



General Data



Position: Associate Professor

Name: Eman Ahme Hassan

Date and place of birth: 26.1.1971, Egypt **Nationality:** Egyptian

Marital status: Married

Education:

2006	Ph.D. Civil Engineering, Shobra Faculty of Engineering, Ain Shams University, Egypt
2001	M.Sc. Civil Engineering, Shobra Faculty of Engineering, Zagazig University, Egypt
1993	B.Sc. Study of Civil Engineering, Shobra Faculty of Engineering, Zagazig University, Egypt (honor degree)

Languages: Mark 1 to 5 for competence, where 5 is the highest

	<u>Speaking</u>	<u>Reading</u>	<u>Writing</u>
Arabic		Mother tongue	
English	4	4	4

Memberships: - Egyptian Syndicate of Engineers

Years of professional experience: 19 years **Years with firm:** since 1994

Key qualifications: More than 15 years of working experience in the field of Hydrological analysis using different hydrological models including those with GIS application. Do statistical analysis to determine the design storm and return periods. Design protection works, perform static and dynamic analysis of concrete dams and different hydraulic structures. Write technical reports of different studies. Carry out many studies for protection against flash floods in Egypt and abroad.

Country experience: Egypt.



Employment Record & Experience

- 2012 – Present - Associate Professor, Head of Hydrology Department.
- 2008 - Present - Senior Researcher (Ph.D.), Head of Hydrology Department.
- 2006 – 2008 - Researcher (Ph.D.), Hydrology Department.
- 2001 – 2006 - Research Assistant, Hydrology Department
- 1998 – 2001 - Assistant Research in Water Resources Research Institute
- 1997 – 1998 - Civil Engineering, SANES Consultant Center
- 1993 – 1994 - Civil Engineering, SANES Consultant Center

Projects:

Foreign Projects

- 2011 - Hydrological analysis of Lubigi channel basin, Uganda
- 2002 - Protection of Wadi Al-Asla, Jeddah, Saudi Arabia

Internationally Funded Projects

- 2007-2010 - Flash Floods in Egypt: Prediction and Management (FlaFloM), funded by European Community: LIFE third countries fund project.
- 2002-2010 - Friend/Nile Basin, first stage (2002-2005) and second stage (2005-2010), funded by Belgium government.
- 2006-2008 - Flood Prediction and water Management for Sinai Peninsula Using Remote Sensing and Distributed Hydrologic Modeling Techniques, funded by the US-Egypt – the Academy of Science and Technology.
- 2004-2006 - Water Supply for Bedouin Settlement in El Shiekh Zuwyied-Rafah Area in North Sinai, Egypt, funded by Islamic Bank for Development.
- 2002-2005 - Evaluation and development of protection works from flash flood in Wadi Watier, South Sinai, Egypt, funded by Italian government.

Nationally Projects

- 2012 - Development of flood atlas for Qena and Luxor,
- Study of water resources for some wadis in the Eastern Desert (Red Sea)
- Wadis between Halayeb and shalateen,
- Aquifers assessment study of El Qaa plain area,
- Hydrological/ Hydrogeological Assessment of the photovoltaic power plant area, Hurghada,
- Study the protection of the infrastructure of Abo Simbel village against flash floods (Aswan),
- Study the impact of flash flood on the Tourism Nabq Center - Sharm el Sheikh - South Sinai.



