

## Curriculum Vitae

**FULL NAME :** Khalil Ibrahim Muhammad Al-Samarrai

**PLACE AND DATE OF BIRTH :** Baghdad, 1953

**NATIONALITY :** Iraqi

**MARITAL STATUS:** Married

**EDUCATION AND QUALIFICATIONS:**

- B.Sc. in Geology (1975), University of Baghdad, Iraq
- M.Sc. in Geology (1978), University of Baghdad, Iraq
- Ph.D. in Geology (1988), University College of London, United Kingdom



**FIELD OF SPECIALIZATION:** Hydrogeology

**POSITIONS OCCUPIED:**

- Assistant Scientific researcher at the Water Resources Department, Council of Scientific Research. (1979 – 1984).
- Hydrogeological Activity Responsible for the nuclear power plant project at the Iraq Atomic Energy Committee. (1989 – 1991)
- Manager for groundwater evaluation studies at the Department of Water Resources, Al-Furat Center for Studies and Design of Irrigation Projects. (1991 – 1997)
- Head of Training Department at the Ministry of Irrigation. (1997 – 1998)
- Manager and Supplier for environmental equipment to Oil Industry at Al-Nahrain for oil Services Company. (1998 – 2001)
- Assistant Professor at the Higher Center of Water Affairs. Libya (2001 - 2008 )
- Teaching Staff at the Department of Geology, College of Science, University of Tripoli (2008 – 2012)
- Teaching Staff at the Department of Engineering Geology, Faculty of Engineering, University of Tripoli (2012 – 2021).
- Elhira Consultancy and Quality Engineering (2012 – till now)

**OTHER EXPERIENCES:**

- Lecturer at the Department of geology, University of Baghdad, for post graduate studies. (1989 – 1998)
- Lecturer at the College of Science, University of Baghdad, for contineous education program. (1989 – 1995)
- Supervising three M.Sc. and one Ph.D. thesis at the Department of Geology, University of Baghdad. (1990 – 1998)
- Supervising one M.Sc. thesis at the Department of Civil Engineering, Al-Mustansiryra University. (1995 – 1998)
- Consulatant for Iron Ore Evaluation at the General Establishment of Exploration Processes. (1993 – 1996)
- Consultant at the Water resources Department, Ministry of Irrigation. (1991 – 1998)
- Consultant for Tigris and Euphrates water quality project at the Research Center of Soil and Water. (1998 – 2001)

- Consultant for sea-water intrusion project at Al-Fateh University. (2001 – 2002)
- Supervising one M.Sc. thesis at the Department of Civil Engineering, University of Tripoli (2007 – 2009).
- Consultant for the General Water Authority of Libya (2007 – 2008).
- Team member of (Water and Energy for Life in Libya) project sponsored by EU invention and research program FP7 (2012-2014).
- Team member of (Water Energy and Food nexus) project sponsored by
- General Manager for Implementing ISO 22000-2018 project for poultry - company (2022).

