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## Hatem Hamdy Odah

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### Professional Experience

**President of the** National Research Institute of Astronomy and Geophysics  
NRIAG, Egypt.  
January 2011 till now.

**Egyptian Expert Egyptian permeant mission** to the Comprehensive Nuclear  
Test Ban Treaty Organization, Vienna. CTBTO August 2012 till now

**Professor of Geophysics**, Dept. of Archaeology, King Saud University, Riyadh,  
Kingdom of Saudi Arabia; Main researcher in **Chair of Prince Sultan bin  
Salman** for Developing Humane Resources in Tourism and Archaeology.  
2008-2010.

**Professor of Geophysics**, National Research Institute of Astronomy and  
Geophysics NRIAG, Egypt.  
2005 – 2008.

**Associate Professor of Geophysics**, National Research Institute of Astronomy  
and Geophysics NRIAG, Egypt.  
2000 – 2005.

**Post-Doc fellow**, (JSPS) Dept. of Earth and Planetary Science, the University of  
Tokyo, Japan 1999-2001

**Researcher**, National Research Institute of Astronomy and Geophysics NRIAG,  
Egypt. 1993-1999.

**PhD student**, (DAAD) Institute of Applied Geophysics, Munich University (LMU),  
Germany. 1990-1993

**Assistant Researcher**, National Research Institute of Astronomy and  
Geophysics NRIAG, Egypt. 1986-1988.

### Personal Information

Nationality: Egyptian  
Place of Birth: Giza, Egypt  
Date of birth: 11/1/1963

### Education

- **PhD.** in Applied and Environment Geophysics  
Channel Mansoura university and Munich University (Germany)  
July 1993
- **Master of Science** in Applied Geophysics  
Mansoura University  
January 1988.

**Membership  
in Board of  
Directors**

- **Bachelor of Science** in Geophysics (Grade: "Distinction", Rank: first in class).  
Mansoura University  
May 1984.
- Chairman of the Standing Scientific Committee for Promotion (Professor and Assistant Professor) of Geology and Geophysics of the Ministry of Scientific Research 2015.
- Member of the Permanent Scientific Committee for Promotion (Professor and Associate Professor) in Geology and Geophysics of the National Research Center 2011
- Chairman of the Board of Directors of the National Institute of Astronomical and Geophysical Research
- Member of the Board of Directors of the Academy of Scientific Research and Technology
- Member of the Supreme Council of Institutes, Centers and Research Bodies
- Member of the Supreme Advisory Council of the General Authority of the High Dam and Aswan Reservoir
- Chairman of the Board of Directors of the Egyptian National Data center for Disarmament.
- Deputy Chairman of the Board of Directors of the Regional Center for the Earthquakes in Aswan
- Member of the Board of Directors of the National Authority for Remote Sensing and Space Sciences
- Vice-Chairman of the National Geophysics and Geoscience Commission
- Member of the Board of the Faculty of Science - Helwan University
- Member of the Board of Directors of the Faculty of Science - Mansoura University
- The Egyptian focal points and contacts between UNESCO and Member States for the Tsunami early warning system
- Egyptian focal point and contact of the International Commission for the mitigation of earthquake damage
- Member of the Board of Directors of the Egyptian Geophysical Association
- Member of the Egyptian Exploration Society
- Member of Egyptian Applied Geophysics Society
- Member of the Egyptian sedimentary society
- Member of the Egyptian Geological Society
- Senior researcher and member of the scientific committee in the chair of Prince Sultan bin Salman for the development of national cadres in the effects 2008-2011.
- Member of the American Geophysical Association.
- Member of the German Geophysical Society.
- Member of the Japanese Association of properties of magnetic rocks.
- Member of the International Association of Geodesy and Geomagnetism.
- Member of the Saudi Society for Archaeological Studies.

**Activates  
coordinated**

- Conference Chairman of 5<sup>th</sup> Arab conference on Astronomy and Geophysics 17-21 October 2016.
- Conference Chairman of the 1<sup>st</sup> Genral Assembly African Seismological Commission in

Egypt April 2016.

- Conference Chairman 4<sup>th</sup> Arab conference on Astronomy and Geophysics 20-23 October 2014.
- Conference Chairman of 5<sup>th</sup> Arab conference on Astronomy and Geophysics 17-21 October 2012.

