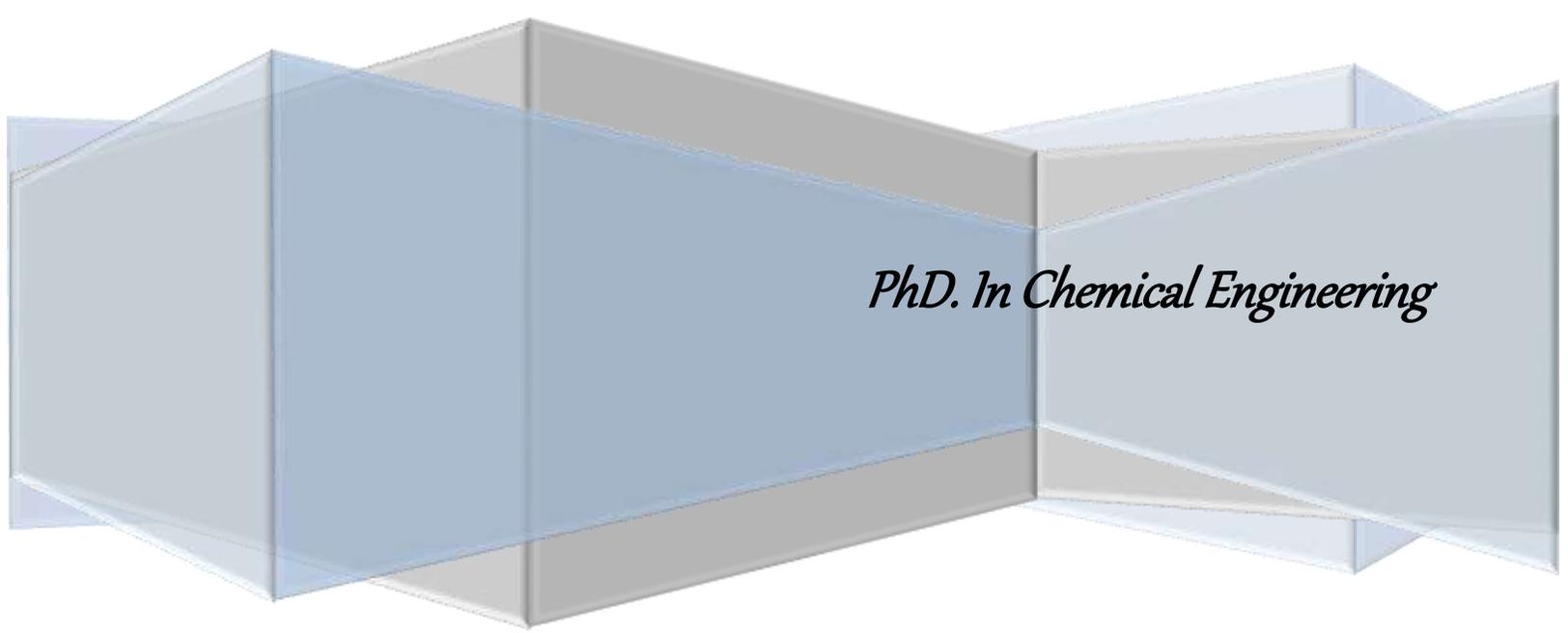


# *Curriculum Vitae*

*Dr. Firas Khaleel Ismael AL-Zuhairi*



*PhD. In Chemical Engineering*

## **Personal Information.**

Name: Asst. Prof. Dr. Firas Khaleel AL-Zuhairi

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Address: Iraq-Baghdad

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Publons link: <https://publons.com/researcher/1430502/firas-k-al-zuhairi/>

Google scholar link: <https://scholar.google.com/citations?user=MkBqVVYAAAAJ&hl=en>



## **Educations:**

- 1- B.Sc.in Chemical Engineering /General (2002)/ Department of Chemical Engineering - The Former Military College of Engineering, Iraq.
- 2- M.Sc. in Chemical Engineering/ Unit Operation (2009)/Department of Chemical Engineering- University of Technology, Iraq.
- 3- Ph.D. In Chemical Engineering/Biogas Technology (2017) /Department of Chemical, Materials and Production Engineering- University of Naples “Federico II”-Italy.

