# **CURRICULUM VITAE**

Name: Elsayed Mohammed Abu El Ella

Position: Professor of Hydrogeology (Water

**Resources Management)** 

Specialization: Hydrogeology, PhD

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# [1] ACADEMIC QUALIFICATIONS

- Ph.D. Hydrogeology, 1988, Assiut University with bilateral supervision, Hamburg University, Germany.
- . M.Sc. Geology, 1984, Assiut University
- B.Sc. Geology (very good with honors), 1979, Assiut University.

# [2] MAIN RESEARCH INTERESTS

Groundwater management, hydrogeology and hydrogeochemistry, surface water modeling, watershed modeling, remote sensing and geographic information systems (GIS) in water resources applications and environmental impacts of groundwater and environmental remediation.

More than twenty years of progressive experience in water resources management, technical training, applied scientific research and education. The subject of past research was on the integrated management water resources for some developing areas: the Red Sea coast, Egypt, the north and south Sinai, Egypt, the northwest Suez Gulf area, Egypt and Wadi El Mathoula, Upper Egypt

### **131 EMPLOYMENT HISTORY AND RESPONSIBILITIES**

- 1) *Demonstrator:* Full time (1979 -19 84).
  - Teaching practical courses of hydrogeology, hydrogeochemistry, topographic maps, and structural geology.
  - Carrying out research in hydrogeology (M. Sc. degree).
- 2) Assistant lecturer: Full time (1984 1989).
  - Teaching practical courses of hydrogeology, hydrogeochemistry, topographic maps, structural geology, and geological hazards.
  - Carrying out research in hydrogeology (Ph. D. degree)
- 3) *Lecturer:* Full time (1989 1994).

- Teaching courses of hydrogeology, advanced hydrogeology, groundwater modeling.
- Carrying out research in hydrogeology, groundwater modeling, groundwater management, aquifer characterization, aquifer remediation, GIS and its applications in water resources, remote sensing techniques and its applications in water resources.
- Supervising research for M. Sc. Degree.

# 4) Associate Professor: Full time (1994 - 1999).

- Teaching courses of hydrogeology, advanced hydrogeology, groundwater modeling.
- Carrying out research in hydrogeology, groundwater modeling, groundwater management, aquifer characterization, aquifer remediation, GIS and its applications in water resources, remote sensing techniques and its applications in water resources.
- Supervising research for M. Sc. and Ph. D Degree

## 4) **Professor:** Full time (1999- Present).

- Teaching courses of hydrogeology, advanced hydrogeology, groundwater modeling, GIS and its applications in water resources.
- Carrying out research in hydrogeology, groundwater modeling, groundwater management, aquifer characterization, aquifer remediation, GIS and its applications in water resources, remote sensing techniques and its applications in water resources.
- Supervising research for M. Sc. and Ph. D Degree

# [4] MEMBERSHIPS

- International Association of Hydrological Sciences (IAHS).
- International Desalination Association (IDA).
- The Geological Society of Egypt (GSE).
- Sedimentological Society of Egypt (SCE)
- Remote sensing and Space Science of Egypt.
- Geological Society of Africa.

# [5] EXPERIENCE AND BACKGROUND

# Teaching experience

- Experience in teaching hydrogeology, hydrogeochemistry, advanced hydrogeology, groundwater modeling, structural geology, and geological hazards.
- Experience in methods of hydrochemical analysis with volumetric analysis, flame photometer, atomic absorption spectroscopy.
- Experience in groundwater exploration using geoelectric methods, carrying out field surveys, and interpretation of VES data with software packages.
- Experience in drainage basin analysis for assessment of runoff hazards with management and control methods.
- Teaching "Hydrogeology" for 4<sup>th</sup> year students of Faculty of Education, Assiut University..
- Teaching "Watershed Analysis and Flooding" for 3<sup>rd</sup> year students, Faculty of Science, Assiut University..
- Teaching "Geology" for 2<sup>nd</sup> year students of Faculty of Education, Assiut University.

# Research experience

- Experience in water resources management.
- Experience in drainage basin analysis.
- Experience in hydrologic modeling.
- Experience in aquifer characterization.
- Experience in remote sensing (RS).
- Experience in geographic information systems (GIS).

