

## **Personal Data**

**Name** : Abdel Halim Hassan El – Nadi

**Marital Status** : Married

**Academic Status** : Professor of Geology, Department of Geology, Faculty of Science.

## **Aministrative And Other Duties (University Of Khartoum):**

- Deputy Dean Faculty of Science for Academic Affairs, 2006 – 2008.
- Member of the Academic Reform committee, Faculty of Science.
- Member of the Laboratories and Scientific Committee, Faculty of Science.
- Member of the Self Evaluation and Quality Assurance Corporation, Univ. of Khartoum.
- Chairman of the committee for revising the internal Faculty of Science academic evaluation regulations (2006).
- Chairman of the Examinations Committee, Faculty of Science, 2006 – 2008.
- Member of the Arabicizaion Committee, Faculty of Science, 2006 .
- Preliminary Year Geology Curricula Coordinator, 2005 .
- Member of the Faculty of Science Board, 2005-present.
- Member of the Faculty of Science Research Board., 2005-present.
- Secretary of the Faculty of Science Board, 1995 – 1997.
- Faculty of Science Time-Table Officer, 1989-1992.
- Secretary of the Geology Department Board, 1985-1992.

## **CONTRIBUTION TO HIGHER EDUCATION**

\*1997-2001: Academic Secretary, Al-Neelain University, Khartoum (*on Secondment* for 4 years): Witnessing the Sudanization era of Cairo University, Khartoum Branch: Formulation of academic regulations, contribution in various academic committees, and establishment of Distance Learning in four Arab countries....etc.

\* 2002-2003: *Part-timer*, Academic Secretary, Computerman College for

Computer Studies, Khartoum.

\* 2003-2004: Academic Secretary, The Open University of Sudan, Khartoum

(*On secondment* for one year): Contributing effectively in the establishment of the newly borne University (Admissions, Curricula, Examinations, Academic Evaluation Regulations, & computerization of those activities).

\* 2004- 2005: *Part-timer*, Academic Secretary, The Open University of Sudan, Khartoum

## Books Reviewed

The Economic Minerals and Industrial Rocks of the Sudan, Khartoum. By A. Abdel Mageed. Centre for Strategic Studies, Khartoum, Sudan (Publishers) 1998, PP.553 (**Document 31**).

### Books Currently Under Revision:

**El – Nadi, A.H.**, Farwa, A.G., El-Tayeb, T. and El-Turabi, D.A. A Glossary of Geological Terms (in Arabic). Assignment from the Higher Commission for Arabicization. Ministry of Higher Education (**Document 32**).

## Consultations

1) Ahmed, B.K. & **El-Nadi, A.H.** (1988). Discovery and Evaluation of New Carbonate Deposits Suitable for Cement Industry, Derudeib Area, Red Sea hills. **Submitted to:** El-Sharq Company for Cement Industry(**Document 33**).

2) Ahmed, B.K. & **El-Nadi, A.H.** (1988). Evaluation of Marble Deposits for Cement Industry, Mamman Area, Red Sea Hills. Submitted to: El-Sheikh Mustafa El-Amin & Sons Company, Ltd. (**Document 34**).

3) Devised Geology courses (course unit system) for the Geology Department, Asmara University, Eritrea (1992).

4) **El-Nadi, A. H.** (1996). *Section One*: General Geology and Geomorphology of the Hamdab Dam area: Studies on Geomorphology, Biodiversity and Socioeconomics, prior to construction A Technical Study and Report fulfilled for Ford Foundation (USA), through the Institute for Environmental Studies, University of Khartoum (**Document 35**).

5) **El-Nadi, A.H.**, (1996). *Section Two*: Environmental impact by the Hamdab Dam. Studies on Geomorphology, Biodiversity and Socioeconomics, prior to construction. A Technical Study and

Report fulfilled for Ford Foundation USA), through the Institute for Environmental Studies, University of Khartoum (**Document 36**).

6) Devised Geology Courses for the Department of Petroleum Engineering, Faculty of Engineering, Khartoum University (1999).

7) **El-Nadi, A.H.**, Awad El-Karim, M. , Yassin, A.A., & Karrar, Y. (1990). Geological Mapping, Prospecting and Structural Control of Gold Mineralization in Berber Area, Northern Sudan. **Submitted to Rida Mining Company. The outcome is the opening of a new Gold Mine at Jebel Abu Guroon, NE Berber Town (Document 37).**

8) Member of the committee for devising Geology courses for the Department of Geology, Omdurman Islamic University (2003).

9) Devised Remote Sensing courses for M.Sc. by courses, Hydrogeology Technology, Academy of Sciences, Ministry of Science and Technology, Khartoum (2005).

