

# Curriculum Vitae



## 1-Personal Information

Name Dr. Thamer J. Mohammed:  
Affiliation :thamer\_jasim58@yahoo.com  
(Included Phone and Email)  
Date of Birth :1958  
Place of Birth :Baghdad  
Nationality :Iraqi  
Marital Status :Married

2-Scientific Rank : Prof.

## 3-Research Interests

- Interested in industrial & oily wastewater treatment.
- Interested in membrane technology uses in wastewater treatment.
- Interested in hydrodynamics characteristics in bubbly two-phase flow and in fixed-fluidized beds.

## 4-Education

(List your academic background, including undergraduate and graduate institutions attended)

Date	Discipline	Degree	Institution	Thesis Title
1980	Chem. Eng.	B.Sc.	Univ. Technology Iraq	
1981	Chem. Eng./Unit operation	H. Diploma	Univ. Technology Iraq	Study of Economic to Removal Suspended Solid Form Raw Water by Polyelectrolytes Instead of Alum to be Utilized for Various Industrial Purposes
1983	Chem. Eng./Unit operation	M.Sc.	Univ. Technology Iraq	Removal Suspended Solid From Raw Water to be Utilize for Industrial Plants”
1997	Chem. Eng.	Ph.D.	Univ. Technology Iraq	Hydrodynamic Interaction in Bubbly Two-phase Flow

## 5-Postdoctoral Training (if available)

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## **6-Management Posts (if available)**

(List in chronological order, included position details and dates)

- Assistant Head (Assist. Dean) of the Department of Chemical Eng., University of Technology (1997-1999)
- Assistant Head of Department Chemical Engineering for Post Graduates, of University of Technology (Assistant Dean). (2002-2006)
- Head of Chemical Engineering Department (Dean) / University of Technology (2012- Continue)

## **7-Grants and Fellowships (if available)**

## **8-Academic Experience**

### **1-Undergraduate Level**

- Lecturing for B.Sc. Courses in: Mechanical Fluid Flow/2<sup>nd</sup> year Chem. Eng. and in Civil Eng.
- Lecturing for B.Sc. Courses in Thermodynamic/ 3<sup>rd</sup> year Chem. Eng.
- Lecturing for B.Sc. Courses in Environmental engineering, Pollution, Transport Phenomena/ 4<sup>th</sup> and 3<sup>rd</sup> year in Chem. Eng.
- Lecturing for B.Sc. Courses in Statistics and optimization/2<sup>nd</sup> year in Chem. Eng.

### **2-Postgraduate Level**

- Lecturing for M.Sc. courses in: Transport Phenomena (Fluid Flow),
- Environmental Pollution.
- Lecturing for Ph.D. Courses in: Advanced of Air (Gas) Pollution.
- And Particle Technology.
- Lecturing for H.Diploma Courses in Fluid flow in open channel and Transport phenomena and Water and wastewater treatment. , Pollution in refinery and safety, Transport of Petroleum fraction.

## **9-Employment History (if available)**

(Including experience, institution, and data)

## **10-License/Certification** (if available)

Numbers of acknowledgement from dean chemical engineering dept. and head of university of Techno. And from Minister of Higher Education & Scientific Research. and certifications from Minister and from head of university.

## **11-Honors and Distinctions** (if available)

- Iraqi Engineering Union
- Iraqi Engineering Society
- Iraqi Nano Society.