## PUBLICATIONS:

### Articles:

- 1- **Al-Ansari, N. A., and Ibrahim, K., 1992**, Sediments in Hemrin reservoir deposits in a recently impounded reservoir, keynote paper at European Geophysical Union 1992 meeting, Edinburgh, U.K.
- 2- **Al-Ansari, N. A., Muhammed, K.I., and Al-Kubaisi, Q., 1993**, Ground water fluctuations in Badush Dam site, J. Water Res., V. 12, pp 57-68.
- 3- **Al-Ansari, N. A., Muhammed, K.I., and Al-Kubaisi, Q., 1993**, Hydraulic characteristics of Jribe aquifer in Badush Dam site, J. Water Res., V.12, pp 69- 77.
- 4- **Al-Ansari, N. A., Muhammed, K.I., and Zaki, S. S., 1993**, Hydrochemistry of groundwater in Badush Dam site, J. Water Res., V.12, pp 101-112.
- 5- **Al-Ansari, N. A., Ibrahim , K. Iskandar ,N . 1995**, Hydraulic parameters of Dammam formation in Western desert (IRAQ), Iraqi Science J., V .36, pp 314- 325.
- 6- **Zuhair B. Hafi and Khalil I. Al-Samarrai (2012)**, Evolution of Hydrochemical Facies of the Groundwater of the Shallow Aquifer, NW Libya. Journal of Hydrocarbon Mines and Environmental research. Vol. 3, Issue 2, December, 37-46.
- 7- **Khalil I. and Naji Sh., (2013)**. The effect of quarries extended along the coastal area from Juddaim to Mutrad on the coastal environment. Proceeding of the Eighth Scientific Conference for Environment, (In Arabic). College of Science, University of Zaqazek. June.
- 8- **Abdulhafid M. Eldernawi, M. Jamel Rious, Khalil Ibrahim Al-Samarrai (2014)**. Chemical, Physical and Mineralogical, Characterization of Al-Hishah Diatomite at Subkhat Ghuzayil Area, LIBYA. IMPACT: International Journal of Research in Applied, Natural and Social Sciences (IMPACT: IJRANSS), Vol. 2, Issue 4, Apr, 165-174
- 9- **Abdulhafid M. Eldernawi, M. Jamel Rious, Khalil Ibrahim Al-Samarrai (2014)**. Habitat and Environment of Al Hishah Diatomite Deposition Central Libya. IMPACT: International Journal of Research in Applied, Natural and Social Sciences (IMPACT: IJRANSS) Vol. 2, Issue 9, Sep, 85-92.

- 10- **Abdulhafid M. Eldernawi, M. Jamel Rious, Khalil Ibrahim Al-Samarrai (2014).** Characterization and Mining Potential of Libyan Diatomaceous. Proceeding of the Arab Industrial Development and Mining Organization, Morocco.
- 11- **Khalil Ibrahim Al-Samarrai, Bahia M. Ben Ghawar, Haneen A. Alfirjani, Fatma N. Arahouma & Akraam N. Saqar (2016).** Evaluating Reservoir Hydraulic Properties Using Geophysical Well Logging in (O) Oil Field, NC – 115, Murzuq Basin, Libya. International Journal of Research in Applied, Natural and Social Sciences (IMPACT: IJRANSS) Vol. 4, Issue 6, Jun, 159-170
- 12- **Khalil Ibrahim Al-Samarrai (2017).** Human Behavior Effects on The Water, Soil and Air of The Coastal Area NW-Libya – Case Study. International Journal of Humanities, Arts, Medicine and Sciences (BEST: IJHAMS) Vol. 5, Issue 02, Feb, 115-126
- 13- **Saleh A. Sadeg, Khalil I. Al-Samarrai & Salem M. Rashrash (2017).** Triple Helix Model to Develop Water and Energy Nexus For Life in Libya. International Journal of Applied and Natural Sciences (IJANS) Vol. 6, Issue 4, Jun – Jul; 163-174
- 14- **Khalil I. Al-Samarrai, Abdussalam M. Bahron & Abdussalam M. Al-Fituri (2017).** Thermal Infrared Scanning for Evaluating Oil Plume Thickness Contaminating Groundwater. IMPACT: International Journal of Research in Applied, Natural and Social Sciences (IMPACT: IJRANSS) Vol. 5, Issue 9, Sep, 147-154
- 15- **Khalil I. Al-Samarrai, Saleh A. Sadeg & Abdullah Sassi (2017).** Policies of Conventional and Non-Conventional Energy for Sustainability in Libya. International Journal of General Engineering and Technology (IJGET) Vol. 6, Issue 6, Oct-Nov; 1-12
- 16- **Saleh A. Sadeg and Khalil I. Al-Samarrai (2018).** Raising Awareness Good Practices Why and How on Sustainable Agriculture in Libya to Reduce Water Stress and Energy Consumption. International Journal of Nutrition and Agricultural research, Vol. 7, Issue 2, 72-78.
- 17- **Khalil I. Al-Samarrai and Saleh A. Sadeg (2020).** Precision Irrigation Efficient Technologies Practices in Libya From The Water and Energy Point of View. International Journal of Applied and Natural Sciences (IJANS), Vol. 9, Issue 5, Jul–Dec 2020; 63–72
- 18- **Naji M. Shaksham, Khalil I. Al-Samarrai, Masoud A. Albrshny (2020).** Evaluatin Water Quality of Some Regions At the Mountain Foot of Libya. International science and Technology Journal (ISTJ). Volume (23), Oct.

