

CV Alam Firmansyah S.T, M.T

I. PERSONAL DATA



1. Name : Alam Firmansyah S.T, M.T
2. Date of birth : 5 April 1983
3. Company : PT Kilang Pertamina Indonesia (Engineering Services)
4. Position : Lead Civil Marine Engineer
5. Mobile : +6281802228777
6. E-mail : Alam.Firmansyah@gmail.com
mk.alam.firmansyah@mitrakerja.pertamina.com
7. Proficiency in Software : Staad Pro (Civil & Structure), Plaxis (Geotechnical), Autocad, Smart 3D, Navis

II. RESUME

Civil Engineer with 19 years of experience in various mega projects in the Oil and Gas Industry, Petrochemical Industry and Power Industry, detail oriented and always want to solve complex problems.

- Expertise in geotechnical and foundation analysis, site development and underground design in Oil & Gas and Petrochemical industry
- Experienced in civil and geotechnical engineering study, including Soil Investigation Study (onshore and offshore), Ground improvement study, unforeseen study, site development study, demolish and relocation study, bathymetry study, geophysical study, Heavy Haul Study, Construction Study and Heavy Lifting Study.
- Familiar in marine and port engineering and jetty design including Construction Jetty and Product Jetty in several Project.
- Expertise in developing Scope of Work, specification, technical calculations, Bill of quantity, drawing review, 3D model review, geotechnical document review, marine and port document review and civil construction management.
- Experienced in Feed Phase, Bidding Phase and Construction phase for in various mega projects.
- Familiarity with relevant code (US, Europe, Indonesian) and provision in technical software (Staad Pro, Plaxis)

III. EDUCATION

Graduation Year	Universities	Major	Degree
2006	Institut Teknologi Bandung	Civil Engineering	Bachelor Degree
2014	Institut Teknologi Bandung	Petroleum Engineering	Master Degree

IV. ORGANIZATION

Period			Organization Name	Position
2007	-	Now	Komunitas Migas Indonesia (KMI)	Member
2017	-	Now	Persatuan Insinyur Indonesia(PII)	Member
2017	-	Now	Ikatan Ahli Fasilitas Produksi Minyak dan Gas Bumi Indonesia(IAFMI)	Member
2020	-	Now	Project Management Institute	Member

V. PROFESIONAL EXPERIENCE

1. Company : PT JGC Indonesia

Position : Civil Engineer

Periods : May 2006 - November 2006

Project Experiences:

Tanggung LNG Project

- a) Review Drawing and Calculation from Subcontractor for Tangguh LNG Building project.
- b) Controlling Design Information Drawing and Calculation from other section such as Civil, Electrical, Mechanical, Instrument, Piping, HVAC to Building Section in Tangguh LNG Project.
- c) Handle material approval for procurement in Tangguh LNG Building Department from subcontractor to owner(British Petroleum).

2. Company : PT Tripatra Engineers and Constructors

Position : Civil Engineer

Periods : December, 2006 – Desember 2007

Project Experience :

Design and calculate various structure for **North Duri Development Project 12 (NDD), PT. Chevron Pacific Indonesia's Project)**

- a) Slope Protection with Sheet Pile or Geotextile
- b) Calculate Road & Pavement
- c) Calculate Road Settlement with **Plaxis** Program
- d) Calculate Slope Stability with **Plaxis** Program
- e) Calculate Steel Structure for Pipe Support and Pipe Rack
- f) Foundation for Pipe Rack and Pipe support
- g) Air Compressor Foundation

- h) Design for Drainage and Canal for North Duri Development Project Area 11
- i) Foundation for Workshop Bulding
- j) Foundation For Various Tank
- k) Foundation For Various Pump
- l) Foundation For Various Pipe Sleeper

3. Company : PT. Rekayasa Industri

Position : Civil Engineer

Periods : December, 2007 – July 2011

Project Experience as a Civil Structure Engineer :