### **Scientific Degree:**

- 1- Ass. Lecture and researcher at Petroleum Technology Department/ University of Technology-Baghdad-Iraq from 2009/1/8 to 2017/7/16.
- 2- Lecturer and researcher at Petroleum Technology Department/ University of Technology-Baghdad-Iraq from 2017/7/16 to 2020/11/17.
- 3- Asst. Prof. and researcher at Petroleum Technology Department/ University of Technology-Baghdad-Iraq from 2020/11/17 to Present.

### **Skills:**

- 1- Languages: Arabic /English/ Little Italian.
- 2- Professional in work on Microsoft office software (Word, Excel, Power point. etc.).

### **History:**

- 1- Engineer at Ministry of industrial and Minerals/Iraq (2002-2008).
- 2- Coordinator of petroleum technology department (2009 – 2013).
- 3- Coordinator of petroleum technology department (15/10/2017 – 18/2/2020).
- 4- Director of Laboratories for Petroleum Technology Department (22/9/2020 – 1/6/2022).

### **Research Interests:**

- 1- Multiphase Reaction (Fisher-Tropsch reaction, Reactive distillation).
- 2- Gas to Liquid Technology (GTL).
- 3- Gas and wastewater treatment.
- 4- Synthesis of Biogas.
- 5- Preparation and characterize catalysts.
- 6- Adsorption and Bioadsorption.

## **Publications:**

- 1- **Firas Al-Zuhairi**, Domenico Pirozzi, Angelo Ausiello, Ciro Florio, Maria Turco, Luca Micoli, Gaetano Zuccaro, Giuseppe Toscano, “Biogas Production from Solid State Anaerobic Digestion for Municipal Solid Waste”, Chemical Engineering Transactions, Vol. 43, PP. 2407- 2412 , (2015).
- 2- Ciro Florio, Angelo Ausiello, Luca Micoli, Biancamaria Pietrangeli, Felicia Rugari, Gaetano Zuccaro, **Firas AL-Zuhairi**, Giuseppe Toscano and Domenico Pirozzi, “ Effect of the sewage sludge inoculum on the anaerobic digestion of municipal solid waste”, Sixth International Symposium on Energy from Biomass and WasteAt: Venice,Italy,(2016).
- 3- **F.K. Al-Zuhairi**, R.A. Azeez, S.A. Mahdi, W.A. Kadhim and M.Kh. Al-Naamee, “Removal oil from Produced Water by Using Adsorption Method with Adsorbent a Papyrus Reeds, Engineering and Technology Journal, Vol. 37, Part A, No. 05, pp. 157-165, (2019).
- 4- **Firas K. AL-Zuhairi** and Wafaa A. Kadhim, “Effect of Ce-promotion on iron catalysts activity through the synthesis of Liquid fuels by the Fischer-Tropsch process”, IOP Conference Series: Materials Science and Engineering, Vol., 579, 012017, (2019).
- 5- **Firas Al-Zuhairi**, Luca Micoli, Maria Turco, Ciro Florio, Angelo Ausiello, Gaetano Zuccaro, Domenico Pirozzi, Giuseppe Toscano, “Anaerobic co-digestion of Municipal Solid Wastes with Giant Reed under Mesophilic Conditions” , Journal of Material Cycles and Waste Management, Vol. 21, pp. 1332-1340, (2019).
- 6- **Firas Khaleel Al-Zuhairi**, Wafaa Abdul Kadhim, Ahmed Lateef Khalaf and Mohd Hasbi Ab Rahim., “The Effects of Cerium Promoter on the Performance of Cobalt-Based Catalysts in Fischer Tropsch Synthesis for Liquid Fuel Production”, IIUM Engineering Journal, Vol. 21, No. 2,pp.1-11, (2020).
- 7- Rana Abbas Azeez, **Firas K. Al-Zuhairi** and Aqeel Al-Adili, “A Comparative investigation on Viscosity Reduction of Heavy Crude Oil Using Organic

Solvents”, International Journal on Advanced Science, Engineering and Information Technology, Vol.10, No. 4, pp.1675- 1681, (2020).