- 2011
- Development of flood atlas for Aswan,
 - Studying the establishment of mountain lakes, to maximize the benefit of rain water and flooding and Bedouin settlement (South Sinai),
 - Flood management project in southern Egypt using remote sensing and geographic information systems (Qena), in cooperation with the Institute of Survey,
 - Study of water resources for some wadis in the Eastern Desert (Red Sea)
 - wadi Houshia, Hodean and ash El-Malaha,
 - Study the protection of the infrastructure for some of active wadis (Assiut) against flash floods - Wadi 26, Wadi Aljbrawi and the village of Arab Awamer,
 - Study the protection of the area of Abu Rish and Nag ElShdeeda against flash floods (Aswan),
 - Study the protection of the new village of Karm, Omran against flash floods (Qena),
 - Study the protection of the village of Garden City tourism against flash floods (South Sinai).
- 2010
- Development of flood atlas for Sinai Peninsula (North and South Sinai),
 - Study of water resources for some wadis in the Eastern Desert (Red Sea) – wadi - - El (Alambjee) against flash floods,
 - Study the protection of the infrastructure for some of active wadis (Assiut) against flash floods - wadi Al-Ibrahimi and wadi Imo,
 - Assessment the study of the protection of New Sohag University in Alkuaml area a flash floods - (Sohag Governorate),
 - Protection of Mubarak Housing Project against flash floods - Nag Alhusinat (Luxor),
 - Protection of Safaga mining port project against flash floods (Red Sea),
 - Protection of Qeft drainage station against flash floods (Qena),
 - Protection of the village of Arab Sheikh Mohammed against flash floods (Minya).
- 2009
- Protection of Sohag International Airport against flash floods (Sohag Governorate),
 - Study of the main flood drainage stream against flash floods (Aswan),
 - Study the protection of New Fayoum city against flash floods (Fayoum),
 - Study the protection of the main road leading to the cities of southern Sinai against flash floods,
 - Study the protection of the industrial area (2/31) against flash floods (Beni Suef),
 - Hydrological study of the wadi Qena (Qena),
 - Protection of Nuweibaa power plant against flash floods.
- 2008
- Study the Protection of Gas Pipeline path Abukerkas /Assiut against flash floods,
 - Study the Protection of Gas Pipeline path Abu Sultan / Sokhna against flash floods,
 - Study the development of wadi Saal area - (South Sinai),
 - Project to protect the city of Safaga against flash floods - Phase I, II and III - (Red Sea),
 - Study the protection of infrastructure in Delta wadi Fakera and wadi Ghrap against flash floods (Beni Suef).



- 2007
 - Study the Protection of Gas Pipeline path Choucair / Hurghada against flash floods,
 - Study the Protection of Gas Pipeline path Beni Suef / Abu Qurqas against flash floods,
 - Updating the study of wadi AlAssuity protection against flash floods,
 - Re-evaluation of a project to protect Abu sheah area against flash floods (Assiut).
- 2006
 - Study the Protection of Gas Pipeline path Taba / Sharm El Sheikh against flash floods.
 - Study the possibility of utilizing flood water in St. Catherine area - (South Sinai).
 - Project to protect AlDweir area, Tama Center against flash floods - (Sohag).
- 2005
 - Evaluation and development of wadi Dara in the Eastern Desert (Red Sea),
 - Project of constructing dams and lakes at wadi Qadeara and AlHadjna - wadi Watir (South Sinai).
- 2004
 - Project to protect ElNokra drainage against flash floods (Aswan),
 - Project to protect Albulaazh area against flash floods (Assiut),
 - Project to protect Wadi AlAkhdr, Sulaf and Sale ElOliat area against flash floods (South Sinai).
- 2003
 - Project to protect Ain Sukhna port against flash floods (Suez),
 - Project to protect ElSheikh Tami area against flash floods (Minya),
 - Study the protection of Awlad Azaz transformers against flash floods (Sohag),
 - Study the establishment of a channel to drain flood water behind dams in the economic area at North West Gulf of Suez (Suez).
- 2002
 - Project of development and protection of Dahab area against flash floods (South Sinai).
- 2001
 - Study the protection of a center of anti-pollution in Sharm El Sheikh (South Sinai),
 - Study the protection of sewage and farm station against flash floods, city of Nuweiba (South Sinai).
- 2000
 - Study to protect the main roads in Nekhel center against flash floods (North Sinai),
 - Project to protect Abu Sheah area against flash floods (Assiut),
 - Project to protect the residential area in Nazla ElMostagada against flash floods (Assiut),
 - Study the protection of the industrial area in Kom Abu Radi against flash floods (Beni Suef),
 - Project to protect the villages in Elgroof, ElShakhyra and Alababdh against flash floods (Qena).
- 1999
 - Study the protection of the economic area of northwest the Suez Gulf against flash floods, the northern part (Suez),
 - Protection of AlRedesya, Ebadi and ElNokra against flash floods (Aswan).



1998

- Study the protection of the economic area of northwest the Suez Gulf against flash floods, the southern part (Suez),
- Project to study the protection of AlSoamaah area against flash floods (Sohag).