## **Projects**

- Rapporteur of the Sinai Development Project (Ministry of Scientific Research)
- Coordinator of the project seismic and the movements of the crust around the High Dam
- Dabba Nuclear Power Plant site study and continuous monitoring
- Evaluate the assumption of the Nile Delta sinking using the global GPS system, the tide scale, the sea root and the measurement of industrial gravitational land elevations.
- Imaging of the Kharga Basin (Oases of the New Valley) and the groundwater reserves therein.
- Use of electromagnetic measurements in innovative ways to reduce the risk of landslides and construction on the community, the city of May 15 and other areas.
- Magnetic ground survey and detailed magnetic measurements of Egypt.
- Establishing an interactive map of the archeological ruins in the sub-surface of the Valley of the Golden Mines in the marine oases of Egypt.
- (Excavation of some archaeological sites in Egypt, Scientific project in cooperation with the University of Munich - Germany - funded by the VW (Germany) 1995 - 1997.
- Application of paleo-magnetism methods for the protection and rescue of environmental cultures on the southern shore of the Mediterranean (IMPARCH), a scientific project in cooperation with the universities of Bradford and Liverpool in the UK - funded by the European Union.
- long-term reconstruction of the magnetic pole from the Indian Ocean by changing coral reefs and sediments of lakes (in collaboration with the University of Tokyo, Japan) funded by the Center for Excellence (COE) program in Japan
- Geophysical studies in the Sinai Peninsula.
- Geophysical study on the 12th center of the 1992 earthquake October - Cairo - Egypt.
- Geophysical study of landslides in the region Jabal al-Mokattam.
- Geophysical studies to determine safe roads in the Wadi Houf area.

## **conferences**

- All Egyptian conferences, Workshops and Seminars in the field of Geology and Geophysics since 1986.
- IUGG 1991, Vienna, Austria.
- Deutscher Naturforscher 1992, Aachen, Germany.
- Egyptian-Italian Seminar 1993, Cairo, Egypt.
- IAGA 1997, Uppsala, Sweden
- AGU 1999, San Francisco, USA
- Earth 2000, Tokyo, Japan
- AGU of Western Pacific 2000, Tokyo, Japan
- AGU 2000, San Francisco, USA
- AARCH 2003, Workshop, Bradford, UK
- IUGG 2003, Sapporo, Japan.
- EGU 2015, Vienna, Austria.

## **Membership**

### National:

Member of the steering board of Geophysical Society of Egypt.  
Member of the Egypt Exploration Society.  
Member of the Egyptian Society of Applied Petrophysics.  
Member of the Sedimentological Society of Egypt.  
Member of the Egyptian Society of German Academic Exchange Service (DAAD).  
Member of the Egyptian Society of Japan Society for the Promotion of Science (JSPS).

### International:

Member of the German Geophysical Society.  
Member of the Japanese Rock-magnetic Society.  
Member of the International IAGA and IUGG Societies.  
Member of the American Geophysical Association.  
Member of the German Geophysical Society.  
Member of the Japanese Association of properties of magnetic rocks.  
Member of the International Association of Geodesy and Geomagnetism.  
Member of the Saudi Society for Archaeological Studies.

## **Honors**

- Ph.D. Scholarship from February 1990 to February 1993 as a Channel-System scholarship in Munich University from German Academic Exchange Service (DAAD), Germany.
- 4-weeks fellowship (June 1998) in Liverpool University from the Natural Environmental Center (NCR), UK.
- Post-Doc. Fellowship in Tokyo and Okayama Universities from January 1999 to January 2001 from Japan Society for the Promotion of Science (JSPS), Japan.
- Post-Doc. Fellowship in Munich University from July 2002 to October 2002 from German Academic Exchange Service (DAAD), Germany.
- Post-Doc. Fellowship in Liverpool University from April 2003 to October 2003 from the British Royal Society fellowship (RS), UK.
- Visiting Professor in the University of Tokyo from June 2004 to September 2004 funded from the 21st Century COE Program (Center Of Excellence, COE), Japan.
- Visiting Professor in Alberta University, Canada from November 2005 to January 2006 funded from university of Alberta (UA), Canada.
- Visiting Professor in the University of Tokyo from July 2006 to October 2006 funded from the 21st Century COE Program (Center Of Excellence, COE), Japan.
- Fellowship of Who's Who for the year 2009.
- The best paper in SAGEEP conferences, USA, for the year 2009.