- 8- **Firas K. Al-Zuhairi**, Rana Abbas Azeez and Muna Kheder Jassim, “Artificial Neural Network (ANN) for Prediction of Viscosity Reduction of Heavy Crude Oil using Different Organic Solvents”, Journal of Engineering, Vol.26, No.6, pp. 35-49, (2020).
- 9- Rana Abbas Azeez and **Firas K. Al-Zuhairi**, “Biofuel ( Biethanol, Biodiesel, and Biogas) from Lignocelluloses Biomass :A review”, Journal of University of Babylon for Engineering Sciences, Vol. (28), No. (1), pp.202-215, (2020).
- 10- **Firas K. Al-Zuhairi** and Rana Abbas Azeez, “Augmentation of Biomethane Production from Potato Peels Waste by Co-digestion with Sheep Manure, AIP Conference Proceedings 2213, pp. 020048:1-020048:1, (2020).
- 11- Khalid A. Sukkar, **Firas K. Al-Zuhairi** and Eveleen A. Dawood, “Evaluating the Influence of Temperature and Flow Rate on Biogas Production from Wood Waste via a Packed-Bed Bioreactor”, Arabian Journal for Science and Engineering, 46, pp. 6167–6175, (2021).
- 12- Rana Abbas Azeez, **Firas Khaleel Ismael Al-Zuhairi**, “Biosorption of dye by immobilized yeast cells on the surface of magnetic nanoparticles” Alexandria Engineering Journal,61, pp.5213-5222, (2022).
- 13- **Firas K. Al-Zuhairi**, Rana A. Azeez, and Suhair A. Mahdi , “Synthesis of long-chain hydrocarbons from syngas over promoted Co/SiO<sub>2</sub> catalysts using Fischer–Tropsch reaction”, AIP Conference Proceedings 2443, 030028, (2022).
- 14- Rana A. Azeez, **Firas K. Al-Zuhairi**, “Bio-treatment Technologies of Produced Water: A Review”, Engineering and Technology Journal, 40 (9), 1216-1230, (2022).
- 15- **Firas Khaleel AL-Zuhairi**, Rana Abbas Azeez , Nabil Majd Alawi , Hoang M. Nguyen , “Enhancement the Properties of Local Crude Oil using DE-

asphalting Process”, Iraqi Journal of Oil & Gas Research, Vol. 2, No. 1 (2022).

### **Attended Conference**

- 1- Conference: 6<sup>th</sup>. International Symposium on Energy from Biomass and Waste 2016: Scuola Grande di San Giovanni Evangelista, Venice, Italy, 14-17 November 2016.
- 2- 1<sup>st</sup>. International Conference on Petroleum Technology and Petrochemicals – 2019 10-11 April 2019, Petroleum Technology Department /University of Technology, Iraq.
- 3- The 2<sup>nd</sup>. International Conference on Materials Engineering & Science (IConMEAS 2019) September 25-26, Iraq.
- 4- The 2<sup>nd</sup>. International Conference on Petroleum and Petrochemicals (PTP2021) 23-24 May 2021, Iraq.

### **Missions in the Petroleum Technology and Chemical Engineering Department:**

- 1- Engineering Physics for 1<sup>st</sup>. class in Petroleum Technology Department/ University of Technology.
- 2- Analytical Chemistry for 1<sup>st</sup>. class in Petroleum Technology Department/ University of Technology.
- 3- Engineering practices for 1<sup>st</sup>. class in Petroleum Technology Department/ University of Technology.
- 4- Hazard and Safety for the 4<sup>th</sup>. class in Petroleum Technology Department / University of Technology.
- 5- Custody transfer for the 4<sup>th</sup>. class in Petroleum Technology Department / University of Technology.

