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Dr. Qassem Hamed Jalut

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 College of Engineering

 Civil Engineering Department

 Dr. Qassem H. Jalut

**December 2020**

# EDUCTION

**June 1989 Doctor of Philosophy in Civil Engineering,**

 **Colorado State University, Fort Collins, Colorado, U.S.A**

 **Major Field of Study : Groundwater Engineering**

 **Minor Field of Study : Mathematical Modeling**

 **Thesis Topic: Conjunctive Use Modeling of Groundwater**

 **and Surface Water in Irrigation Command Area.**

 **Nov. 1984 Master of Science Degree in Hydraulic Engineering,**

 **Colorado State University , Fort Collins, Colorado, U.S.A**

 **Major Field of Study : Hydraulic Engineering**

 **Minor Field of Study : Mathematical Modeling**

 **Thesis Topic : Mathematical modeling of Furrow**

 **Irrigation Using Stationary Control Volume.**

**June 1978 Bachelor of Science Degree in Irrigation and Drainage**

 **Engineering, University of Baghdad, College of**

 **Engineering, Baghdad, Iraq**

# Academic Experience

 **Acting Dean for administration and Financial Affairs, 2018- present**

 **University of Diyala, College of Engineering, Baquba, Diyala, Iraq**.

**2016-2018 Chair of scientific promotion committee, University of Diyala, College of**

 **Engineering, Baquba, Diyala, Iraq.**

**2015- 2016 Associate professor , University of Diyala, College of Engineering, , Baquba,**

 **Diyala, Iraq.**

**2011- 2015 Head of Civil Engineering Department ,** **University of Diyala, College of**

 **Engineering, , Baquba, Diyala, Iraq.**

**2009- 2011 Associate Professor , University of Diyala, College of**

 **Engineering, , Baquba, Diyala, Iraq.**

**2008-2009 Associate professor , University of Garyounis , College of**

 **Engineering, Civil Eng. Dept. , Benghazi, Libya**

**2003- 2008 Associate professor and graduate studies Coordinator,**

 **University of Garyounis , College of Engineering, Civil**

 **Eng. Dept. , Benghazi, Libya**

 **1999- 2003 Assistance Professor and Graduate Studies Coordinator ,**

 **University of Garyounis , College of Engineering, Civil**

 **Eng. Dept. , Benghazi, Libya**

**1991- 1999** **Head of Civil Eng Dept., College of Engineering, Babylon**

 **University, Babylon, Iraq.**

**1990- 1991 Head of Civil Eng. Dept., Kufa University., Iraq**

**1989-1990 Instructor, College of Engineering, University of Baghdad,**

 **Baghdad, Iraq**

**1978- 1982 Engineer, Department of Irrigation and Drainage Eng.**

 **College of Engineering, University of Baghdad, Iraq**

# GRADUATE STUDIES

## MASTER OF SCIENCE

1. **Mohammed A. Muslim (1995) Industrial waste characteristics of the liquid waste of Hilla Textile Factories and its effect on Shatt Al Hilla water quality.**