10) Devised Remote Sensing courses for Higher Diploma, Hydrogeology Technology, Academy of Sciences, Ministry of Science and Technology, Khartoum (2005).

11) Member of the committee for revising Geology courses for the Department of Geology. The International University of Africa (2005).

12) Revised the new edition of the Geological Map of the Sudan, 2005) upon request from the Director General of the Geological Research Authority of the Sudan (**Document 38**).

13) Member of the committee for the promotion of the School of Applied Earth Sciences into: Faculty of Petroleum and Mineral Resources, Al Neelain University.

## **FELLOWSHIPS & MEMBERSHIPS**

1) Al Neelain University (Fellowship), May, 2005-present (**Document 2**).

2) The International University of Africa (Fellowship), December, 2003-present (**Document 3**).

3) Sudan Geological Society.

4) Geological Society of Africa.

5) Sudan Environment Conservation Society.

## **[20 ] OTHER AREAS OF EXPERIENCE:**

- \* Gold Prospecting and Exploration.
- \* Evaluation of raw materials for cement industry.

**[ 21] EXTRA-CURRICULAR ACTIVITIES:**

- Member of the Consultants Board, Council of Ministers (Industrial Sector), Sudan Republic, 2005-present.
- Critical Reviewer of the Ministry of Energy and Mining Plan for 2006 (Assignment from the Ministry of the Council of Ministers upon request of the Ministry, pp.6, *Confidential*).
- Referee of the martyr El Zubeir Mohammed Salih Youth Prize for Basic Sciences, 2005.
- Referee of the Minister of Higher Education Prize for Basic Sciences, 2006-present.
- Member of Khartoum University adhoc Committee for revising the structure and duties of the Planning Committee, 2006.
- Referee of the Industrial Research Magazine, Industrial research Institute,
- Contributions to the Press on local geological matters such as: Sudan earthquakes, Sheikh El-Tayeb village (north of Omdurman) electric accident — presumed volcanic eruption! And on gemstones.

**PREVIOUS EXPERIENCE WITH THE GEOLOGICAL RESEARCH AUTHORITY, SUDAN**

- Gold prospecting in the Red Sea Hills (1971-1976).
- Director of the Gold Prospecting and Exploration Project in the Red Sea Hills (1974-1976).
- **The outcome of the above- mentioned activities is the writing by the applicant of Three Reports deposited with the Geological Research Authority of Sudan, GRAS, Khartoum that have led to the opening of a new Gold Mine in Gebeit El maadin area , north-east Sudan by the British Company, MINEX in 1979. The Reports - classified as strictly Confidential – were entitled:**

1. Geology of Gebeit Mine Area.
2. Evaluation of Placer Gold Deposits in Gebeit Mine Area.
- 3) Discovery of a new gold-bearing quartz vein, northeast of Gebeit Mine.

**(For authentication please refer to the Geological Research Authority of Sudan, GRAS, Khartoum).**

# Education and Qualifications

\* Khartoum University graduate, 1971 with B.Sc. Hons., Geology, Division Two, Upper Class  
**(Petrology and Mineralogy).**

\* October, 1971 – December, 1976. The Geological Research Authority of Sudan (GRAS) as a Field Geologist executing geological mapping and gold prospecting programmes in the Red Sea Hills, northeast Sudan.

\* 1974-1976. Director of the Gold Prospecting and Exploration Project in the Red Sea Hills, (GRAS).

\* December, 1976. Teaching Assistant, Khartoum University fulfilling teaching responsibilities, both in the laboratory and in the field.

\* 1980: Awarded the Degree of M.Sc. (Khartoum University) on the geology of post – orogenic igneous complexes in south – central Sudan.

\* 1984: Awarded the Degree of Ph.D. (Nottingham University, United Kingdom) on the geology of the late Precambrian meta-volcanics, Red Sea Hills, northeast Sudan, in relation to the evolution of the Arabian – Nubian Shield.

\* 1984: Appointed Lecturer at the Department of Geology, Khartoum University.

\* 1987: A two-month Sabbatical Leave invitation to the Friendship University, Moscow.

\* 1991: A three-month Sabbatical Leave invitation to Bergen University, Norway.

\* 1992: Promoted Assistant Professor.

\* 1996: Promoted Associated Professor.

\* 2007: Promoted Full Professor

## **External Examiner ( B.Sc.)**

1. Dept. of Geology, Juba University, Khartoum, 1998-1999.
2. Dept. of Geology, Al Neelain University, Khartoum, 2002-2003.

