Tel No: +66 82 970 0220 E-mail: theradej@gmail.com

### Theradej Litsomboon

Position: Senior Structural Engineer

#### **Profile**

I have fifteen (15) years of design experience in structural engineering which include nine (9) years in offshore oil and gas and six (6) years in onshore structures.

Nine years of working experience in the offshore oil and gas industry has equipped me with ample hands-on experiences in engineering project execution and technical design review, in particular, structural design, analyses and detailing of offshore platforms and marine related structures. It also prepared me to assume responsibilities on WHP, LQ and Compression Platforms for conceptual study, front end engineering design (FEED), basic engineering, detail design and platform modification both greenfield and brownfield projects. Furthermore, two and a half years' experience working overseas in the United Arab Emirates (UAE) has enhance my knowledge and experience on working on international projects and working with people from different cultures.

Six years' experience in structural analysis, planning and design of steel and reinforced concrete structures (marine structures, residential structures, factories and infrastructures) including construction management, supervision and cost estimation.

I am very proficient and hand-ons in computer tools or software such as SACS, SESAM, USFOS, GRLWEAP and STAAD Pro which are widely used during project executions.

#### Main projects

Highlight of major green field projects includes:

- Basic Engineering for Bundle 3 Gas and Oil Wellhead Platform
- Basic Engineering for ZMFP & Optimized Conventional WHP
- CPOC Phase 4 Development Detailed Engineering for EPCIC
- Platform Life Extension FUNAN Central Processing Platform
- Basic Engineering for Bongkot Small Platform
- Basic Engineering for Badamyar Project, New LP Compression Platform (LCP)



#### **Education**

- M. Eng. in Structural Engineering, Asian Institute of Technology, 2008
- B.Eng. (Hons) in Civil Engineering, Kasetsart University, 2001

# Professional Qualifications / Registration

- Registered as Associate Engineer (Civil) (First Class) Registration No. Por. Yor. 33377, Council of Engineering (C.O.E), Thailand
- Member of The Engineering Institute of Thailand Under H.M.
   The King's Patronage (E.I.T)

### **Nationality**

Thai

### Languages

- English, Good
- Thai. Fluent

#### Year of Birth

**1979** 

#### **Experience in Software**

 SACS, SESAM, USFOS, GRLWEAP, STAAD Pro, Risa, Mathcad, AUTOCAD, MS Office (Excel, Word, and PowerPoint), MS Project

### **Detailed background**

<u>Period</u>	<b>Company Name</b>	Position Held
01/2020 - Present	Aibel (Thailand) Ltd	Senior Structure Engineer I
06/2014 – 10/2019	Technip Engineering (Thailand) Ltd	Senior Structural Engineer
02/2011 – 06/2014	Technip Engineering (Thailand) Ltd.	Structural Engineer
08/2008 – 07/2010	Design & Engineering Consultancy (DEC), Dubai, UAE	Design Engineer (Marine Structures)
09/2003 – 04/2005	Wisit Engineering Consultants Co., Ltd., Bangkok, Thailand	Civil and Structural Engineer
03/2003 - 08/2003	PPS Design Co., Ltd., Bangkok, Thailand	Civil and Structural Engineer
02/2002 - 02/2003	ACTEC Co., Ltd., Bangkok, Thailand	Civil and Structural Engineer
07/2001 - 01/2002	TACE Co., Ltd., Bangkok, Thailand	Site Engineer

### Work history with Aibel (Thailand)

2020	Client:	Equinor
	Project Title / Description:	<ul> <li>Dogger Bank Creyke Beck A Wind Farm</li> <li>Offshore Greenfield - Detailed Engineering for EPCIC:-</li> <li>The Dogger Bank Creyke Beck A wind farm is located in the souther part of the Dogger Bank in the North Sea.</li> <li>The water depth (MSL) can vary between 27m and 32m.</li> <li>Topside NTE weight for in-place operation condition is set to 9000 tonnes.</li> </ul>
	Project Position:	Senior Structure Engineer I
	Responsibilities:	Responsible for structural detail engineering package comprising of:  Lifting analysis and design of sections during intern lifting.  Analysis design report preparation and technical design review.  Structural installation sequence/constructability review.