# [6] GRANTS AND TRAVEL

- Invitation as a member of the Tempus Meda Project JEP 32005-2004 to the Martin-Luther-University, Halle-Wittenberg, Institute for Geological Sciences and University Center of Environmental Sciences UZU for a training course "GIS application in Hydrogeology and Environmental Geology" from August 1st-31st, 2006.
- Visiting Professor, Kyoto University, Japan, JSPS Invitation Fellowship, June-Nov., 2005 (Development of Methodology for Flash Flood Mitigation and Water Resources Management in Arid Regions).
- Visiting Professor, Kyoto University, Japan, Scientific Mission from Egyptian Government, June-Sept., 2004.
- Visiting Scientist, Kyung Hee University, Korea Science and Engineering Foundation (KOSEF), South Korea, , 2001.
- Visiting Researcher on Groundwater Modeling and GIS, IHE, Delft, the Netherlands, UNESCO, 1999
- Visit to Department of Earth Sciences, Swiss Federal Institute of Technology, Zurich (ETH) Switzerland 24 Sept.- 3 Oct., 1998

# [7] PROJECTS

- <u>Principal Investigator</u>: Development and Management of Water Resources, Northwest Sue Gulf Area, Egypt.
- <u>Principal Investigator</u>: Development Natural Resources, Wa El Mathula, Qena, Egypt.
- <u>Co-principal investigator</u>: Groundwater Management in Assiut Governorate, Upper Egypt.
- <u>Investigator</u>: Development the Groundwater Resource in Wadi Qena, Egypt.
- Investigator: Development the Groundwater Resource in Wadi El Assiuty, Egypt
- Investigator: Development the Groundwater Resource In Wadi El Allagi, Egypt.
- Project ID:1381,STDF Basic & Applied Research Program, as the Researcher "CO-PI", formulate water resources development master plan by Rain Water Harvesting (RWH), propose the optimum levels of flood protection to people and property and suggest the water control works to optimize the use of RW and minimize economic and environmental hazards, and present some of the socio-economic design elements of micro-catchments rainwater harvesting with document project output through digital GIS-ready data bases, maps, drawings, photos and printed reports and present project's outputs through presentations and workshops.

# [8] SELECTED PUBLICATIONS

- 1-El-Hadad, M.A., Ahmed, A.A. and **Abu El Ella, E.M**. (1984): .Geochemistry of the Mafic and Ultramafic Rocks of Gebel El Motaghiarat Intrusion, Eastern Desert, Egypt. Bull. Fac. Sci., Assiut Univ., 19(2-F): 141-158
- 2-**Abu El Ella, E.M**. (1990): Chemistry of the Nile Water Between Aswan and Assiut, Upper Egypt. Bull. Fac. Sci., Assiut Univ., 13(1): 35-49
- 3-**Abu El Ella, E.M.** (1992): Variations in the Chemical Characters of the Nile Basin Water in Sohag Area, Upper Egypt. . Proceedings of First International. Conference on Geology of the Arab World, Cairo Univ. Egypt, Vol.(II): 449-521.
- 4-**Abu El Ella, E.M.** and Soliman, H.A .(1992): Impact of Aswan High Dame on the Nile Water Quality, Egypt. Bull. Fac. Sci., Assiut Univ., 22(1-F): 162-179.
- 5-**Abu El Ella, E.M**. (1993): Preliminary Studies on the Geochemistry of the Nile River Basin, Egypt. In Transport of Carbon and Nutrients in Lakes and Estuuaries, part 6 (ED.S. Kempe, D. Eisma and E.T. Degens), Mitt.Geol.-Palt.Inst., Univ. Hamburg, SCOPE/UNEP Sonderbd, Volum (74): 115-135.
- 6-**Abu El Ella, E.M**. (1993):Evaluation of Groundwater Chemistry in the Area Southwest of Qena City. Egypt. Bull. Fac. Sci., Assiut Univ., 22(1-F): 1-14.
- 7- **Abu El Ella, E.M**. (1993): Hydrogeological Remarks on Abu Shih Area, Southern Assiut, Egypt. Bull. Fac. Sci., Assiut Univ., 22(1-F): 15-25.
- 8- **Abu El Ella, E.M**. and Abdel Mogeeth, S.M. (1993): Hydrogeological Aspects of the Groundwater Aquifers in Wadi El-Assiuti, East Assiut, Egypt. Bull. Fac. Sci., Assiut Univ., 22(1-F): 55-71.
- 9- **Abu El Ella, E.M**. (1993): A Study of The Hydrogeological And Hydrogeochemical Conditions For Land Reclamination Activities West of Tahta, Egypt. Bull. Fac. Sci., Assiut Univ., 22(1-F): 159-171.
- 10- Abu El-Ella, E.M., Farrag, A.A., Bakheit, A.A., Ibrahim, H.A. And El-Hussaini, A.H. (1994). New Treatments of Groundwater Aquifers In Wadi El-Mathula Area, Eastern Desert, Egypt Using Geophysical and Hydrogeological Methods. Proceedings of 2nd Int. Conf. on "Geology of The Arab World Cairo Univ. Egypt.: 449-521.
- 11-**Abu El Ella, E. M.**; Ebraheem A. M. and Youssef, M. M. 1995: Evaluation of Groundwater Resources In Wadi El Assiuti Area, East of Assiut City, Eastern Desert Egypt. Proceedings of Water Resources At Risk, May 14-18, American Institute of Hydrology, Denver, Colorado, USA: LL42-LL56.
- 12-**Abu El Ella, E. M**. (1995): Human's Influence on The Discharge of Nile Water, Dissolved And Suspended Materials To The Mediterranean Sea . Proceedings of International Desalination Association (IDA) World Congress on Desalination And Water Sciences, November 18–24, Abu Dhabi, UAE,, Vol. (II): 593-603.