## **12-Skills and Qualifications** (Language and computer)

- Arabic and English

## **13-Publications/ Books**

### **1- Supervision**

1. Drag Coefficient for Air Bubbles Rising in Non- Newtonian Liquid Two – phase Flow. Abd Al- Kara.m,J(M.Sc/1999).
2. An Investigation of Convective Heat Transfer in the slug – churn Flow regime.Salah. S.Amer (M.Sc/2000).
3. Optimization of sterilization Salah, N.(M.Sc/2001).
4. Ethanol Fermentation by Flocculent and Yeast Huyder.(M.Sc/2000).
5. Hydrodynamic Characteristics of three- phase Fluidized Beds.Amer(Ph.D/2000).
6. Optimization of Flocculation and Ethanol Production by yeast.Elaf (M.Sc/2002).
7. Pyrolysis of Scrap Tires.Falak(Ph.D./2002).
8. Fluidization of Catalytic Reaction of Alkylhalides with Silicon and Separation of the Product Ihasan, (Ph. D/2003).
9. Treatment of Oily Wastewater for the North Oil Company. Eman , (M.Sc./2003).
10. Hydrodynamic characteristics of mixing in three phase system. Raid(Ph. D/2004).
11. Hydrodynamic characteristics of mixing in Non- Newtonian liq. Gas of solid of three-phase system . Aswer(Ph.D./2006).
12. Hydrodynamic Characteristics of Three- phase non- Newtonion liquid-gas and solid Fluidzed Beds. Ali (Ph.D./2006).
13. Production of Ethanol From whey by Free And Lmmobilized Kluyveromyces Species in Still Batch Culture, Enas (M.Sc/2004).
14. “Electroflotocouglulation of Emulsified cooling oils as a Method of Pollution Control”, Abbas A.Kadhim (M.Sc/2004).
15. “Study the Efficiency Design Distributor on Hydrodunamic characteristic in Two-Phase Flow (Gas- liquid ), Mastofa. (M. Sc./2004).
16. “Study the Efficiency Desalination of Two Combination Methods Revers Osmosis and Vapour Coompression”, Samera ( M.Sc. /2005).
17. “Ethanol Prroduction From Fermentation of Molasses” Rana (M.Sc./2005).
18. “Recycling of Blowdown in Electrical Power Plant “Asama (M.Sc. /2006 )
19. “Wast Water Treatment of oil North Company , Barham(M.Sc./2006).
20. “ Characteristics of Hydrodynamic Properties and Heat Transfer in Liquid-  
21. Solid Fluidzed Beds” Esra (Ph.D /2008).

22. "Hydrodynamic Interaction in Gas – Liquid Down Flow Bubble Column
23. With non-Newtonian Liquids" Yaser (Ph.D /2008).
24. "Experimental Study of the Drag Forces on the Droplets in a Viscous Fluid
25. of Two-Phase Flow"Haba(M.Sc /2008).
26. -"Dissolved Air Flotation and Electroflotation as A Wastewater Treatment Methods"Mohammed(M.Sc /2006).
27. "Removal of Metallic Ions by Adsorption Using Different Media", Abd-Al,J (Ph.D /2009 ).
28. "Effect of Hydrodynamics on Flotation Treatment Process of Oily Wastewater", Shad
29. S, M.Sc, (Under research)
30. " Reuse Treatment of Industrial Wastewater By Combination of Coagulation-Flocculation and Microfiltration", Eman S. Awad (M.Sc 2013).
31. " Treatment and Reclaiming of Iraq oil field Produced Water by Membrane Technology ", Hada K. (M.Sc 2014).
32. "Effect of Particle and Floc Size on Water Treatment by Physico-Chemical Process", Muhaned (M.Sc 2014)
33. "Removal of Heavy Metals from Industrial Wastewater in Petroleum Refinery", Ali Hatem (H.Dip. 2012)
34. " Study the Optimum Conditions of Gas Separator Unit", Raied Samir (H.Dip. 2013).
35. "Numerical Solution to Hydrodynamic Characteristics of Mixing of Multiphase Flow System", Zain (M.Sc 2014).
36. "A Comparative Study of Coagulation-Flocculation and Electrocoagulation in the Treatment of Produced Water". Isra (M.Sc )
37. " Improvement Chemical and Biological Treatment Refinery Industry Wastewater as Zero Discharge" Saif (M.Sc. under research).
38. "Enhancing the Flow of A Multiphase System in Pipe Lines" Zainab ,(PhD Malaysia Pahang under research).
39. ""Removal of Micro-Pollutants from Industrial Wastewater by Using Membrane Technology" Hasnien (PhD Baghdad under research).
40. "Enhancing Electrocoagulation in Removal Oil from Wastewater via Magnetic Nanoparticle" Hadeel M.Sc( Under research).

