MUHAMMAD FARIS BIN MUHAMAD Permai Puteri, PP1-18-20, Jalan 13D, Tmn Dato Ahmad Razali,

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Ampang, 68000 KL, Malaysia.

Salam / Peace Be Upon You,

Attn: HR Personnel/Hiring Manager/Recruiter,

Dear Sirs,

## Application for Drilling/Field/Mechanical Engineer or Asst. Engineer/Technical Asst./Trainee in upstream Oil&Gas Industry

With regards to the matter above, I would like to submit my resume for your kind consideration. I have various Oil&Gas related knowledge including mechanical engineering, drilling engineering, formation evaluation and reservoir engineering. In mechanical engineering, I studied about engineering material and structural engineering including structural design and finite element analysis which are applicable in load-out, hook-up and installation of offshore structure. In drilling engineering, I learnt about six drilling rig sub-systems (power, hoisting, circulating, rotary, well control, monitoring), drilling operation, well control, directional drilling, blow-out prevention, cementing and casing program. In formation evaluation, I studied about well logging including operating principle of GR, SP, Density logging, Resistivity, Induction & microresistivity logging tools, etc. and down hole log interpretation. In reservoir engineering I learnt about oil reserve estimation, well test analysis (wellbore storage, pressure build-up and draw-down) and oil recovery. Oil recovery including maintenace operation for production well which include well intervention and wireline services. I was also exposed to offshore field operation when I was working on the academic field development project for saggamiut block at Greenlandic water.

My highest graduated qualification is Bc.Tech.(Hons) Mechanical Engineering from Universiti Kuala Lumpur (UniKL). Throughout this 4-year programme, I received Dean's List Awards in ALL SEMESTERS. I graduated as the best student overall and received the President Award presented by UniKL Chancellor during graduation. My final CGPA is 3.82 out of 4.

I had 13-Month academic experience in the Upstream Oil&Gas. I attended Petroleum Engineering courses at Institute of Petroleum Engineering, Heriot-Watt University, Edinburgh, UK. I was well-exposed to and received credits in the following courses: Drilling Engineering, Formation Evaluation, Reservoir Engineering, Petroleum Geoscience, Well Test Analysis, Reservoir Simulation and Field Development Project. I had field trips experience to Pease Bay and Inverness to analyse depositional environment which determine the petroleum play in North Sea, UK.

I had 6-Month industrial experience as a mechanical engineering trainee at the world's top semiconductor (wafer fabrication) company-Infineon Technologies. I attached to maintenance & Innovation group (MiG). I did several minor but highly significant projects including mounting a production robot on workstation, mount tools such as dimmer box, power supply and laser sensor and run periodic maintenance on heat exchangers, chillers, inner gate drive assemblies, blowers and pumps. I presented briefly the technical aspect of each ongoing task/project directly to my supervisor and the MiG Director on daily basis.

To be honest I have been being highly passionate and very interested to serve in Oil&Gas industry since many years ago. My mission is to gain more and more knowledge, skills and experience as an engineer in Oil&Gas industry so that one day I can achieve my vision to be an excellent, experienced, highly productive and competent engineer with full capacity in contributing knowledge and skills towards developing the Oil&Gas industry. So my strength is, as I am in the process to achieve my vision, I will continuously and enthusiastically work hard, apply my current knowledge, and learn new things and directly apply it in accomplishing all tasks and project assigned by the employer. I am looking forward and prepare to face challenges in your company and I would not give up.

I am kind of person who has realistic driven personality. Thus I would mention that I do have a weakness. It is currently I do not have industrial experience in Oil&Gas industry yet. I realize and agree experience always be major concern for employers. However, I can assure the employers I always be ready to be productive and give my 100% commitment and hardwork to project executions and jobs assigned to me within their specified time frames. In addition, my inspiration to turn my vision up to reality has been putting significant weight in overriding my weakness. I am rapid learner and multitasker as I can learn while accomplishing my jobs and executing project.

I would like to insist and reiterate that my mission, vision, inspirations, fresh knowledge in drilling engineering, formation evaluation & reservoir engineering, eager for achievements and success, commitment, skills, robust knowledge in mechanical engineering, invulnerable to challenges and knowing my weakness are dominant parts of my strength which company can get benefits from me. Productivity and competency are always be my concern. I am going to strive my best for the growth of your company.