**2. Ayid Kadem (1995) Statistical analysis of low flow rate for group of Iraqi rivers.**

**3. Majed A. Jasim (1996) The effect of using two different water quality on salt**

 **concentration in partially saturated zone.**

**4. Fais H. Al Muraub (1996) Groundwater artificial recharge**

 **5. Paris Add (1996) Application of statistical methods to Iraqi reservoirs**

 **6. Abed Al Kareem K. (1996) Effect of high water table on pipe subsidence**

 **7. Quasi A. (1998) Mathematical modeling for solute transport in**

 **unsaturated zone.**

 **8. Najim A.(1999) Mathematical model of Al-Adaim Dam Break**

 **9. Suad M. Kuliawa (1999) Hydrochemical evaluation of Shatt Al Hilla river**

 **and the Adjacent aquifer**

 **10. Hussein H. Amuran (1999) Evaluation of Shatt Al Hilla water quality for**

 **domestic use.**

**11. Al –Montaser Khalel (2002) Mathematical modeling of Dam Break**

 **(Darna Dam as case study)**

**12. Hana Husian Erhoma (2004) Dam Break analysis for Wadi Al- Qadara**

**13. Amro Zaghloal (2007) Mathematical Modeling of Slope Stability Using**

**Deterministic Approach.**

**14.** **Nagla Farag El-Baaja(2008) The most effective stilling basin for energy**

 **dissipation.**

**15. Khalid Fadial (2008) Mathematical simulation for seepage under dam**

 **with inclined cutoff walls.**

**16. Bashir Ibrahim Diyaf(2008) Dam Break Analysis for Wadi Libda Dam**

**17. Agilla Phonais (2009) . Estimation of water supply coefficient for the city of Benghazi.**

**18. Nabilla (2009) E. Environmental Evaluation for the different technique used in the**

 **distillation plants in eastern part of Libya**

 **19. Yousif Wathiq Ameen (2017), Evalution of Himeran Reservoir Sedimentation by Using HEC-HMS Software.**

**20.Nisreen Jawad Rasheed (2017),A Mathematical Model for Conveying Water Through A long Pipe line.**

**21. Nadia Lutfi Abbas (2018) Hydro-chemical evaluation of shallow groundwater in alluvial aquifer .**

**22. Anmar Shaher Saleh (2018) Mathematical modeling of flow and solute transport in unsaturated zone using shallow groundwater**

**23. mohammed A. Hassan (2019) Mathematical modeling of rainwater harvesting system for ungauged catchment area**

**24. Sufyan M. Jasim (2020) Estimation of Aquifer Hydraulic Parameters from Pumping Test Data Analysis: A Case Study of Baquba Shallow Unconfined Aquifer**

## Doctor of philosophy

**1. Tha’ir Jabbar Mizhir (2012)Numerical Modeling of the Hydraulic Flow Field at Water outfalls of Hydro Power plant”, ( Ph.D Dissertation) University of Baghdad, college of Engineering ,Dept. of Water resources, Baghdad, Iraq.**

 **2. Thulfikar Razzak Abdul-Mehdi Al Husseini (2013) Transient groundwater flow analysis of Bahr Al-Najaf area using fuzzy aprrroach. University of Al- Mustansiriya,Baghdad ,Iraq**

**Examiner for many Ph.D and M.Sc thesis in Universities of Baghdad , Almustensiria, Babylon , Tikrit , Karbala and Garyounis in addition to be an advisor to more than 50 Engineering Graduation Projects in the area of Water Resources ,Hydraulics , Hydrology, and Environment Engineering in University of Diyala , Babylon and Garyounis University.**

# Courses Taught

## **GRADUATE LEVEL**

***Colorado State University ,U.S.A***

**Groundwater Contaminate Transport**

***Baghdad University, Iraq***

**Finite Element Method**

***Babylon University, Iraq***

**Groundwater Engineering ; Advance Engineering Mathematics ; Advance Numerical Analysis ; Water Pollution ; Selected Topics**

***Garyounis University ,Libya***

**Advance Fluid Mechanics , Applied Hydrology ; Groundwater and Seepage ; Ground water Engineering ; Embankment Dam ; Irrigation and drainage Engineering , Groundwater Contaminant Transport**

