

Academic Curriculum Vitae



Personal Information:

Full Name: **Shwan Omar Ismael Seeyan**

Academic Title: **Assistant Professor**

Position: **Head of Soil and Water Department, Agriculture Engineering Sciences College, Salahaddin University.
Head of Kurdistan Geologists Syndicate**

Email: **shwan.seeyan@su.edu.krd**

Mobile: **+964 750 4487884**



Education:

- **January 2012 – November 2015**

PhD Degree in Hydrogeology from Technische Universitte Bergakademie Freiberg / Germany – Hydrogeology Institute / Geo-Engineering and Mining.

Title of Research: Hydrogeology and Hydrochemistry investigations of the Shaqlawa-Harrir basin in Kurdistan – Iraq

- **November 2005 – March 2008 Salahaddin University / Erbil**

Master Degree (M. Sc) in Hydrogeology from Geology Department - College of Science.

Title of Research: Hydrogeology and Hydrochemistry of Southern Erbil Basin (Bashtapa Sub-Basin)

- **October 1994 – July 1998 Salahaddin University / Erbil**

B.Sc. in Geology Sciences at College of Science, the main subject was including General Geology, Crystallography, Geomorphology, Hydrology, Geophysics, Stratigraphy, Structural Geology, Engineering Geology, Remote Sensing, Geochemistry and Geotechnics.

- **October 1991 – June 1994 Rizgari High School / Erbil**

Higher Grades includes Mathematics, Physics, Chemistry and Biology, (English, Arabic, and Kurdish) Languages.

Employment:

- **January 1999 – November 2005**

***Place:* Salahaddin University, College of Science Geology Department**

***Job Title:* Laboratory Lecturer**

- **November 2005 – March 2008**

MSc Student in Geology Department, College of Sciences, Salahaddin University

- **April 2008 – January 2012**

Assistant Lecturer in Soil and Water Department, Agriculture College, Salahaddin University

- **January 2012 – November 2015**

PhD Student in Technische Universitate Bergakademie Freiberg / Germany – Hydrogeology Institute / Geo-Engineering and Mining.

- **December 2015 – June 2020**

Lecturer in Soil and Water Department, Agriculture College, Salahaddin University

- **July 2020 – Present Time**

Assistant Professor in Soil and Water Department, Agriculture College, Salahaddin University

Program Skills

- Good experience in 3 dimensional drawing by AutoCAD program (Geological States).
- Wide experience in Drawing a Contour Maps, Topographical Maps, Profiles and Cross-Sections by using Geological Programs (Surfer, MapInfo, Coral Draw, Aquitests, Grapher and Rock Ware).
- Wide experience in statistics program (PhreeqC, SPSS, Matlab).
- Wide experience in GIS (Arc View, Arc Info and Arc Catalog).
- Good experience in ERDAS, ENVI and Geomatica programs for remote sensing applications.
- Wide experience in modeling programs like Visual MODFLOW, FFAST and GOCAD.

Instrument Skills

- GPS Instrument for measuring the altitude, latitude and longitude of the area and the distance between the stations which we proposed.
- PH Meter to determine the PH of the water samples.
- Ec (Consort, and HANNA model) Instrument for measuring the electric conductivity, transmissivity and salinity for the water of proposed wells which is under study in continue times of year.
- Compass (all Types) for measuring the dip and strike of the beds for the formations and the stations site and elevations on the map in the studied areas, which is in the study.
- Stereoscopes instrument for the remote sensing study which is study the air photos and space photos.
- Microscopes (all Types) for study the rock slides and all the fossils types.
- Ion chromatography (Metrohm-Compact IC Pro) and MagIC Net program for Ions analysis.
- Liquid-Water Isotope Analyzer (LIWIA Program).

Work Experiences

- September 2020 - Till Now

NUFFIC – Orange Knowledge Program (TMT+)

Project Name: TMT+ Project entitled “Modern and climate smart farming and water management for selected supply chains in Iraq”

Job Title : Local Coordinator and Researcher

Different online training courses and field work in Farms including; Pilot farm plan, Soil sampling and analysis for farms, QGIS farm characterization, Landscaping and agroforestry in practice, Keyline design, Soil life, Soil structure, Mineralization/Fertility, Irrigation scheme, Installation and maintenance of monitoring equipment, Improving soil with animals, Field sampling of water and soil quality, Species selection, Principles of greenhouse horticulture, Establishment of baseline (conventional vs. experimental yields), Financial evaluation of inputs versus outputs, Developments in water engineering for production, transport and treatment of surface and groundwater, and so many trainings that will be held during this project.

The second part of the training and field work in farm will be held in the Netherlands.

