

CURRICULUM VITA
(C.V.)



PERSONAL

Name : Nahla El-Saied Sadek Taha
Date and Place of Birth : January-14-1962, Cairo, Egypt
Nationality : Egyptian
Marital Status : Married
Mailing Address : Nile Research Institute (NRI), National Water Research Center (NWRC), Qanater, P.O.Box 13621, Egypt
Residence Address : Sheraton Heliopolis Houses, Cairo, Egypt
Tel. [office]: (202) 42184229 – (202) 42184163
Fax: [office]: (202) 42187152
E-Mail : Nahla_NRI@yahoo.com, Nahla_Sadek@Nri-org.eg
Language : Arabic (Mother Tongue), English (Very Fluent), Germany (limited knowledge)
Main Discipline : Civil Engineering

ACADEMIC QUALIFICATION

- **Ph. D.**, Ain Shams University, Faculty of Engineering, Irrigation and Hydraulics Department, Cairo, Egypt.

Thesis Topic : " Lake Nasser Flood Analysis"

Date : April 2002

Specialization: Hydrology, Flood Routing, Water Resources Management, Statistical and Mathematical Modeling

- **M. Sc.** Ain Shams University, Faculty of Engineering, Irrigation and Hydraulics Department, Cairo, Egypt.

Thesis Topic : " Morphological Changes on the River Nile Before and After High Aswan Dam". "

Date : December 1998

Specialization: Hydrology, Morphology, Geographic Information System (GIS), Meander Development

- **B. Sc.** Ain Shams University, Faculty of Engineering, Civil Engineering Department, Cairo, Egypt.

Date : May 1985

POSITION HELD

2008- till now:

Associate Professor, Head of River Morphology Department, Nile Research Institute (NRI)– National Water Research Center (NWRC), Ministry of Water Resources and Irrigation (MWRI), Qanater, Kalubeia, P.O. 13621, Egypt.

2007- 2008:

Associate Professor, Head of Morphological Changes Unit, Hydrological and Sediment Department (NRI) – (NWRC) (MWRI), Qanater, Kalubeia, P.O. 13621, Egypt

- 2005– 2007:** Associate Professor, Head of Morphological Changes Unit, Hydrological and Sediment Department- (NRI)– (NWRC (MWRI), Qanater, Kalubeia, P.O. 13621, Egypt.
- 2005– 2007:** Researcher, Head of Morphological Changes Unit, NRI– NWRC, MWRI, Qanater, Kalubeia, P.O. 13621, Egypt.
- 2003 – 2007:** Researcher, Head of Research Team of Project "Water Budget (2003- 2017) to the Completion of Great National Projects in Egypt" between the Nile Research Institute and the Academy of Scientific Research and Technology, NRI, NWRC, MWRI.
- 2002 – 2003:** Researcher Assistance, Head of Research Team of Project "Role of Toshka Barrage Managing the Flood Water" between the Nile Research Institute and Ministry of Water Resources and Irrigation, Mathematical Modeling Department, NRI, NWRC, MWRI.
- 2001 – 2002:** Researcher Assistance, Member of Technical Committee in NRI to Study the Effect of High Discharges on the River Nile- Mathematical Modeling Department, NRI, NWRC, MWRI.
- 2000 – 2001:** Assistant Researcher, Member of Technical Committee in NRI to Study the Effect of High Discharges on the River Nile Mathematical Modeling Department, NRI, NWRC, MWRI.
- 1999 – 2000:** Senior Engineer, Hydraulic Structures Department, NRI, NWRC, MWRI.
- 1996 - 1999:** Senior Engineer, Member of Technical Committee in NRI to Study "The Effect of Underground Metro (Second Line) on the River Nile Using the numerical Models" - Degradation and Aggradations Department NRI, NWRC, MWRI.
- 1994 – 1996:** Civil Engineer, Member of Technical Committee in NRI to study Development of Inland Waterway Transport System for the Rossetta Branch" - Degradation and Aggradations Department NRI, NWRC, MWRI.
- 1988 – 1994:** Civil Engineer NRI, NWRC, MWRI.