19- **Abdussalam M. Bahron, ElManaai M., Khalil I. Al-Samarrai, Hend Husam Bashimam and Islam Abdulatif El Kamshushi (2020).** Evaluation of Liquefaction Potential of Tripoli soil Using SPT. Proceedings of the Fourth International Conference on Geotechnical Engineering, New Developments in Geomechanics and Georisk Hammamet (Tunisia), 9-11 March

20- **Saleh A. Sadeg and Khalil I. AL-Samarrai (2020).** Securing Foods In Libya Concepts, Challenges and Strategies. The Libyan Journal of Agriculture Volume (25), No. (3), 2020: 07 - 23

Books:

- Water Sciences, (text book) published by University of Baghdad press (in Arabic – 1999)
- Principles and Characteristics of Water Environments, published by Cultural Affairs House (in Arabic 2000)
- Maintenance and Rehabilitation of Water Wells (in Arabic), under publication by the national Committee of Scientific Research.

Translated Books:

- Principles and Applications of Hydrochemistry, translated to Arabic, published by the National Committee of Scientific Research, LIBYA (2008).
- Advising translation of Wally and Deana to Arabic language (2022). GW-Project publisher.
- Translation of "Septic System Impacts on Groundwater Quality" to Arabic language, in progress. Publisher, GW-Project.
- Translation of "Groundwater-Surface Water Exchange" to Arabic language, in progress. Publisher, GW-Project

**UNPUBLISHED REPORTS:**

- 1- Petrology of the Upper Fars Formation and the Origin of Their Cements. Unpublished M.Sc. Thesis, College of Science, University of Baghdad, 1978
- 2- Determination of Aquifer Characteristics and Hydrochemical Model from Pumping Test at Makhmur Basin, 1982, IARNR, Technical Bulletin No. 53
- 3- Hydrogeology of the Makhmur Plain, Northern Iraq, Unpublished Ph.D. Thesis, Dept. of Geological Sciences, Univ. College London, 1988.
- 4- Hydrogeological studies of the area between Wadi Hussainyat and Wadi Amij (Preliminary Report), in Arabic, Al-Furat Center For Studies and Design Irrigation projects, 85 p., 1993
- 5- Study the Possibility of Groundwater Dewatering in Al-Hindya Cement Factory, Al-Furat Center For Studies and Design Irrigation Projects, 101 p., 1992
- 6- Hydrogeological Conditions of Al- Gadhari Area, Al-Furat Center For Studies And Design Irrigation Projects, 90 p., 1995.
- 7- Investigations of the geotechnical properties for Abu-Skhair Barrage Site. Al-Furat Center for Studies and Design Irrigation Projects, 1993.