- 6- Thermodynamics for the 2<sup>nd</sup>. class in Petroleum Technology Department / University of Technology.
- 7- Ordinary differential equations for the 2<sup>nd</sup>. class in Petroleum Technology Department / University of Technology.
- 8- Partial differential equations for the 2<sup>nd</sup>. class in Petroleum Technology Department / University of Technology.
- 9- Engineering Ethics for the 1<sup>st</sup>. and 4<sup>th</sup>. class in Petroleum Technology Department / University of Technology.
- 10- General Chemical Laboratory for the 1<sup>st</sup>. class in Petroleum Technology Department/ University of Technology.
- 11- Mechanics for the 1<sup>st</sup>. class in Petroleum Technology Department/ University of Technology.
- 12- Fuels and Energy Engineering for 2<sup>nd</sup>. Chemical Engineering Department/ University of Technology.

### **Awards and Honors:**

- 1- Award from the president of the University of Technology Prof. Dr. (Amin Daway Thamir) , No. : - 13380, Date: 17/11/2011.
- 2- Award from the president of the University of Technology Prof. Dr. (Amin Daway Thamir), No. : - 9/254, Date: 20/3/2012.
- 3- Award from the president of the University of Technology Prof. Dr. (Amin Daway Thamir), No. : - 11079, Date: 24/6/2012.
- 4- Award from the president of the University of Technology Prof. Dr. ( Kahtan Khalaf AL-Khazraji) , No. : - 31, Date: 13/1/2011.
- 5- Award from the president of the University of Technology Prof. Dr. ( Kahtan Khalaf AL-Khazraji) , No. : - 284, Date: 23/5/2011.

- 6- Award from the president of Chemical Engineering Department Prof. Dr. ( Mumtaz Abdul- Ahed Yousef ) , No. : - 377, Date: 7/4/2008.
- 7- Award from the president of Petroleum Technology Department Ass. Prof. Dr. (Khalid Ajmi Sukkar ) , No. : - 154, Date: 12/7/2010.
- 8- Award from the president of Petroleum Technology Department Ass. Prof. Dr. (Khalid Ajmi Sukkar ) , No. : - 292, Date: 19/9/2010.
- 9- Award from the president of Petroleum Technology Department Ass. Prof. Dr. (Khalid Ajmi Sukkar ) , No. : - 337, Date: 30/9/2010.
- 10- Award from the president of Petroleum Technology Department Ass. Prof. Dr. (Khalid Ajmi Sukkar ) , No. : - 378, Date: 20/10/2010.
- 11- Award from the president of Petroleum Technology Department Ass. Prof. Dr. (Khalid Ajmi Sukkar ) , No. : - 740, Date: 30/6/2011.
- 12- Award from the president of Petroleum Technology Department Ass. Prof. Dr. (Khalid Ajmi Sukkar ) , No. : - 763, Date: 5/7/2011.
- 13- Award from the president of Petroleum Technology Department Ass. Prof. Dr. (Khalid Ajmi Sukkar ) , No. : - 1030, Date: 24/6/2012.
- 14- Award from the president of Petroleum Technology Department Ass. Prof. Dr. (Khalid Ajmi Sukkar ) , No. : - 1212, Date: 22/7/2012.
- 15- Award from the president of Petroleum Technology Department Ass. Prof. Dr. (Khalid Ajmi Sukkar ) , No. : - 1194, Date: 22/7/2012.
- 16- Award from the president of the University of Technology Prof. Dr. (Amin Daway Thamir) ٢٠١٩ .
- 17 -Award from the president of Petroleum Technology Department Prof. Dr. (Aqeel Al-Adili ) ٢٠١٨.
- 18- Award from the president of Petroleum Technology Department Prof. Dr. (Aqeel Al-Adili ) 2019.

