



C.V.  
**Badr-Eldin Taha Osman (Ph.D.)**

Applied Spatial Sciences and Technologies in fields of environment, planning and development

Department of GIS  
Faculty of Geographical and Environmental Sciences  
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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

(وما أوتيتم من العلم إلا قليلا-الإسراء 85) (وقل رب زدني علما-طه 114)

## C.V.

### Badr-Eldin Taha Osman (Ph.D.)\* \*\*

\* Associate Professor - Department of GIS, Faculty of Geographical and Environmental Sciences, University of Khartoum

\*\* Deputy Dean for Humanities and Educational Studies, Graduate College, University of Khartoum



#### Personal info:

- Name: Badr- Eldin Taha Osman (Mr.)
- Nationality: Sudanese.
- Languages: Arabic, English, and some Swedish.
- Career: Geographer
- Major academic Interest: Applied spatial sciences and technologies.

#### Qualification:

- B. A. Honors 1st Class (Geography), University of Khartoum, Sudan, 1985.
- M. A. (Geography), Graduate College, University of Khartoum, Sudan, 1991.
- Ph.D. (Applied spatial sciences and technologies), GIS & R. Sensing Lab, Department of Physical Geography and Ecosystems Analysis, Faculty of Mathematics and Natural Sciences, Lund University, Sweden, 1996.

#### Scholarships and awards:

- Full scholarship granted by the Government of Norway (through the NORAD, the Centre for Development Studies University of Bergen and RESAP to complete my doctoral studies in Lund University Sweden (1992-96) The RESAP or the Red Sea Area Program was a joint research program between university of Khartoum (Sudan) and university of Bergen (Norway).

#### Position:

- Associate Professor - Department of GIS, Faculty of Geographical and Environmental Sciences, University of Khartoum, Sudan (May 2008-).
- Assistant and Associate Professor - Department of Geography, Faculty of Arts , University of Khartoum, Sudan, (2008- 2010).
- Associate Professor & research fellow (par time work) Administration for Research, Planning and Development, Open University of Sudan (May 2008-).
- Associate Professor- Administration for Research, Planning and Development, Open University of Sudan (November 2007-May 2008).
- Assistant Professor-Associate Professor Department of Geography King Saud University, K.S.A (from June 1998 to September 2007).
- Assistant Professor, Department of Geography University of Khartoum, the Sudan (1997-1998).
- Ph.D. student, Department of Physical Geography and Ecosystems Analysis and Modelling, Faculty of Mathematics and Natural Sciences, Lund University, Sweden 1992-1996
- Teaching Assistant, Department of Geography University of Khartoum, the Sudan 1986-1992).

#### Address:

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- Email:** @ [btosman@hotmail.com](mailto:btosman@hotmail.com) or [btosman@yahoo.com](mailto:btosman@yahoo.com)

#### Specialization and interest:

- Applied spatial sciences and technologies (particularly Geographical Information Systems (GIS)) in fields of environment, planning and development. This involves among many, analysis of hydrological and Environmental problems in arid lands, natural resource management, spatial agriculture, ecosystem and land use mapping and, general spatial modeling etc.

#### Teaching experience:

The teaching experience includes:

- Several graduate and undergraduate courses. The graduate ones include Geographical Information Systems for Master students in the Institute of Environmental Studies and Science Academy of Sudan. The undergraduate courses are Hydrology, Biogeography, Khartoum and King Saud universities since 2007.
- Several graduate and undergraduate courses such as Geographical Information Systems (GIS), Hydrology, Computer Cartography, Biogeography, Oceanography, Research Methodology, Map Information Systems (MIS), etc in Khartoum and King Saud universities since 1997.
- Advanced graduate climatology course (Tropical Environments Diploma) at the Department of

