

## Curriculum Vitae

### General Information:

Full Name	:	Alaa Muhsain Atiaa Al-Abadi
Title	:	Professor
University	:	Basrah
College	:	Science
Department	:	Geology
Official E-mail	:	<a href="mailto:alaa.atiaa@uobasrah.edu.iq">alaa.atiaa@uobasrah.edu.iq</a>



### Qualification and Certification

General Specialization	Geology		
Specific Specialization	Hydrogeology		
<b>Certificate</b>	<b>Date</b>	<b>University</b>	<b>Country</b>
B. Sc.	1998	Basrah	Iraq
M. Sc.	2000	Basrah	Iraq
Ph. D	2012	Baghdad	Iraq

**Master Thesis:** Hydrogeology of Safwan-Zubair area, south of Iraq

**Ph.D. Thesis:** Hydrological and hydrogeological analysis of northern Missan Governorate, south of Iraq using geographic information system

### Teaching Experiences:

Title of Course	B.S	M.S	Ph.D	Name of Institution
Statistical Geology	*			University of Basra
Geophysics	*			University of Basra
Well logging	*			University of Basra

Petroleum reservoir	*			University of Basra
Hydrology	*			University of Basra
Groundwater hydrology	*			University of Basra
Computer Sciences	*			University of Basra
Environmental Geology	*			University of Basra
Advanced hydrogeology		*	*	University of Basra
Advanced statistics		*		University of Basra
Advanced hydrochemistry		*		University of Basra
Application of GIS in water resources		*	*	University of Basra

### Administrative Positions:

Job Title	Place of Work	Date		Name of Institution
		From	To	
Lecturer	Sciences College	2000	Continuing	University of Basra

### Academic Rank:

Degree Hold (M.S./Ph.D.)	Rank				Name of Institution	Date	
	Instruct	Assista	Associat	Professo		From	To
Ph.D.				*	University of Basra	2015	Now

### Articles/Patents

Publishing house	Journal Name	Title	No.
Elsevier	J. of Petroleum Sciences and Engineering	GIS-based machine learning models for mapping tar mat zones in upper part (DJ unit) of Zubair Formation in North Rumaila supergiant oil field, southern Iraq	.1
Elsevier	Atmospheric research	Long-term trends in daily temperature extremes in Iraq	.2
Springer	Arabian Journal of Science and Engineering	Spatial Mapping of Groundwater Potential Using Entropy Weighted Linear Aggregate Novel Approach and GIS	.3
Elsevier	Measurements	Selection of Gridded Precipitation Data for Iraq using Compromise Programming	.4
Springer	Modeling Earth System and Environment	Spatial mapping of artesian zone at Iraqi southern desert using a GIS-based random forest machine learning model	.5
Springer	Sustainable water Resources Management	A GIS-based combining of frequency ratio and index of entropy approaches for mapping groundwater availability zones at Badra–Al Al-Gharbi–Teeb areas, Iraq	.6