- Design and calculate various structure for Various Project :
- a) Steel Structure and Foundation for Pipe Rack and Pipe Support
- b) Steel Structure and Foundation for Chlorination Plant
- c) Steel Structure for Chimney Platform
- d) Concrete Structure and Pile Foundation for Substation Building
- e) Steel Structure for Air Compressor
- f) Concrete Structure and Pile Foundation for Transfer Tower
- g) Concrete Structure and Pile Foundation for Sample Room
- h) Pile Foundation for Conveyor System
- i) Design Foundation for Ash Conveyor
- j) Concrete Structure for Laboratory Building
- k) Steel Structure for Primary Blower Fan
- l) Steel Structure for Air Compressor
- m) foundation for Air Compressor
- n) Foundation for lightning tower
- o) Pile foundation for coal conveyor
- p) Design road and pavement
- q) Design sewer and drainage
- r) Substation Building Foundation Calculation
- s) Chlorination Building Calculation

Project Experience as a Field & Construction Engineer :

- a) Make Field Sketch and Field instruction to coordinate construction work at site as a Field Engineer. Scope of work as a Civil Field Engineer related to piping department, mechanical department, and electrical department.
- b) Check and Review Subcontractor Calculation & Drawing.

- c) Check and Review Subcontractor Soft Drawing including Piperack Drawing, Tank Drawing, Foundation Drawing, Building Drawing, Steel Erection Drawing and etc.
- d) Check Subcontractor Progress such as concrete Structure Progress, steel structure progress and architecture progress.
- e) Calculate Material Take Off (MTO) for Various Structures such as Steel Structure, Concrete Structure, and Bore Pile / Piling.
- f) Calculate Construction Progress
- g) Reviewing and Make As Built Drawing for Suralaya 1x600 MW Project

4. Company : PT. Petrofac IKPT International

Position : Civil Engineer

Periods : September, 2011 – July 2012

Project Experience as a Civil Engineer:

- Design and calculate various structure for Pupuk Kaltim 5 Project :
 - a) Pile Foundation for Conveyor JD301
 - b) Pile Foundation for Transfer Tower 01
 - c) Equipment Foundation Calculation

- Design and calculate various structure and Calculate BOQ for Donggi Matindok Gas Development Project Proposal, **Pertamina EP:**
 - a) Foundation for Substation Building
 - b) Foundation for Dormitory ,Versatile Hall & Workshop
 - c) Foundation for Administration Building and Control Building
 - d) Pipeline Civil Work Calculation
 - e) Tank Foundation Calculation
 - f) Pump Foundation Calculation
 - g) Road and Drainage Calculation
 - h) Oily Pit Calculation
 - i) Earthwork Calculation
 - j) BOQ and Cost Analysis Calculation for Civil Work

- Design and calculate various structure and Calculate BOQ for Senoro Gas Development Project Proposal, **Pertamina EP :**
 - a) Foundation for Substation Building
 - b) Foundation for Warehouse and Material Storage
 - c) Concrete Structure and foundation for Administration Building and Dormitory
 - d) Foundation for Gas Turbine Generator Shelter

- e) Steel Structure and Foundation for Piperack
- f) Vessel Foundation Calculation
- g) Pump Foundation Calculation
- h) Road and Drainage Calculation
- i) Earthwork Calculation
- j) Cost Analysis Calculation for Civil Work

5. Company : PT. Singgar Mulia

Position : Senior Civil Engineer

Periods : July, 2012 – May 2015

Project Experience as a Senior Civil / Structure Engineer :