## 2-Research

- Accepted Manuscripts

### Published

- 1-H.Dip. Thesis "Study of Economic to Removal Suspended Solid Form Raw Water by Polyelectrolytes Instead of Alum to be Utilized for Various Industrial Purposes", Iraq, (1982)
- 2- M.Sc. dissertation " Removal Suspended Solid From Raw Water to be Utilize for Industrial Plants", Iraq, (1983).
- 3- Ph.D. Thesis " Hydrodynamic Interaction in Bubbly Two- phase Flow", Iraq, (1997).
- 4-"Flocculation of Tigris River Water for Industrial Purposes", Env. &Development, The Quarterly Scientific Jou.of the Iraqi Society for Env.Protection& Improvement, Vol.3,4,5,(1985)

- 5- "Flocculation Effect on Removal of Suspended Solid of High Turbidity for Tigris River Water" Jour. Of Biological Sc. Res. Biological Res. Center, Council for Scientific Res, Baghdad, Vol.2, No.16, (1985).
- 6- " Empirical Correlations Between Purification Characteristics of Tigris River Water", Jour. Of Engineering and Technology, Vol.3, No. 1, Baghdad, (1985).
- 7- "Flocculation of Tigris River Water", Filtration & Separation, Jan/Fed., Vol 25 No. 1 London, (1988).
- 8- "A Study of the Effect Using Ceramic Pads in the Evaporative Air Coolers", Jour. Of Engineering and Technology, Vol. 10, No. 2, Baghdad (1991).
- 9- "Mathematic Model and Three Dimensional Representation of Coagulants Effects on Water Turbidity", jour. Of Engineering and Technology, Special Issue Proceedings of the Second Iraqi Conference on Engineering for the Ministry of Higher Education & Scientific Affairs, 1-3 Nov. (1988).
- 10- " The Behaviour of Flocc in the Flocculation of Koalinite Clay" Advanced powder Technol., Vol.5, No 1 Japan (1994).
- 11- "Improved Technique for River Water Flocculation", Filtration & Separation, Vol.32 no. 1, Jan., London, (1995).
- 12- "The Effect of Organic Polymer in Flocculation Processes", Jour. Of Engineering & Technology, Vol.14 No. 9 Baghdad, (1995).
- 13- "Factors Affecting on Coagulation and Flocculation of High Water Turbidity" Engineering & Technology vol.18, No. 5 (1999).
- 14- "An Investigation of Convection Heat Transfer In Slug Flow Regime" scientific jour. Tikrit Univ. Eng. Sci. Vol. 7 No. 4 , Nov. 2000.
- 15- "An Experimental Study of A single Air Bubble Rising in carboxymethyl cellulose" Eng. Technology, No. 10. Vol. 20, 2000.
- 16- " Ethanol Production by Flocculent and Non- Flocculent Yeasts" Proceedings of the First International chemical Eng. Conference, university of Jordan 2001.
- 17- "Experimental Studies on the Drag Coefficient of bubble Moving in Non – Newtonian Single – bubble" Proceedings of the First International chemical Eng. Conference, university of Jordan 2001.
- 18- "Experimental Studies on the Drag Coefficient of bubble Moving in Non – Newtonian Melt – bubble" Proceedings of the First International chemical Eng. Conference, university of Jordan 2001.
- 19- "Optimization of Flocculation of ethanol Producing Yeast", proceeding of Jordan International Eng. Conference IV Sept. 2003.
- 20- "Experimental Investigation of the Hydrodynamic Interaction in Bubbly Two- phase Flow " Chemical Eng. & processing 43(2004) 23-33.
- 21- "Optimization of Pyrolysis Conditions of Scrap Tires under Inert Gas Atmosphere" J. Anal. Appl. Pyrolysis (2004)
- 22- "Evaluation of Active Carbon Produced From The Pyrolysis of Scrap Tires under Inert And Reduced Pressure" Eng. Tech. No. Vol. , 2004.