Skills & Training

Computer:

- Wide experience in the application of Hydrological analysis programs, such as; Watershed Modeling System (WMS), Hydrologic Engineering Center (HEC1), Hydrologic Engineering Center-Hydrologic Modeling System (HEC-HMS), Soil and Water Assessment Tool (SWAT) and Gridded Surface Subsurface Hydrologic Analysis (GSSHA);
- Experience in the application of Hydraulic analysis programs, such as; Hydrologic Engineering Center-River Analysis System (HEC-RAS) and international River Interface Corporative (iRIC);
- Experience in the application of Statistical analysis programs, such as; IH-Flood, HydroFreq and HYFRAN;
- Experience in the application of Geographic Information Systems programs, such as; ARC-View and ArcGIS;
- Experience in the application of structural analysis and design programs, such as; Sap and COSMOSM;
- Using the Microsoft Office Programs, such as Word, Excel and PowerPoint;
- Using AutoCAD 2008 for structural drawing.

Design Codes:

- Wide experience in using Egyptian codes, such as; Water Resources and Irrigation, Flash Flood, Concrete design, etc.

Other Skills:

- Ability to communicate and cooperate with others and work in a teamwork.
- Ability to communicate and cooperate with others through E-Learning courses using the internet.
- Very good knowledge of writing proposals.

Training:

Teaching Courses:

- (1) "تطوير أساليب حصاد مياه الأمطار في المنطقة العربية", The League of Arab States, Arab Organization for Agricultural Development (AOAD), Egypt, 26 June – 7 July 2011.
- (2) "Appropriate Management of Land and Water Resources for Effective Utilization in Arid & Semi-Arid Regions", Regional Center for Training, Hydraulic Research Institute, Egypt, 2009-2012.
- (3) Supervising and examining Hydrology project students, Faculty of Engineering, Al Azhar University, 2008-2012
- (4) "International course on Environmental Hydrology for Arid and Semi Arid Regions", Regional Center for Training, Hydraulic Research Institute, Egypt, 2004-2012



- (5) "تدريب المدربين في مجال إدارة الموارد المائية لليمن", Regional Center for Training and Water Studies (RCTWS), Six October City, Egypt, 2008-2009
- (6) "Watershed Management & Rainwater Harvesting", Nile Basin Sector, Egypt, May 2006.
- (7) "Second Watershed Modeling System Training of Iraq Experts", Organized jointly by UNESCO Iraq and Cairo offices in cooperation with Water Resources Research Institute, Held in Cairo, 19-27 January 2006

Training Courses:

- (1) "Hydrological River Basin Environmental Assessment Model (HydroBEAM)", Disaster Prevention Research Institute – Kyoto University & National Water Research Center (NWRC), held at the Hydraulic Research Institute-Delta Barrage, Egypt, 8-11 October, 2012.
- (2) "Introduction to Modeling River Flow, Sediment transport and Morphodynamics within the iRIC Interface", International River Interface Cooperation (iRIC) & National Water Research Center (NWRC), held at the Hydraulic Research Institute-Delta Barrage, Egypt, 25-27 Jan, 2011.
- (3) "Water Resources System Analysis Introduction of Advanced Tools", Organized jointly by the Arab Organization For Agricultural Development (AOAD) in cooperation with Ministry of Water Resources and Irrigation, Egypt, 15 December 2009.
- (4) "Flood Modelling For Management", On-line course, UNESCO-IHE Institute for Water Education, 22 September – 15 November, 2009.
- (5) "Decision Support Systems in River Basin Management", On-line course, UNESCO-IHE, 11 May – 3 July, 2009.
- (6) "Technical Writing and Presentation Skills", National Water Research Center, 21-25 December 2008.
- (7) "The soil and water assessment tool, the Nile catchment", Proposed Tentative Program for the FRIEND Nile second phase Launching Workshop, Cairo, Egypt, 14-19 August 2006;
- (8) "Rainfall-Runoff Analysis using Watershed Modeling System (WMS)", Organized jointly by UNESCO Iraq and Cairo offices in cooperation with Water Resources Research Institute of Egypt and Brigham Young University in Utah, USA, Held in Cairo, 9-16 April 2005;
- (9) Short course on "Water Resources Management" at the CIHEAM-BARI, Italy, December, 2004.
- (10) "Introduction to ArcGIS", Quality Standards Information Technology, 4-8 April 2004;
- (11) "Flood Frequency Analysis", Cairo, Egypt, 29 March – 8 April 2003;
- (12) "Wadi Hydrology using the Watershed Modeling System (WMS)", Organized jointly by Brigham Young University in cooperation with Water Resources Research Institute, Held in Cairo, 29 April – 5 May 2002;
- (13) "Engineering Aspect of Water Harvesting in Arid and Semi Arid Environments", Regional Center for Training, Hydraulic Research Institute, Egypt, 5-17 May 2001;
- (14) "نظم المعلومات الجغرافية وأساليب التنبؤ بالفيضان", Egyptian Syndicate of professional Engineers, Egypt, 4 – 8 March 2000.
- (15) "هيدرولوجيا الوديان بالمناطق الصحراوية", Egyptian Syndicate of professional Engineers, Egypt, 10 – 12 October 1999.
- (16) "Preparation TOEFL Course", Swiss Co. for Investment and Educational Development International Training and Consulting Center (ITCC), Regional Center for Training and Water Studies (RCTWS), Six October City, Egypt, 19 September – 17 October 1998.



