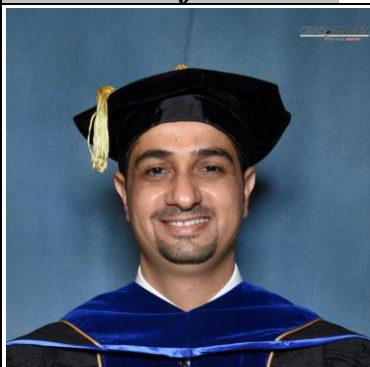


# Curriculum vitae

## **Personal information**



**Name** : Abbas Jawad Sultan  
**Date of birth** : 11-14-1979.  
**Place of birth** : Baghdad – Iraq.  
**Nationality** : Iraqi.  
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[abbasjawadsultan@yahoo.com](mailto:abbasjawadsultan@yahoo.com)  
**Gender** : Male  
**Marital status** : Married.  
**Work address** : Department of Chemical Engineering, University of Technology, Baghdad, Iraq.

## **Academic history**

<b>Year</b>	<b>Educational institutes</b>	<b>Country</b>
2013-2018	Missouri University of Science and Technology, Rolla, MO. <b>PhD Chemical Engineering</b>	USA
2015	Missouri University of Science and Technology, Rolla, MO <b>M.S. Chemical Engineering</b>	USA
2006	University of Technology (Baghdad, Iraq) <b>M.S. Chemical Engineering</b>	Iraq
2002	University of Technology (Baghdad, Iraq) <b>B.S. Chemical Engineering</b>	Iraq

## **Activities and experiences**

<b>Year</b>	<b>Activities and experiences</b>
2019	Teaching several courses such as Heat Transfer, Renewable Energy, and Physics. Supervision of undergraduate students on graduation projects. Conducting different workshops on the department for graduate and undergraduate students.
2018	Teaching assistant in Chemical and Biochemical Engineering/Staged Mass Transfer class/ Missouri University of Science and Technology, Rolla, MO

2015	Teaching assistant in Chemical and Biochemical Engineering/Reactor design class/ Missouri University of Science and Technology, Rolla, MO
2013	Teaching assistant in Chemical and Biochemical Engineering/flow sheeting class/ Missouri University of Science and Technology, Rolla, MO
2008-2012	Heat transfer lecturer for the senior students, Chemical Engineering Department University of Technology (Baghdad, Iraq)
2007-2012	Supervisor for students projects of senior students/ University of Technology (Baghdad, Iraq)
2007-2008	Supervisor of Crude oil refinement Laboratory's/ University of Technology (Baghdad, Iraq)
2007-2008	Control laboratory's supervisor/ University of Technology (Baghdad, Iraq)
2008-2009	Pilot plant laboratory's supervisor/ University of Technology (Baghdad, Iraq)
2007-2012	Industries laboratory's Supervisor/ University of Technology (Baghdad, Iraq)
2007-2012	Member in committee of examination for undergraduate students/ University of Technology (Baghdad, Iraq)

### ***Publications:***

1. **A.J. Sultan**, L.S. Sabri, M.H. Al-Dahhan, Overcoming the Gamma-Ray Computed Tomography Data Processing Pitfalls for Bubble Column Equipped with Vertical Internals, *Can. J. Chem. Eng.* (2018).
2. **A.J. Sultan**, L.S. Sabri, M.H. Al-Dahhan, Influence of the Size of Heat Exchanging Tubes (Internals) on the Gas Holdup Distribution in a Bubble Column Using Gamma-ray Computed Tomography, *Chem. Eng. Sci.* (2018).
3. **A.J. Sultan**, L.S. Sabri, M.H. Al-Dahhan, Impact of the Heat Exchanging Tube Configurations on Gas Holdup Distribution in Bubble Column via Gamma-Ray Computed Tomography, *Int. J. Multiph. Flow.* (2018).
4. L.S. Sabri, **A.J. Sultan**, M.H. Al-dahhan, Assessment of RPT Calibration Need during Microalgae Culturing and other Biochemical Processes, *IEEE.* (2017) 3–8.
5. M.K. Al Mesfer, **A.J. Sultan**, M.H. Al-Dahhan, Impacts of dense heat exchanging internals on gas holdup cross-sectional distributions and profiles of bubble column using gamma ray Computed Tomography (CT) for FT synthesis, *Chem. Eng. J.* 300 (2016) 317–333.
6. M.K. Al Mesfer, **A.J. Sultan**, M.H. Al-Dahhan, Study the effect of dense internals on the liquid velocity field and turbulent parameters in bubble column for Fischer–Tropsch (FT) synthesis by using Radioactive Particle Tracking (RPT) technique, *Chem. Eng. Sci.* 161 (2017) 228–248.
7. **A.J. Sultan**, L.S. Sabri, M.H. Al-Dahhan, Investigating the influence of the configuration of the bundle of heat exchanging tubes and column size on the gas holdup distributions in bubble columns via gamma-ray computed tomography, *Experimental Thermal and Fluid Science*, 2018.