- 23- "Evaluation of Oil Produced From The Pyrolysis of Scrap Tires under Inert And Reduced Atmosphere" (Send to Publish).
- 24-"Treatment of Oily Wastewater" Eng. & Technology Vol.25 suppl. & No.3 (2007)
- 25-"Study of the Optimization Condition of Batch Sterilization Using Genetic Algorithm" *Eng. & Technology Vol. No. ( )*.
- 26-"Mathematical Models for Conversion of Methyl Chloride (M) and Silicon of Direct Synthesis in Fluidized Bed Reactor" *Tikrit J. of Eng.Sci. Vol.13 No1 (2006)*.
- 27-"The effect of surfactants on characteristics of hydrodynamic and mass transfer coefficient in gas-liquid dispersion column" *Tikrit J. of Eng. Sci.. Vol. No. ( )*.
- 28-"The Production of Ethanol from Sugar Beet Waste by Immobilized *Saccharomyces Cerevisiae*" *IJCPE Vol.8 No.4 (2007)*.
- 29-"Hydrodynamic Characteristics of Mixing in Non-Newtonian liquid Gas Solid System" *Int. J. of Chem. Reactor Engineering Vol.6 Article A90 (2008)*.
- 30-"Hydrodynamics of Two Phase Flow for Coalescing and Non Coalescing Systems " *Eng.& Technology J. Vol.27 No.3 (2009)*.
- 31-"Direct Reaction of Silicon with Ethyl Chloride in A fluidized Bed Reactor" *Int. J. of Chem. Reactor Eng. Vol.7 Article A9 (2009)*.
- 32-"Hydrodynamic Characteristics of Three-Phase Non-Newtonian Liquid-Gas-Solid Fluidized Beds" *Emirates J. for Eng. Research. Issue 1-Vol.15-june (2010)*.
- 33-"Treatment of Oily Wastewater for the North Oil Company by Flotation Process" 7th Egyptian Syrian Conference on Petroleum and Chemical Eng. 29-31 Oct (2007).
- 34-"Evaluation the Performance of Efficiency RO Using Membrane Spiral-Wound Model" *Proceedings of the second International chemical Eng. Conference, university of Jordan ,11-13 ,Oct. 2010*.
- 35-"Treatment and Re-using of Boiler Blowdown in Thermal Electric Power Plants" *Proceeding of the first engineering scientific conference in Diyala J. of Eng. Sc. (22-23/12/2010)*
- 36-" Pyrolytic Studies of Scrap Tires, Optimization of Pyrolysis Condition Under Reduced Pressure" , *First Scientific Conference on Modern Technologies in Oil & Gas Refining , University of Technology-Iraq, (25-27 April 2011)*.
- 37-"The Effect of Gas Distributor on Hydrodynamic Characteristics in Two-Phase Flow (Gas-Liquid).", *First National Conference for Eng. Sc 7-8 Nov.2012*.
- 38-" Removal of Heavy Metals from Industrial Wastewater in Petroleum Refinery" *First Oil & Environmental Conference. Ministry of Oil- North Oil Company., 14-16 Jan. 2013*.
- 39-" Equilibrium and kinetics Studies of Adsorption of Heavy Metals onto Activated Carbon " *Canadian Journal on Chemical Engineering & Technology, ISSN: 1923-1652 Vol. 3 No. 4, December 2012*.
- 40- "Particle Size Distribution Gas-Liquid Dispersion Column" *J. Engineering Vol.18, No.7 July 2012. Published by College of Engineering UN. Baghdad*.
- 41-"Treatment of Oily Wastewater by Induced Air Flotation" *2nd Sc. Conference on Modern Technology in Oil Refining" University of Technology, 14-16 May 2013*
- 42-" effect of the hydrodynamic characteristics on iaf and mif techniques of oily wastewater" *American Journal of Environmental Engineering Latest Issue: Volume 3, Number 6 (2013 )*
- 43-"Mixing IN three phase sparged column" *International Review of Chemical ENG., Vol5 N.2 March 2013*.