 ***Diyala University***

**Groundwater Engineering, Open Channel**

## **Undergraduate Level**

***Colorado State University ,U.S.A***

**Application of microcomputer in Eng.; Advance application of microcomputer in Eng.; Conjunctive use modeling .**

 ***Babylon University, Iraq***

**Computer Programming; Irrigation and Drainage ; Hydrology ;**

 **Mathematical analysis & Num. Methods ; Sanitary Engineering ;**

**Environmental Engineering ; Statistics for Engineers**

***Garyounis University ,Libya***

**Surface Hydrology ; Groundwater Hydrology ; Water supply Engineering ;**

**Sanitary Engineering ; Fluid Mechanics, Hydraulic Structures, Irrigation and Drainage, Engineering Geology.**

 ***Diyala University***

**Fluid Mechanics, Hydraulic structures , Irrigation and drainage, water resources, Hydrology.**

# Refereed Journals

***1- Reddy,M. and Q.H. Jalut (1984) Integral Equation Solution to Furrow***

 ***Irrigation, ASCE (WATER TODAY and TOMORROW),PP 120-124***

***2- Jalut, Q.H.,F.K.Hassan, and D.N. Taha (1994) Effect of Sewage System on***

 ***Groundwater Quality , AL-Rafidain Engineering Journal, Vol.2,No.3,***

 ***PP 130-140, Mosul, Iraq***

***3- Jalut,Q.H.,Al-Dalawi A., Al- Khazraji (1994) The Effect of Shutt Al- Hilla Stage***

 ***Level on Water Table Fluctuation At Selected Areas in Hilla City, Iraqi***

 ***Journal of Water Resources , Vol.13, No 2, PP 1-6***

***4- Jalut, Q.H. (1995) Evaluation of Water Quality Parameters of Water Supply***

 ***Stations in Babylon Governorate , Journal of Babylon University,Vol5,***

 ***No1,PP 1-10, Babylon, Iraq.***

***5- Ayid k., Salah T., Jalut Q.H. (1995) Statistical Analysis of Low Flow Rate for***

 ***Group of Iraqi Rivers, Journal of Babylon University,Vol5,No1,PP 20-30***

***6- Al –Khazraji Q., Jalut Q. H. , Al-Saffer A. (1997) Effect of High Water Table***

 ***on Pipe Subsidence, First Jordanian Conference on Traffic Engineering***

 ***and Environment,Vol2, PP191-198, Amman, Jordan, May 1997***

***7- Jalut, Q.H., Sala T. , F.H. Hashim (1998) Data Analysis for the Groundwater***

 ***Artificial******Recharge Experiments for Wadi Solak Using Analytical***

 ***Solutions, Journal of Babylon University , Vol4, No.5***

***8- Jalut, Q.H. and M.A Jasim (1998) Environmental Impacts of Deep Percolated***

 ***Water on Groundwater Quality Under Conjunctive Use Operational***

 ***Polices, Journal of Babylon University , Vol4, No.5***

***9- Jalut, Q.H. and Abdalla, M. G. (2001) The Effect of Groundwater Pumping on***

 ***Soil Subsidence in Sarir South Project. Engng. Res. Jour. ,Vol. 77, pp.-64,***

 ***Helwan University, Faculty of Engng, Cairo, Egypt.***

***10- Husian, H. A, Jalut Q.H, and Nufal A.( 2002) Effect of Changing Water Quality***

 ***on The Efficiency of Water Supply Station. First National Conference for***

 ***Material and Construction., pp432-442, Sabha University, Libya.***

***11- Jalut, Q.H. and Abdalla, M. G. (2002) Field Study of Sea Water Intrusion Along***

 ***Libyian Coast Line. Engng. Res. Jour. ,Vol. 83 , PP.113-124, Helwan***

 ***University, Faculty of Engng, Cairo, Egypt.***

***12- Jalut,Q.H. and Ben Hasouna M.A.(2004) The Influence of Sea Water Intrusion***

 ***on Coastal Groundwater Aquifer. Proceeding of the 3rd International Water***

 ***Conference in the Arab Countries. Beirut, Lebanon. Pp 67-83***

***13-*** ***Jalut, Q.H. and El-Mabrouk, F. A. (2005) Sewage Disposal Systems For Small***

 ***Communities, First National Conference on wastewater treatment and***

 ***Technology, Benghazi, Libya***

***14- Salem Al-Sanusi, Jalut Q.H, Amro Osman (2006) Mathematical Modeling of***

 ***Slope Stability Using Deterministic Approach. 2nd International Conference***

 ***on PROBLEMATIC SOILS : 3-5 December 2006,Petaling Jaya, Selangor,***

 ***Malaysia, pp 87-94***

 ***15. Jalut, Q.H. and R. E. Suleiman (2009) Rehabilitation of wadi al- qattarah main***

 ***dam. SBEIDCO - 1st International Conference on sustainable Built Environment***

 ***Infrastructures in Developing Countries , ENSET Oran (Algeria) – October 12-14, 2009***

 ***16.*** ***Jalut, Q.H. and A. A. Ikheneifer (2010) Mathematical Simulation for Transient***

 ***Flow in Pipes Under Potential Water Hammer. Diyala Journal of Engineering***

 ***Sciences, Special Issue pp. 222-236***

***17. Jalut,Q.H.,Khalaf Rasul M.,Abdul- Mehdi Thulfikar R. (2013) Modeling of Groundwater***

 ***Flow Using Fuzzy Approach. Modern Applied Science,Vol 7,No.4 ,April 2013, Canada***

***18. Khalaf Rasul M., Jalut,Q.H.,Abdul- Mehdi Thulfikar R. (2013) Safe Management for Regional Groundwater Sustainability in Bahr Al- Najaf Using Fuzzy Approach ,******The International Conference to Achieve Sustainable Development in Iraq .***