### Technip Engineering (Thailand) Ltd, Bangkok, Thailand (02/2011 – 10/2019) Senior Structural Engineer

2019 Client:

PTT Exploration & Production Public Company Limited

### Project Title / Description:

Basic Engineering for Bundle 3 Gas and Oil Wellhead Platform, Thailand Offshore Greenfield - Basic Engineering:-

- The Bundle 3 Gas and Oil Wellhead Platforms are the 24-Slot Generic Wellhead Platform intended to be used for all operating assets of PTTEP in the Gulf of Thailand.
- Two (2) generic types of platform are studied, one is for gas base production and the other is for oil base production and shall be designed to suit a water depth ranging from 60 m to 80 m and anticipate the wide range of soil conditions, a moderate soil and a weak soil.
- The maximum installation of jacket weight is 755 MT and supports 1,300 MT topsides (Oil base production).

Project Position:

Sub-Lead Engineer (Jacket)

Responsibilities:

Responsible for structural detail engineering package comprising of:

- Analysis and design of Bundle 3 Jackets in-service and pre-service conditions such as in-place static strength, dynamic analysis, loadout, transportation, lifting, pile foundation and drivability including jacket miscellaneous calculations.
- Analysis design report preparation and technical design review including structural drawings review.
- Provide on the job training and guidance to junior engineers.

2018

Client:

PTTEP International Limited

## Project Title / Description:

Basic Engineering for ZMFP & Optimized Conventional WHP, Myanmar Offshore Greenfield - Basic Engineering:-

- The Zawtika project is under Production Sharing Contract with Myanma Oil & Gas Enterprise. It is an offshore gas field in the Gulf of Moattama covering the whole of Block M9.
- Development facilities for Zawtika Phase 1D comprise of two (2)
  Wellhead Platforms namely Zawtika Minimum Facility Platform (ZMFP)
  and Zawtika Optimized Conventional Wellhead Platform (ZOCP) in order
  to maintain gas export volume and capability to export gas.
- The installation of ZMFP jacket weight is 6,200 MT and supports 1,850 MT topsides.

**Project Position:** 

Sub-Lead Engineer (Topsides)

Responsibilities:

Responsible for structural detail engineering package comprising of:

- Analysis and design of ZMFP Topsides in-service and pre-service conditions such as in-place static strength, loadout, transportation, transportation fatigue and lifting including topside miscellaneous calculations.
- Analysis design report preparation and technical design review including structural drawings review.

2018-2019

Client:

Tantawan Construction and Service Co., Ltd. (TCS)

Project Title / Description:

Phase 4 A&B Brownfield and C Integration, Thailand

Offshore Brownfield - Detailed Engineering:-

 Engineering service package of BLPMB bridge landing support frame, CFG exhaust support frame, deck extension diagonal support installation aids including structural dynamic analysis of the existing water injection pumps.

**Project Position:** Senior and Lead Engineer

Responsibilities:

Responsible for structural detail engineering package comprising of:

- Structural vibration analysis of the existing water injection pumps.
- Structural analysis and design of the temporary davit in order to install & lift BLPMB bridge landing support frame and CFG exhaust support frame.
- Structural analysis and design of installation aids to install Bravo deck extension diagonal supports.
- Analysis design report preparation and technical design review.
- Structural drawings, installation sequence/constructability review and structural steel material take off.

2018

Client:

Enhanced Drilling Solutions Co., Ltd. (EDSL)

Project Title / Description:

EDSL Hydraulic Workover Unit, China

Offshore Brownfield - Structural Assessment Study:-

 The assessment engineering services for the structural assessment of the Hydraulic Workover Unit (HWU)

Project Position: Se

Senior Engineer

Responsibilities:

Responsible for structural detail engineering package comprising of:

- To evaluate the structural integrity of the current HWU assemblies for inservice condition using SACS structural software program to determine the maximum design wind velocity during operating and storm conditions.
- To design the miscellaneous items, i.e. the wire rope 'tie-back' and end attachments for bracing of the BOP sub-structure.
- To evaluate the structural adequacy at the attachment points between the different structures including clamps, pad locks etc.

2018

Client:

Chevron Thailand Exploration and Production, Ltd. (CTEP)

Project Title / Description:

UBON WHP Feed & Detailed Engineering, Thailand Offshore Greenfield – Front End Engineering Design:-

- Engineering services for non-generic wellhead platforms in the UBON development area, which is located in Block B12/27 concession.
- The new 5-bay jacket shall be designed to operate in the water depth greater than 243' (74.1m) to 266' (81m).

