

Curriculum Vitae

1. Personal Information

Name	Gamal Eldin Murtada Abdo
Date of birth	1956
Nationality	Sudanese
Languages	Arabic and English
Gender	Male
Marital Status	Married with two children
Specialization	Hydrology, Water Resources Engineering and Environmental Management
Academic Title	Professor

2. Current Position

Director of Water Research Centre, Faculty of Engineering, University of Khartoum

3. Education

- 1974-1979 B.Sc. (Honors) Civil Engineering, Department of Civil Engineering, Faculty of Engineering & Architecture, Khartoum University, Sudan.
- 1980-1981 M.Sc. (Engineering Hydrology), Department of Engineering Hydrology, National University of Ireland, Galway, Ireland.
- 1981-1985 Ph.D. (Water Resources Management), Civil Engineering Department, University of Birmingham, UK.

4. Professional Memberships

- Member of the International Water Resources Association (IWRA).
- Member of the International Association for Hydraulic Engineering and Research (IAHR).
- Member of UNESCO Sudanese National Committee for IHP.
- Member of the International Commission for Irrigation and Drainage (ICID).
- Member of Sudan Engineering Society (SES).
- Member of Sudan Engineering Council (SEC).

5. Membership of International and Regional Working Groups & Networks

- Member of the steering committee of the UNESCO Regional Network on

Groundwater Protection in the Arab Region. (Formed by UNESCO Cairo Office, (1996- present).

- Member of the Wadi Hydrology Network in the Arab Region.
- Member of the G-WADI network.
- Member of the Groundwater Technical Committee of IAHR (1992-1994).
- Member of the Working group for preparing guidelines for anthropogenic alterations of the Urban Water Cycle and Environment, UNESCO, Paris (2002-2003)
- Member of the Working group for the assessment of freshwater environment in Africa, UNEP, Nairobi (2004-2006).
- Member of the working group for the establishment of a Water Resources Research Centre in Sudan, UNESCO, (2007-present)
- Sudan focal person of the Flood and Drought Frequency Analysis and Stochastic Modelling Research Components, UNESCO's FRIEND/NILE project (2000 – present)
- Sudan focal person of the CIGAR Challenge program on water and food for the Nile Basin (2003 – present)

6. Employment Record

20102- Present	Director, Water Research Centre, Faculty of Engineering, University of Khartoum
2003 – Present	Head, Department of Civil Engineering, Faculty of Engineering and Architecture, University of Khartoum, Sudan.
2002- 2003	Head, Water Resources and Environmental Engineering Division, Department of Civil Engineering, Faculty of Engineering and Architecture, University of Khartoum, Sudan.
1995 – Present	Associate Professor, Department of Civil Engineering, Faculty of Engineering and Architecture, University of Khartoum, Sudan.
1985- 1995	Assistant Professor, Department of Civil Engineering, Faculty of Engineering and Architecture, University of Khartoum, Sudan.
1979-1985	Teaching Assistant, Department of Civil Engineering, and University of Khartoum, Sudan (on leave for postgraduate studies for M.Sc. and Ph.D.).

Also worked as

Jan 97-Apr 98	Visiting Professor, M. Sc. International Hydrology Course,
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- Department of Engineering Hydrology, University College Galway, Ireland (on sabbatical leave) (Teaching groundwater hydrology/hydraulics and groundwater modelling, and supervising research projects)
- 1993-2004 Visiting Professor (on regular basis, 3 months a year), Water Resources Engineering Programme, Department of Civil Engineering, Faculty of Engineering, University of Dar Es Salaam, Tanzania (Teaching groundwater hydrology/hydraulics and groundwater modelling and supervising research projects)
- 1999 – 2003 Visiting professor (on regular basis, one month a year), International Postgraduate Diploma Programme in Applied Hydrology and Information Systems for Water Management, Institute for Meteorological Training and Research, Nairobi, Kenya. (Teaching hydrology/hydraulics and irrigation and drainage)
- 1997-present senior researcher, and Team leader of many research projects and Regional Programmes , UNESCO Chair in Water Resources, Khartoum,, Sudan.

7 Fields of Practical Experience

- Surface water Hydrology, Catchment modelling and River flow forecasting in Arid areas
- Design and Analysis of Water Supply and Sanitation Systems.
- Groundwater Management
- Arid Zone Hydrology or Wadi Hydrology.
- Rainwater Harvesting & Artificial Groundwater Recharge in Arid and Semi Arid Areas
- Flood and low flow frequency analysis , Flood and drought control and management
- Design of Hydraulic Structures.
- Irrigation & Drainage Design.

8. Supervision of Research Project (Examples)

Supervised many research projects for MSc and PhD in Sudan and abroad.

