

Curriculum Vitae

Personal Data

1. Surname : Ijam
2. First Names : Abbas Zaki
3. Marital Status : Married
4. Current Academic Rank : Professor of Water Engineering
5. Current University : Mu'tah University,
Mu'tah, Karak,
Jordan
6. Current Faculty and Department: Faculty of Engineering,
Civil and Environmental Eng.
7. Specialization : Water Engineering,
Civil and Environmental Engineering.
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Academic Qualifications

1. B.Sc Civil Engineering ,College of Engineering ,University of Baghdad
,Baghdad , Iraq ,1970.

2. M.Sc Water Engineering ,Civil Engineering Dept., University of Wales Swansea ,Swansea , Britain , 1974.

Title of Thesis : "Free Surface Flow Over Spillways".

3. Ph.D Water Engineering ,Civil Engineering Dept., ,University of Wales Swansea ,Swansea , Britain , 1977.

Title of Thesis : "Finite Elements in Incompressible Viscous Flow Models".

Employment History

1. From 1970 to 1972 : Site Engineer ,Babylon Municipality ,Iraq.

2. From 1978 to 1997 : Assistant Professor, Associate Professor, and Professor of Water Engineering, Civil Engineering Department, College of Engineering, Basrah Univ. Basrah, IRAQ.

3. From 1980 to 1997 : Consultant Engineer, Engineering Consulting Bureau, University of Basrah, Iraq.

4. From 1996 to 1997 : Director of the Engineering Consulting Bureau, University of Basrah, Iraq.

5. from March/1998 to May/1998 : Consultant Civil Engineer, Consolidated Consultants for Engineering and Environment, Amman, Jordan.

6. From 1998 -- present : Professor of Water Engineering, Civil Eng. Dept, Faculty of Engineering, Mu'tah University , Mu'tah, Karak, Jordan.

University Teaching

Currently at Mu'tah University, Mu'tah, Jordan, teaching the following Courses:

Undergraduate: Water Resources , Water Structures , Hydraulics, Irrigation and Drainage, Dams Engi., Projects Design in Environmental Engineering, Grounwater Engineering, Applied Hydraulics.

Postgraduate: Advanced Hydraulic, Computational Methods in Water and Environmental Engineering, Dams and Reservoirs Engi., Groundwater Hydraulics and Cotamination, Design and Operation of Hydraulic Structures.

Research Activities

A) Research Papers

1. “Stability of Eartgfill Dams of Materials Containing Soluble Gypsum”, Journal of Earth Sciences and Geotechnical Engineering, Vol. 10, no.1, 2020, 1-13.
2. “Groundwater Recharge from Wala Dam Reservoir in Jordan”, Civil and Environmental Research, Vol. 9, no. 11, 2017.
3. “ Seddiment Yield Assessment for Tannur Dam Reservoir in Jordan”, Civil and Environmental Research, Vol. 8, no.6, 2016.
4. “ Predicting Sedimentation at Mujib Dam Reservoir in Jordan” Jordan Journal of Civil Engineering, Vol. 6, no. 4, 2012.
5. “Assessment of Sediment Yield for Wala Dam Catchment Area in Jordan”, European Water 38, 43-58, 2012.
6. “ Dams with an Inclined Cutoff ”, Electronic Journal in Geotechnical Engineering, Vol. 16, Bund. P, 2011.
7. “Optimum Control of Seepage below Dams”, International Engineering Conference (IEC) “Mutah 2004”, April, 2004.

8. "Raising Wala Dam Storage Capacity in Jordan", Journal Teknology (Sciences and Engineering), Malaysia, in Review.
9. " Water reuse in irrigation part of the water budget in Jordan ", The Second Symposium on Scientific Research Outlook in the Arab World 2002, Scientific Research Technology Development in the Arab World, March, Sharjah, UAE, 2002.
10. "Optimization model for groundwater planning under transient state condition", J. Mu'tah Lil-Buhuth wad-Dirasat, Jordan, Vol. (15) , No. (4) , 2000.
11. "Linear programming including finite element in groundwater flow", J. of Basic and Applied Sciences, Libya, 1998.
12. "Optimization model for groundwater in confined aquifers", proceeding of the Fourth Basrah Conference for Research in Engineering, pp.218-230, 1997, Basrah, Iraq.
13. "Finite element simulation of wind flow on buildings", the Scientific J. of Tikrit Uni., Engineering sciences, Vol.3, No.1, 1996.
14. "Finite element analysis for flow below hydraulic str. on anisotropic soil", J. of Marina Mesopotamia, Vol.10, No.2, 1995.
15. "Construction of fishery harbor at Khor Abdellah coast in Fao area", J. of Marina Mesopotamia, Vol.10, No.2, 1995.
16. "Conformal analysis of seepage below a hydraulic str. with an inclined cutoff", Int. J. for Numerical and Analytical Methods in Geo-mechanics, Vol.18, No.5, May 1994.
17. "Three dimensional flow below hydraulic str. with weepoles", proceeding of Third Basrah Conference for Research in Civil Engineering, March 1994, Basrah, Iraq.
18. "Flow below weirs on scoured bed", proceeding of Third Basrah Conference for Research in Civil Engineering, March 1994, Basrah, Iraq.