Project Position:

Senior Engineer

**Responsibilities:** 

Responsible for structural detail engineering package comprising of:

 Technical design review of jacket in-service and pre-service conditions such as in-place static strength, spectral fatigue, lifting and load out.

2016 - 2017

Client:

Carigali-PTTEPI Operating Company Sdn Bhd (CPOC)

Project Title / Description:

JDA BLOCK B-17-01 Field Development Project (Phase 4), Thailand -

Malaysia

Offshore Greenfield - Detailed Engineering for EPCIC:-

- CPOC has initiated Phase-4 development that comprises of three (3) satellite Wellhead Platforms namely Andalas (ADA), Andalas East (ADB) and Tanjung-A (TJA) in Block B-17-01 gas fields in order to continue meeting sales gas commitment to the buyers.
- It also consists of modifications on existing Wellhead Platforms Brownfield Modifications (MTA and MDE).
- The maximum installation of jacket weight (ADA) is 660 MT and supports 950 MT topsides.

**Project Position:** Sub-Lead Engineer (Topsides)

**Responsibilities:** Responsible for structural detail engineering package comprising of:

- Analysis and design of ADA, ADB and TJA Topsides in-service and preservice conditions such as in-place static strength and lifting.
- Analysis and design of TJA Jacket in-service condition such as In-place static strength, dynamic analysis, the spectral fatigue analysis and nonlinear pushover analysis.
- Preliminary structural concept and design of jacket pre-service condition such as 2-block upending.
- Analysis design report preparation and technical design review including structural drawings review.
- Provide on the job training and guidance to junior engineers.

2016 - 2017 **Client:** Chevron Offshore (Thailand) Limited &

Chevron Thailand Exploration and Production Limited

2016 - Platform Life Extension, Thailand Project Title / Description:

Offshore Brownfield - Platform Life Extension Study:-

- CTEP to execute the Platform Life Extension project which involves the assessment of platform structural integrity to determine whether the platform remains fitness-for-purpose until year 2032 after a number of years in service.
- A total of nine (9) representative platforms including eight (8) Wellhead Platforms and one (1) Compression Platform as selected by CTEP to be the representatives for each platform category for platform life extension.

**Project Position:** Senior Structural Engineer

Responsibilities: Responsible for structural engineering package comprising of:

- Re-analysis and design evaluate checks for the in-place analysis and the spectral fatigue analysis of the existing PLWG including design report preparation.
- Summarize and highlight the finding from the life extension study for PLWG, PAWB, JKWE, FUWJ and ERCP.

2016 Client: PTT Public Company Limited

> Project Title / ERP Platform Assessment, Thailand

**Description:** Offshore Brownfield - Platform Life Extension Study:-

> PTT to execute the Platform Life Extension project which involves the assessment of platform structural integrity and foundation checks on Erawan Riser Platform (ERP) to determine whether the platform remains fitness-for-purpose until year 2041 after a number of years in service.

Senior Structural Engineer **Project Position:** 

Responsibilities: Responsible for structural engineering package comprising of:  Re-analysis and design evaluate checks for the in-place analysis and the spectral fatigue analysis of the existing ERP including design report preparation.

#### 2016 <u>Client:</u>

PTT Exploration and Production Public Company Limited (PTTEP)

# Project Title / Description:

Basic Engineering of Integrated Arthit Gathering Platform, Thailand Offshore Greenfield - Basic Engineering:-

- Integrated Arthit Gathering Platform (IAGP) a mini processing platform which will gather and separate well fluids into Gas and Liquid Phases.
- The jacket is a four-legged fixed template structure with ungrouted 1.1176m diameter piles. The jacket leg spacing at work point At EL (+) 7.40m is 12.192m x 12.192m with double batter of 1:10 in longitudinal and transverse directions at water depth of 72.60m.
- The installation of jacket weight is 1,330 MT and supports 3,700 MT topsides.

Project Position: Senior Structural Engineer

**Responsibilities:** Responsible for structural basic engineering package comprising of:

 Analysis and design of IAGP on-bottom stability analysis and mudmat design including design report preparation.

2015 - 2016 Client:

Chevron Offshore (Thailand) Limited & Chevron Thailand Exploration and Production Limited

Project Title /
Description:

Platform Life Extension, Thailand

Offshore Brownfield - Platform Life Extension Study:-

- CTEP to execute the Platform Life Extension project which involves the assessment of platform structural integrity to determine whether the platform remains fitness-for-purpose until year 2032 after a number of years in service.
- A total of ten (10) representative platforms including four (4) Central Processing Platforms, one (1) Production Platform, two (2) Accommodation Platforms, two (2) Wellhead Platforms and one (1) Flare Tripod as selected by CTEP to be the representatives for each platform category for platform life extension.