8. Sabri, Laith S., **Abbas J. Sultan**, and Muthanna H. Al-Dahhan. 2018. "Mapping of Microalgae Culturing via Radioactive Particle Tracking." *Chemical Engineering Science*.
9. **Sultan, Abbas J.** 2018. "Hydrodynamics Study of the Bubble Columns with Intense Vertical Heat-Exchanging Tubes Using Gamma-Ray Computed Tomography and Radioactive Particle Tracking Techniques." *Missouri University of Science and Technology*.
10. Jasim, Ahmed A., **Abbas J. Sultan**, and Muthanna H. Al-Dahhan. 2019. "Influence of Heat-Exchanging Tubes Diameter on the Gas Holdup and Bubble Dynamics in a Bubble Column." *Fuel* 236:1191–1203.
11. Jasim, Ahmed A., **Abbas J. Sultan**, and Muthanna H. Al-Dahhan. 2019b. "Influence of Heat-Exchanging Tubes Diameter on the Gas Holdup and Bubble Dynamics in a Bubble Column." *Fuel* 236:1191–1203.
12. Sabri, Laith S., **Abbas J. Sultan**, and Muthanna H. Al-Dahhan. 2019. "Investigating the Cross-Sectional Gas Holdup Distribution in a Split Internal-Loop Photobioreactor during Microalgae Culturing Using a Sophisticated Computed Tomography (CT) Technique." *Chemical Engineering Research and Design*.
13. **Sultan, Abbas J.**, Balasim A. Abid, and Abbas J. Sultan. 2010. "Heat Transfer of Single and Binary Systems in Pool Boiling." *Al-Khwarizmi Engineering Journal* 6(1):14–23.
14. Abdul Jabbar, Salih, **Abbas Sultan**, and Hayder Alaa Maabad. 2012. "Prediction of Heat Transfer Coefficient of Pool Boiling Using Back Propagation Neural Network." *Journal* 30(8).

#### ***Awards/recognition:***

- 1- Receiving the Distinguished Dissertation Award from Missouri University of Science and Technology/ chemical and biochemical engineering department, 2018.
- 2- Travel award for 24<sup>th</sup> International Symposium on Chemical Reaction Engineering (ISCRE 24), Minneapolis Minnesota, USA., 2016.
- 3- Won 3rd place prize in poster competition for 24th International Symposium on Chemical Reaction Engineering (ISCRE 24), Minneapolis Minnesota, USA, 2016.
- 4- Won best poster Award for Graduate Research Showcase Spring, Missouri University Science and Technology, 2017.
- 5- Won 3rd place Award for Young Researcher Award (Algae Biomass Summit, Salt lake city, Utah, 2017).
- 6- Receiving a travel grant to attend and present at ISCRE 25 in Florence, Italy (May, 2018).
- 7- Awarded the Shield of Scientific Excellence for the first student out of 158 student in B.S. study

#### ***Participations in the conferences***

1. 12th International Conference on Gas-Liquid & Gas-Liquid-Solid Reactor Engineering (GLS12), June 28 - July 1, 2015, Manhattan, New York, USA. "Impact of Internals Height from the Gas Distributor on Hydrodynamics in a Bubble Column Reactor" Ahmed Jasim, Abbas Sultan and Muthanna Al-Dahhan
2. 24th International Symposium on Chemical Reaction Engineering (ISCRE 24), June 12-15, 2016, Minneapolis Minnesota, USA. "Investigating the effect of heat exchange tubes size on phase distribution of bubble columns for Fischer Tropsch synthesis by using gamma ray computed tomography (CT) Technique" Abbas Sultan, Laith Salim and Muthanna Al-Dahhan
3. International-Mexican Congress on Chemical Reaction Engineering, (IMCCRE), JUNE 5-9, 2016, QUERÉTARO, MÉXICO. "Investigating the Impact of Vertical Internals on the Gas Holdup Distribution in Pilot Scale Bubble Column for Fischer-Tropsch Synthesis via Gamma-Ray Computed Tomography (CT) Technique" Abbas Sultan, Laith Salim and Muthanna Al-Dahhan

