

UNIVERSITI TEKNOLOGI PETRONAS

JOB DESCRIPTION

POSITION TITLE	: Postdoctoral Fellow
DEPARTMENT	: Chemical Engineering
LOCATION	: Universiti Teknologi PETRONAS
REPORTING TO	: Head- Mission Oriented Research CO2 Management

ACCOUNTABILITY OBJECTIVES

The CO2 Management is recognized as one of the technology focus areas for future positioning in PETRONAS. Universiti Teknologi PETRONAS has taken the initiative to re-focus the research strategies by recognizing the CO2 Management as one of their Mission Oriented Research areas in order to support PETRONAS research agenda. The research focuses on the bulk separation of CO2 from natural gas fields to produce pipeline and cryogenic quality natural gas. The research involves the corrosion studies on the pipelines and equipment, pre-treatment of impurities, material development for CO2-NG separation, process development for optimum separation of CO2-NG, CO2 utilization and sequestration.

JOB DIMENSION

The candidate shall possess the following qualification and criteria:

- A PhD degree in chemical engineering specializing in separation, process optimization, or process simulation.
- Working experience in oil and gas field related to process plant, process design, or research.
- Experiences in process simulation, modeling or CFD.
- Hands-on experience on laboratory work especially with unit operations.
- Strong communication skills and ability to work independently and with an interdisciplinary team.

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PRINCIPAL ACCOUNTABILITIES

To support the Head of Mission Oriented Research on the followings;

1. To plan, develop, organize, implement and evaluate the operational performance of MOR.
2. To plan, schedule, supervise, coordinate the subordinates work load and activities
3. To monitor and report regularly the progress of funded projects under the CO2 MOR.
4. To assist individuals or groups on the application of new funding for STIRF, E-Science, PRF, or other Internal and External Sources
5. To involve directly with some of CO2 projects activities and to assist the project leader on project management, purchase requisition, tendering, publications and post-graduate supervision.
6. To arrange, and coordinate all public relation and image building matters related to MOR.
7. Record keeping for all CO2 MOR activities.
8. To enforce compliance at all times with UTP laboratory Safety Policies and UTP laboratory rules and regulation.
9. To enforce safe keeping of information obtained in the course of duties performed and to refrain from disclosing information without the consent of Universiti Teknologi PETRONAS, except by court order.
10. Proactively involve in the implementation and maintenance of corporate wide quality culture process (QCP), and health, safety and environment (HSE).
11. Perform other duties as and when requested by the head of MOR.

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MAN – SPECIFICATIONS

1. Education:

PhD in Chemical Engineering with specialization in separation, process optimization, or process simulation.

2. Professional Working Experience:

Minimum of two years related to oil and gas industries or research institutions.

3. Specific Skills and Knowledge:

Any of the following qualifications will be a plus:

- Knowledge and experience in process and engineering development for oil and gas industries.
- Experience in development of process simulation and CFD of natural gas flow in separation system.
- Experience in the study of natural gas separation related to membrane, absorption, adsorption, supersonic or cryogenic separation system.

Candidates who possess a strong motivation to pursue academic research are encouraged to apply. The candidate should have sound scientific records (i.e. publications, patents, research projects, etc) in the area of separation processes and simulation. Good communication, interpersonal and presentation skills are required. In addition, the candidate should be a team player who is capable of working together with researchers and practitioners from industries.

COMPETENCIES

1. Leadership – able to lead and guide team members under his/her custodian to complete any given tasks/ assignments.
2. Supervisory skills – able to supervise subordinates.

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3. Communication skills – able to communicate well at all levels and can deliver message accurately.
4. Planning and Coordination – able to plan and coordinate sequence of work to timely and satisfactory complete any tasks/ assignments.
5. Negotiation skill – able to convince other parties to offer win-win business transaction for both parties.
6. Time Management – able to manage time to suit unexpected events/ tasks and able to prioritize works based on importance and urgency.
7. Motivation – able to stimulate and energize oneself and team members under his/her custodian when facing with difficulties in completing any assignment.
8. Report writing – able to write report/ proposal with tact, accuracy and concise without deviating from its objectives.
9. Assertive – able to exercise assertiveness without attending others.
10. Business Acumen – poses business minded and entrepreneurship thinking that enhances the University vision and mission.
11. Team Work – able to nurture and maintain team work and spirit amongst team member in completing any assignment.
12. Interpersonal relation skills – able to maintain and nurture relationship rapport with internal and external parties.

MAJOR CHALLENGES

1. To ensure the establishment of guidelines and procedures for the MOR to be implemented accordingly.
2. To maintain and update knowledge on laboratory and engineering technologies.
3. To ensure proper documentation procedures.
4. To meet day-to-day requirement on office administration.

ENDORSEMENT	PREPARED BY	APPROVED BY	REVISION: 0
SIGNATURE			
NAME			

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DESIGNATION			
DATE			