## **International Conferences (Attended during Ph.D. study in United Kingdom):**

- 1) 11<sup>th</sup>. Colloq. African Geology, Open University, United Kingdom, 1981.
- 2) Geological Society of London Volcanic Studies Group meeting on subduction – related magmatism: Chemical and Physical aspects, University of Leeds, United Kingdom, 1983.
- 3) The Royal Society meeting on the relative contributions of mantle, oceanic crust and continental crust to magma genesis. London, 1983.

## **Papers In Prep**

### ***A) Projects funded through cultural agreement with the University of Bergen, Norway (expected to be published in international journals):***

- 1) Jacobs, J. & **El-Nadi, A.H.**, Fission-track dating in relation to the tectonic evolution of the Nubian Shield, Red Sea Hills, NE Sudan.
- 2) Nada, M., **El-Nadi, A.H** & Havskov, J. Khartoum microseismicity and tectonics.

### ***B) A Project funded by the Ministry of Higher Education and Scientific Research:***

- 3) **El-Nadi, A.H.**, & Abdel Aziz, M.M. The Use of Termite Mount Soils as Geochemical Soil Samples for Geochemical Mineral Prospecting, Qala en Nahal- Umm Saqata Area, southeastern Sudan.

### ***C) Through students' geological field training:***

- 4) **El-Nadi, A.H.**, Abdelsalam, Y. & Ali, I.A. The Hydrogeology of The Nuba Mountains, south-central Sudan.

5) **El-Nadi, A.H.** Tectonic setting of southern Atmoor Desert, northern Sudan – petrologic and geochemical evidence.

## **Post-graduate supervision**

### ***A)Theses completed: 6 (six) M.Sc. theses as follows:***

- 1) Title of Thesis: Origin and Evolution of Jebel Arash Qol igneous complex rocks and their engineering properties as construction material, (By: El Nour, N.M., Univ. of Khartoum, 2001).
- 2) Title of Thesis: Building materials industry in Khartoum State and its impact on the environment, (By: Sharara, M.A.A., Univ. of Khartoum, 2003).
- 3) Title of Thesis: The suitability of some of the Sabaloka igneous rocks as construction materials with reference to their environmental impact upon exploitation (By: Mohammed, G A., Univ. of Khartoum, 2004).
- 4) Title of Thesis: Effect of soap industry effluents on soil and groundwater in Albageir industrial area, Khartoum (By:Awadalla, S.O, Univ. of Khartoum, 2005).
- 5) Environmental Impact of Gaseous By-products and Pollutants in Waste-water at Khartoum Refinery (By: Abdel-Moneim H.M., Univ. of Khartoum, 2006).
- 6) Title of Thesis: Use of Wind power as an alternative clean energy to diesel-powered water pumps, Shendi area, northern Sudan (By: Hamed, S. M., Univ. of Khartoum, 2007).

### ***B)Current Post-Graduate Supervision:***

#### ***MSc. (I student):***

- 1) Title of Thesis: Geology and Economic Potential of El Taweela Ophiolite Complex, southern Butana Area, east-central Sudan.

#### ***Ph.D. (3 students):***

- 2) Title of Thesis: The Origin of Hydrocarbon and its Geological Distribution Controls in on – shore Abu Dhabi, United Arab Emirates.
- 3) Title of Thesis: Remote Sensing and GIS Studies on Khor Abu Habil Delta.

4) Title of Thesis: Micro-seismicity, geology and tectonic setting of Khartoum area (Co-supervisor).

### **M. Sc. COURSES TAUGHT (1997-2004)**

1) Energy and Mineral Resources in Sudan and the Environment. Institute of Environmental Studies, University of Khartoum.

2) Maps and Remote Sensing. Institute of Environmental Studies, University of Khartoum.

### **DIPLOMA & M.Sc. COURSES PRESENTLY TAUGHT**

1) Remote Sensing (Higher Diploma), Geology Department, Khartoum University, 2005–present.

2) Remote Sensing, Hydrogeology Technology (M.Sc.), Academy of Sciences, Ministry of Science and Technology, Khartoum, 2005–present (**Document 4**).

3) Remote Sensing, Hydrogeology Technology (Higher Diploma), Academy of Sciences, Ministry of Science and Technology, Khartoum, 2005–present (**Document 5**).

## **Teaching**

### **• Teaching ( B.Sc.), Other Universities**

\* During the Ph.D. Studies (1981 – 1984) I undertook teaching duties at the Department of Geology, Nottingham University, both in the laboratory and in the field (**Document 1**).

\* Petrology and Structural Geology courses (Third & Fourth years, Juba University, Sudan (Course Unit System), 1987-1989.

\* Special Geology course for Forestry Technicians, Sudan University for Science and Technology, 1989-1990.

\* Mechanisms of Fossil Preservation for the Sudan Military College Officers, 1996.

\* Igneous Petrology (Third, Fourth & Fifth years )– Al-Neelain University, Khartoum, 1997-present ( **Document 2**).