Publications

1. Badawy, A.B., Eman A.H. El-Sayed, and M.S. Farid, 2001, "Seismic Response of Control Structure, Concrete Gravity Dams", Eighth International Symposium on River Sedimentation, Nov. 2001, Cairo, Egypt.
2. Eman A.H. El-Sayed, Badawy, A.B and M.S. Farid, 2001, "Safety of Control Structure against Cracks", Eighth International Symposium on River Sedimentation, Nov. 2001, Cairo, Egypt.
3. Fahmi, A. H., A. G. Awadallah, and Eman A.H. El-Sayed, A. Afify, M. M. Abdel Motaleb, 2005, "Generalized Depth-Duration-Frequency Relationship in Arid Region, A Case Study of Wadi Sudr, Sinai Peninsula", presented at the IV Regional Conference on Civil Engineering Technology & IV International Symposium on Environmental Hydrology, Sheraton Heliopolis, Cairo-Egypt, June 7-9, 2005.
4. Eman A.H. El-Sayed, A. El-Bahrawy, and M. M. Abdel Motaleb, 2005, "Evaluation of Watershed Response Using GIS based Hydrologic Model", presented at the International Conference of UNESCO Flanders Fit, Friend/Nile Project, Towards a Better Cooperation, Sharm El-Shiekh, Egypt, Nov. 12-15, 2005.
5. Eman A.H. El-Sayed, 2007, "Runoff Simulation Using Different Infiltration Models", presented at the V Regional Conference on Civil Engineering Technology & V International Symposium on Environmental Hydrology, Cairo, Egypt, Sept. 3-5, 2007.
6. Eman A.H. El-Sayed, and Emad Habib, 2008, "New Technique for Rainfall-Runoff Simulation in Arid Region Case Study; Sinai Catchments, Egypt", the 3rd International Conference on Water Resources and Arid Environments, Riyadh, Saudi Arabia, Nov. 16-19, 2008.
7. Eman A.H. El-Sayed, W. Khairy and A. Hassan Fahmi, 2009, "Snowmelt Contribution to Water Resources in South Sinai, Egypt", Water Science, the National Water Research Center Journal.
8. Eman A.H. El-Sayed, 2010, "Mapping of Flood Hazard and Risk Areas in Wadi Al-Arish", Ain Shams Journal of Civil Engineering (ASJCE), Vol. 2, Sept. 2010.
9. Eman A.H. El-Sayed, 2011, "Development of Design Storm Hyetograph for Arid Watersheds", Fifteenth International Water Technology Conference, (IWTC15), Alexandria, Egypt, 29-31 May 2011.
10. Eman A.H. El-Sayed, and M.S. Farid, 2011, "Potential Areas for Development in Sinai Peninsula, Egypt", Fifteenth International Water Technology Conference, (IWTC15), Alexandria, Egypt, 29-31 May 2011.
11. Eman A.H. El-Sayed, 2011, "Flash Flood Warning in Ungauged Catchments using A Developed Flash Flood Guidance", Water Science, the National Water Research Center Journal.
12. Eman A.H. El-Sayed, 2011, "Generation of Rainfall Intensity Duration Frequency Curves for Ungauged Sites", Nile Water science & Engineering Journal.
13. Eman A.H. El-Sayed, 2012, "التكنولوجيا الحديثة وتطبيقاتها في تقييم مياه السيول والتنبيه بها", Arab Engineering Conference 26 of (Water Resources in the Arab World: Reality and Challenges), Jeddah, Saudi Arabia, 7-10 January 2012.