AWARDS PRIZES

- ❖ Prize of the best paper in the field of Irrigation granted by MWRI " Dr. Mohamed Gaser Prize" titles River and hydraulic Structure, June, 2007
- ❖ Prize of the best paper in the field of Irrigation granted by MWRI " Eng. Abd El – Kawi Ahmed Prize" titles Water resources development using works and control projects June,2007
- ❖ Prize of the best Ph.D. thesis approved from the Egyptian Universities in the field of Irrigation granted by Ministry of Water Resources and Irrigation (MWRI) " Eng. Mostafa El Kady Prize", August, 2004
- ❖ Prize of the best paper in the field of Irrigation granted by MWRI " Dr. Mohamed Gaser Prize" titles River and hydraulic Structure,2004
- ❖ Prize of the best paper in the field of Irrigation granted by MWRI " Eng. Abd El – Kawi Ahmed Prize" titles Water resources development using works and control projects " August, 2004
- ❖ Prize of the best paper in the field of Irrigation granted by MWRI " Dr. Mostafa Kamal Tolba , July, 2003
- ❖ Prize of the best engineer by MWRI, 1996

RESEARCH EXPERIENCE

- ✚ Head of Research Team of Project '**Water Budget (2003- 2017) to the Completion of Great National Projects in Egypt**' between the Nile Research Institute and the Academy of Scientific Research and Technology. This project Introduced 4 reports, in April. 2005, October 2005, August. 2006, and March. 2007. These reports proposed and evaluated different scenarios and solutions to reduce the gap between the available water resources and the expected water requirements in the future including national great projects (South valley development- Salam Canal). More over, in this study a comprehensive risk analysis was performed for the different discharges and different scenarios to avoid the impact their using hydrological and hydraulic models was proposed.
- ✚ Head of Research Team of Project" **Damietta Branch Rehabilitation to Accommodate Emergency Discharges**" between the Nile Research Institute and Ministry of Water Resources and Irrigation. This Project introduced five reports. These reports include the study of the effect of passing high discharges due to the increase of future water demands for EL-Salam Canal project and the emergency discharges, the impacts of passing these discharges on the branch were evaluated taking into account the branch morphological characteristics and the performed navigation developments. Both the morphology and hydraulics characteristics were analyzed for each site along the branch and the required technical solutions were proposed to avoid the side effects from these discharges. Field study was conducted by the research team to observe the current condition and to propose the suitable solutions. This approach can be utilized to determine the flood hazardous and to expect inundation areas and hence can be used as an early warning for people to evacuate the areas subjected to inundation and consequently limit high releases hazardous in the future.
- ✚ Head of Research Team of Project "**Role of Toshka Barrage Managing the Flood Water**" between the Nile Research Institute and the Ministry of Water Resources and Irrigation. The Toshka Spillway Barrage was proposed to provide more water flow and to increase water management efficiency. This study analyzed, studied, evaluated and presented the proposed operation of the new Toshka Spillway Barrage in both cases; low and high inflows. The used tool for this analysis is a hydrologic water routing model developed for this study since the available models will not simulate the case efficiently due to the nature and the characteristics of the study case. This model was calibrated during different five subsequent years to ensure model suitability and the close relationship between actual and predicted parameters. Then the developed model was used to simulate different scenarios. The results of this analysis were concluded that the construction of this barrage is very essential for different cases, to avoid Nile River damages, and to ensure High Aswan Dam safety.
- ✚ Participate in the project "**Reduction of Evaporation Losses in Egypt**" between the Nile Research Institute and the Academy of Scientific Research and Technology. This projects Introduced 4 reports, in Sep. 99, June 2000, Feb. 2001, and Oct. 2001. These reports introduced different alternatives to reduce evaporation losses in Egypt including Lake Nasser, the River Nile and the two branches, and the Irrigation and drainage networking in Egypt and. The different alternatives were introduced, evaluated and discussed.
- ✚ Participate in the project "**River Nile Management Lines**" between the Nile Research Institute, Nile Protection and Development Sector, and the Ministry of Water Resources and Irrigation. This project updated the old training lines, which were developed by the MWRI

in the late 1940's and early 1950 to cope with the new controlled flow by Introduced new concept for defining the Old training lines which renamed "Management lines". They are divided into three types of line each of them define different land uses and permits around the river. These lines are saving the Nile from encroachments and at the same time saving human property from flooding. The recommendation of this project will be implemented in the field in near future. This project introduced two reports the first the covered he Reach between Assiut and Delta Barrage and the second report for the Reach between Naga Hammadi and Assiut Barrages.

- ✚ Participate in the project "**The Impact of High Releases on River Nile – Reach 4, and Rosetta branch**" this project introduced two reports, The first report studied the impact of passing the discharge of 220 m³/day on Rosetta branch sediment processes and water levels. The second report for reach 4 between Assiut and Delta Barrage. It determines the critical discharge for the reach and the area under flood threats for this discharge. The two reports were performed for MWRI.
- ✚ Participate in the project "**Planning Navigation Channel for the Rosetta Branch and Defining the Bottleneck Locations and the Required Dredging Volumes to develop this branch navigationaly**". This study between the Nile research Institute and the Ministry Water Research Irrigation. This study issued the report and Catalog for the navigation channel. This study defines some criteria for the optimum plan and included the full information about the branch morphology.
- ✚ Participating with the Social Fund for development (SFD) in the components of the River Nile Bank Protection and design.