- January 2020 – Till now

NUFFIC – Orange Knowledge Program (OKP-IRA-104278-30005)

Project Name: Efficient water management system in Iraq by switching to climate smart agriculture: capacity building and knowledge development

Job Title : Local Coordinator and Researcher

Eight online training courses done during this project including; Rain Water Harvesting course, Agro-Hydrology course, Water productivity monitoring for efficient water management course, Water accounting for water stewardship in Agriculture course, Research Work course, Education

Work Course, and Free online Mooc’s program Wageningen University, and joining research.

All the participants went to the Wageningen University & Research and IHE Delft University for completion the second part of the training in the Netherlands.

- **October 2010 – April 2011**

UNESCO – United Nation Educational, Scientific and Cultural Organization

Project Name : Advanced Hydrogeological Survey for Sustainable Groundwater Development in Iraq (Phase I)

Job Title : UNECSO Consultant

- Collecting hydrogeological, hydrological, and geophysical data
- Collecting data about spring and stream discharge measurements.
- Collecting data about groundwater fluctuation.
- Thesis and Researches about geology, hydrogeology, petroleum geology, climatology, geophysics and hydrology.
- Training course about remote sensing and GIS program.
- Workshop about Gap analysis of the data.

- **January 2004 – December 2004**

USAID – Agriculture Reconstruction and Development of Iraq (ARDI – DAI)

Organization

Job Title : Geologist Data Entry and Data Collections

- Data of the Hydrology (Discharge of the rivers and springs in Erbil, Sulaimanyia and Duhok Governorates).
- Data of the Hydrogeology (Fluctuation of the ground water table for some wells in the three governorates).
- Data of the Projects (Dames, Ponds and others).

- **August 2001 – November 2003**

Food and Agriculture Organization of United Nation (FAO). Coordination Office in Northern Iraq, Erbil Sub-Office, Irrigation Sub-Sector, Erbil (Well and Dam Site Definition Team).

Job Title : Geologist and Data Entry

- Geological survey of well and Dam sites definition including study of Topography, Morphology, Geology and Hydrogeology of the study areas.
- Preparation Location Map, Topographic Map, Geological Map and Geological Cross-Sections for each surveyed area (Deep and Shallow well sites).
- Preparation Geological Report for each (deep well, shallow well sites).
- Collaboration with Geophysical team and Comparison with Geophysical results to get positive results.
- Preparation Geological Report and Geological Map of Dam sites and reservoir area with (2-3) geological Cross-Sections.
 - Finding of suitable locations for Borrowing materials, Specification of kind materials (gravel, siltstone, claystone, sandstone, etc.)
- Geological survey of Irrigation channel and determine (rock falls, landslides, collapse, etc).
- Maintaining of Fissure system (Orientation of system, Density of fissuring, Grouping of fissuring length and width of fissuring, Opining and filling of fissure with position according to the bedding.
- Preparation three and six monthly Reports for Geological Activities.

- **December 2000 – March 2001**

UNDP Organization, BWSC (Denmarkian Co.) Contracted with Engineering Consultancy Office in Engineering College, University of Salahaddin / Erbil.

Project Name : 29 MW Project for Electricity

Job Title : Geologist

- Description of Seven Bore Hole and Correlation between them in Erbil Governorate.
- Description of Seven Bore Hole and Correlation between them in Sulaymania Governorate.
- Description of Seven Bore Hole and Correlation between them in Duhok Governorate.
- Preparing Reports for all Sites.

- **July 2000 – August 2000**

Food and Agriculture Organization of United Nation (FAO), Coordination Office in Northern Iraq, Erbil Sub-Office, Irrigation Sub-Sector, Erbil.

Job Title : Geologist

- Geological Survey of the wells in Erbil Governorate include measuring of (S.W.L, D.W.L, Electrical Conductivity, Resistivity, Temperature and Salinity) of the wells.
- Preparation the Hydrological data of the wells and projected on the map and making Contour Map of all of them.
- Preparation Geological Report of Application Study of water Resources in Erbil Governorate.

- **January 1999 – June 2002**

Salahaddin University , College of Science Geology Department

Job Title : Laboratory Lecturer

Giving Laboratory Lectures of B. Sc Student in the following subjects :

- Hydrogeology and Engineering Geology (Third Class).
- Chemical Mineralogy (Second Class).
- Stratigraphy (Third Class).

- Sub-Surface Geology and Biostratigraphy (Fourth Class).
- Geotechnics and Geology of Iraq (Fourth Class).
- Sedimentary Rocks and Sedimentology (Fourth Class)
- General Geology (First Class)

Research and publications

1) Seeyan, S. 2020. Hydrochemical assessment and groundwater quality of Koysinjaq area in Kurdistan Region-Iraq. *Arabian Journal of Geoscience* 13, 491. <https://doi.org/10.1007/s12517-020-05410-x>.

2) Seeyan, S. 2020. Groundwater Flow Modeling for Qushtapa Plain Unconfined Aquifer in Southern Erbil Basin, Kurdistan Region, Iraq. *Journal of Geoscience and Environment Protection*, Vol. 8, 116-132. doi: 10.4236/gep.2020.83009.

