**Dafalla Siddig Dafalla Wadi **

Engineering Geologist

Nationality: Sudanese

Marital status: Married.

Language: Arabic, English and Chinese (intermediate)

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**Qualifications:**

1. M. Sc. In engineering geology –Sudan academy of Sciences (2010 - 2013)
2. B. Sc. (hons) first class in geology –Al Neelain University (2002 - 2007)

**Vocational Experience:**

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| September, 2013 to present | Lecturer of Engineering Geology, Faculty of petroleum Geology and Minerals, University of Bahri, Khartoum –Sudan. |
| July, 2012 to September, 2013: | Teaching Assistant, Faculty of petroleum Geology and Minerals, University of Bahri, Khartoum –Sudan. |
| February, 2013 to present: | Lecturer (Part-time), faculty of Petroleum Engineering, Sudan University of Sciences and Technology, Khartoum –Sudan. |
| July, 2009 to present: | Senior geologist (Darcy engineering company) for Geophysical works for groundwater exploration and wells drilling (part-time), Khartoum –Sudan. |
| November, 2007 to July 2012: | Teaching Assistant (part-time), Faculty of petroleum and Minerals, Al Neelain University, Khartoum –Sudan. |

**Competencies:**

* To secure a rewarding assignment to lead a geological work and plans to higher level through skillful management and by motivating, training and supporting the team to achieve higher standards of performance.
* Knowledge and skills in teaching, research and capacity building.
* Culinary background, motivation, organization and leadership
* Computer Skills Fully conversant with MS-windows, MS-Office application Suite and Remote sensing and GIS Softwares ( ENVI4.5, ArcGIS, Map source and Surfer 8, Global Mapper and Erdas), Mathematical software (Matlab), Geophysical Software ( IP2win, Gocad and Resix), Graphic software (Corel Draw, Adobe Photoshop), Hydrogeological software (Aquitest, Aquichem), Mining Software (Surpac and Rockware14), SPSS. Engineering software (Plaxis 3D).

**Professional Training**

1. Certificate in professional statistical analysis with SPSS software. Directorate of quality and development –University of Bahri, Khartoum –Sudan, 2015.
2. Certificate in promotion of teaching skills. Directorate of quality and development –University of Bahri, Khartoum –Sudan, 2013.
3. Workshop in Scientific paper writing. Al Neelain University, Khartoum –Sudan, 2012.
4. Certificate in Arcgis 9.3. Abdel Bari Center, Khartoum –Sudan, 2009.

**Work experience:**

Some of my work experience as principal participant:

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| 2019 | * Consultant of construction of earth dam, Labodo village, Darfur, Sudan
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| 2015 | * Groundwater exploration in basement rocks, Abbarci mining company, Arlet region, Niger.
* SP survey for massive sulphide body, Baqtor mining Compay, Red Sea Hills, Sudan.
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| 2014 | * Consultant in earth embankment project in western and central Darfur Italian INTERSOS organization
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| 2013 | * Geotechnical Data modeling course to Dam Implementation Unit, -Ministry of Electricity and water resources
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| 2011 - 2012 | * Hafir Constructing course to INTERSOS Charity Organization, Gineina –West Darfur.
* Course on GIS Data entering and visualization to INTERSOS charity organization - Gineina –West Darfur
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| 2009 - 2011 | head team for the following projects:* Evaluation of Granite and Marble as dimension stone red sea state for Abarsi Company.
* Evaluation of marble (kassala State and Red Sea state) as dimension stone for Nile Company.
* Ground water wells drilling in Khartoum state (refugees).
* Ground water wells drilling in White Nile state.
* Ground water wells drilling in Gezira state.
* Drilling and supervision of many groundwater wells in Khartoum State, White Nile State, Red Sea State and Darfur State.
* Water Harvesting and management in Southern Kordofan State, Darfur State and Gadaref State.
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| 2007 to 2008 | * Satellite image processing for Iron ore deposit In Red Sea Hills
* I participated in geological field trips for third, fourth and fifth Student of first, second, Year every year.
* Groundwater resources and water harvesting in Gedarif, North Kurdufan and South Kurdufan.
* Evaluation of Red Sea Limestone as a source of cement material.
* Evaluation of crushed rocks as aggregate for road construction and concrete mix, Khartoum State.
* Evaluation of mineral ore deposits Red Sea Hills, Sudan.
* Evaluation of gold deposit in River Nile state.
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**Research interest and contributions:**

1. I am interested in field of engineering geology; water harvesting (both surface and sub-surface storage), building materials, structural geology, engineering geophysics and groundwater engineering, rock and soil engineering.
2. I have upgraded the concept of Hafir (Artificial water bund) to improved Hafir which enable the stakeholders to get save water for drinking purpose.
3. I have designed Hafir to provide water for animals, which can be used easily and securely for animals.
4. I participated in supervision of Students dissertations in fieldwork, lab-work and thesis writing, which include different disciplines (Engineering geology, Structural geology, Hydrogeology and petrology).