Project Position: Responsibilities:

Senior Structural Engineer

Responsible for structural engineering package comprising of:

- Re-analysis and design evaluate checks for the in-place analysis, the spectral fatigue analysis and non-linear pushover analysis of the existing FUNAN CPP including design report preparation.
- Technical design review of non-linear pushover analysis of the existing KPWA, FUFS and ERWA.

2015 <u>Client:</u>

PTT Exploration and Production Public Company Limited (PTTEP)

Project Title / Description:

Basic Engineering for Bongkot Small Platform (BSP), Thailand Offshore Greenfield - Basic Engineering:-

- BONGKOT Small Platform (new generic wellhead platforms) concept has been initiated to further reduce the facilities and structure, called "Bongkot Small Platform, BSP".
- The jacket is a three-legged steel template configured (i.e. 5 bay jackets) with two (2) water depth ,i.e., BSP Generic 1 for 70.0 m water depth and BSP Generic 2 for 80.0 m water depth. These jackets are designed for weak soil and moderate soil cases.

 The maximum installation of jacket weight is 450 MT and supports 830 MT topsides.

**Project Position:** Senior Structural Engineer

**Responsibilities:** Responsible for structural basic engineering package comprising of:

- Analysis and design of BSP jacket in-service condition i.e. in-place static strength and structural drawings review.
- On-bottom stability analysis and mudmat design.
- Analysis design report preparation and structural drawings review.
- Preliminary structural concept and design of BSP jacket pre-service condition such as upending and lifting.

2015 <u>Client:</u> PTTEP International Limited

# Project Title / Description:

EPCIC of Zawtika Development Project Phase 1B, Myanmar Offshore Greenfield - Detailed Engineering for EPCIC:-

- The Zawtika Project is a gas field development project located in the Gulf of Moattama, Myanmar. The development area covers Block M9 and small portion of Block M11, owned by Myanmar Oil & Gas Enterprise (MOGE).
- Zawtika Project Phase 1B consisting of 4 new remote wellhead platforms (WHP) named WP4, 5, 6 & 7 with pre-installed risers. WP4, WP5 and WP7 are 20-well slot type platform, and WP6 is 12-well slot type platform.
- WP4 substructure is a four-legged fixed template platform with skirt piles.
   The jacket leg spacing at work point At EL (+) 9.30m is 13.716m x 13.716m with double batter of 1:12 in longitudinal and transverse directions at water depth of WP4 is 144.6m.
- WP4 foundation consists of 12 nos. of 2.438m diameter piles, driven through skirt piles. The pile cluster at each leg will accommodate three (3) piles. The pile penetration WP4 platform is 80.0 meters.

**Project Position:** Senior Structural Engineer

**Responsibilities:** Responsible for structural detail engineering package comprising of:

Analysis and design of WP4 jacket in-service condition i.e. Extreme Level
 Earthquake (ELE) seismic analysis including design report preparation.

2014 Client: Abu Dhabi Marine Operating Company (ADMA-OPCO)

## Project Title / Description:

Additional Gas Supply to Onshore & Flexibility Assurance at USSC, UAE Offshore Greenfield - Detailed Engineering for EPC:-

- Abu Dhabi National Oil Company (ADNOC) intends to transfer additional
  gas from the Umm Shaif (US) field to Habshan through Das Island. This
  project shall be undertaken on a fast-track basis to fully utilize the
  available gas streams in order to mitigate the potential onshore sales gas
  supply shortage.
- NGTP Platform: Modification of existing separator internals to handle the
  additional gas and replacement of existing corrosion inhibitor and diesel
  mixing pumps. The jacket are 8 legged jacket (1016 mm OD) without any
  batter of legs, 8 numbers of 762 mm dia. drilled and grouted piles with
  914 mm bore hole up to 22.2m below mudline and the jacket footprint
  size is 30.5m x 15.0m at water depth of 16.20m.
- ABK TIP Platform: New Cap Gas coolers at ABK-TIP platform with dedicated sea water system for cooling the gas. This sea water system includes all the necessary sea water lift pumps, sea water filtration packages, electrochlorination units and associated piping and instruments. The jacket are 4 Legged jacket (914mm OD) structure

without any batter of legs, 4 numbers of 762mm diameter drilled and grouted piles with 914mm bore hole up to 15m below mudline and the jacket footprint size is 10m x 10.0m at water depth of 16.20m.