4. 8th World Congress on Industrial Process Tomography, 26 - 29 September 2016, Iguassu Falls, Brazil “Investigating the Influence of Bundle of Heat Exchanger Tubes (internals) on the Gas Holdup Distributions in Pilot Scale Bubble Column with Internals for Fischer- Tropsch Synthesis (FT) Via Gamma-Ray Computed Tomography (CT) Technique” Abbas Sultan, Laith Salim and Muthanna Al-Dahhan
5. 8th World Congress on Industrial Process Tomography, 26 - 29 September 2016, Iguassu Falls, Brazil “Study the Effect of Dense Internals on the Liquid Velocity Field and Turbulent Parameters of Bubble Column Using Radioactive Particle Tracking Technique (RPT)” Mohammed Al Mesfer, Abbas Sultan, Muthanna Al-Dahhan
6. 8th World Congress on Industrial Process Tomography, 26 - 29 September 2016, Iguassu Falls, Brazil “Imaging and Visualization of phase distribution for Microalgae culturing in split photo bioreactor column via Gamma Ray Computed Tomography (CT)” Laith Sabri, Abbas Sultan, Muthanna Al-Dahhan
7. 2016 Midwest Energy Policy Conference and Laufer Energy Symposium, St. Louis, MO, USA. ”Gas Holdup Distribution in Bubble Column with Heat Exchange Tubes (Internals) for Gas-to-Liquid (GTL) Technology as Alternative Energy” Abbas Sultan, Laith Salim and Muthanna Al-Dahhan
8. 2016 AIChE Annual Meeting, November 13-18, 2016, San Francisco, CA, U.S.A. “Visualization Phases Distributions in the Pilot-Scale Bubble Column with Internals via  $\gamma$ -Ray Computed Tomography (CT) Technique” Abbas Sultan, Laith Salim and Muthanna Al-Dahhan
9. 2016 AIChE Annual Meeting, November 13-18, 2016, San Francisco, CA, U.S.A. “Microalgae’s Cells Mapping by Radioactive Particle Tracking (RPT)” Laith Sabri, Abbas Sultan, Muthanna Al-Dahhan
10. 2016 AIChE Annual Meeting, November 13-18, 2016, San Francisco, CA, U.S.A. “CFD Simulation for Bubble Column with and without Internals of Fischer Tropsch (FT) Synthesis” Hayder Alnaseri, Abbas Sultan, Joshua Schlegel, Muthanna Al-Dahhan
11. International Conference on Applications of Radiation Science and Technology (ICARST-2017), 24–28 April 2017, Vienna, Austria “Linear Attenuation Coefficients and Gas holdup Distributions of Bubble Column with Vertical Internal Bundle for Fischer-Tropsch (FT) Synthesis” Abbas Sultan, Laith Salim and Muthanna Al-Dahhan
12. International Conference on Applications of Radiation Science and Technology (ICARST-2017), 24–28 April 2017, Vienna, Austria “Radioactive Particle Tracking (RPT) Technique for Tracking the Microalgae’s cells Movement in Split photo bioreactor Column” Laith Sabri, Abbas Sultan, Muthanna Al-Dahhan
13. 13th International Conference on Gas-Liquid & Gas-Liquid-Solid Reactor Engineering (GLS13), Brussels, Belgium “Study the Impact of Size of Heat Exchanger Tubes on Liquid Velocity Field and Turbulent Parameters in Bubble Column for Fischer-Tropsch Synthesis by using Radioactive Particle Tracking (RPT) Technique” Abbas Sultan, Laith Salim and Muthanna Al-Dahhan
14. 13th International Conference on Gas-Liquid & Gas-Liquid-Solid Reactor Engineering (GLS13), Brussels, Belgium “Imaging phase distribution in a bubble column equipped with intense heat exchanging tubes for Fischer-Tropsch (FT) synthesis via gamma-ray computed tomography (CT) technique” Abbas Sultan, Laith Salim and Muthanna Al-Dahhan

### **Skills**

**Computer Skills:** Microsoft Excel, Matlab, C++, FORTRAN, CFD, Microsoft Office, Polymath, AutoCAD, SAS, Minitab, origin, Jimp.

**Language Skills:** English, Arabic

### **Honors and Activities**

Tau Beta Pi , the engineering honor society– <b>Fellow</b>
Omega Chi Epsilon, the National Honor Society for Chemical Engineering– <b>Fellow</b>
Iraqi Student Association (IRQSA) – <b>Member</b>
American Institute of Chemical Engineers (AIChE) – <b>Member</b>
Society of Chemical Industry (SCI) – <b>Member</b>
Iraqi Engineering Union- <b>Member</b>