- Design and calculate various structure for FEED Jambaran Tiung Biru (JTB) Field Cepu Project, PT. Pertamina EP Cepu :
 - a) Pipeline and road Alignment Sheet
 - b) Pipeline Cut & Fill Calculation
 - c) Transportation and Equipment Modularization analysis for Jambaran Tiung Biru Project
 - d) Constructability analysis for Jambaran Tiung Biru Project
 - e) Pump Foundation Calculation
 - f) Vessel Foundation Calculation
 - g) Packaged Foundation Calculation
 - h) Road and Pavement Calculation
 - i) Drainage System Calculation
 - j) Earthwork Calculation
 - k) Shelter Calculation
 - l) WWTP Pit Calculation
 - m) Civil and Structure Specification & Design Basis
 - n) Material Take off (MTO) for Steel Structure, Concrete and earthwork
 - o) Geotechnical Report Calculation

- Design and calculate various structure for FEED Sumpal Compression Project, Conoco Philips:
 - a) Civil and Structure Design Basis
 - b) Soil Handling Study
 - c) Drainage System Calculation
 - d) Retaining Wall Calculation
 - e) Earth Works Calculation
 - f) MTO for Earthwork and Concrete Foundation

- g) Geotechnical Report Calculation
 - h) Pump Foundation Calculation
 - i) Package Foundation Calculation
 - j) Cut & Fill for Earthworks Calculation
- Design and calculate various structure for EPCI for GG New Field Development **PT. Pertamina Hulu Energi (PHE ONWJ)** :
- a) Civil and Structure Specification and Design Basis
 - b) Steel Structure Standard Detail Calculation
 - c) Concrete Structure Standard Detail Calculation
 - d) Tank Foundation Calculation
 - e) Pump Foundation Calculation
 - f) Vessel Foundation Calculation
 - g) Drainage System Calculation
 - h) Culvert & Duct Bank Calculation
 - i) Storm Water / Oily Pit Calculation
 - j) Material Take off (MTO) for Concrete, Steel and Earthworks Calculation
 - k) Geotechnical Report Calculation
- Design and calculate various structure for NDD 13 Chevron **Pacific Indonesia Project** :
- a) Geotechnical Report Calculation
 - b) Steel Structure and Pile Foundation for Pipe Support
 - c) Steel Structure & Pile Foundation for Pipe Rack
 - d) Road Design Calculation
 - e) Equipment Foundation Calculation
 - f) Calculate Road Settlement with Plaxis Program
 - g) Calculate Slope Stability with Plaxis Program
 - h) Settlement Calculation
 - i) Culvert Calculation
 - j) Drainage Calculation
 - k) Retaining Wall Calculation
- Design and calculate various structure for FEED SWRO Balikpapan Refinery Unit 5 **PT. Pertamina (Persero)** Project :
- a) Foundation for Substation Building
 - b) Foundation for Control Building
 - c) Steel Structure and Foundation for Pipe rack

- d) Foundation for Pipe Sleeper
- e) Vessel Foundation Calculation
- f) Pump Foundation Calculation
- g) Tank Foundation Calculation
- h) Road and Drainage System Calculation
- i) Pipeline Civil Work Calculation
- j) Civil and Structure Specification and Design Basis
- k) Scope of Work for Civil Work

6. Company : PMC PT PGN

Position : Senior Civil Engineer

Periods : May, 2015 – June 2016

Project Experience as a Senior Civil Engineer :

- Check the contractor Engineering, and Construction document for Various Project own by PT. PGN and also supervise the construction progress and Cost Control, the project consist of Pipeline Project and CNG Station Project :
- a) Pipeline Project in Pulo Gebang – Ir Juanda Bekasi
- b) FEED for Pipeline Project (Jaringan Gas in Lhoksumawe, Lhoksukon and Aceh Tamiang)
- c) Hybrid SPBG PGN in Batam, Purwakarta and Sukabumi
- d) BOQ and Cost Analysis for SPBG Lampung and SPBG Batam
- e) BOQ and Cost Analysis for Pipeline project Jaringan Gas in Aceh

7. Company : PT Kilang Pertamina Indonesia (Engineering Services TKPP)

Position : Lead Civil Engineer/ Lead Marine Engineer

Periods : July 2016-Now

Project Experience as a Senior Civil Structure Specialist:

- Design, calculate and review various civil structures projects for the Balikpapan Refinery Development Master Plan (RDMP) Project, Balongan RDMP Refinery Project, Plaju RDMP Refinery Project, Cilacap RDMP Refinery Project, NGRR Kuala Tanjung , Petrochemical West Java Project, Tuban Petrochemical Project and other various projects and studies :
- 1) Senior Civil/ Geotechnical Engineer for Soil Investigation Study in RDMP Balikpapan
- 2) Designing Standard Drawings for civil and structure work in RDMP Balikpapan Project
- 3) Reviewing the consultant's design and calculations for the Balikpapan RDMP Sea Water Intake Design
- 4) Reviewing the consultant's design and calculations for the design of the structure and foundation of the Piperack Flare 1 Relocation RDMP Balikpapan

- 5) Reviewing the consultant's design and calculations for the structure and foundation design of the Balikpapan RDMP Piperack Flare 2 Relocation RDMP Balikpapan
- 6) Reviewing the consultant's design and calculations for 120 meters high Derrick Structures for Flare in RDMP Balikpapan Flare 2 Relocation Project
- 7) Designing Various Equipment Foundation in OSBL Area for RDMP Balikpapan Feed Project
- 8) Designing Pile Foundation for several Tanks in OSBL Area for RDMP Balikpapan Feed Project
- 9) Designing Pile Foundation for CDU IV Buffer Tank Diameter 52m for RDMP Balikpapan Feed Project
- 10) Develop Civil and Structural Specifications for the Balikpapan RDMP Project
- 11) Develop a Civil and Structural Design Basis for the Balikpapan RDMP Project
- 12) Calculate Material Take off (MTO) for Steel and Concrete piperack Structures for the Balikpapan RDMP Project
- 13) Reviewing the consultant's design and calculations for North Jetty Design with 5000 DWT Capacity for Balikpapan RDMP Project
- 14) Reviewing the consultant's design and calculations for the Design of a 6500 DWT Capacity Construction Jetty for the Balikpapan RDMP Project
- 15) Reviewing the consultant's design and calculations for new waste water treatment plant for the Balikpapan RDMP Project
- 16) Reviewing the consultant's design and calculations for Piperack Flare 1 Steel Structure Design from JGC as the EPC Contractor for RDMP Balikpapan Project
- 17) Reviewing the consultant's design and calculations for the Balikpapan RDMP New Sea Water Intake Design for RDMP Balikpapan Project
- 18) Design and calculate the structure and foundation of the Warehouse and Office LLP Building for RDMP Balikpapan Project
- 19) Design and calculate Bill of quantity for Warehouse and Office LLP Building and creating Scope of work for Bidders in RDMP Balikpapan Project
- 20) Reviewing the consultant's design and calculations for the New Site Office and HSE Building in RDMP Balikpapan Project
- 21) Reviewing the consultant's SOW and BOQ for the New Site Office and HSE Building in RDMP Balikpapan Project
- 22) Reviewing the Design of FEED Transfer and metering Facilities to Tanjung Batu BBM Terminal in RDMP Balikpapan Project
- 23) Reviewing the consultant's design and calculations and providing input for the Traffic and Logistics Study for Balikpapan RDMP Project
- 24) Reviewing the Design of FEDD New Workshop and Warehouse RDMP Balikpapan from LAPI GTC Consultant
- 25) Develop Scope Of Work and BOQ Piling and Stone Column Study for Early Works in Balikpapan RDMP Project
- 26) Reviewing the Scope of Work for Site Development 2 Early Works in Balikpapan RDMP Project
- 27) Reviewing the Scope of Work for Sulfur Jetty and Dredging Works in Balikpapan RDMP Project