- 8- Investigations of the geotechnical properties for Upper Tharthar-Al-Furat Canal site, 1995
- 9- Tigris River Training Model near Al-Adamiya meander, Al-Furat Center for Studies and Design Irrigation Projects, 1996.
- 10- Actual environment of the water treatment plant of Wool Washing and Painting Factory, in Taji. Study presented to the Ministry of Industry 1998.
- 11- Underground Investigation Using The Ground Penetrating Radar, In Al-Qaim Area inside the Phosphate Factory. 2000
- 12- Underground Investigation Using The Ground Penetrating Radar. In Baiji area inside the Northern Refineries. 2000
- 13- Underground Investigation Using the Ground Penetrating Radar, In Baiji area inside the Fertilizer Factory. 2000
- 14- Water quality and possible pollution of Qadisya Lake. Study presented to the General Company of Research of Soil and Water Resources (2000).
- 15- Pollution and Water Quality of the Tigris and Euphrates rivers in Iraq. Study presented to the General Company of Research of Soil and Water Resources (2000).
- 16- Modelling Salt Water Intrusion in the Coastal Aquifer of Tripoli City, Libya, Al-Fatah Engineering Consultant Bureau, 2002.
- 17- Water in Libya (Its Present and Ambitions), a Strategy for Water Planning, National Institute of Scientific Research, 2003.
- 18- Amal Field Middle Arida Aquifer, Hydrogeological Assessment Study, Unpublished Report, Harouge Oil Operations (2008).
- 19- Groundwater Flow and Contaminant Transport Models of Murzuq Area, south Libya, GWA (2013).
- 20- Strategy Actions Plan for Research Centre (T5.1), Water and Energy for Life in Libya, Project Funded by the European Commission No. 295143, FP7.
- 21- Database on Libyan's Energy and Water research and innovation priorities and needs. Water and Energy for Life in Libya, Project Funded by the European Commission No. 295143, FP7.
- 22- Contamination of Water at Sabha City, Libya. Ministry of Interior, Department of Sabha Security. (2022). 14p.

## **UNIVERSITY TEACHING EXPERIENCE**

### **Undergraduate level**

Basin Analysis  
 Computer Application  
 Drilling Technology  
 Fluid Mechanics  
 Field Geology  
 Geology of Libya  
 Groundwater Modelling  
 Groundwater Hydrology  
 Physical Geology  
 Project Adviser  
 Technical Writing  
 Water Chemistry

Water Well Drilling  
Well Test Analysis  
Water Well hydraulics

### **Postgraduate level**

Flow through porous media

Uncertainty

### **Proposing Syllabus for:**

Groundwater Geochemistry

Water Energy Nexus

GIS and GPS Application in Earth Sciences

### **SOCIETIES MEMBERSHIP:**

- AAPG AND SEPM (1975 – 1991)
- IBM PC User Group (1987 – 1991)
- American Water Works Association (1987 – 1991)
- AWRA (2001 - )
- Iraqi Water Resources Society (1991 - 2001)
- GW-Project (2019 - )

### **WORKSHOPS AND TRAINING COURSES:**

- Workshops of Rain Water Forecasting (1979). UNESCO
- Training course in Groundwater Modelling spring (1987). University College London. UK
- Training Course in Personal Strategic Planning (2013). International Academy of Personal Training and Leadership Development.
- Training Course in Description of Study Courses and Learning Programs (2013). International Center for Training and Development.
- Training Course in Standard Evaluation of the University Practice Quality (2013). International Center for Training and Development
- Training Course in Training of Trainer Skills Converged (2017). United Kingdom
- Training Course Water-Energy-Food Nexus and Sustainable Development (2018). RWTH Aachen University.
- Workshops of Geochemical Methods Used in Investigation for Oil and Gas (2018). National Oil Company. Libya.
- Training Course in Climate Change: The Science (2019). University of British Columbia.
- Training Course in The Sustainable Development Goals – A global, transdisciplinary vision for the future (2019). University of Copenhagen.
- Training course in Training of Trainer (2022). Egypt
- Training Course in Business Analytics with Excel. Skillup by Simplilearn, 30<sup>th</sup> Nov. 2022

## **COMPUTER SKILLS:**

- familiar with most computer systems (MSDOS and WINDOWS V.x)
- familiar with office kit (word, excell, access and power point)
- experience in using scientific software (Ex: grapher, surfer ...) and in using groundwater and surface water models.

## **RECOGNITION AND MERIT AWARDS**

### **Awards**

- 1- National Committee of Scientific Research of Libya prize for best project (Water Case in Libya) presented in the first scientific conference (Sep. 2003).
- 2- International Academy of Science, Engineering and Technology in India award for the best article published during 2017 in its Journal (IJGET).

### **Corresponding Address**

**Khalil Ibrahim Al-Samarrai**

**e-mail: [khalsamarrai@yahoo.co.uk](mailto:khalsamarrai@yahoo.co.uk)**

**Mobile: +905013772654  
+218910827918**