I will never take this opportunity for granted. If I get I hired I will work hard and I am always willing for travel, relocation, working outside normal hours, training and others requirement. Should you need further information or want to ask me about anything, please feel free to call me directly anytime at +6019-9937508 (my mobile). I am looking forward to hear from you soon. I appreciate your kind consideration. Thank you very much for your time.

Best regards,

Muhammad Faris Bin Muhamad

I/C: 870919-03-5225

#### **CONTACT INFORMATION**



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## **OBJECTIVE**

To serve as a Drilling/Field/Mechanical Engineer or Asst. Engineer/Technical Asst./Trainee in Upstream Oil&Gas industry.

# SUMMARY of RELATED SKILLS/KNOWLEDGE

- Mechanical Engineering
- Engineering Material
- Finite Element Analysis
- Structural Analysis/Simulation
- Thermal Analysis/Simulation
- Ansys, Catia, CAD, CAE
- Heat Exchanger Design
- Pneumatic & Hydraulic
- Petroleum Engineering
- Reservoir Engineering
- Well Test Analysis
- Oil Recovery
- Field Exploration&Development
- Drive Mechanism
- Well Planning
- Drilling Technology
- Formation Evaluation
- Well Intervention
- Well Logging
- Downhole Log Interpretation
- Matrix Acidising
- Hydraulic Fracturing
- Negative pressure test
- Workover

- Drilling Engineering
- WL, LWD, MWD, FEWD
- Leak-off Test
- Directional Drilling/Surveying
- Well Completion
- Well Control
- Kick Detection
- Blowout Prevention

# **EDUCATION**

Levels	Qualifications	Institutes	Periods	Results	Accomplishments
Post Graduate School	Petroleum Engineering Courses	Institute of Petroleum Engineering, Heriot-Watt University, Edinburgh, UK	Sept 2012 - Sept 2013	Courses Passed:  Drilling Engineering Formation Evaluation Petroleum Geoscience Reservoir Engineering Reservoir Simulation Well Test Analysis Design Project	Courses Attended: Drilling Engineering Formation Evaluation Petroleum Geoscience Reservoir Engineering Reservoir Simulation Well Test Analysis Design Project Production Tecnology Petroleum Economic
Bachelor's Degree	Bc.Tech(Hons) Mechanical Engineering	Universiti Kuala Lumpur	July 2008 – Jun 2012	CGPA: 3.82/4	<ul> <li>2012 Bc.Tech(H) Mech.</li> <li>Eng. Best Student</li> <li>President's (Chancellor's)</li> <li>Award receiver</li> <li>All semesters' Dean's List</li> <li>Awards receiver</li> </ul>
A-Level/ Pre-U	Matriculation Certificate in Science (Biology)	Perlis Matriculation College	May 2005- April 2006	CGPA: 2.98/4	Graduated
Secondary School/ O-Level	SPM (Malaysian Certificate of Education) - Science stream	SMK (National Secondary School) Kampung Laut, Kelantan	January 2001– December 2004	Grade A: Biology, Chemistry, Additional Mathematics, Mathematics, Malay Language Grade B: Physics, English, English for Science&Technology, History, Islamic Education	Graduated

# **SKILLS**

# Computer

Softwares	Remarks	Competencies					
		Impracticable	Introductory	Intermediate	Good	Expert	
Ansys 12.0	CAE (Finite Element Analysis)				✓		
Catia V5R18	CAD				✓		
SolidWorks	CAD			✓			
Mastercam X MR2	CAM		✓				
Minitab 15	Statistical Software			✓			
Turbo C++	Programming		✓				
Microsoft Office	Word, Excel, Powerpoint					✓	
EPS PanSystem	Well test analysis			✓			
EPS Flosystem	Production optimisation			✓			
Terrastation	Log interpretation			✓			
Schlumberger Geoguest Eclipse	Reservoir simulation		✓				

#### Languages

■ English: Professional working profiency (IELTS 6.5/9)