- Geography, University of Khartoum (1997-1998).
- Computer applications in the Advanced Course in Rural Development for South Rosseiris Development Agricultural Project staff conducted at the Department of Geography, University of Khartoum (1-15 May 1998).
- Global Climate System course, Department of Physical Geography and land modelling, Faculty of Mathematics and Natural Sciences, Lund University, Sweden, Feb 1997.
- GIS in the Advanced International Training Programme on Water Resources Management in Developing Countries:” Department of Water Resources Engineering, Lund Institute of Technology (LTH), Lund University, Sweden, May 1997.
- Department of Geography King Saud University, K.S.A (June 1998-August 2007)..
- Department of Geography University of Khartoum, the Sudan (1997-1998).
- Teaching Assistant, Department of Geography University of Khartoum, the Sudan (1986-1992).

#### **Supervision:**

- Supervising about 10 Ph D and Master students in University of Khartoum, University of Al Zaim Al Azhary and Science Academy of Sudan (about 6 of them got the degree and 3 have submitted their theses for exam)
- Supervised more than 50 B A (honors and general) dissertations in University of Khartoum since 2008
- Supervised 9 B.A. dissertations at the Department of Geography, King Saud University (1998)
- M.A. research plan in **GIS** (The use of derivative mapping in urban growth study in Diraiiya municipality-Riyadh City, KSA. 1998-2007.
- Supervised about 30 B.A. dissertations at the Department of Geography, University of Khartoum (1997-2014).
- Supervised graduate research plans for 2 Ph. D. and 2 M.A. Students King Saud University.
- Partial supervision of 3 Ph D and M.A. thesis on GIS Applications in Suitability Analysis in Agriculture, Noise pollution, Asthma spatial analysis and Management of primary health care King Saud University.

#### **Examination:**

- Recently, an external Examiner for many a Ph D and Master students.
- External Examiner for a Ph D thesis defended by graduate student Nagy Khalaf,, Department of Geography University of Bahri 2014
- External Examiner for a Ph D thesis defended by graduate student Mohamed Fatallah Al Nitaifa, Department of Geography University of Khartoum 2012
- External Examiner for a M.A.thesis defended by graduate student Muaaz Elamin Mustafa, Department of Geography University of Al Nilain 2012.
- External Examiner for a Ph D thesis defended by graduate student Sayed Kabashi,Department of Geography University of Al Nilain 2011
- Internal Examiner for a Ph D thesis defended by graduate student Ahmed Ismail Ahmed Safi Department of Crop Protection, Faculty of Agriculture University of Khartoum 2011
- External Examiner for a Ph D thesis defended by graduate student Magboola Mohamed Ahmed Abdalla, Department of Geography University of Al Nilain 2011
- Internal Examiner for a Ph D thesis defended by graduate student Shadiya Mohamed EL Hassan Department of Geography University of Khartoum 2010
- External-Examiner for a B A courses ( Arid lands, GIS and R Sensing and Master programs ) Department of Geography University of Al Nilain 2008,2009 and 2011
- Supervisor-Examiner for M Sc thesis defended by graduate student Abdel Rahim Mohamed Salih, Science Academy of Sudan Science Academy of Sudan, 2010
- Internal Examiner for a M A thesis defended by graduate student Al tag Department of Geography University of Khartoum 2008
- Supervisor-Examiner for a M A. thesis defended by graduate student Gameela Bint Awad Al Inazee King Saud University, K.S.A 2005
- Supervisor-Examiner for a M A thesis defended by graduate student Nora Al Shamrani, King Saud University, K.S.A 2003,

#### **Positions and Membership of University Boards/Councils::**

- Deputy Dean for Humanities and Educational Studies- Graduate College University of Khartoum2010-
- Member:
  - The Senate- University of Khartoum 2010-
  - Graduate College Board- University of Khartoum 2010-
  - And Repertoire, Humanities and Educational Studies Board Graduate College University of Khartoum
  - Agricultural and Veterinary Studies Board Graduate College University of Khartoum
  - Medical and Health Studies Board Graduate College University of Khartoum
  - Basic Sciences and Engineering Studies Board Graduate College University of Khartoum
  - Research and Scientific Boards of the Faculty of Arts, Faculty of Law, Faculty of Education, Faculty of Economic and Social Studies, School of Management, Institute of African and Asian Studies, Development Studies and research Institute, Federal Government and Administrative studies Institute and Centre for Diplomatic Studies. of Research Board -University of Khartoum