**Project Position:** Senior Structural Engineer

Responsibilities: Responsible for structural detail engineering package comprising of:

- Analysis and design checks including design report preparation used for the in-place analysis and the spectral fatigue analysis of the existing NGTP Platform for the modifications which shall be adopted for new facilities and modifications.
- Details and documents the estimated maximum weight and COG location of the ABK-Tip Platform with new extension/ modifications for its lift, transport and dry conditions.

#### 2013 – 2014 Client: TOTAL E&P MYANMAR

### Project Title / Description:

Badamyar Project, Myanmar

Offshore Greenfield - Basic Engineering:-

- Badamyar project located offshore Myanmar (Andaman Sea) in Blocks M5-M6, 80 km from the Myanmar coastline.
- Badamyar project consists of new platform/structures and modifications on new LP Compression Platform (LCP), new Wellhead Platform, new Intermediate Bridge Support (IBS), new LCP-MCP Link Bridge, existing MP Compression Platform Brownfield Modifications (MCP), and existing Production Platform Brownfield Modifications (PP).
- The new LCP Jacket at original water depth of 45 m with four (4) water depths including the subsidence (a maximum seabed subsidence of 12m is considered). Basically 4-legged structure with 78" piles driven through the legs and un-grouted between pile and jacket leg annulus with leg spacing of 18m x 18m at top of pile cut off elevation three (3) vertical bays with four (4) horizontal framing levels. The topsides comprise a Module Support Frame (MSF), which supports two (2) modules.
- The IBS jacket comprises 4-bay, 3-legged jacket secured to the seabed with through-leg foundation piles. Jacket has a double battered (1 in 9.8995) legs with true batter (1 in 7) on all legs.
- The installation of LCP jacket weight is 2,190 MT and supports 4,650 MT topsides.

#### **Project Position:** Structural Engineer

#### **Responsibilities:**

Responsible for structural basic engineering package comprising of:

- Analysis and design of LCP jacket in-service condition such as in-place static strength, seismic SLE and seismic RIE.
- Miscellaneous designs for the LCP jacket and appurtenances such as crown shim plate, hydrostatic collapse rings, wave slam checks and jacket walkway.
- IBS Tripod 2-block upending analysis.
- Analysis design report preparation and structural drawings review.

#### 2013 <u>Client:</u>

PTT Exploration and Production Public Company Limited (PTTEP)

### Project Title / Description:

Conceptual and Basic Engineering of LQ Extension Project, Thailand Offshore Brownfield – Conceptual Study:-

 Conceptual design of installing a new Living Quarters (LQ) module on Bongkot Living Quarters platform based on two (2) layout configurations namely an L-Shape and an I-Shape and modification of the existing helideck to meet the latest CAP 437 requirements. **Project Position:** Structural Engineer

Responsibilities: Responsible for structural conceptual engineering package comprising of:

 Analysis and design of inplace re-analysis with modifications such as new deck extension, the Building Support Frame structure (BSF), helideck extension, develop installation sequence using Thunder Crane(TC-90), prepare weight comparison for input to project to estimate the cost for

each scenario.

2013 Client: Chevron Thailand Exploration and Production Limited (CTEP)

Project Title / Description:

FUNAN-SATAN Control Room Relocation Project, Thailand Offshore Brownfield – Detailed Engineering:-

 FUNAN-SATAN Control Room Relocation Detail Design for the new deck extension supporting a new control building on existing FUNAN Living Quarter Platform (FULQ) and existing SATUN Living Quarter Platform (SALQ) at water depth of 228 ft and 234 ft, respectively.

**Project Position:** Structural Engineer

**Responsibilities:** Responsible for structural detail engineering package comprising of:

- Analysis and design of Inplace re-analysis, deck vibration analysis and installation analysis of new control building using Thunder Crane (TC-90 and TC-G15) and strengthening to the existing members.
- Analysis design report and structural steel MTO preparation.
- Structural drawings and installation sequence/constructability review.