10. Consultancy Experience

- Consultant to the Ministry of Water Resources and Electricity, Sudan.
- Consultant to the Rural and Urban Water Supply Corporation, Sudan.
- Consultant to the Ministry of urban planning and Public Utilities Khartoum State, Sudan.
- Consultant to the Ministry of urban planning and Public Utilities Khartoum State, Sudan
- Consultant to the Ministry of urban planning and Public Utilities Gedarif State, Sudan
- Consultant to the Sea Port Corporation, Sudan
- Consultant to the University of Khartoum Consultancy Corporation(UKCC)
- Consultant to many other private National and International consultancy firms.

11 Examples of Consultancy Projects & Technical Reports

2012 - Present	Study and Design of Water Harvesting Projects Associated with the Upper Atbara Dam Complex (With University of Khartoum Consultancy Corporation, UKCC).
2012 - Present	Study and Design of Irrigation Schemes Associated with Kajbar Dam, (With UKCC).
2012	Design of Water Supply System for a number of villages in Kassala State, for Red Sea Corporation.
2011	Design of Water Supply Systems for Borgaig Locality, Northern Sudan, Ministry of Planning and Public Utilities, Northern State
2010-2011	Development and operation of an Early Warning and Flood Forecasting System for the Nile, Ministry of Water Resources and Electricity.
2009 - 2011	Study and Design of Water Supply Schemes for new settlements Associated with the Heightening of Roseris Dam, (With UKCC).
2009 - 2011	Study, Design and Supervision of Construction of Water Harvesting projects of North Kordofan, (With UKCC).
2010 - 2011	Hydraulic Studies for the Design of the following Bridges;

	Dongola, Al Dabba, Addubaseen, and Tuti - Bahari Bridges
2005 - 2009	Hydraulic Studies and Design of Drainage Structures of a Number of Higways, namely, Khartoum – Dongola – Halfa, Khartoum – Atbara and Atbara – Marawe.
2002 – 2007	Study and Design of Irrigation Schemes Associated with Marowe Dam, (With UKCC).
1995-1997	Water Resources Assessment and Management in Gedarif Area ,Eastern Sudan, , for the Ministry of Engineering Affairs, Gedarif State, Sudan.
2002	Design of Pumping Station for Multaga Irrigation Scheme, for Khartoum University Consultancy Corporation (UKCC) (2002)
1998-1999	Design of Abu Delaig Earth Dam, UKCC, For the Ministry of Agriculture and animal,
1999-2000	Water Resources Development of Wadi Moj and Wadi Salalab, to supplement Port Sudan water supply, For Red Sea Water Corporation,
1999.	Study of the Effect of Sediment Load of River Mog on the proposed new harbors, Port Sudan, for Sea Port Coropration,
1995-1999	Water Resources Assessment and Management in Gedarif Area ,Eastern Sudan, , for the Ministry of Engineering Affairs, Gedarif State, Sudan.
1992-1993	Evaluation of the performance of 50 water supply stations (Groundwater) along the cattle road, 800 Km long from western Sudan to Khartoum, for Project Preparation Unit, Ministry of Finance and economic Planning, Department of Privatization of Public Enterprises.,
1992-1993	Evaluation of the Irrigation Scheme associated with COCO diary factory, Khartoum, for Project Preparation Unit, Ministry of Finance and economic Planning, Department of Privatization of Public
1986-1989	Design of water supply and sanitation systems in a number of university complexes, University of Khartoum, Sudan, for Chief Engineer's Office, Khartoum University.

12. Conferences, Seminars and Workshops

Participated with papers or key note lectures in more than fifty national, regional and International Conferences, seminars and workshops

13 Selected Publications

Abdo, G.M., (2013), "Development of Flood Frequency Curves for the Eastern Nile", University of Khartoum Engineering Journal, Vol 3, Issue 1, PP 1-6 .

Abdo, G.M. , Salih, A, and Al-Sheikh, A., ((2013)," Water conservation in the Arab region: a must for survival", Journal of Sciences in Cold and Arid Regions. , 5(1): PP 157–164. (50% contribution)

Abdo, G.M. and Nasr, A., (2012), " An Improved Flood Forecasting Model of the Blue Nile River in Sudan", University of Khartoum Engineering Journal, Vol 2, Issue 1, PP 27-30. (70% contribution)

Abdo, G.M. and Salih, A, (2012), " Challenges Facing Groundwater Management in Sudan", Global Advanced Research Journal of Physical and Applied Sciences (GARJPAS), Vol. 1(1) , PP. 001-011. (70% contribution)

Abdo, G.M. and Salih, A, (2011), "Water Resources Management in Darfur", University of Khartoum Engineering Journal, Vol 1, issue 1, pp 41-49. (60% contribution)

Bashar, K.E. , Abdo, G.M, & Gadain, H., (2011), "Use of Space Technology in the Management of Wadi Water Resources", The Sudan Engineering Society Journal, Volume 57, No.1, PP 11-18. (40% contribution)