- Department of Geography Faculty of Arts, Since 2008-

### **Technical background:**

- Working since 1992 (in Khartoum, Lund & King Saud Universities) in different computer operating and network systems (Windows, SUN-Solaris and ArcGIS Workstation and servers).
- Familiarity (since 1992) with different computer software and programmes for GIS, image analysis packages, database-statistical packages, graphics and mapping, modelling, interpolation and editing, Internet browsers and editors etc.

### **Cartographic and graphic design works:**

- Main contributor (as a member of the Riyadh Atlas Committee) in the designing and the digital production of the Riyadh Area Atlas published by the Geography Department King Saud University.
- Participated in the digital production of the Riyadh City Atlas published jointly by Riyadh City Development Authority and King Saud University.
- Digital designing and preparation of posters on GIS and the Department displayed in King Saud University 7-day Exhibition (Rajab 1420H).
- Design of the Geography Department KSA previous Web site.
- Preparation and design of the department's Newsletter and participated in the design of the Newsletter of the Saudi Geographical Society.

### **Research Evaluation:**

- Participating in four departmental committees formed to evaluate Ph.D. and M.A. theses concerning applicants for staff position in the geography department. The doctoral theses were defended in universities in U.K. and France and they deal with topics in digital cartography and GIS, mapping and physical geography.
- Evaluating (as a referee) nearly 15 research works in GIS, remote sensing and cartography fields, presented for publication in many Periodicals and Journals.
- Evaluation of many theses (Ph.D. and Master).research articles and books.

### **Research work and publications:**

- Osman, Badr-Eldin Taha (1984) Man and ground water in North Darfur Province: some aspects of utilisation. unpublished B. A. Honours Part I Dissertation, Department of Geography, University of Khartoum,.
- Osman, Badr-Eldin Taha (1985) Rainfall in the Jebel Marra Area- Sudan, , unpublished B. A. Honours Part II Dissertation, Department of Geography, University of Khartoum,
- Osman, Badr-Eldin Taha (1987) Rainfall in The Jebel Marra Area, Geographical Magazine- University of Khartoum, Vol. 7, 5-10.
- Osman, Badr-Eldin Taha (1987) The Impact of Drought, Desertification and Famine on the Eastern Region of Sudan, unpublished paper.
- Osman, Badr-Eldin Taha (1990) Wadi Abu Hamra Drainage Basin: An Integrated Geomorphology. unpublished Master Thesis, Graduate College, University of Khartoum.
- Osman, Badr-Eldin Taha (1990) The Use of Geomorphological Mapping As A Guide to Resource Management and Conservation in the Red Sea Area: Sudan. Research Proposal, Proceedings from the RESAP Annual Workshops, University of Bergen, 1990.
- Osman, Badr-Eldin Taha (1996), GIS-Hydrological Modeling in Arid lands: a geographical synthesis for Surface Waters In the African Red Sea Region in the Sudan. Published Ph.D. thesis No. 130, Department of Physical Geography and Ecosystems Analysis, University of Lund, Sweden, Lund University Press, ISBN 91-7966-397-4, 210 p.
- Osman, Badr-Eldin Taha [1998] GIS Book Review, The Arab World Geographer (AWG), Vol 1, No. 1, pp 101-102, Toronto, Canada.
- Osman, Badr-Eldin Taha (1999) Modelling Winds in Geographical Information Systems, Science and Technology, Vol. 12, No. 49, May 1999, pp. 36-39, King Abdulaziz City for Science and Technology (KACST), Riyadh, KSA, (in Arabic).
- Osman, Badr-Eldin Taha (1999) Winds and Rains, Science and Technology, Vol. 13, No. 50, July 1999, pp. 22-26, King Abdulaziz City for Science and Technology (KACST), Riyadh, KSA (in Arabic).