2012 Chevron Thailand Exploration and Production Limited (CTEP)

Project Title / Description:

UBON full field development Project (Phase CPDEP-2B/C), Thailand Offshore Greenfield – Conceptual Study:-

 Conceptual design of UBON Field Development to outline the structural requirements forming the basis for determining the preliminary structural concept and design of selected platforms for this final conceptual phase. The platforms covered in the study are the Central Production Platform (CPP), Living Quarters Platform (LQP), and Flare Platform (FP).

Project Position: Responsibilities: Structural Engineer

Responsible for structural conceptual engineering package comprising of:

- Analysis and design of Central Production Platform (CPP) (basically 8-legged structure with 48" piles driven through the legs and un-grouted at water depth of 256 ft and the topsides comprise a Module Support Frame (MSF), which supports 4 modules) for in-service condition such as inplace static strength.
- Design basis and structural steel MTO preparation.
- Structural drawing and installation sequence/constructability review.

2012 Client: Chevron Thailand Exploration and Production Limited (CTEP)

Project Title / Description:

Moragot Compression Conceptual Study Project, Thailand Offshore Greenfield – Conceptual Study:-

Conceptual design of Moragot Compression Platform, MGCP, in Moragot offshore field at water depth of 227 ft. Basically 4-legged structure with 48" piles driven through the legs and un-grouted between pile and jacket leg annulus with leg spacing of 50ft x 50ft at top of pile cut off elevation, four (4) vertical bays with five (5) horizontal framing levels. The topsides comprise a Module Support Frame (MSF), which supports two (2) process modules and one (1) utility module.

 The installation of jacket weight is 1,250 MT and supports 5,250 MT topsides.

**<u>Project Position:</u>** Structural Engineer

Responsibilities: Responsible for structural conceptual engineering package comprising of:

- Analysis and design of MGCP Jacket for in-service condition such as inplace static strength.
- Installation sequence and structural steel MTO preparation.
- Structural drawing and installation sequence/constructability review.

2012 Client: Chevron Thailand Exploration and Production Limited (CTEP)

Project Title / Description:

Pig Receiver Installation at ERWX –  $2^{nd}$  PASS Project, Thailand Offshore Brownfield – Detailed Engineering:-

 Detail Engineering Design for the Installation of 16" pig receiver on ERWX wellhead platform at water depth of 225 feet. Cellar deck extension is required to support new receiver and its associated facilities with lifting weight of 20 MT.

**Project Position:** Structural Engineer

Responsibilities: Responsible for structural detail engineering package comprising of:

- Analysis and design of inplace re-analysis of ERWX Platform, new cellar deck extension lifting and drop object protection.
- Analysis design report, structural steel MTO and work pack preparation.

  Structural drawing and installation acquires (constructs billity review).
- Structural drawing and installation sequence/constructability review.

2012 Client: Chevron Thailand Exploration and Production Limited (CTEP)

Project Title / Description:

Facilities Modification on JKWC for New Platform JKWJ Project, Thailand Offshore Brownfield – Detailed Engineering:-

 Detail Engineering Design for the Installation of 16" pig receiver on JKWC wellhead platform at water depth of 229 feet. Cellar deck extension is required to support new receiver and its associated facilities with lifting weight of 20 MT.

Project Position: Structural Engineer

**Responsibilities:** Responsible for structural detail engineering package comprising of:

- Analysis and design of inplace re-analysis of JKWC Platform and new cellar deck extension lifting and drop object protection design.
- Analysis design report, structural steel MTO and work pack preparation.

Installation sequence/constructability review.

2011 Chevron Thailand Exploration and Production Limited (CTEP)

Project Title / Description:

Pig Receiver Installation at NPWC Platform Project, Thailand Offshore Brownfield – Detailed Engineering:-

 Detail Engineering Design for the Installation of 16" pig receiver on NPWC wellhead platform at water depth of 197 feet. Cellar deck extension is required to support new receiver and its associated facilities with lifting weight of 25 MT.

**Project Position:** Structural Engineer

**Responsibilities:** Responsible for structural detail engineering package comprising of:

- Analysis and design of inplace re-analysis of NWPC Platform, new cellar deck extension lifting and drop object protection.
- Analysis design report, structural steel MTO and work pack preparation.
- Installation sequence/constructability review.

2011 Client: Chevron Offshore Thailand Limited (COTL)

Project Title / Description:

TFPSO HG Removal Experimental System Project, Thailand

Offshore Brownfield - Detailed Engineering:-

 Detail Engineering Design for the HG removal unit skids and the MRU cabin room on a pilot scale experimental basis for removing mercury from Tantawan FPSO Slop Tank.