- 13-Ibrahim, H.A. Ebraheem, A.M., **Abu El-Ella, E. M.,** Bakheit, A.A., and El-Hussaini, A.H., (1995). The Study of Groundwater Resources Along The Plain of The River Nile (From Aswan To Assiut) Using Geoelectrical Resistivity Methods. Proceedings of 1st Int. Conf. on The Environment And Developement In Africa, October 21-24. Assiut Univ. Assiut, Egypt.: 273 300
- 14-Abdel Moneim, A. A. and **Abu El Ella ,E. M**. (1996): Numerical Simulation of The Water Bearing Formations In The Aluminium Company Area, Nag Hammadi, Egypt. Proceedings of The 3rd International Conference on "Geology of The Arab World", Cairo University, Egypt: 663-676.
- 15-**Abu El-Ella, E. M.**; Ibrahim, H. A. and El-Hussaini, A. H. (1997): Geoelectrical And Hydrogeological Studies on The Sediments of The Main Trunck of Wadi El-Mathula Basin, Eastern Desert, Egypt. Proceedings of International Desalination Association (IDA) World Congress on Desalination and Water Reuse", October 6 9, Madrid Spain, Volume (I): 99-115.
- 16-Ibrahim, H.A; Abu El-Ella, E.M. and Attia, M. M. (1997): Application of Seismic Techniques to Hydrologic Investigations on The Main Shallow-Trunck of Wadi El-Mathula, Eastern Desert, Egypt Proceedings World International Desalination Association (IDA) Congress on" Desalination and Water Reuse", October 6–9, Madrid – Spain, Volume (V): 479-493.
- 17-**Abu El Ella, E. M**. (1997): Water Quality Assessment in Assiut Governorate, Nile Valley, Egypt. Bull. Fac. of Sci., Assiut Univ., 26 (2-F): 73-86.
- 18-**Abu El Ella, E. M**. (1999): Hydrogeochemical Evolution of Groundwater Aquifers In The Area East of Assiut, Nile Basin, Egypt. Bull. Fac. Sci., Assiut Univ., 28(1-F): 1-16.
- 19-**Abu El Ella, E.M**. (1999): Groundwater Management Using Gis And Modflow For The Aquifer of The Outlet of Wadi El Mathoula, Nile Valley, South Egypt. Bull. Fac. of Sci., Assiut Univ., 28(1-F): 17-30.
- 20-**Abu El Ella, E.M**. (1999): Hydrogeochemistry And Environmental Isotope Investigation of The Nile Basin Water From Sohag District, Upper Egypt. Book of Extended Synopses International Symposium on "Isotope Techniques In Water Resources Development And Management". May 10-14, Vienna, Austria, IAEA-SM36/P40.
- 21- **Abu El Ella, E.M**. (1999): Impact of Land Reclamination of The Nile Valley Fringes on The Quality of Water and Soil, Egypt. In Water and Desertification of the Arab World, April 17-19 (In Press)
- 22-**Abu El Ella, E.M**. (1999): Hydrogochemical Evaluation of the Groundwater by Coupling GIS and Modeling Approach to the Nile River Basin, Egypt. Republished Proceedings the International Conference on Calibration and Reliability in Groundwater Modeling: Coping with Uncertainty-ModelCARE'99, 20-23 September 1999, Zurich, Switzerland, VII: 805-812.