PROFESSIONAL EXPERIENCE

- Applying Geographic Information System (GIS) for Rosetta and Dammita Branches to study and develop different relationships between meander parameters
- Monitoring and studying the morphological and hydrological changes before and after Aswan High Dam construction and also evaluating and analyzing these changes along the River Nile and its Branches.
- Planning the navigation channel for the Nile and Rosetta Branch and determine navigation marks
- Studying the navigation problems along the River Nile, proposing and analyzing the different alternative to solve these problems
- Applying and developing different mathematical models to simulate the movement of the water and sedimentation
- Determining the Terraces Line and monitoring the human interventions along the fourth reach and Damietta Branch and their effects on the capability of the river in passing the emergency discharge
- Studying and evaluating the Proposed Toshka Barrage on the water management efficiency in addition flood routing analysis and flood forecasting.
- Analyzing and predicting the effect of national projects and Merowe dam in Sudan on water management in Lake Nasser in the future.
- Studying the Impact of different floods on River Nile and propose different solutions and recommendations for new flood strategy to manage and limit flood hazards.

- Studying and constructing the hydrograph discharge for the ideal crop pattern for South Valley Project from Lake Nasser which has been proposed according to the actual and recommended plantations in future.
- Protection and Development Project
- Design and Construction of the River Nile bank protection.
- River Nile Degradation,
- Hydraulic structure local scours,
- Navigational bottleneck Analysis,

LIST OF PUBLICATION

- 1- "Managing Water Demands Downstream Aswan High Dam" N. Sadek and Yasser Raslan, International Conference on Water Conservation in Arid Regions (ICWCAR) October,12-14, 2009.
- 2- "Discharge Impacts on Nile River Damietta Branch Islands" Yasser. Raslan and **N. Sadek**, Six Symposium on Environmental Hydrology & Six Regional Conference on C.E. Technology September 28-30-2009.
- 3- "Climate Impacts on the Natural Flow of the Nile River at Aswan" Mohamed Eissa, A. Afify and **N. Sadek**, Six Symposium on Environmental Hydrology & Six Regional Conference on C.E. Technology September 28-30-2009.
- 4- "Morphological Change Impacts On Damietta Branch Capacity" **Nahla Sadek**, Z. El-barbry and M. El-Fadel, Cairo, Egypt, Water research Center Journal, June, 2008.
- 5- "Economical And Hydrological Analysis For Developing South Valley Project" **Nahla Sadek**, and Y. Raslan, Cairo, Egypt, Water research Center Journal, February, 2008.
- 6- "Impact of Navigation Development on Damietta Branch" Yasser. Raslan, **N. Sadek**, and K. Attia., Cairo, Egypt, Water research Center Journal, March, 2008.
- 7- "Prediction of The Future Situation of The River Nile Navigational Path" **Nahla Sadek** and Nasr Hekal, Twelfth International Water Technology conference, Alexandria, Egypt, 27 -30 March, 2008.
- 8- "Analysis of Different Floods on River Nile Fourth Reach" **Nahla Sadek** and Medhat Aziz Third Regional Conference on Perspectives of Arab Water Co-operation Challenges, Constraints and Opportunities, Cairo, Egypt, 9 -11 Dec., 2006.
- 9- "The Effect of Future Projects for Land Reclamation on Water Management System of Lake Nasser" **Nahla Sadek**, "The Nile Basin Development Forum". United Nations Conference Center, Addis Ababa Ethiopia Nov. 30 - Dec. 2, 2006.
- 10- "Navigation Channel Modeling Strategies in the River Nile" **Nahla Sadek**, Hossam El-Sersawy, Third International Conference & Exhibition Melaha, Luxor, Egypt, 15th – 17th May, 2006.