**Project Position:** Structural Engineer

Responsibilities: Responsible for structural detail engineering package comprising of:

- Check and modify the existing lifeboat cradle support to able to support the new chemical injection tanks on it.
- Analysis design report, structural steel MTO and work pack preparation.

2011 Chevron Offshore Thailand Limited (COTL)

Project Title / Description:

Facilities Modification on LAWA for New Tie-in Platform LAWB Project,

Thailand

Offshore Brownfield – Detailed Engineering:

 Detail Engineering Design for the Installation of 10" pig receiver on LAWA wellhead platform at water depth of 226 feet. Sub-cellar and cellar deck extension is required to support new receiver and its associated facilities with lifting weight of 8 MT.

**Project Position:** Structural Engineer

**Responsibilities:** Responsible for structural detail engineering package comprising of:

- Analysis and design of in-place re-analysis of LAWA Platform and new cellar deck extension lifting.
- Analysis design report and structural steel MTO preparation.
- Installation sequence/constructability review.

2011 Client: Chevron Thailand Exploration and Production Limited (CTEP)

Project Title /
Description:

Pig Receiver Installation at ERWX Platform Project, Thailand Offshore Brownfield – Detailed Engineering:-

 Detail Engineering Design for the Installation of 10" pig receiver on ERWX wellhead platform at water depth of 225 feet. Cellar deck extension is required to support new receiver and its associated facilities with lifting weight of 19 MT.

**Project Position:** Structural Engineer

Responsibilities: Responsible for structural detail engineering package comprising of:

- Analysis and design of inplace re-analysis of ERWX Platform and new cellar deck extension lifting.
- Analysis design report and structural steel MTO preparation.

2011 Chevron Thailand Exploration and Production Limited (CTEP)

Project Title /<br/>Description:Installation of Pig Receiver for BAWA Platform Project, Thailand<br/>Offshore Brownfield – Detailed Engineering:-

 Detail Engineering Design for the Installation of 16" pig receiver on BAWA wellhead platform at water depth of 206 feet. Mezzanine deck extension is required to support new receiver and its associated facilities with lifting weight of 10 MT.

**Project Position:** Structural Engineer

**Responsibilities:** Responsible for structural detail engineering package comprising of:

- Analysis and design of inplace re-analysis of BAWA Platform and new cellar deck extension lifting.
- Analysis design report and structural steel MTO preparation.
- Installation sequence/constructability review.

#### DESIGN & ENGINEERING CONSULTANCY (DEC), Dubai, UAE (08/2008 - 07/2010) **Design Engineer (Marine Structures)**

2008 Client: Qatar Petroleum

> Project Title / **Description:**

EPIC for Replacement and Construction of New Service Berths at Ras Laffan, Qatar

Detail Engineering Design for replacement and construction of new service berths at Ras Laffan.

**Project Position:** Design Engineer (Marine Structures)

Responsibilities: Responsible for structural detail engineering package comprising of:

> Analysis and design of surface water drainage system for Berth 5,6,7,9,10 and 11, drainage channel, oil/water separation chamber, soakaway pit, soakaway ditch, centrifugal diesel pump foundation, the diesel and potable water pipe supports, pipe support for portable water pump area.

Civil/structural specifications, design basis and analysis design report preparation.

Structural drawing and installation sequence/constructability review.

2008 Client: Dubai Supply Authority, DUSUP

> Project Title / **Description:**

Dubai LNG Import Terminal, UAE

Detail Engineering Design for the DULNG-Dubai LNG Import Terminal Project.

**Project Position:** Design Engineer (Marine Structures)

Responsibilities: Responsible for structural detail engineering package comprising of:

> Analysis and design of a mooring system for the pipe pulling barge (200 tons-capacity) includes the design of a reinforced concrete anchor pile and lifting system, temporary bracing system mooring dolphin piles, temporary bracing system for breasting dolphins piles, reinforced concrete precast planks for the deck slab of loading platform, lifting of precast pile cap beam and precast pre-stressed concrete planks and structural assessment of the actual structural system of the breasting dolphins in the site after the construction of piles including analysis design

report preparation.

Structural drawing and installation sequence/constructability review.