Abdel Gafer, M., Abdo, G.M. and Abdel Salam, Y., (2011), " Groundwater Flow Model for the Nubian Aquifer in the Khartoum area, Sudan", Bull. Eng. Geol. Environ. (2011), 70: PP 619–623. (40% contribution)

Abdo, GM and Nasr, A, (2007)" Sudan Experience in Flood Forecasting and Early Warning", Accepted for Publication at the Sudan Engineering Society Journal

Abdo, G.M, & El Daw. A., (2006) "Water Harvesting Experience in the Arab Region", Management of Aquifer Recharge and Water Harvesting in Arid and Semi arid Regions, IHP publication. Oxford and IHB Publishing Co, PP 79-99.

Abdo, G.M, & Bashar, K., (2005) "Use of space technology in the management of Wadi water resources", International Conference on Wadi Hydrology, Sanaa, Yemen.

Abdo, G.M, Sonbol, M., & (2005), “Flood Frequency Analysis for the Eastern Nile”, FRIEND/NILE Conference, Sharm El Sheikh, Egypt.

Abdo, G. M, Willems P., Sonbol M., Mkhanda A. Opere A., Tedesse L.⁶, Abdel Motaleb M., Farid S., Zaki A., Al-Weshah R. (2005), “Regional flood frequency analysis in the Nile basin”., FRIEND/NILE Conference, Sharm El Sheikh, Egypt.

Abdo, G. M, 2003. “ Status of Groundwater Quality and pollution risk in Sudan”, Status of groundwater quality in the Arab Region, Network on Groundwater Protection in the Arab Region, UNESCO, IHP Publication No 14, pp 95-115

Abdo, G. M, 2001, “Hydrogeological Data Collection and their Use for Groundwater Management”, Manual of Field Data Collection for Groundwater Studies, Network on Groundwater Protection in the Arab Region, UNESCO, IHP Publication No 12, PP 8-12 (in Arabic)

Abdo, G.M & Abdel Salam, Y., 2003, “ Understanding Surface and Groundwater Interaction for Optimum Design of Water Harvesting Projects”, Proceeding of the Regional Conf. on Water Harvesting and Future Development in Sudan, UNESCO Chair in Water Resources, Sudan, PP 11-132.

Abdo, G.M., 2003, “Integrated Management of Wadi Aquifers Using Mathematical Modeling and optimization Techniques”, Proceeding of the Second Wadi Hydrology Conference, Amman, Jordan

M.,Yassin Z.O, Abdo, G.M., and Asaad Y. Shamseldin, 2001, “El Nino-Southern Oscillation and Rainfall Variability in Central and Southern Sudan”, Water International , IWRA, Volume 26, Number 2, Pages 177-184..

Shamseldin, A., Abdo, G. M., and Saghyroon, A., 1997. "Real time forecasting on the Blue Nile". Water International, IWRA, Vol 24, March 1999. PP 39-45

Abdo, G. M., 1995. "Numerical modelling and optimization techniques for aquifer management". Proc. int. conf. on water resources management in arid & semi arid countries, Muscat, Oman. PP 584 - 591

Abdo, G. M., 1993.,"Application of UCG Models for River flow Forecasting on the Nile", Proceedings of the Workshop on River flow Forecasting, Flood Forecasting Centre, Beijing, China.

Abdo, G. M.,1992."Advances in Groundwater management", Proceedings of the Seminar on Efficient Use of Water Resources, Sudan National Committee for IHP, Khartoum.

Abdo, G. M., Bruen M., Kachroo, R. K. and O'Oconnor, K 1992. "River flow forecasting on the Nile". Proc. int. conf. on protection and development of the Nile and other major rivers, Cairo, Egypt. PP 4-7-1 - 4-7-15

Abdo, G. M., I. Sanhoury and E. Eltayeb , 1991. "Computer assessment of reservoir capacity based on drought criteria: proposed Merowie Dam". Sudan Engineering Society Journal, vol. 31, PP18-26

Abdo, G. M. and Salih, A., 1989. "Water resources and its utilization in Sudan". Proc. conf. on water resources in Arab countries, Water Research Centre, University of Amman, Amman, Jordan.PP 241-273

Abdo, G. M., 1989. "Digital modelling of Kassala aquifer". Proc. Al-Azhar 1st eng. conf. Cairo, Egypt.

Abdo,G.M.,1986. "Aquifer management using dynamic programming". Proc. int. conf. on groundwater in arid and semi arid regions, Amman, Jordan., PP 1-20

Abdo, G. M., 1986. "Current practice for optimum aquifer operation". Proc. int. conf. on water resources needs and planning in drought prone areas, Khartoum, Sudan.

Contact Address

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