## **References**

Prof. Dr. Hafez Shamseldeen Abdel-Wahab, Professor of Applied Geology,  
faculty of Science, Ain Shams University. Egypt.  
[hafezshams@hotmail.com](mailto:hafezshams@hotmail.com),  
[hafezshams@yahoo.com](mailto:hafezshams@yahoo.com)

## Publication

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- Deebes, H.A.; Abd Elaal, E.; Arafa, T.; El-laathey, A.; ElMam, E.E. Ghamry and Odah, H. (2017): The Egyptian Geomagnetic Reference Field to the Epoch 2010.0 NRIAG Journal of Astronomy and Geophysics, 6 pp 104–130
- Mostafa, R., Khashaba, A., El-Hemaly, I. A., Takla. E. M., Abd El aal, E. M., and Odah, H. (2016): 1st. Paleomagnetic investigation of Nubia Sandstone at Kalabsha, South Western Desert of Egypt. NRIAG Journal, 5 pp. 254-262.
- Takla, E., Odah, H., Elal, E., Yoshikawa, A., Kawano, H., Uozumi, T., (2015): The 2011 eruption of Aso volcano, Japan, and its signature on the geomagnetic field measurements, Arabian Journal of Geosciences, 1-7
- Lotfy H., Odah H., (2015): Paleo-tectonic positions of Northeast Africa during Cretaceous–Paleocene: Paleomagnetic study on East Gilf Kebir Plateau basalts [59Ma], Southwestern Desert, Egypt, NRIAG Journal of Astronomy and Geophysics
- Wassif N., Kafafy A., Abdel Aal E., Abdeldayem A., Odah H., and Mostafa R., (2014), Magnetic mineralogy of some ring complexes from the South Eastern Desert, Egypt. Arab J Geosci ., 7:3455–3466
- N. Wassif N., Hemaly I., Henery E. and Odah H. (2012) "Opaque mineralogy and magnetic investigation of some basaltic occurrences, Sinai, Egypt" Arab J Geosci, vol. 5, No. 4, pp 769-779.
- El- Hemaly I., Abdel Aal E., Odah, H., El-Emam, A., El- Sayed, M. and El- Faragawy K.(2012): "Paleomagnetism And Rock Magnetism Of The Upper Cretaceous Rocks Of Gebel El- Nuhod, South Eastern Desert, Egypt. Journal of Applied Sciences Research, C(): CC-CC, 1-11, ISSN 1819-544X
- El-Sayed, M, El-Fargawy K., El Hemaly I., Abdel Aal E. and Odah, H. (2012):" Rock magnetic and paleomagnetic Investigations of the Gabal Abu Khruh Ring complex south eastern desert, Egypt". Egypt. J. App. Geophys. Vol. 11 no 2, 185-201.
- Hatem Odah, Ahmed Ismail, Ibrahim Elhemaly, Neil Anderson, Abbas M. Abbas and Fathy Shaaban (2011):" Archaeological exploration using magnetic and GPR methods at the first court of Hatshepsut Temple in Luxor, Egypt" Arab J. Geosciences, vol. 5, No 4.
- T. Abdallatif, A. El Emam, M. Suh, I. El Hemaly, H. Ghzala, E. Ibrahim, H. Odah and H. Deebes (2010) "Discovery of the causeway and the mortuary temple of the Pyramid of Amenemhat II using near-surface magnetic investigation, Dahshour, Giza, Egypt". Geophysical. Prospecting, Vol. 58, 2, pp. 307-320.
- I. El-Hemaly, A. Saleh, M. Al-Ibiary, H. Odah and E. Henery (2007): "Paleomagnetic pole position of Oligo-Miocene as revealed from some basaltic rocks at Sinai, Egypt". GRMENA II, pp. 77-97.
- M. A. Atya, M. A. Abbas, F. A. Shaaban, H. Odah, T. F. Abdallatif, H. Kamei and A. El-Kenawy (2006): "Geophysical mapping of the remains of Chephren pyramidal complex, Giza Necropolis, Egypt". NRIAG J. of Geophysics (ISSN 1687-0999), special issue, pp. 113-132.
- A. Saleh, H. Odah, A. S. Abu El Atta and M. Mekkawi (2005): "Remagnetization of Abu-Zaabal and Qatrani basaltic rocks, Egypt during experimental uniaxial

deformation". J. Appl. Geophys, Vol. 4, pp199-210.

- H. Odah, T. F. Abdallatif, I. A. El-Hemaly and E. Abd El All (2005): "Gradiometer survey to locate the ancient remains distributed to the northeast of the Zoser pyramid, Saqqara, Giza, Egypt". Archaeol. Prospect. Vol. 12, pp. 61-68.

- I. A. El-Hemaly, H. Odah, E. Abd El All and H. Lotfy (2004): "Magnetization of the Cretaceous Nubia sandstones, central Eastern Desert, Egypt". Delta Journal of Science, Vol. 28, pp 87-97.

- H. Odah (2004): "Paleomagnetism of the Upper Cretaceous Bahariya Formation, Bahariya Oasis, Western Desert, Egypt". J. of Applied Geophysics, Vol. 3, No. 2, pp. 177-187.