Springer	Environmental Earth Sciences	IS-based integration of catastrophe theory and analytical hierarchy process for mapping flood susceptibility: a case study of Teeb area, Southern Iraq	<b>.7</b>
Springer	Environmental Monitoring and Assessment	Prediction of groundwater flowing well zone at An-Najif Province, central Iraq using evidential belief functions model and GIS	<b>.8</b>
Springer	Environmental Monitoring and Assessment	A comparison between index of entropy and catastrophe theory methods for mapping groundwater potential in an arid region	<b>.9</b>
Springer	Environmental Earth Sciences	Groundwater potential mapping at northeastern Wasit and Missan governorates, Iraq using a data-driven weights of evidence technique in framework of GIS	<b>.10</b>
-	Iraqi Journal of Science	Mapping groundwater quality Index for irrigation in the Dibdibba aquifer at Karbala - Najaf plateau, central of Iraq	<b>.11</b>
-	Iraqi Journal of Science	Estimation of Groundwater recharge by groundwater level fluctuation method of Dibdibba aquifer at Karbala- Najaf plateau, central of Iraq	<b>.12</b>
Springer	Arabian Journal of Science and Engineering	A GIS-Based Integrated Fuzzy Logic and Analytic Hierarchy Process Model for Assessing Water- Harvesting Zones in Northeastern Maysan Govern orate, Iraq	<b>.13</b>
Springer	Arabian Journal of Geosciences	Mapping flood susceptibility in an arid region of southern Iraq using ensemble machine learning classifiers: a comparative study	<b>.14</b>
Elsevier	Atmospheric Research	Long-term trends in daily temperature extremes in Iraq	<b>.15</b>
Springer	Environmental Earth Sciences	A novel geographical information system-based Ant Miner algorithm model for delineating groundwater flowing artesian well boundary: a case study from Iraqi southern and western deserts	<b>.16</b>
Springer	Environmental Earth Sciences	Susceptibility mapping of gully erosion using GIS-based statistical bivariate models: a case study from Ali Al-Gharbi District, Maysan Governorate, southern Iraq	<b>.17</b>
Springer	Environmental Earth Sciences	Mapping groundwater zones contaminated by hydrocarbons in the Dammam aquifer in the Karbala–Najaf plateau, Iraq	<b>.18</b>
Maxwell Scientific Publication Corp	Research Journal of Applied Sciences, Engineering and Technology	A Committee Machine with Intelligent Systems for Estimating Monthly Mean Reference Evapotranspiration in an Arid Region	<b>.19</b>
Springer	International journal of Environmental Science and Technology	Flowing well potential zoning at Iraqi southern and western deserts using frequency ratio and geographic information system	<b>.20</b>
Springer	Applied Water Sciences	The application of Dempster-Shafer theory of evidence for mapping groundwater vulnerability at Galal Badra basin, Wasit governorate, east of Iraq. Applied Water Science	<b>.21</b>
Springer	Applied Water Sciences	Modeling of groundwater productivity in northeastern Wasit Governorate, Iraq using frequency ratio and Shannon's entropy models	<b>.22</b>
Springer	Applied Water Sciences	Modeling of stage–discharge relationship for Gharraf River, southern Iraq using backpropagation artificial neural networks, M5 decision trees, and Takagi–Sugeno inference system technique: a comparative study.	<b>.23</b>
Springer	Applied Water Sciences	A GIS-based DRASTIC model for assessing intrinsic groundwater vulnerability in northeastern Missan governorate, south Iraq.	<b>.24</b>
-	J. of Environmental and Earth Science	Groundwater potential mapping of the major aquifer in northeastern Missan governorate, south of Iraq using analytical hierarchy process and GIS	<b>.25</b>
-	Iraqi J. of Science	Estimation of groundwater recharge for the main aquifer in the northeastern Missan governorate, south of Iraq using chloride mass balance technique	<b>.26</b>

-	JZS	Estimation of surface runoff in northeastern Missan governorate using (NRCS-CN) technique and GIS	<b>.27</b>
-	Marsh Bulletin	Impact of climate changes on the hydrological regime of Teeb River, Missan governorate, south of Iraq	<b>.28</b>
-	Baghdad Science J.	Using fuzzy logic for estimating monthly pan evaporation from meteorological data in Emara/ south of Iraq	<b>.29</b>
-	Basra J of Science	Prediction of river discharge using artificial neural networks: an example of Gharraf River, south of Iraq	<b>.30</b>
-	J. of Al-Anbar University for Pure Science	A fuzzy logic approach to infer reservoir permeability from depth and porosity measurements for Mishrif limestone Formation at Nasyria Oil field, south of Iraq.	<b>.31</b>
-	Marsh Bulletin	Rainfall-runoff modeling by using M5 model trees technique: an example of Tigris catchment area in Baghdad, middle of Iraq	<b>.32</b>
-	Iraqi Journal of Earth Sciences	The effect of a hypothetical artificial recharge program on water table altitudes of shallow Dibdibba sandy aquifer in Safwan-Zubair area, south of Iraq	<b>.33</b>
-	Basra Journal of Science	Simulation of flow regime of Dibdiabba sandy aquifer in Safwan-Zubair area, south of Iraq	<b>.34</b>
-	Iraqi J. of Science	Basra Journal of Science	<b>.35</b>
-	Basra Journal of Science	The use of two-layer numerical based model to estimate hydraulic properties from pumping test on large diameter hand dug wells partially tapping unconfined to semi-confined water bearing layer	<b>.36</b>
-	Basra Journal of Science	Determination of hydraulic properties from pumping test on large diameter hand dug wells using numerical methods, Safwan-Zubair area case study	<b>.37</b>
-	J. of the College of Arts	Management of groundwater resource of Dibdibba sandy aquifer in Safwan-Zubair area, south of Iraq	<b>.38</b>
-	Iraqi J. of Science	Mapping groundwater quality Index for irrigation in the Dibdibba aquifer at Karbala - Najaf plateau, central of Iraq	<b>.40</b>
IWA	J. of hydroinformatics	A comparative assessment of fuzzy logic and evidential belief function models for mapping artesian zone boundary in an arid region, Iraq	<b>.41</b>

**No. of Ph. D and M.Sc. students (graduate): 12**

**Skills:**

- Having good command of English (Reading, Writing, Speaking and Listening).
- Familiarity with Software :
  - ArcGIS
  - MATLAB
  - Rockworks
  - Surfer
  - MS office (word, Excel, Power point).
  - SAGA
  - R statistical Package