Malay: Native profiency

#### **ACADEMIC PROJECTS**

#### Thermal and Stress Analysis on 3-Dimensional Finite Element Model of A Brake Disc by Using ANSYS

Objective: -To observe temperature and stress distribution on brake disc during braking Method:

- Braking system consists of a disc and pads were designed and modelled using Catia.
- The complete model of braking system was imported into Ansys Workbench platform for generating finite element model of the braking system and simulating the braking operation.
- Four materials were set up for the disc : gray cast iron (base case), stainless steel, titanium alloy & alluminium alloy Result (worst & best performance):
- Stainless steel disc- highest max stress: highest max temperature (worst performance)
- Aluminium alloy disc- lowest max stress; highest heat flux (better heat transfer, better cooling capability); lowest max deformation (best performance)

# Field Development Project. Field: Saqqamiut (2008/13) block, approximately 10km off the southern coast of Greenland in the Labrador Sea.

Objective:- To come out with field development plan according to real exploration wells data given. A set of data of six wells from Fulmar field (North sea) was given for analysis and development.

#### Method:

- Analyse depositional environment and lithology. Stratigraphic layers among wells was correlated.
- Porosity and permeability of the reservoir were calculated using Terrastation.
- Water oil contact (WOC) was established using the resistivity and inductivity tools response. Oil bearing formation shows big difference between shallow and deep resistivity investigation due to the low conductivity of hydrocarbons. Water displays the opposite response to this since it is electrically conductive.
- The area of the reservoir was estimated using the identified WOC and the top structure map.
- Water saturation of reservoir was calculated by Archie's equation.
- Initial oil formation volume factor was determined by PVT analysis on core data.
- The stock tank oil initially in place (STOIIP) was calculated using all the petrophysical properties calculated which previously stated.
- Drilling operation and processing facilities for reservoir fluid was analysed according to the fluid behaviour and properties under the local environmental and safety considerations.

## Outcomes: (Development plan)

- STOIIP was calculated to be 800 MMSTB and production was expected to be profitable and the field development was proceeded.
- Drilling: to operate drillship (mooring is avoidable, position maintained by dynamic positioning system)
- Oil processing facilities: Onshore since the field is approx. 10km off shoreline. Topside facilities consists of 3-phase separator, hydrocyclone, water injection module, NGL recovery separator, sour gas (H2S) treatment, compressor, heat exchanger, and power plant.
- Rig/Platform: not required since subsea tie-back to shore facilities was selected.
- HSE policy ALARP

#### **EXPERIENCES**

3<sup>rd</sup> September 2012 – 16<sup>th</sup> September 2013 (**Completed Petroleum Eng Courses**) - **Oil&Gas Academic Experience ~13 Months** Institute of Petroleum Engineering, Heriot-Watt University, Edinburgh, UK

Courses attended: Drilling Engineering, Formation Evaluation, Petroleum Geoscience, Reservoir Engineering, Reservoir Simulation, Well Test Analysis, Petroleum Economics, Production Technology & Design Project

9<sup>th</sup> January 2012 – 26<sup>th</sup> June 2012 (**Mechanical Engineering Trainee**) - **Mechanical Engineering Industrial Experience** ~6 **Months** Company: Infineon Technologies (Kulim) Sdn Bhd

Description/Department of company: Wafer fabrication for power semiconductors (Frontend) / Maintenance Innovation Group (MiG) Description of the job:

- Working in group with engineers, technicians and others technical supports to provide maintenance for production equipments to maintain their optimum working condition in production of semiconductor wafers.
- Designed and fabricated a dimmer box, power supply box, heat exchanger mounting, Gencrobot controller box, laser sensor mounting, and platform & mounting for robot.
- Done services and troubleshooting on heat exchanger units, inner gate drive assemblies, blowers, vacuum pumps, chillers, etc.
- Presented briefly the technical aspect of each ongoing task or project directly to the MiG Director on daily basis.

#### PROFESSIONAL MEMBERSHIP

Institute of Petroleum Engineering Heriot-Watt University's Member (ID: H00142937)

Benefit: I have full premium access to any document, research, journal and conference report in Oil&Gas throughout the world published by SPE, IADC, OTC, API, WPC, SUT, etc.

# **REFEREES**

# Faiza Bt Mohamed Nasir

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