- عثمان، بدرالدين طه (2003) "دعم صناعة القرار والتحليل المكاني في نظم المعلومات الجغرافية"، سلسلة الرسائل الجغرافية العدد 277 ، الجمعية الجغرافية الكويتية- قسم الجغرافيا جامعة الكويت، 60 صفحة

### **English Title: Decision Making Support and Spatial Analysis in Geographical Information Systems**

- عثمان، بدرالدين طه (2003) "نظم المعلومات الجغرافية والتفصيل الموضوعي لخرائط المتغيرات الإيكولوجية الزراعية والرعيوية في المملكة العربية السعودية"، سلسلة بحوث جغرافية العدد 58 ، الجمعية الجغرافية السعودية، جامعة الملك سعود الرياض، 54 ص.

English Title: Geographical Information Systems for mapping the agro-pastoral ecological variables in Saudi Arabia

- محمد، السيد البشرى وعثمان، بدرالدين طه (2005) "المشكلات البيئية وإدارة البيئة في الخرطوم الكبرى" سلسلة دراسات جغرافية العدد 12 ، الجمعية الجغرافية السعودية، جامعة الملك سعود الرياض، 54 ص.

English Title: Environmental problems and management in Greater Khartoum

- عثمان، بدر الدين طه، نظم المعلومات الجغرافية،(كتاب مقرر محكم)، جامعة السودان المفتوحة ، إدارة البرامج الأكاديمية، برنامج التربية-مقرر نظم المعلومات الجغرافية حج 305 ، الخرطوم السودان، (2006)، الطبعة الأولى.

GIS Text BOOK (GIS Course GEO 305 Open University of Sudan)

- عثمان، بدر الدين طه وأحمد أبو القاسم الحسن ، نظم المعلومات الجغرافية في علم الآثار وإدارة الموارد التراثية، أدماتو، الرياض، (يناير 2007)، العدد الخامس عشر.

English Title: "Geographical Information Systems (GIS) in Archaeology and cultural resource management

- مكى، محمد شوقي بن إبراهيم والوليبي، عبدالله بن ناصر وأبو الخير، يحيى بن محمد شيخ والنافع، عبداللطيف بن حمود و عثمان، بدر الدين طه (محررين) (1427 هـ) أبحاث الملتقى الثالث للجغرافيين العرب: المدن الكبرى في الوطن العربي ، الجمعية الجغرافية السعودية، الرياض، الجزء الأول والجزء الثاني (839 ص)

English Title: "Proceedings of the 3<sup>rd</sup> Symposium of Arab geographers: Mega Cities in the Arab World

- عثمان، بدر الدين طه (2005) "إستخدام نظم المعلومات الجغرافية في دراسة تلوث الهواء في مدينة الرياض"، (تقرير غير منشور).

English Title: "Using Geographical Information Systems (GIS) in Air Pollution Study in Riyadh city"-draft

- Osman, Badr-Eldin Taha (2011)GIS Applications in Air Pollution Monitoring and management in Greater Khartoum (forthcoming)
- Osman, Badr-Eldin Taha (2012) Spatial Hydrological GIS Analysis and Estimations of Runoff in Khor Gowb Drainage Basin in the Red Sea State –Sudan, Proceedings of Annual Conference of Postgraduate Studies and Scientific Research (part1:ENGINEERING) pp. 283-298.
- Osman, Badr-Eldin Taha (2013) GIS and Cultural Mapping for Better TV Programming and Modelling of Coverage Area of Sudan's National Television Service (SNTV), U of K- Annual Conference of Postgraduate Studies and Scientific Research-Humanities and Educational Studies February 2013- Khartoum-Sudan: Conference Proceedings Volume One pp 483-499.
- Osman , Badr-Eldin Taha. (20110 GIS Applications and Practices in Science and Engineering Research, A Draft-paper (in progress)
- Osman, Badr-Eldin Taha (2011)GIS Applications in Geological Mapping and Management in Sudan (forthcoming)

