

# **1. Curriculum Vitae**

## **Personal Information**

**Name:** May Ali Muslim Alsaffar

**Work Place:** University of Technology/Department of Chemical Engineering

**Place of Birth:** Baghdad/Al-Karkh

**Nationality:** Iraqi

**Marital Status:** Married

## **2-Scientific Title**

Assistant prof. Dr.may ali alsaffar

## **3-Research Interests**

- Reactor Engineering
- Nanotechnology
- Polymers
- Chemical Sensors
- Environmental Pollution and How to Treat It

## **4-Certificates**

Putra University Malaysia /PhD. Of Chemical Engineering on 15/12/2017

Technological University/ Master of Chemical Engineering on 9/7/2017

Technological University/ Bachelor of Chemical Engineering on 27/6/1995

## **5-Administrative positions**

- Director of the Quality and Performance Evaluation Department from (2017-2022).
  - Head of Chemical Engineering and Pollution Department (2022-2024).

## **6- Academic Experience:**

1995-2005 lecture in the laboratories (Chemical Industries Laboratory, Chemistry Laboratory, Physical Chemistry Laboratory, unit operation laboratory, and Drawing engineering). in Chemical Eng. Department- University of Technology-Iraq  
 2005- Faculty member in Chemical Eng. Department- University of Technology-Iraq.  
 2007- 2013 Practical supervision on Laboratory of (unit operation laboratory)  
 2013 - 2017 Faculty member in Chemical Eng. Department- University of Technology.  
 2017-2024 scientific supervision on Laboratory of (unit operation laboratory)  
 2018 – 2019 taught 1th class, subject taught: mathematics.  
 2019- tell now taught 4th class, subject taught: unit operation.  
 2018 – tell now supervision for graduation Project for 4th class student.

## **7-Associations and unions**

- Participation in the Iraqi Engineers Syndicate
- Participation in the Nanotechnology Association.

## **8-Honors and Medals of Honor**

- Obtaining a certificate of honor from the President of the University in quality and performance evaluation.
- Obtaining the shield of excellence and creativity in the field of quality from the President of the University.
- Obtaining the shield of excellence and creativity for participating as a session chair in the Nanotechnology Conference.

## **Principal Publications and Presentations of Past Five Years: Most recent**

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Predictive modeling of catalytic conversion of greenhouse gas to syngas in a fixed bed reactor using Gaussian process regression: Effect of kernel function.

Optimization of greenhouse gas valorization over ceria-promoted Co–Ni/graphene oxide catalytic materials using response surface methodology.

Opportunities for Integrated Natural Gas Conversion Technologies.

Advances in synthesis and application of cobalt and nickel-based nanomaterials for catalytic reforming of hydrocarbons and oxygenates to hydrogen-rich syngas.

Optimizing Photocatalytic Lead Removal from Wastewater Using ZnO/ZrO<sub>2</sub>: A Response Surface Methodology Approach.

Synthesis of Nano-silica Particles using *Eucalyptus globulus* Leaf Extract and Their Innovative Application as an Adsorbent for Malachite Green Dye.

Response surface optimization of hydrogen-rich syngas production by methane dry reforming over bimetallic Mn-Ni/La<sub>2</sub>O<sub>3</sub> catalyst in a fixed bed reactor.

Phenol Removal from Wastewater in Petroleum Refineries by Managing Flow Characteristics and Nanocatalyst in Ozonized Bubble Column.

One-step synthesis of magnetic fly ash composites for methylene blue removal: batch and column study.

Integrated Process for High Phenol Removal from Wastewater Employing a ZnO Nanocatalyst in an Ozonation Reaction in a Packed Bubble Column Reactor.

Catalytic Performance of Bimetallic Cobalt–Nickel/Graphene Oxide for Carbon Dioxide Reforming of Methane.

Electrochemical removal of dye from a tanning process industrial wastewater.

Combining  $\alpha$ -Al<sub>2</sub>O<sub>3</sub> Packing Material and a ZnO Nanocatalyst in an Ozonized Bubble Column Reactor to Increase the Phenol Degradation from Wastewater.

Effect of textural properties on the degradation of bisphenol from industrial wastewater effluent in a photocatalytic reactor: A modeling approach.

The potential of hydrogen production using chemical looping reforming reactor: A data-driven evaluation of process parameters effects.

Competitiveness of hydrogen production by glycerol reforming in fixed-bed reactor: An overview of the catalytic performance, product distribution and reactant conversions.

The role of TiO<sub>2</sub> NPs catalyst and packing material in removal of phenol from wastewater using an ozonized bubble column reactor.

Enhancement of ozonation reaction for efficient removal of phenol from wastewater using a packed bubble column reactor.

Model analysis and parametric evaluation of Titania nanoparticles modified epoxy composites.

Data-Driven Radial Basis Function Approach to Evaluate the Effect of Process Variables on Solar-Assisted Degradation of Starch-Plastics Composite in an Extruder Reactor.

Sustainable toward a circular utilization economy: of CO<sub>2</sub> prospects, challenges, and opportunities.

A Computational fluid dynamics study of liquid–solid nano-fluid flow in horizontal pipe.

Thermochemical valorization of oil palm biomass to value-added products: A biorefinery concept.

Modeling the Effect of Magnesia Nanoparticles on CO Hydrogenation to Light Olefins in a Continuous Flow Reactor Using Fine Gaussian Support Vector Machine.

Modelling and optimization of methylene blue adsorption from wastewater utilizing magnetic marble dust adsorbent: A response surface methodology approach.

Process intensification of hydrogen production by catalytic steam methane reforming: Performance analysis of multilayer perceptron-artificial neural networks and nonlinear .

An overview of the prospects of extracting collagens from waste sources and its applications.

Carbon dioxide reforming of methane over Ni-based catalysts: Modeling the effect of process parameters on greenhouse gasses conversion using supervised machine learning algorithms.

Kinetic modeling and reaction pathways for thermo-catalytic conversion of carbon dioxide and methane to hydrogen-rich syngas over alpha-alumina supported cobalt catalyst.

Artificial neural network modeling of thermo-catalytic methane decomposition for hydrogen production.

Experimental studies and artificial neural network modeling of hydrogen sulfide removal from wastewater by calcium-modified coconut shell based activated carbon.

Backpropagation neural networks modelling of photocatalytic degradation of organic pollutants using TiO<sub>2</sub>-based photocatalysts.

Modeling the effect of process parameters on the photocatalytic degradation of organic pollutants using artificial neural networks.

Elucidating the non-linear effect of process parameters on hydrogen production by catalytic methane reforming: an artificial intelligence approach.

Predictive Modeling of Multilayer Graphene Growth by Chemical Vapour Deposition on Co-Ni/Al<sub>2</sub>O<sub>3</sub> Substrate using Artificial Neural Network.

Artificial intelligence modelling approach for the prediction of CO-rich hydrogen production rate from methane dry reforming.

## **9- Skills (Languages and Computer)**

- English language.
- All computer skills. (power point, excel, word, ic3.....ext.)

## **10- Training courses**

Giving lectures in the training courses titled

- \* Documentation requirements for procedural methods
- \* Questionnaire analysis using the statistical program spss
- \* Internal audit techniques
- \* ABET standards as a method for achieving accreditation

## **11- Research evaluation**

1. \* Research evaluation number (30).