- H. Odah (2004): "Geomagnetic intensity in Upper Egypt between 2900 BC and 800 AD". J. of Applied Geophysics, Vol. 3, No. 2, pp. 205-212.

- E. H. Ibrahim, H. Odah, and N. L. EL Agami (2004): "Recent environmental change in Manzala lake sediments recorded by sediment magnetism, mineralogy and geochemistry". Proceedings of the 3<sup>rd</sup> International Symposium on Geophysics, Tanta, pp. 84-100.

- E. M. Abd El All, I. A. El-Hemaly, H. Odah and El-Kenawy, A. (2004): "Paleomagnetism of Matulla and Abu-Gaada dykes, west central Sinai, Egypt". NRIAG. J. of Geophysics (ISSN 1687-0999), special issue, pp. 223-241.

- T. F. Abdallatif, A. Saleh and H. Odah (2003): "Magnetic archaeo-prospecting at El-Fayoum governorate, Egypt". Faculty of Science Bull, El-Zagazig Univ., Vol. 25(1), pp. 131-158.

- T. F. Abdallatif, A. Saleh and H. Odah (2003): "Archaeomagnetic survey in western side of Zoser pyramid at Saqqara, Giza, Egypt". NRIAG Journal of Geophysics, Vol. 2, pp. 161-177.

- I. A. El-Hemaly, E. Abd El All, H. Odah, E. Kroll and T. Aifa, (2002): "Polyphased paleomagnetic overprinting of Paleozoic rocks from southwestern Sinai, Egypt". NRIAG. J. of Geophys. Vol. 1, No.1, pp. 175-196.

- H. Odah, A. G. Hussain, V. Hoffmann, H. C. Soffel and M. El Gamili (2001): "Effect of magnetic anisotropy on the experimentally determined Paleo-intensity of the geomagnetic field". Earth Planets Space, Vol. 53, pp. 363-371.

- N. L. El-Agami, E. H. Ibrahim and H. Odah (2000): "Sedimentary origin of the Mn-Fe ore of Um-Bogma, SW Sinai: geochemical and paleomagnetic evidence". Economic Geology, Vol. 95, pp. 607-620.

- S. Yang, H. Odah and J. Shaw (2000): "Variations in the geomagnetic dipole moment over the last 12000 years". Geophys. J. Int., Vol. 140, pp. 158-162.

- E. H. Ibrahim, H. Odah, N. L. El-Agami and M. Abu El-Eneen (2000): "Paleomagnetic and geologic investigations into southern Sinai volcanic rocks and the rifting of the Gulf of Suez". Tectonophysics, Vol. 321, pp. 343-358.

- H. Odah (1999): "Improvement of the secular variation curve of the geomagnetic field in Egypt during the last 6000 years". Earth Planets Space, Vol. 51, pp. 1325-1329.

- M. Noshay, H. Odah and M. S. El-Bohoty (1999): "Geophysical study for differentiation between various subsurface intrusions and delineation of the structural pattern of the Kharga Oasis, Western Desert, Egypt". NRIAG. J. of Geophys. Vol. 1, pp. 61-81.
- H. Odah, T. F. Abdallatif and A. G. Hussain (1998): "Micromagnetic prospecting to delineate the buried solar boats in Abydos area, Sohag, Egypt". J. of Environmental Sci., Vol. 16, pp. 121-133.
- E. H. Ibrahim, N. L. El-Agami, H. Odah (1998): "Tertiary diagenetic remanent magnetization in the Cretaceous Nubian sandstone, north Sinai, Egypt". J. Sedimentology of Egypt. Vol. 6, pp. 51-62.
- H. I. Lotfy and H. Odah (1998): "Paleomagnetic differentiation of two Tertiary basaltic episodes during the Late Eocene and Early Miocene in northern Egypt: hints of petrochemical and petrologic Diversity". Assiut Univ. Bull., Vol. 27, pp. 301-320.
- E. Abd El All, H. Odah and M. Ismail (1997): "Preliminary paleomagnetic studies of precambrian El-Shadli geosynclinal metavolcanics from Abu-Gurdi area, south Eastern Desert, Egypt". NRIAG. J. of Geophys, Vol. 1, 13A, pp. 141-149.
- M. A. Mesbah, M. M. Mousa and H. Odah (1996): "Fault tracing using detailed land magnetic survey at Qena, Egypt". Egyptian Geophys. Sosc. Vol. 14, pp. 141-158.
- H. Odah, F. Heider, A. G. Hussain, V. Hoffmann, H. Soffel and M. El Gamili (1995): "Paleointensity of the geomagnetic field in Egypt from 4000 BC to 150 AD using Thellier method". J. Geomag. Geoelectr. Vol. 47, pp. 41-58.