Coauthored papers with my Master Students:

- Abbas, Huzaifa, Abubakr Al Amin and Badr-Eldin Taha Osman (2014) **GIS for Population Distribution Analysis in Khartoum State 1956-2013** , Proceedings of the Occasional GIS Symposia OCGISS No. I/ May 2014, Dept. of GIS, Faculty of Geographical and Environmental Sciences, University of Khartoum,Sudan - the Occasional (forthcoming).
- Abdalla, Halima, Al Miqdad Ibrahim and Badr-Eldin Taha Osman (2014) **Geocoding for Delivery Services in Al Ryad -Khartoum Sudan**, Proceedings of the Occasional GIS Symposia OCGISS No. I/ May 2014, Dept. of GIS, Faculty of Geographical and Environmental Sciences, University of Khartoum,Sudan - the Occasional (forthcoming).
- Abdelnaiem, Tamadur, Wasan Mohamed-Elmahdi and Badr-Eldin Taha Osman (2014) **Modeling Electricity Network Protection System Using GIS**, Proceedings of the Occasional GIS Symposia OCGISS No. I/ May 2014, Dept. of GIS, Faculty of Geographical and Environmental Sciences, University of Khartoum,Sudan - the Occasional (forthcoming).
- Adlan, Hadeel, Alaa Abubakr and Badr-Eldin Taha Osman (2014) **Assessment of Solar Energy Variation in Khartoum, Using GIS** , Proceedings of the Occasional GIS Symposia OCGISS No. I/ May 2014, Dept. of GIS, Faculty of Geographical and Environmental Sciences, University of Khartoum,Sudan - the Occasional (forthcoming).
- Ahmed, Dania Ibnomer Mohamed, Mutaz Hassan Khallafalla and Badr-Eldin Taha Osman (2014) **GIS and Remote Sensing for Gold Prospects in El Firga Area, North Kordofan State, Sudan**, Proceedings of the Occasional GIS Symposia OCGISS No. I/ May 2014, Dept. of GIS, Faculty of Geographical and Environmental Sciences, University of Khartoum,Sudan - the Occasional (forthcoming).
- Ahmed, Mohamed Abd Rabelnabi, Mohamed Mustafa Mohamed and Badr-Eldin Taha Osman (2014) **National Solar database and Potential Solar Energy Mapping in Lamab Nassir Khartoum State**, Proceedings of the Occasional GIS Symposia OCGISS No. I/ May 2014, Dept. of



GIS, Faculty of Geographical and Environmental Sciences, University of Khartoum, Sudan - the Occasional (forthcoming).