- 44-" Experimental Investigation Effect of the Hydrodynamic Characteristics and Surfactant on Removal Oily Wastewater"International Conference on Environmental Science and Technology (ICOEST'2013 – CAPPADOCIA)
- 45-"Hydrodynamic Characteristic of Three-Phase (Liquid-Liquid-Solid) Fluidized Beds" Journal of Chemical Eng. & Process Technology. Vol. 5, No.2,2014
- 46-"Biosorption of Copper From Synthesized Wastewater Using Agriculture waste (ROASTED DATE PITS)" International Journal of Recent Scientific Research, Vol. 6, Issue, 3, pp.3063-3068, March, 20154
- 47-"Remediation of Cu(II)from Well Water of Iraq by Using Cortex of Fruits and Agricultural Waste" Arab J Sci. Eng. ISSN 1319-8025 Vol,41 No.2 2016
- 48-"Electroflotocoagulation of Emulsified Cooling Oils as a Method of Pollution Control" Eng. Tech. Journal, Vol.34, Part (A), No.8, 2016
- 49-." Nano Composite Membrane on Polysulphone Matrix" REV.CHIM.(Bucharest) Vol.67, No.8, 2016

### **3-Books**

### **14-Invited Lectures and Seminars\* (if available)**

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### **15-Conferences and Training (if available)**

- 1- 1st Iraqi Society for Env. Protection and Improvement Conference (1984)
- 2- Res. Center, Council for Scientific Res. Conference, Baghdad (1985).
- 3- 2nd Iraqi Conference on Engineering for the Ministry of Higher Education and Scientific Affair (1988).
- 4- 1 st Iraqi Tech. Conference, Univ. of Technology (1995)
- 5- 3 rd Iraqi Tech. Conference, Univ. of Tech. (1997)
- 6- 1st Iraqi Conference of Chemical Engineering and petroleum Engineering (2000).
- 7- 1st international Conference of Chemical Engineering in University Jordan (2001)
- 8- 4th international Conference of Chemical Engineering in University Jordan (2002)
- 9- 1 st National Conference of Water Treatment Technical, Basrah, College of engineering (2003).

- 9- Conference of Environmental Pollution in Syrian Republic, supreme Council of Science (2004).
- 10- 1st Conference of Science and Eng. /College Eng.-Univ. Diyala 22-23/12/2010
- 11- Numbers of Training as supervision and Lecturer in Environmental engineering, water and wastewater treatment, Industrial safety.
- 12-The First National Conference for Engineering Sciences, Al-Nahrain 7-8 Nov.2012.
- 13-First Oil & Environment Conference 14-16-2013
- 14-International Conference on Environmental Science and Technology ((ICOEST'2013 – CAPPADOCIA)
- 15 - International Conference on Ionic Liquids (ICOEST' 11-13 2013 – Malaysia LANGKAWI ISLAND, KEDAH –
- 16-1st Scientific Conference on Modern Technologies in Oil Refining, Chemical Eng. Dept. UOT & Midland Refineries Company, Iraq (25-27 April 2011).
- 17-2nd Scientific Conference on Modern Technologies in Oil Refining, Chemical Eng. Dept. UOT & Midland Refineries Company, Iraq 14-15 May (2013).
- 18-2nd Conference of the Cement Makers in Iraq, Sulaymaniyah-Grande Millenium, 26-27/3/2014
- 19-2nd International Conference on Building, Construction and Environmental Engineering 17-18L10L2015 Beirut, the American University.

**Prof. Dr. Thamer J. Mohammed**  
**Head of Chemical Engineering Department**  
**University of Technology**  
**19.9.2016**