- 23 -Abu El Ella, E.M. (1999): Assessment and Evaluation of Water Resources using remote sensing and GIS Techniques in Egypt. Proceedings the International Conference on Integrated Management of Water Resources in the 21stCentury, 21-25 November, 1999- Cairo, Egypt, VII: 732-740.
- 24-**Abu El Ella, E.M**. (2001): Water Resources in Egypt and the Challenge for water in the Twenty First Century. Proceedings the International Symposium on Soil and Groundwater Contamination Control Strategy, Soul, South Korea, PP 73-85, 21st June 2001.
- 25-**Abu El Ella, E.M.** (2001): Groundwater Modeling Using GIS at the Ras Gharib Area, Eastern desert, Egypt. XXXI. IAH Congress Munich 2001, 10-14 September.
- 26-Shedied ,A-G; **Abu El Ella E.M**.; Abdel Bassir,M.A. (2001): Water Balance and quality of Qena Area , Nile Vally, upper Egypt, A new Approch. Sci.,J.Fac Minufiya unvi.,Vol. (XV), 125 154 , (2001).
- 27-. Elewa, H.H; **Abu El Ella, E. M.**; Abdel Moneim, A.A and attallah, M.H. (2005): The Influence of the geomorphometric Parameters and Soil propprties on the hydrological characteristics in the Area Between El-Quseir and Safaga, Eastern Desert, Egypt. Annals. Geo. Survey. Egypt. V. XXVIII (2005). Pp 523-545.
- 28-Abdel Moneim, A.A.; **Abu El Ella, E. M**.; Elewa, H.H. and attallah,M.H. (2006): Hydrogeological and Hydrogeochemical Assessment of Groundwater Resources in the Area Between El-Quseir and Safaga, Eastern Desert, Egypt. Annals. Geo. Survey. Egypt. V. XXIX (2006). pp 335-356.
- 29- El-Sawey, E.K., **Abu El Ell E. M**., Essa, M. A. and Dabash M.H. (2009): Geomorphology and morphometric Studied of the Area Between Gebel Ataga and Al Galala Al Baharyia and its applications in the Flash Flood Mitigation using Remote Sensing and GIS technique. Al-Azhar Bull. Sci. (AISC"08), (March, 2008): pp.27-42.
- 30- **Abu El El E. M**, (2009): The hydrological characteristics of the Area Between El-Quseir and Safaga, Eastern Desert, Egypt. The 8<sup>th</sup> Meeting of the Saudi Society for Geosciences. 9-12 March 2009, Saudi Geological Suevey, Jeddah, Saudi Arabia.
- 31. Elewa, H. H. and Abu El Ella, E.M., (2011): Numerical Modeling for the Nubian Aquifer Development in Wadi Qena, Eastern Desert, Egypt. Egyptian Journal of Geology, vol. 55, p. 105-125.
- 32 Elewa, H. H. and. **Abu El Ella., E. M** (2011): Prediction of Future Water Level Depletion of the Aquifer Systems in Farafra Depression, Egypt, using Mathematical Flow Modeling Techniques. Egyptian Journal of Geology, vol. 55, p. 87-104.
- 33. Elewa, H. H. and **Abu El Ella, E.M.**, (2011): Analytically-Based Groundwater Flow Modeling for the Management of the Pleistocene Aquifer System in Wadi El-Assiuti, Eastern Desert, Egypt. Annals of the GSE (**Accepted for Publication in 6/7/2011**).

- 34. **Abu El Ella., E. M.**, (2012): Hydrogeochemistry and Desalination of Saline Groundwaterin Wadi El-Assiuti, Upper Egypt. The 6<sup>th</sup> Int.Conf. for Develop.and the Env. In the Arab World, March 24-26 2012, Assiut, Egypt: 293-304.
- 35. Elewa, H.H., E. M. Ramadan, A. A. El-Feel, **E. M. Abu El Ella**, and A. M. Nosair, (2013): Runoff Water Harvesting Optimization by Using RS, GIS and Watershed Modelling in Wadi El-Arish, Sinai. Inter. J. Engi. Res. & Tech., 2: 1635- 1648. ISSN: 2278-0181.
- 36.\_Ahmed, A. A., Diab, M. Sh, Abu El Ella, E. M., El-shater, A. (2013): Urbanization, agriculture and degradation of groundwater quality: Case study of Nile Valley, Luxor, Egypt. International Conference on Water Resources and Environment, Istanbul Turkey, 24th-28th of November 2013.
  - 37. Ahmed, A. A., Fogg, G. E., Diab, M. Sh, Abu El Ella, E. M. (2014): Historical change of groundwater levels and its consequences on the archaeological sites at Luxor, Egypt. The 7th International Conference for Development and the Environment in the Arab World, Assiut University, Egypt, 23 25 March, 2014.
- 38. **Abu El Ella., E. M.** and. Sellim, M.M (2014): Membrane Manufacturing, Testing and Evaluation in Brackish Water Desalination in the Arid Regions: A Case Study in Wadi El-Assiuti, Upper Egypt. 6<sup>th</sup> International Conferences on Water Resources and Arid Environments (ICWRAE 6): 21-28 16-17 December, 2014, Riyadh, Saudi Arabia.
- 39. Zawrah, M. F. **Abu El Ella, E. M**. Snousy, M. G.(2015): The Spread and Movement of Pollutants in Subsurface (Aquifer System) is a Subject Deserves Discussion in Northwestern Suez Gulf Area, Egypt: A Critical Study. (Abstract), the 18th International Conference on Petroleum, Mineral Resources and Development, 8-10 February, 2015, Egyptian Petroleum Research Institute, Nasr City, Cairo, Egypt.