- Ali, Ahmed Hussein, Alfayad Osman Mohammed and Badr-Eldin Taha Osman (2014) **Distribution of Health Care Providers in Khartoum State Using GIS Techniques**, Proceedings of the Occasional GIS Symposia OCGISS No. 1/ May 2014, Dept. of GIS, Faculty of Geographical and Environmental Sciences, University of Khartoum, Sudan - the Occasional (forthcoming).
- Alsideeg, Betoul, Aziza Ali Yousuf and Badr-Eldin Taha Osman (2014) **Mapping Poverty in Sudan Using GIS**, Proceedings of the Occasional GIS Symposia OCGISS No. 1/ May 2014, Dept. of GIS, Faculty of Geographical and Environmental Sciences, University of Khartoum, Sudan - the Occasional (forthcoming).
- Elnour, Shaima Mohammed Ahmed and Badr-Eldin Taha Osman (2014) **Predicting the Trajectory of Liquid Pollutants in the Terrestrial Environment using ArcGIS in Block 6 Southwest of Sudan**, Proceedings of the Occasional GIS Symposia OCGISS No. 1/ May 2014, Dept. of GIS, Faculty of Geographical and Environmental Sciences, University of Khartoum, Sudan - the Occasional (forthcoming).
- El-Tom, Ibrahim Mohamed, Aziza Hajo and Badr-Eldin Taha Osman (2014) **GIS and Remote Sensing for Assessment of Land Cover and Vegetation Changes in North Kordofan State, Sudan**, Proceedings of the Occasional GIS Symposia OCGISS No. 1/ May 2014, Dept. of GIS, Faculty of Geographical and Environmental Sciences, University of Khartoum, Sudan - the Occasional (forthcoming).
- Edris, Gourashi A., Sara A. Albagir and Badr-Eldin Taha Osman (2014) **A Touristic View of Archaeological History and Museums in Khartoum State Using GIS**, Proceedings of the Occasional GIS Symposia OCGISS No. 1/ May 2014, Dept. of GIS, Faculty of Geographical and Environmental Sciences, University of Khartoum, Sudan - the Occasional (forthcoming).
- Hassan, Itidal, Elham Ahmed and Badr-Eldin Taha Osman (2014) **Spatial Analysis of Leukemia in Khartoum**, Proceedings of the Occasional GIS Symposia OCGISS No. 1/ May 2014, Dept. of GIS, Faculty of Geographical and Environmental Sciences, University of Khartoum, Sudan - the Occasional (forthcoming).
- Mohamed, Hamdi Abdelatif, Akram Gamal Eldin Khalil and Badr-Eldin Taha Osman (2014) **GPS for Accident Tracking System in Khartoum**, Proceedings of the Occasional GIS Symposia OCGISS No. 1/ May 2014, Dept. of GIS, Faculty of Geographical and Environmental Sciences, University of Khartoum, Sudan - the Occasional (forthcoming).
- Mahmoud, Sharaf Aldeen, Yousif Ali and Badr-Eldin Taha Osman (2014) **Water Harvesting in Al Wadi Al Akhdar-Khartoum State**, Proceedings of the Occasional GIS Symposia OCGISS No. 1/ May 2014, Dept. of GIS, Faculty of Geographical and Environmental Sciences, University of Khartoum, Sudan - the Occasional (forthcoming).
- Mofarah, Mastora A. Rahman, Khalid A. Merghani and Badr-Eldin Taha Osman (2014) **Tidal Power Potential Assessment Using GIS (Study area Red Sea)**, Proceedings of the Occasional GIS Symposia OCGISS No. 1/ May 2014, Dept. of GIS, Faculty of Geographical and Environmental Sciences, University of Khartoum, Sudan - the Occasional (forthcoming).
- Osman, Shiraz, Alaa Eldeen Awad Elkreem and Badr-Eldin Taha Osman (2014) **Using GIS in Water Distribution Based on Population of Khartoum city**, Proceedings of the Occasional GIS Symposia OCGISS No. 1/ May 2014, Dept. of GIS, Faculty of Geographical and Environmental Sciences, University of Khartoum, Sudan - the Occasional (forthcoming).
- Ibra, Sami, Abdalrahman Rabih and Badr-Eldin Taha Osman (2014) **3-D GIS an Urban Planning for University of Khartoum Master plan**, Proceedings of the Occasional GIS Symposia OCGISS No. 1/ May 2014, Dept. of GIS, Faculty of Geographical and Environmental Sciences, University of Khartoum, Sudan - the Occasional (forthcoming).
- Thabit, Majmou O., Mubark Osman and Badr-Eldin Taha Osman (2014) **Calibration of Shuttle Radar Topography Mission (SRTM) DEM for Topographic Mapping of Kajbar Dam Area Northern State – Sudan**, Proceedings of the Occasional GIS Symposia OCGISS No. 1/ May 2014, Dept. of GIS, Faculty of Geographical and Environmental Sciences, University of Khartoum, Sudan - the Occasional (forthcoming).