2008 Client: Sohar International Development Company

> **Project Title /** Port of Sohar - Bulk Jetty, Oman

**Description:** Tender Design for Port of Sohar - Bulk Jetty Project.

**Project Position:** Design Engineer (Marine Structures)

**Responsibilities:** Responsible for structural detail engineering package comprising of:

> Analysis and design of bulk jetty structure (600m long on export berth side and 425m long on import berth side), approach trestle (a length of 715 m and 32.9 m wide deck) and aggregate jetty platform (205m long and 28.05 m wide) including analysis design report preparation and structural drawing review.

2007 – 2008 <u>Client:</u> Abu Dhabi Ports Company

Project Title / Description:

Khalifa Port & Industrial Zone – Marine Structures, Dredging & Reclamation (KPMC), UAE

 Detail Engineering Design for Khalifa Port & Industrial Zone – Marine Structures, Dredging & Reclamation Project.

**Project Position:** Design Engineer (Marine Structures)

**Responsibilities:** Responsible for structural detail engineering package comprising of:

Analysis and design of light pole for highway & utility bridges, assessment
of lifting collar for precast bridge piers and assessment of profiled steel for
casting of bridge decks including analysis design report preparation and
structural drawing review.

2007 <u>Client:</u> ARCHIRODON CFY

Project Title / CIFA Concrete Batching Plant, UAE

**Description:** • Detail Engineering Design for CIFA concrete batching plant project.

**Project Position:** Design Engineer (Marine Structures)

**Responsibilities:** Responsible for structural detail engineering package comprising of:

 Analysis and design of foundations for CIFA concrete batching plant (retaining wall, cement silo foundation, aggregate group foundation, CIFA mix foundation, micro silica silo support structure and foundation), including analysis design report preparation and structural drawing

review.

2007 Client: Al Zorah Development (Pvt) Company Limited

Project Title / Al Zorah Development Marine Works, UAE

• Tender Design for Al Zorah Development Marine Works Contract

Package 2 and 3A.

**Project Position:** Design Engineer (Marine Structures)

Responsibilities: Responsible for structural detail engineering package comprising of:

 Analysis and design of access-distribution and flow measurement chambers (seawater intake, distribution chambers, outlet, and sharp-crest

weir) including analysis design report preparation.

WISIT ENGINEERING CONSULTANTS CO., LTD., Bangkok, Thailand (09/2003 – 04/2005) Civil and Structural Engineer

2003 – 2005 Project Title:

• Surarnabhumi Airport Rail Link and City Air Terminal at Makkasan/Asoke
Station Building Thailand

- Station Building, Thailand.Chiang Mai International Airport Terminal and Cargo Building, Thailand.
- The Stock Exchange of Thailand Building, Thailand.
- The Madison Condominium, Thailand.
- Bangkok University Press Building, Thailand.
- Thai Burner Industrial Supply LP Building, Thailand.

**Project Position:** Civil and Structural Engineer

Responsibilities: Responsible for structural analysis, design of steel and reinforced concrete

structures, analysis design report & cost estimation preparation and structural

drawing review.

## PPS DESIGN CO., LTD., Bangkok, Thailand (03/2003 – 08/2003) Civil and Structural Engineer

2003 Project Title: • Cementhai SCT Cambodia Building Structural Renovation, Cambodia.

• Siam Stainless Steel Building Structural Renovation, Thailand.

• Residential Houses of Property Perfect Co., Ltd., Thailand.

**Project Position:** Civil and Structural Engineer

Responsibilities: Responsible for structural analysis, design of steel and reinforced concrete

structures, analysis design report & cost estimation preparation and structural

drawing review.

## ACTEC CO., LTD., Bangkok, Thailand (02/2002 – 02/2003) Civil and Structural Engineer

2002 – 2003 Project Title: • Samittivej Hospital Building and Car Park Building, Thailand.

• Bansoun Apartment and Sang-Aroon Apartment, Thailand.

• Lumpini Center (Happy Land) Condominium and Apartment Project,

Thailand.

Thai Yokilon Factory, Thailand.

Bangkok Metropolitan Administration Building, Thailand.

• Lumpini Center Condominium Project, Thailand.

**Project Position:** Civil and Structural Engineer

Responsibilities: Responsible for structural analysis, design of steel and reinforced concrete

structures, analysis design report preparation and structural drawing review.

### TACE CO., LTD., Bangkok, Thailand (07/2001 – 01/2002) Site Engineer

2001 – 2002 Project Title: • Data Products Toppan Forms Building Project, Thailand.

**Project Position:** Site Engineer

**Responsibilities:** Responsible for construction management and supervision.