

POSITION TITLE : **Postdoctoral Fellow**
DEPARTMENT : **Chemical Engineering**
LOCATION : **Universiti Teknologi PETRONAS**
REPORTING TO : **Head- Mission Oriented Research :Green Technology**
SUPERVISE : **Postgraduate**

ACCOUNTABILITY OBJECTIVES

The Green Technology Research is one of the research areas which focus in reduction of green house gas emission through utilization of sustainable resources such as waste and biomass. Specific emphasize are given on the study related to biomass conversion technologies i.e biomass to liquid, solid, gas and value added products from first, second and third generation bio based feedstock. Under hydrogen research focus will be on H₂ production from renewable resources, purification, storage and utilization as feedstock for bio-oil, petrochemical upgrading or as transportation fuel. The research will involve process synthesis & design, material development and computing and simulation work in the area of biomass utilization and H₂ production.

JOB DIMENSION

The candidate shall possess the following qualification and criteria as follows:

- a PhD degree in Chemical Engineering, chemistry or biochemistry engineering.
- training or work experience in process synthesis & design, material development & computing & simulation skills utilizing Matlab, Fluent or Aspen.
- strong communication & writing skills, and ability to work independently and with an interdisciplinary team.

PRINCIPAL ACCOUNTABILITIES

1. To support the Mission Oriented Research head in planning, developing, organizing, implementing, directing and evaluating the operational performance
2. To plan schedule, supervise, coordinate the arrangements of the allocation of subordinates work load, schedule and activities
3. To introduce new ideas, methods and design of product according to market requirements.
4. To execute in the process of tender and contract as well as procuring and evaluating of consumable asset and consumables. (OPEX)
5. To assist in the process of purchasing of fixed asset.(CAPEX)
6. To arrange, and coordinate all public relation and image building matters related to the Center.
7. To support the HSE department in implementing the HSE MS.
8. To enforce compliance at all times with UTP laboratory Safety Policies and UTP laboratory Rules And Regulation.
9. To lodge, compile report and present to the relevant authority in the University any defects in which it may affect safety in labs and facilities.
10. 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.
11. Proactively involve in the implementation and maintenance of corporate wide quality culture process (QCP), and health, safety and environment (HSE).
12. Perform other duties as and when requested by superiors.

MAN – SPECIFICATIONS

1. Education:

PhD in Chemical Engineering/ Chemistry or biochemistry engineering.with 2 years working experience at organization related to the relevant areas.

2. Professional Working Experience:

Plus point: minimum of two years and well verse in latest technology in prototyping, program design, paper and patent writing.

3. Specific Skills and Knowledge:

Any of the following qualifications will be a plus:

- Knowledge and experience in process design & synthesis.
- Experience in development & commissioning of experimental rig.
- Experience in material development.

Candidates who possess a strong motivation to pursue academic research are encouraged to apply. The candidate should have sound scientific record in the area of process synthesis and design. Advanced knowledge of Matlab, good communication, interpersonal and presentation skills are required. In addition, the candidate should be a team player who is capable of working together with experimentalists and with other researchers from different disciplines.

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.
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 Center are 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			
DESIGNATION			
DATE			