#### **Workshops, training courses and seminars:**

- Research Assistant (1984/85) in ETMA Programme on environmental degradation in Tegali district, Nuba Mountains Sudan (University of Khartoum and Clark University USA).
- Participant and organiser in the ETMA seminars at Umm Kaddada, Sudan 1985.
- Participant and organiser in the Red Sea Area Programme (RESAP) (University of Khartoum and University of Bergen Norway) Annual workshops, Sudan 1990-1991.
- Participated in the Africa Days Seminar 19-22 May-1992, The Scandinavian Institute of African Studies, Uppsala, Sweden.
- Participated in 'GIS and remote sensing course', Remote Sensing and GIS laboratory, Department of Physical Geography Lund University, October 1992 to January 1993.
- Participated in the 'Advanced School in spatial data handling' for post doctoral and doctoral research students, Department of Computer science, University of Rome 20-25



- February 1994, Venice, Italy.
- Participated in the 'Radar remote sensing application' a workshop for doctoral students, University of Copenhagen, Denmark 25-28 April 1994.
- Participated in the "Doktrankurs I praktisk GIS & Bildbehandling" Remote Sensing & GIS Lab, Dept. of Physical Geography, Lund University, December 1995.
- Participated in the Ph.D. course on "Natural resource management in Sub-Saharan agriculture –Research methodologies and approaches", Department of Geography, University of Copenhagen May 1996.
- Participated in the Ph.D. "Course on advanced statistics in hydrometeorology and water resources", Dept. of Water resources Engineering, Lund Institute of Technology (LTH)-Lund University, June 1996.
- Presented a seminar on "Environmental research in Africa", Centre for Development Studies, University of Bergen Norway, April 1996.
- Participated in the Ph.D. "Course on FORTRAN programming and modelling in geography", Remote Sensing & GIS Lab, Department of Physical Geography Lund University, Spring 1997.
- Participated with a lecture on the application of GIS in physical geography and environmental fields. The lecture has been presented during the convening of the 15<sup>th</sup> General Assembly meeting of the Saudi Geographical Society and the 6<sup>th</sup> meeting of Geography departments in Saudi Arabia, in King Abdulaziz University Jeddah (14-16 /11/1419H).
- Presented a co-authored research paper on Physical geographical Database Design and preparation for Saudi Arabia. The 9<sup>th</sup> Saudi Geography Departments Symposium, Riyadh kSA 2006.

#### **Field work experience:**

The field works include activities in Sudan and abroad (Europe) organized by the University of Khartoum or through her mutual co-operation programs and projects with other international universities and institutions such as Clark University (USA), Bergen University (Norway), Lund University (Sweden), University College of Swansea (UK), etc. Moreover, thematic problems such as environmental degradation, desertification, drought and natural resources management have been addressed by these field activities. These activities include the following:

- The Sabaloqa (6<sup>th</sup> cataract) area (Sudan) (in geomorphology and geomorphological geology).
- Eastern Kordofan region (Sudan), Atbara-Nile region, northern White Nile region, southern Blue Nile region, the Clay Plains of eastern Sudan and the Rahad Agricultural Project region (integrated geographical field courses).
- The Nuba Mountains (Sudan), the northern peripheries of Upper Nile region and eastern Darfur region (within the Environmental Training and Management in Africa Programme ETMA).
- Eastern forelands of the Jebel Marra massif in Darfur (Sudan) (M.A. research project-University of Khartoum).
- The Sudanese Red Sea Region (Ph.D. research project) Within the Red Sea Area Program (RESAP) University of Bergen Norway and University of Khartoum Sudan )
- Field course in Mountain geomorphology and Hydrology in Tatra Mountains, (Poland)- 9-21 September 1992, organized by Lund University and Department of Geomorphology and Hydrology, Polish Academy of Sciences.
- Tarfala mountains (Sweden) field course in glaciology and glacial geomorphology, Organised by the Department of Physical Geography University of Stockholm, 27-8 to 3-9-1994