**Publications:**

1. **Dafalla, D. S., Wu, W., Malik, I., Ahmed, H. A., and Makki, A.** (2021). Assessment of liquefaction potential of soil based on standard penetration test for the upper Benue region in Nigeria. Environmental Earth Sciences, 80(7), 1-11.
2. **Dafalla D. S., Wu W.**, **Husam Eldin Ahmed, Abuzar Fuad, and Rifaat Abdalla (2019).** Correlating standard penetration test with cone penetration test for sandy soils at Port Sudan city using linear regression model. 2nd conference of the Arabian journal of geosciences, SOUSSE, Tunisia (Accepted conference paper).
3. **Dafalla D. S., Wu W. and Abuzar F. (2018).** Evaluation of the potential for artificial groundwater recharge of crystalline rocks aquifer, Nuba Mountains (Sudan), 1st conference of the Arabian journal of geosciences, HAMMAMET, Tunisia.
4. **Husam Ismail and Dafalla D. S. (2018).** Investigation of Spatial Variability of Underground soil properties in Port Sudan City (Eastern Sudan) Using Intensive Field and Laboratory Performance. 6th African Young Geotechnical Conference, Khartoum - Sudan.
5. **Husam O.A. Ismail, Malik I. A. and Dafalla D. S. (2016).** Piles Foundation Design on Sabkha Soil Port Sudan, River Nile Studies, journal of Alneelian University, Khartoum – Sudan.
6. **Husam O.A. Ismail, Malik I. A. and Dafalla D. S. (2016).** Evaluation settlement of shallow foundation in Sabkha Soil Port Sudan, River Nile Studies, journal of Alneelian University, Khartoum – Sudan.
7. **Malik I. A., Dafalla D. S. and El-Bushra O. A. (2016).** Description of Geotechnical Properties of Jabal Omar. 18th international conference on Engineering Geology -16SG03ICEG, Singapore.
8. **Malik I. A. and Dafalla D. S. (2015).** Rock Slope Stabilization and Protection for Roads and Multi-Storey Structures in Jabal Omar, Saudi Arabia. 17th international conference on geotechnical engineering and geomechanics, Sydney –Australia, Part VIII, pp. 1391-1396.
9. **Dafalla D. S. (2015).** Artificial Recharge to Alluvial Aquifer, Northern Nuba Mountain, Sudan. International Journal of Research in Engineering and Science, Volume 3 Issue 1 PP.62-66
10. **Dafalla D. S. and Malik I. A. (2015).** Evaluation of Structural Geology of Jebel Omar. International Journal of Engineering Research and Development, Volume 11, Issue 01 PP.67-72.
11. **Dahab M. H. and Dafalla D. S. (2015).** Description of the Natural Properties, Geomorphologic Aspects and Human Activity in Matammah Area – Northern Sudan (Application of GIS). International Journal of Scientific Research Engineering and Technology, Volume 1, Issue 1, pp. 18-20.
12. **Dafalla D. S. (2015).** Determination of the depth to basement Rocks using Electrical Resistivity Method. International Journal Of Advances in Engineering and Management, Volume 2, Issue 3. Pp. 20-23.
13. **Dafalla D. S., Kheiralla K. M. and Dahab M. H. (2015).** Groundwater Exploration using Integration of Electrical Resistivity Data with Remote Sensing and GIS Data, Northern State –Sudan, International Journal of Scientific Research Engineering & Technology, Volume 4, Issue 7, pp. 736-740.

**Articles presented in workshops:**

1. **Dafalla D. S. (2016).** Geology and minerals potentials in Sudan. Presented in Inauguration and Academic Seminar of West and North Africa Geosciences Cooperation Research Centre, CGS, Wuhan, China.
2. **Dafalla D. S. (2015).** Earth embankments works as surface water storage, organized by consultancy company, Niamey –Niger.
3. **Dafalla D.** **S. (2014).** Small Dam’s Site selection and investigation, for NGOs staff members (Organized by INTERSOS), Geneina, West and Central Darfur states –Sudan.
4. **Kheiralla K.** **M. and Dafalla D. S. (2013).** Geotechnical Data Modeling organized by Dams implementation unit (DIU), Ministry of Electricity and water resources, Khartoum –Sudan.
5. **Dafalla D. S. (2012).** GIS data interring and modeling, for INTERSOS (Italian humanitarian organization) IT staff, Forobaranga, West warfur –Sudan.
6. **Dafalla D. S. And Malik I. A., (2011).** Improved Hafir’s Construction, for NGOs staff members (Organized by INTERSOS), Geneina –West Darfur, Sudan.

**Reports rendered to public institutions:**

1. **Dafalla D. S. (2014).** Geological and Hydrological report on proposed sugar cane project area, Ministry of Agriculture and forests, South Darfur –Sudan.

**Conferences**

1. 2nd conference of Arabian journal of geosciences (CAJG), 25-28 November, 2019, Sousse, Tunisia.
2. 2nd National forum for international doctoral candidates studying in china, 31 October to 2 November, 2019. Nanjing, China.
3. 2nd Shaoxing international forum on rock mechanics and engineering geology, 0ctober 19-21, 2019, Shaoxing, China.
4. 1th conference of the Arabian journal of geosciences (CAJG) 12-15 November, 2018 Hammamet, Tunisia.
5. 6th African Young Geotechnical Conference, 2018, Khartoum – Sudan

**Awards and Honors**

1. Award of outstanding student, China University of Geosciences (Wuhan), 2019
2. Award of outstanding student, China University of Geosciences (Wuhan), 2018.
3. Prize of first class of geological skills competition between students of all national Chinese universities, Xi’an China, 2017.
4. Award of outstanding student, five times (2003-2007), Al Neelain University, Khartoum –Sudan.

**References:**

1. Professor Wu Wenbing, is my PhD supervisor at China University of Geosciences (Wuhan), email: zjuww1126@163.com, Phone No. +8615927208466
2. Professor Khalid Kheiralla, is my co-supervisor of my MSc, Al Neelain University, Khartoum –Sudan. Email: khalidkheiralla@gmail.com, Phone No. +249912149164