- 28) Senior Civil Engineer and Technical Committee for EPC OSBL ISBL RDMP Balikpapan Bidding Stage and provided technical assessment for all bidders.
- 29) Lead Civil Engineer and Technical Committee for the Bidding Stage of Site Office, HSSE and LAB Building Project RDMP Balikpapan and provided technical assessments for all bidders.
- 30) Senior Civil Engineer and Technical Committee for Bidding Stage Sulfur Jetty and Dredging RDMP Balikpapan and provided technical assessment for all bidders.
- 31) Reviewing the consultant's Study for Survey and Site Assessment of Alternative Land for the Tuban GRR Refinery in Asembagus – Situbondo East Java
- 32) Reviewing the consultant's Reclamation Study Design in Balongan for Petrochemical Balongan West Java Project
- 33) Reviewing the consultant's Civil Design for Revamping Crude Distillation Unit Balongan RDMP Refinery Project
- 34) Senior Civil Engineer and Technical Committee for the Bidding Stage of Revamping Crude Distillation Unit Balongan RDMP Refinery Project
- 35) Reviewing Wood Group Consultant Design for Civil Work in EPC Revitalization RCC Unit RU-VI Balongan Refinery Project
- 36) Reviewing the consultant's design and calculations for Building and facilities Relocation Project in Balongan, West Java for Balongan West Java Petrochemical Project
- 37) Lead Civil Engineer and Technical Committee Technical Committee for EPC Revitalization RCC Unit RU-VI Balongan Refinery Project
- 38) Develop SOW for the Onshore Site Development Study of the New Refinery NGRR Kuala Tanjung North Sumatra
- 39) Reviewing the consultant's design and calculations for Onshore Site Development Study of the New Refinery NGRR Kuala Tanjung North Sumatra
- 40) Make SOW and Coordinate the work of the Kuala Tanjung NGRR Topography Survey carried out by Pertamina UTC
- 41) Develop SOW, BOQ, Drawing and Coordinate Work for Site Clearing Study, Demolition & Unforeseen Survey at RU III Plaju Refinery
- 42) Develop SOW, BOQ and Drawing for Land Clearing, Fencing and Land Relocation Studies for Petrochemical Complex Project West Java
- 43) Design, calculate BOQ, make Drawing and coordinate the work of Fencing, Land Clearing and Land Relocation of Penlok-1 Petrochemical Complex Project West Java
- 44) Civil Lead Engineer For FEED TDHT Project in RDMP Cilacap
- 45) Civil and Geotechnical Lead Engineer For Soil Investigation, topography study and unforeseen study for FEED TDHT Project in RDMP Cilacap
- 46) Reviewing the consultant's Design, SOW, BOQ for RDMP Cilacap TDHT FEED Project as Civil Lead Engineer

- 47) Reviewing the consultant's Design, SOW, BOQ for Civil Feed Site Clearing & Demolition RU III Plaju Green Refinery as Civil Lead Engineer
- 48) Lead Civil Engineer for Feed Pipeline HVO Export Facilities in Cilacap Refinery
- 49) Lead Civil/ Geotechnical Engineer for Bathymetry and Geophysical study in DBC TPPI Tuban Petrochemical Project
- 50) Lead Civil/ Geotechnical Engineer for Marine Soil Investigation Study in DBC TPPI Tuban Petrochemical Project
- 51) Reviewing the consultant's Design, Calculation, Specification SOW, BOQ,3D Model for DBC TPPI Tuban Petrochemical Project as Marine Lead Engineer
- 52) Lead Marine and Port Engineer for DBC TPPI Tuban Petrochemical Project
- 53) Lead Civil Engineer / Geotechnical for Site Assesment Project of Gasoline Hydrotreating Unit (GSH) Refinery Unit III Plaju
- 54) Lead Civil Engineer for FEED (Bidding Stage) of Gasoline Hydrotreating Unit (GSH) Project Refinery Unit VI Balongan
- 55) Lead Civil Engineer / Geotechnical for Site Assesment Project of Geen Refinery Cilacap(GRC) Refinery Unit IV Cilacap
- 56) Lead Civil/Marine Engineer for FEED Sulphur Recovery Unit (SRU) Project Refinery Unit IV Cilacap
- 57) Lead Civil Engineer for FEED Gasoline Hydrotreating Unit (GSH) Project Refinery Unit VI Balongan
- 58) Lead Marine and Port Engineer for FEED Green Refinery Cilacap (GRC) Project Refinery Unit IV Cilacap
- 59) Lead Marine Engineer for FEED Pipeline HVO Project Refinery Unit IV Cilacap

