i foresee myself as an effective contributor to any organization in its endeavor to safety and success. Ipossess the interest, capability and motivation to play an effective role in the organization i work for.

### Skills:

- Pressure Testing Hazards and Precautions
- Chemical Cleaning
- Water Flushing
- · Air Blowing
- Steam blowing
- Scaffolding
- Building construction
- MS Windows, Office, Internet
- Admin Clerk

### Experience:

<b>Experiences Detail</b>	s are:
Consultant	ZAS GROUP UAE
Contractor	Civilco Civil Engineering & contracting co W.L.L
Position	Safety officer
Duration	07-12-2016 to present
Consultant	Wasit Gas Plant Saudi Aramco (Khursaniyah) KSA
Contractor	S.K E&C
Sub-Contractor	SarensNass Group, Crane & Heavy lift specialist
Position	Safety Supervisor
Duration	27-04-2014 - 01-06-2014
Consultant	IbnRushd II PTA DBN Project (Yanbu) KSA
Contractor	стсі
Position	HSE Supervisor
Duration	14-01-2012 - 01-06-2014
Consultant	MA'ADEN ALCOA JV KSA
Contractor	Samsung (SECL)
Sub-Contractor	Technical Sources
Position	HSE Incharge
Duration	26-10-2011 - 31-12-2011

Consultant Contractor	SATORP KSA (PSCL) Petrol Steel Co. Ltd
Sub-Contractor	Al-Nassar Trading & Construction Est.
Position	HSE Supervisor
Duration	26-01-2011 - 13-07-2011
Consultant	Saudi Kayan Petrochemical Complex KSA
Contractor	H.D.P.E
Sub-Contractor	(DSA) Daelin
Position	HSE Supervisor
Duration	19-07-2010 - 16-12-2010
Consultant	Saudi Chevron Phillips Al-Jubail Ind. (S-Chem) KSA
Contractor	SISCO
Sub-Contractor	S-Chem Turnaround 2010
Position	Safety Coach
Duration	26-05-2010 - 30-06-2010
Consultant	Advanced Petrochemical Company Al-Jubail Ind. KSA
Shutdown	PP & PDH T/A 2010
Department	ISSD
Position	HSE Supervisor
Duration	28-02-2010 - 31-03-2010
Consultant	IbnZahr MTBE (Sabic) Al-Jubail Ind. KSA
Contractor	DCS/ESD/Reactors SEQ. Interlock Sys/UPS. Upgrade MTBE II/III Plants IbnZahr
Sub-Contractor	Tokogawa Services Saudi Arabia Co
Position	HSE Supervisor
Duration	18-11-2009 - 11-02-2010
Consultant	Safco Fertilizer Co. (Sabic) Al-Jubail Ind. KSA
Shutdown	Safco II/III T/A 2009
Contractor	OlayanDescon
Position	F.S.R (Field Safety Representative)
Duration	24-10-2009 - 15-11-2009
Consultant	Sharq 3rd Expansion (Sabic) Al-Jubail Ind. KSA
ompany	P M T Sharq
osition	Safety Inspector
Ouration	01-01-2008 - 31-08-2008
onsultant	IbnZahr PP III U & O Project (Sabic) Al-Jubail Ind. KSA
ompany	Sungchang Al-Sheikh (SAACO)
osition	Safety Officer
uration	09-08-2007 - 11-11-2007
ompany	Ahmed Abid Al-Sheikh Est. KSA
osition	Admin Clerk
uration	20-Jun-1993 - 06-06-2007

### Responsibilities:

- Regular site inspection to monitor compliance with safety program.
- Checking hot work permit, confined space entry permit, elevated work permit, excavations permit.
- Inspection of safety sign boards and warning tape to avoid accident.

- Monitor all workers to ensure proper safety outfit, such as safety belt, safety shoes, helmet, safety glass, eye goggles, earplugs and masks.
- Reminding all workers that the safety in the best policy and to target zero accident.
- Coordination with the consultant site supervisor regarding safety procedure in the job site.
- Coordinate with the sub-contractors safety from time to time regarding safety matters.
- Making daily reports regarding unsafe procedures in the job site, and taking preventive steps to avoid recurrence.
- Attending toolbox of sub-contractors to ensure that they are discussing safety procedures.
- Daily, weekly, monthly, quarterly inspection and monitoring all activities and facilities.
- Housekeeping of the whole site area is done on regular basis.
- Fire hazards at the site are identified & controlled.
- Safe work procedure are followed
- Ensure safe use of power and hand tools
- Participation in meetings with consultant, and sub-contractor.
- To keep an eye on medical staff including driver for presence of duty.
- Revision of observation reports submitted by HSE officers at the end of shift.
- Inspection of fire extinguishers whether those are properly placed and are valid to use.
- Carry-out daily surveys to ensure that only safe wok methods are in followed, adequate fire
  extinguisher and fall protection equipment are properly in place.
- Visit working areas to ensure that personnel protective, equipment are provided and properly worn.
- Monitoring closely to welding, cutting, grinding activities at site.
- · Accountant, Admin Clerk
- Assistant PRO

### Responsibilities at Ahmed Abid Al-Sheikh Est.: Jeddah, K S

- · Staff book keeping
- Sales
- Sales Record keeping
- Purchase record keeping
- Store Quantity Controlling

### Academic Record:

SSC Board of Peshawar, Pakistan

### Certification

IOSH Certified

### Languages

Arabic, English, Urdu, Panjabi, Pashto

### Personal Information:

Father Name

Abdul Hussain

Date of Birth

10-Dec-1968

Nationality

Pakistani

Passport #

LA6896262

Marital Status

Married