\* Two Metamorphic Petrology courses (Third Year), Two Igneous Petrology courses (Third Year), Principles of Geology (Second Year) — The International University of Africa, 2003-present (**Document 3**).

\* Geological field training of Geology students in different parts of Sudan (Second, Third, Fourth & Fifth Years) – Al-Neelain University, 1997-present.

\* Geological field training of Geology students in different parts of Sudan (Second, Third & Fourth Years)–The International University of Africa 2003-present.

- **Teaching (B.Sc.),University Of Khartoum**

***A) Current Teaching:***

\* Principles of Geology (1<sup>st</sup>. Year).

\* Introduction to Petrology (2<sup>nd</sup>. Year).

\* Igneous Petrology (3<sup>rd</sup>. Year).

\* Igneous Rock Associations (4<sup>th</sup>. Year).

\* Tectonic setting and geochemistry of magmatic activity in Sudan (5<sup>th</sup>. Year).

\* Photo-geology and Remote Sensing (3<sup>rd</sup>, Year).

\* Supervision And Execution of Geological Field Training of the students from 1977– present in various parts of Sudan as follows:-

Class	Duration of annual field trips	No. of field excursions executed
Second Year	3-day Field Trips	26
Third Year	2 weeks	26
Fourth Year	3 weeks	20
Fifth Year	- <b>4 weeks- group supervision of Finalists Dissertations</b>	20

***B) Previous Teaching:***

\*Special Geology course for Civil Engineering students, Faculty of Engineering, University of Khartoum, 1985-1987.

\* Special Geology course for Agriculturalists, Khartoum University, 1988.

## **Theses Examined**

***A) M.Sc., as External Examiner (10 candidates):***

- 1) Orientational Lithochemical Exploration Studies for Gold in Northern Part of Ariab Mineralized Zone, Red Sea Hills, NE Sudan. (By: Hussein, H.A., 1994, Univ. of Khartoum).
- 2) Potentialities of Maman Marble and other similar Deposits for Production of Cement and Related Building Materials. (By: Salih, A.S., 1995, Univ. of Khartoum).
- 3) Indications of the effects of proximity to Atlantis II deep on selected fauna of the Red Sea. (By: Al/Rahman, O. O A., 1997, Univ. of Khartoum).
- 4) Gold Mineralization at Belguwa Area, Blue Nile State, Sudan. (By Taha, H.E.M., 1997, Univ. of Khartoum).
- 5) Geochemical and Mineralogical studies of the mafic-ultramafic rocks of the Ingessana Hills, Blue Nile State, SE Sudan. (By: Abdalla, T.O.A., 1997, Univ. of Khartoum).
- 6) The assessment and Evaluation of Environmental Changes in semi-arid regions (Western Kordofan State, Sudan) Using Remote Sensing. (By: Abdalla, A.O., 2002, Univ. of Khartoum).
- 7) Some Aspects of the Geology and Hydrogeology of Odurman Area, With Special Emphasis on the Groundwater Management and Development. (By: Medani, M.A., 2002, Univ. of Khartoum).
- 8) A Geomorphologic Study of Khor Abu Habil, southern Kordofan. (By: Talab, S.K.A., 2003, Univ. of Al Neelain).
- 9) Groundwater as a source of water supply in eastern Khartoum State – geological control and quality constraints, (By: El Tahir S.M., 2004, Univ. of Khartoum).
- 10) Geomorphology of Hadramoot coast, Yemen, (By: Barsheid, M.A., 2005, Al Neelain University).

11) Reservoir characterization with emphasis on upper Cretaceous Ghazal Formation, Unity Field, Muglad Basin, SW Sudan (By: El Mahi, M.M., 2007, Khartoum University).

B) Ph.D., as External Examiner (5 candidates):

11) Geomorphology and Land use of Lower Gahran Valley, Yemen. (By: Matter, A.G., 2005, Al Neelain University).

12) Remote Sensing and GIS Applications in Geological Mapping, Prospecting for Mineral Deposits and Groundwater, Berber Sheet Area, northern Sudan. (By: Hag El Khidir, S.O., 2006, Univ. of Al Neelain).

13) Digital Image Processing of Landsat 7 Data and GIS Application For Geological Investigation in Jebel Erba Area, Red Sea Hills, NE Sudan. (By: Ali, I.A., 2006, Univ. of Al Neelain).

14) Geomorphology of Wadi Ibrah, southern Darfur, SW Sudan. (By: El Zaki, Y.A., 2006, Univ. of Al Neelain).

15) Geomorphology of Wadi Kutum Basin, western Sudan. (By: Abdel-Rahman, S.N., 2007, Univ. of Al Neelain).