#### **Research projects and consultancies:**

- Participated (in 1984-85) as a research and field assistant in Environmental Training and Management in Africa (ETMA) project (Nuba Mountains and Eastern Darfur research teams). The project was a joint environmental research activity between universities of Khartoum (Sudan) and Clarke (USA)
- Participated (in 1989-95) as a research and field assistant in the Red Sea Area Program (RESAP) (Studying the Sudanese Red Sea region). The project was a joint research program between university of Khartoum (Sudan) and university of Bergen (Norway).
- Main contributor (1999-2001) to the project for establishing advanced *GeoTechnosystems* Labs at the geography department King Saud University. The project cost was more than 2 million Saudi Riyals (\$ 600000). The labs with ArcGIS, MIS and ERDAS servers in addition to teaching theatres and all peripheral devices. The labs contain GIS, Remote sensing, GPS, MS and climate monitoring systems units.
- Member (in 1998-99) of the Riyadh Atlas Project Committee in which I contributed to the designing and the digital production of the Riyadh Area Atlas published by the Geography Department King Saud University.
- Contributed (in 1998-99) to the project for digital cartographic production of the Riyadh City Atlas published jointly by Riyadh City Development Authority and King Saud University. The Atlas was prepared and designed using ArcView GIS, Map Viewer and Corel Draw software.



- Assistant researcher and consultant in the many GIS related projects in many fields such as forestry, environmental forestry, tourism and mapping, sponsored by many public and private institutions in KSA and abroad.
- Consultant executive manager of the 11 month project for establishing air pollution measurement stations in Riyadh City Saudi Arabia, Otaishan Environmental Consultancy Bureau and Riyadh City Sanitation Department.
- Authoring a published GIS curriculum book for distance learning in Open University of Sudan (2006).
- Consultant in Water harvesting data and mapping project, Ministry of Irrigation and the Remote Sensing Authority Sudan, November 2007-May 2008.
- Consultant in Darfur Land Use and Mapping TOR project, the World Bank and Darfur Land Commission, June-September 2008,
- Consultant in Sudan Cultural Mapping (TOR) project, Ministry of Culture, Youth and Sports, and the UNESCO Khartoum Office, November 2008-February 2009.
- Project Technical Manager (with Intergraph for Integrated Solutions Consultants) for Natural Resources Database and Map NRDB of Darfur (a 7 Million *Euro* project owned by the Government of Sudan (represented by Darfur Land Commission and MOF) and executed by German contractor GAF AG based in Munich-Germany) ongoing since April 2012.

**Visits and institutional contacts:**

In conjunction with training and work, I have visited many universities, research Centers and Units in different countries such as:

- Lund University and University of Stockholm (Sweden)
- University of Copenhagen (Denmark)
- University of Bergen-Center for Development Studies (Norway)
- Polish Academy of Science- Tatra Mountains research centers (Poland),
- University of Rome-Dept. of Computer Sciences (Italy)
- King Saud University, King Abdulaziz City for Science and Technology (KACST)- Riyadh and King Abdulaziz University-Jeddah Saudi Arabia.

**Other activities:**

- CO-Founder and member of the Editorial Board (The Nile Geographer Journal, Department. of Geography, University of Khartoum).
- Member of the Sudanese Geographical Society.
- Member of the Sudanese Society for the Protection of Environment.
- Chairman, The Geographical Society, University of Khartoum, 1984-1985.
- Deputy Secretary-General, The Staff Club University of Khartoum, 1988-1989.
- Member of the Swedish Geografiska and Antropologiska Sällskapet 1994-1995.
- Member of the Saudi Geographical Society 1998-.
- Member and secretary of many departmental and faculty committees and specialized groups such as Fieldwork-training, Geo-technosystems Labs ,the Internet and Maps and Physical geography specialized groups.

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