- 19- Award from the president of Petroleum Technology Department Ass. Prof. Dr. (Fadhil Sarhan Kadhim) , No.:-1438, Date:19/12/2019.
- 20- Award from the president of the University of Technology Prof. Dr. (Ahmed M. H. Abdulkadhim Al-Ghaban) 2019.
- 21- Award from the president of Petroleum Technology Department Ass. Prof. Dr. (Fadhil Sarhan Kadhim) , No.:-77, Date:15/1/2020.
- 22- Award from the president of the University of Technology Prof. Dr. (Ahmed M. H. Abdulkadhim Al-Ghaban), No.:- 156, Date:17/2/2020.
- 23- Award from the president of the University of Technology Prof. Dr. (Ahmed M. H. Abdulkadhim Al-Ghaban), No.:- 413, Date:21/9/2020.
- 24- Award from the Vice chancellor for scientific and postgraduate affairs for the University of Technology Prof. Dr. ( Hayder Abed Dhahad ).
- 25- Award from the president of the University of Technology Prof. Dr. (Ahmed M. H. Abdulkadhim Al-Ghaban), No.:- 218, Date:4/7/2021.
- 26- Award from the president of the University of Technology Prof. Dr. (Ahmed M. H. Abdulkadhim Al-Ghaban), No.:- M/sh/AKh , Date:5/1/2021.
- 27- Award from the head of Al-Khawarizmi College of Engineering, University of Baghdad Asst. Prof. Dr. (Maher Yahya Salloom), No.:- 2662 , Date:19/11/2020.
- 28- Award from the president of Petroleum Technology Department Asst. Prof. Dr. (Fadhil Sarhan Kadhim) , No.:-896, Date:7/12/2020.
- 29- Award from the president of the University of Technology Prof. Dr. (Ahmed M. H. Abdulkadhim Al-Ghaban), No.:- 3808 , Date:19/6/2022.
- 30- Award from the president of Petroleum Technology Department Asst. Prof. Dr. (Fadhil Sarhan Kadhim) , No.:-249, Date:1/2/2022.
- 31- Award from the president of the University of Technology Prof. Dr. (Ahmed M. H. Abdulkadhim Al-Ghaban), No.:- 2380 , Date:29/5/2022.

- 32- Award from the president of the University of Technology Prof. Dr. (Ahmed M. H. Abdulkadhim Al-Ghaban), No.:- 21 , Date:13/6/2022.
- 33- Award from the president of Petroleum Technology Department Asst. Prof. Dr. (Fadhil Sarhan Kadhim) , No.:-1638, Date:19/10/2021.
- 34- Award from the president of Petroleum Technology Department Asst. Prof. Dr. (Fadhil Sarhan Kadhim) , No.:-249, Date:1/2/2022.

### **Discussion Committees postgraduate students:**

- 1- Member of the discussion committee for postgraduate student / M.Sc. / University of Technology/Petroleum technology department / 2019.
- 2- Member of the discussion committee for postgraduate student / M.Sc. / University of Baghdad/ Al-Khwarizmi College of Engineering/Biochemical Engineering Department/2020.

### **Committees for discussions and supervision of students of undergraduate studies:**

- 1- Supervision of graduation projects for many students at the academic year 2017-2018, 2018-2019, 2019-2020 , 2020 - 2021, 2021-2022 and 2022-2023.
- 2- Member of the discussion committee for ten graduation projects for the academic year 2017-2018, 2018-2019, 2019-2020, 2020-2021 and 2021-2022.

### **Research Evaluation:**

1. Evaluate **one** research for the 1<sup>st</sup>. International Conference of Petroleum Technology and Petrochemicals, 2019/Iraq.
2. Evaluate **four** kinds of research for the 6<sup>th</sup>. International Scientific Conference Nanotechnology, Advanced Materials and its Applications (ICNAMA 2018)/ Iraq.

3. Evaluate **one** research for the 9<sup>th</sup>. Global Conference on Materials Science and Engineering (CMSE 2020)/ Ukraine.
4. Evaluate **one** research for the Current Advances in Materials Applications, 2020.
5. Evaluate **four** kinds of research for the 2<sup>nd</sup>. International Conference of Petroleum Technology and Petrochemicals, 2021/Iraq.
6. Evaluate **four** kinds of research for the Iraqi Journal of Oil and Gas Research (IJOGR),2022/Iraq.
7. Evaluate one research for the 4<sup>th</sup>. International Conference on sustainable Engineering Techniques (4<sup>th</sup>-ICSET 2022) /Iraq.