3) Seeyan, S. & Merkel, B. 2015. Groundwater modeling for Harrir plain and Mirawa valley in Shaqlawa-Harrir Basins, Kurdistan Region, Iraq. *Freiberg Online Geoscience*, Volume 39, pp: 45-64

4) Seeyan, S. & Merkel, B. 2015. Groundwater recharges estimation for Shaqlawa-Harrir Basins in Kurdistan Region, Iraq. *Journal of Environmental Hydrology*, Volume 23, 21 P.

5) Seeyan, S. & Merkel, B. 2014. Determination of Recharge by Means of Isotopes and Water Chemistry in Shaqlawa-Harrir Basin, Kurdistan Region, Iraq. *Hydrology Current Research*, 5(3): 179. DOI: 10.4172/2157-7587.1000179

6) Seeyan, S., Merkel, B. & Abo, R., 2014. Investigation of the Relationship between Groundwater Level Fluctuation and Vegetation Cover by using NDVI for Shaqlawa Basin, Kurdistan Region – Iraq. *Journal of Geography and Geology*, Volume 6, No 3. DOI: 10.5539/jgg.v6n3p187

- 7) Jirjees S., **Seeyan S.** and Fatah K. (2020). Climatic Analysis of Pirmam Area, Kurdistan Region, Iraq. *Iraqi Geological Journal*, 53 (1E): 75-92.
- 8) Fatah K., **Seeyan S.** and Jirjees S. (2020). Morphometric Analysis using Geo-information Techniques for Different watersheds in Northeastern part of Erbil City, Kurdistan Region, North Iraq. *Iraqi Geological Journal*, 53 (2A).
- 9) Seeyan, S., Adham, A., Mahdi, K., Ritsema, C. 2021. Water Quality, Availability, and Uses in Rural Communities in the Kurdistan Region, Iraq. *Water* 13, no. 20: 2927.
<https://doi.org/10.3390/w13202927>
- 10) Adham, A., **Seeyan, S.**, Abed, R., Mahdi, K., Ritsema, C. 2022. Sustainability of the Al-Abila Dam in the Western Desert of Iraq. *Water* 14, 586. <https://doi.org/10.3390/w14040586>
- 11) Seeyan S, Akrawi H, Alobaidi M, Mahdi K, Riksen M, Ritsema C. Groundwater Quality Evaluation and the Validity for Agriculture Exploitation in the Erbil Plain in the Kurdistan Region of Iraq. *Water*. 2022; 14(18):2783. <https://doi.org/10.3390/w14182783>
- 12) Shevan Jirjees, **Shwan Seeyan** and Imaddadin Hassan, 2022. Morphometric Analysis of the Rawandoz River Basin, Erbil, Kurdistan Region, Iraq. *Iraqi Geological Journal*, 55 (2D), 157-172
- 13) Mustafa, O.; Mahmud, R.; Sracek, O.; Seeyan, S. Geogenic Sources of Arsenic and Fluoride in Groundwater: Examples from the Zagros Basin, the Kurdistan Region of Iraq. *Water* 2023, 15, 1981.
<https://doi.org/10.3390/w15111981>.
- 14) Sarween Esmael; Shwan Seeyan, 2023. Hydrochemical Investigation and Quality of Groundwater in Erbil-Pirmam Area, Kurdistan Region, Iraq. *Iraqi Geological Journal*. Vol. 56 (1A), 67-85.
[DOI: 10.46717/igi.56.1A.7ms-2023-1-19](https://doi.org/10.46717/igi.56.1A.7ms-2023-1-19)

15) Shevan J. Jirjees¹; Imaddadin O. Hassan¹; Shwan Seeyan, 2020. Hydrometeorological Data Analysis and Drought Indices of Rawandoz Area, Iraqi-Kurdistan Region. ZANCO Journal of Pure and Applied Sciences, 34(6);150-159 . DOI: <http://dx.doi.org/10.21271/zipas>

Funding and academic awards

- Human Capacity Development Program (HCDP), Kurdistan Region Scholarship for studding PhD in Germany , Freiberg Technical University, Geo Engineering and Mining Department, Hydrogeology Institute

Professional memberships

- Member of Kurdistan Geologists Syndicate (Head of Syndicate).
- Member of Iraqi Geologists Syndicate (Representative of the Kurdistan Geologists).

Professional Social Network Accounts:

- **Research Gate** : <https://www.researchgate.net/profile/Shwan-Seeyan>
- **Google Scholar** : <https://scholar.google.com/citations?user=3Y-K41AAAAAJ&hl=en>
- **Google+** : <https://currents.google.com/u/0/109329027845530733575>
- **Facebook** : <https://www.facebook.com/settings?tab=account§ion=username>
- **LinkedIn**: <https://www.linkedin.com/in/dr-shwan-seeyan-299017163/>
- **Telegram** : <https://web.telegram.org/k/>