- 11- "Flood Effects on Local Scour at Imbaba Bridge" **Nahla Sadek**, Tenth International water technology conference, Alexandria, Egypt, 23 -25 March, 2006.
- 12- "River Nile Flood Forecasting and Its Effect on National Projects Implementation", **Nahla Sadek**, Tenth International water technology conference, Alexandria, Egypt, 23 -25 March, 2006.
- 13- "Estimation of Water Needs For Developing South Valley" **Nahla Sadek** and Mohamed Afifi, Third Joint Conference on Toshka 2006, Cairo, Egypt, 3-4 January 2006.
- 14- "Evaluation of High Flow Releases Effects on Damietta Branch", **Nahla Sadek**, AL-AI-Azhar University Engineering Journal Volume 8 Number 12 October, 2005
- 15- "Damietta Branch Rechannelization to Accommodate Emergency Discharges". **Nahla Sadek**, IV Symposium on Environmental Hydrology & IV Regional Conference on C.E. Technology June 7-9-2005.
- 16- "Flood Management of Lake Nasser after the New Toshka Barrages Construction". **Nahla Sadek** and Medhat Aziz, Ninth International water technology conference, Sharm Al-Sheikh, Egypt, 17-20 March 2005.
- 17- "Role of Toshka Barrage Managing the Flood Water", **Nahla Sadek**, M. Aziz, A. Fahmy Ahmed, Second Joint Conference on Toshka 2005, Cairo, Egypt, 3 - 4 December 2004.
- 18- "Highlights on Flood Effects on River Nile", **Nahla Sadek**, Karima Attia, Ahmed Fahmy, The Ninth International Symposium of River-Sedimentation, Yichang, China, 18-21 October 2004.
- 19- "Plan Form Geometry of River Meander at Damietta Branch", by Karima Attia and **Nahla Sadek**, Cairo, Egypt, Engineering Research Journal, of Ain Shams University, March 2004.
- 20- "The Proposed Operation for The New Toshka Barrage" by Medhat Aziz and **Nahla Sadek**, Cairo, Egypt, Engineering Research Journal, of Helwan University, October 2003
- 21- "Using Submerged Weirs to Solve Navigation Problems in River Nile" by **Nahla Sadek** and Ahmed Fahmy, El-Azhar Engineering Seventh International Conference, AEIC, Cairo, Egypt, April, 2003.
- 22- "High Flood Effects on River Drains" by Sherin Ismail, **Nahla Sadek** and Ahmed Fahmy, First Regional Conference on Perspectives of Arab Water Co-operation Challenges, Constraints and Opportunities, Cairo, Egypt, October, 2002.
- 23- "Lake Nasser Flood and Sediment Analysis" by Medhat Aziz, Hossam Ibrahim, and **Nahla Sadek**, Eighth International Symposium on River Sedimentation, (ISRS 8), Cairo, Egypt, November, 2001.
- 24- "Morphological Changes Impact on Water Surface Profile Predicted for the River Nile", by **Nahla Sadek**, Mohamed Rafeek Abdel Bary, Aly Talaat, and Ahmed Aly., Eighth International Symposium on River Sedimentation, (ISRS 8), Cairo, Egypt, November, 2001.

- 25- "Management Lines and Uses for the Nile River between Assuit and Delta Barrages", by Karima Attia and **Nahla Sadek**, Sixth International Water Technology Conference, Alexandria, Egypt, March (2001)
- 26- "High Aswan High Dam Impacts on Wadi Morphology" by **Nahla, Sadek**, Medhat Aziz and Karima Attia, International Conference on Wadi Hydrology Shar, Nov., 21-23 (2000).
- 27- "Local Scour Around Spur Dikes in Straight Channels" by Karima Attia, Tarek El Samman and **Nahla Sadek**, International Conference on Wadi Hydrology Sharm, Nov., 21-23 (2000).
- 28- "High Aswan High Dam Impacts on River Nile Morphology" by Mohamed Mostafa Soliman, **Nahla Sadek**, and Mohamed Rafeek Abdelbary, International Water Resources Engineering Conference, Seattle, Washington 8-11 Aug., 1999.
- 29- "Nile River Morphological changes; case Study Rosetta Branch", by **Nahla Sadek**, Mohamed Mostafa Soliman, and Mohamed Rafeek Abdelbary, ASCE Middle East Regional Conference and International Symposiums Environmental, 16 - 18 May, 1999, Cairo, Egypt.

REFERENCE:

- **Prof. Dr. Medhat Aziz**, Director, Nile Research Institute, National Water Research Center, Ministry of Water Resources and Irrigation, Cairo, Egypt
- **Prof. Dr. Mohamed El-Moattassem**, Consultant, Nile Research Institute, National Water Research Center, Ministry of Water Resources and Irrigation, Cairo, Egypt
- **Prof. Dr. Rafik Abdel Bary**, Consultant, National Water Research Center, Ministry of Water Resources and Irrigation, Cairo, Egypt