VI. TRAINING & SEMINAR

- Training “ Petroleum Engineering Basic” by Institut Teknologi Bandung. Jakarta, April 10, 2012.
- Introduction of PMBOK (Project Management Body of Knowledge) by PT.Rekayasa Industri
- In House Training “Health Safety Environment (HSE) and International Standard Organization (ISO) 9001:2000 Induction”, PT. Tripatra Engineers and Constructors, Jakarta Tripatra Office, May 03, 2007.
- Chevron Safety in Design, PT. Chevron Pacific Indonesia, Kristal Hotel, Jakarta, April 10, 2007.
- Outbond Training “Jungle Survival”, PT. Tripatra Engineers and Constructors (Adventure Indonesia), Gunung Salak, February 2007.
- Leadership Training- by Triharyo soesilo (CEO REKIN)
- Project Risk Management by PT.Rekayasa Industri
- Project Procurement Management by PT.Rekayasa Industri
- Project Cost Management by PT.Rekayasa Industri
- Project Scedule Management by PT.Rekayasa Industri
- Design_Structure with **Staad Pro** by PT.Rekayasa Industri

- English course by UPT ITB
- Project Management Lecture “Project Management in Oil and LNG Refinery Project” KMI Komunitas Migas Indonesia
- Project Management Lecture “Planning and Scheduling in Oil and Gas Project” KMI Komunitas Migas Indonesia
- Bechtel Training for Civil Structural Architectural “Estimating Guideline for Civil Structure” by Bechtel PESG
- Bechtel Training for Civil Structural Architectural “Introduction to CSA “ by Bechtel PESG.
- Bechtel Training for Civil Structural Architectural “Vendor Data Review Requirement for Structural Design “ by Bechtel PESG.
- Bechtel Training for Civil Structural Architectural “Drainage System Design” by Bechtel PESG.
- Bechtel Training for Civil Structural Architectural “Structure and foundation Design for piperack“ by Bechtel PESG.
- Bechtel Training for Civil Structural Architectural “Modularization in Refinery“ by Bechtel PESG.
- Geotechnical Training “Ground Improvement Technologies with Deep Vibration Techniques “ by Keller Group
- Geotechnical Training “Ground Improvement with Deep Soil Mixing “ by Menard Asia Group
- Geotechnical Training “Ground Improvement with Stone Column “ by Bauer Indonesia Group
- Geotechnical Training “Plaxis Program Fundamental For Geotechnical Design “ by Dr. Gouw Tjie-Liong

Seminar

- General Lecture “From Engineering To Construction in Oil and Gas Onshore and Offshore Facilities”. Secretariat of IA-ITB, Jakarta: July 28, 2007.
- General Lecture “Non Conventional Hydrocarbon Source and Management in Indonesia”. Komunitas Migas Indonesia (KMI), Jakarta: January 6, 2013.
- General Lecture “Project Management in Oil and Gas Onshore”. Secretariat of IA-ITB, Jakarta: February 28, 2012
- Civil Engineering National Seminar “ Strategi Peningkatan Kualitas Sumber Daya Manusia Teknik Sipil”, Aula Barat ITB, February 28, 2006.
- Infrastructure National Seminar “ Perkembangan dan Prospek Pembangunan Infrastruktur di Indonesia”, Aula Barat ITB, February 27, 2006.

VII. LANGUAGE PROFICIENCY

No.	Language	Proficiency			
		Read	Write	Speaking	Listening
1	Indonesia	Native	Native	Native	Native
2	English	Fluent	Fluent	Intermediate	Fluent