 ***19. Salaheddin A. Serrag , Qassem Galout , Bashir Diyaf (2013) PREDICTION OF "LIPTOS" LIBDA DAM FAILURE AND BREACH'S PARAME. Seventeenth International Water Technology Conference, IWTC17 Istanbul, 5-7 November 2013.***

***20. Jalut ,Q.H. and El-Baaja , N. F.(2011) EXPERIMENTAL APPROACH FOR ENERGY DISSIPATION USING STILLING BASIN WITH ONE AND TWO CONSECUTIVE DROPS, Diyala scientific Journal, special issue***

***21. . Jalut, Qassem H., and Fatan R. Majeed. (2015)"Hydrochemical analysis of groundwater resources in Kanan region." DIYALA JOURNAL OF ENGINEERING SCIENCES 8.4 (2015): 74-82.***

***22. Jalut, Qassem H., Nadia L. Abbas, and Abdulrahman Th Mohammad. (2018)"Management of groundwater resources in the Al-Mansourieh zone in the Diyala River Basin in Eastern Iraq." Groundwater for Sustainable Development 6 (2018): 79-86.***

***23. Hassan, M. A., Jalut, Q.H. (2018) Mathematical modeling of rainwater harvesting system for ungauged catchment area. International Journal of Civil Engineering and Technology (IJCIET) Volume 9, Issue 11, November 2018,pp 823-837***

**24. Abdullah, Thair H., Qassem H. Jalut, and Yousif W. Ameen.(2018) "Hydrologic Modeling for Sedimentation in Hemrin Reservoir Using HEC-HMS." DIYALA JOURNAL OF ENGINEERING SCIENCES 11.4 (2018): 67-72**

**25. Sufyan M. Jasim , Qassem H. Jalut (2020)** **Estimation of Aquifer Hydraulic Parameters from Pumping Test Data Analysis: A Case Study of Baquba Shallow Unconfined Aquifer, Diyala Journal of Engineering Sciences Vol. 13, No. 02, June 2020, pages 22-33**

#  CONSULTING WORKS

1. **Member of the consulting engineering group for the hydraulic evaluation of the RO Units in Babylon Tires Factory in Najef, Iraq in 1997 and 1998**
2. **Member of the consulting engineering group to improve the capability of treatment units of the industrial liquid waste from the Textile Factory in Hilla City ,Iraq (1996-1997)**
3. **Member of the engineering consulting group for the groundwater project in Hilla City, Iraq 1998-1999**
4. **Member of the engineering consulting group to rehabilitate the Al Musib power station in Babylon governorate, Iraq 1999.**
5. **Member of the engineering consulting group for quality control for the cement production from Iraqi southern company for cement production, Iraq (1997-1999)**
6. **Member of the national committee of the heads of civil engineering departments in Iraq from 1997 to 1999 for re-evaluation of the undergraduate courses in civil engineering nation wide.**
7. **Examiner in the national committee to examine engineering student nation wide in the area of water resources and hydrology engineering ,Baghdad, Iraq 1997 and 1998 .**
8. **Hydrology Consultant of AlSarih Privet Consulting company, Benghazi, Libya 2008 and 2009.**
9. **Member of administration council of Diyala University Consultant Bureau, Baqouba, Diyala, Iraq 2010 -2015**
10. **Diyala University representative at the Higher Council of Environmental Protection of Diyala Province. 2010- present**

# Memberships

**Iraqi Scientific Society for Water Resources**

**Iraqi Engineering Society**

 **Alpha and Epsilon (Honor Society)**

***https://scholar.google.com/citations?user=gORMtaQAAAAJ&hl=en***

***https://publons.com/author/1230909/qassem-h-jalut#profile***

***https://www.researchgate.net/profile/Qassem\_Jalut2***