19. "The significance of trench drains below hydraulic str.", J of Engineering and Technology, Vol.13, No.2, 1994.
20. "Stability of hydraulic str. on scoured bed", J. of Engineering and technology, Vol.12, No.12, 1993.
21. "Stability of Hydraulic str. with vertical drains", J. of Engineering and Technology, Vol.10, No.1, 1991.
22. "Finite element simulation of the flow through a disk type prosthetic heart valves", J. of Engineering and Technology, Vol.8, No.4, 1990.
23. "Finite element analysis as an aid to the design of heart valves", proceeding of the Sixth International Conference on Numerical Methods in Laminar and Turbulent Flow, Swansea, Britain, 1989.
24. "Basrah Water Supply System Evaluation", J. of Marina Mesopotamia, Vol.12, 1998.
25. "Optimum location of Underground Reservoirs for Basrah Water Supply System", J. of Marina Mesopotamia, Vol.12, 1998.
26. "Effect of intermediate filters on pressure and hydraulic gradient below hydraulic str.", J. of Almuhandis, Iraqi society for engineers, Vol.97, 1988.
27. "Seepage below hydraulic str. with two cutoffs", J. of Engineering and Technology, Vol.5, No.3, 1988.
28. "Optimum use of water in Zubair Area for irrigation", J. of the Gulf and Arabian Peninsula, Vol.4, 1982, Kuwait.
29. "Finite element solution of separated flow in sudden expansion", proceeding of the international conference on Numerical Methods for Nonlinear Problems, Swansea, Britain 1980.
30. "A finite element solution of natural flow in enclosed cavities", J. of Computer Methods in Applied Mechanics and Engineering, Vol.19, 1979.

31. "A numerical solution for natural flow in cylindrical annuli using finite element method", proceeding of International Conference on Computer Aided Design, S.Margherita, Italy, 1976.

32. "General computer program for finite element in flow problems", University of Wales Swansea Library, Swansea, Britain, 1977.

33. "Coupled convective conductive heat transfer including velocity field evaluation", The Mathematics of Finite Element and Applications, Editor Whiteman, Academic Press, 1976.

34. "Construction of breakwater at Khor Abdellah coast at Fao", special meeting Proceeding on optimum use of Iraqi Shores, Marins Center , University of Basrah, Basrah , Iraq, April 1994.

35. "Marine Port for Fishing Boats in Fao Area", special meeting Proceeding on optimum use of Iraqi Shores, Marines Center, Basrah, Iraq, April 1994.

B) Postgraduate Supervision

Supervision of postgraduate Theses in Water and Environmental Engineering field during the years 1984-1997 in the University of Basrah, Basrah, Iraq, and from 1998 to present in Mutah University, Mutah, Jordan.

C) Scientific Activities

- Academic staff Promotion evaluations in Jordan and outside Jordan.
- Evaluation of scientific papers to be published in a number of International journals.
- Evaluation of scientific projects submitted for funding.
- Head of postgraduate studies comitte.
- Head or member of a number of comittes in Mutah University.

D) Present Research Topics

1. Groundwater Modeling.
2. Seepage below Dams.
3. Gypsum Salts effect on Stability of Dams.
4. Water Resources Modeling.
5. Reservoir Sedimentations.

6. Pipe networks Optimizaion.

Administrative Work

1. From 1979 to 1981 : Assistant Dean, College of Engineering, University of Basrah, Basrah, Iraq.
2. From 1993 to 1994 : Head of Civil Eng. Dept, College of Engineering, University of Basrah, Basrah, Iraq.
3. From 1996 to 1997 : Assistant Dean for Academic Affairs, College of Engineering, University of Basrah, Basrah, Iraq.
4. From 1996 to 1997 : Director of Engineering Consulting Bureau, University of Basrah, Basrah, Iraq.

Consultation Works

1. From 1980 to 1997, worked as a consultant engineer in Engineering Consulting Bureau, University of Basrah, Basrah, Iraq.
Working as head of consulting teams for different projects in water and environmental engineering fields:

A- Preparing consultant studies, preliminary and final design, technical specifications, bill of quantities, contract documents and consultative supervision for the following projects;

1. Basrah City Sewerage and Drainage Scheme, Stages Four, Five, and Six. Complete contract documents were submitted to the State Organization for Water and Sewerage, Iraq.
2. Basrah City Water Supply System, including distribution networks, Reservoirs and pumping stations.
3. Nasirya City Water Supply System,
4. Redesign of main pumping stations for Stage Three/Basrah Sewerage and Drainage Scheme.
5. Construction of Fishery Harbor at Khor Abdellah Coast in FAO Area. Complete Contract Documents submitted to the State Organization for Ports in Iraq.
6. Environment Improvement Project of Creeks In the City of Basrah. Complete Contract Documents submitted to the Ministry of Irrigation.

7. Design Irrigation Networks with Intake Pumping Station for the University of Basrah Campus, complete with contract documents.
8. Design and submitting contract documents for Sanitary Engineering Works including cold and hot water, waste and rain water systems for the Educational College Buildings and Male and Female Residence Halls Buildings.

B- Checking design and site consultative supervision for the following main projects:

1. Thirteen Berths at Um-Qaser Port, South of Iraq. The original designs were prepared by a British Consultant.
2. Reconstruction of Shatt Al-Basrah Regulator.
3. Foundation Protection against salty groundwater for Basrah International Airport in Basrah, Iraq.