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CURRICULUM VITAE

Name : **Tarek El-Sayed Mahmoud**
Nationality : Egyptian, Male
Date of birth : 26 May. 1969
Place of birth : Cairo, Egypt
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EDUCATION:

Ph.D. research:

1999-2002 Ph.D. Title "Evolutionary Mechanistic Approach to Total Sediment Load Transportation",

M.Sc. research:

1994-1996 M.Sc. Title “An Approach to Total Sediment Load Transportation"

B.Sc.

1987-1992 B.Sc. in Civil Engineering, Helwan University. Estimation General grade Distinction (with Honor)

PROFESSIONAL EXPERIENCE

2002- Present ***Assistant Professor*:** Department of Civil Engineering, Helwan University, Cairo, Egypt.
Teaching load includes: Open Channel Hydraulics, Hydraulics Laboratory, Fluid Mechanics, Civil Engineering Drawing, Water Resources Management, Engineering of Irrigation and Drainage, Design of Irrigation Structures, Hydraulic Transients, Computational Hydraulics, and Sediment Transport courses for graduate and undergraduate students.

2012 - Present ***Infrastructure's Expert:*** SAUDI DIYAR Consultants, Cairo Office.

2008 -2012 ***Consultant***: NILE CONSULT for Environment and Infrastructure Studies.

2007 - 2009 ***Staff Engineer (part time)***: MISR CONSULT for Environment and Infrastructure Studies, Cairo, Egypt.

1997 - 2002 ***Assistant Lecturer***: Department of Civil Engineering, Helwan University, Cairo, Egypt.
Assisted in teaching Fluid Mechanics, Hydraulic Engineering, Water Resources Planning and Development, Civil Engineering Drawing and Engineering of Irrigation and Drainage.

1992 - 1996 ***Demonstrator***: Department of Civil Engineering, Helwan University, Cairo, Egypt.
Assisted in teaching Fluid Mechanics, Hydraulic Engineering, Water Resources Planning and Development, Civil Engineering Drawing, Engineering of Irrigation and Drainage, and Numerical Analysis.

CONSULTING AND APPLIED RESEARCH ACTIVITIES (Partial List)

Water and wastewater distribution systems:

- KING ABDULLAH MEDICAL CITY (SCHEMATIC AND DETAILED DESIGN)

  Design and preparing drawings and documents for the project with total area 2,000,000 m^2 for the following works:
  - Water distribution network.
  - Firefighting network.
  - Irrigation network.
  - Storm water network.
  - Sewage network.

  OWNER: *MINISTRY OF HEALTH*
  OWNER CONSULTANT: *SAUDI DIYAR CONSULTANT*

- MADINAH STATION, HARAMAIN HIGH SPEED RAILWAY PROJECT (KSA, MADINAH)

  Design and preparing detailed design drawings and final design report for the project with total area 400,000 m^2 for the following works:
  - Sewage Network.
  - Storm Network.

  OWNER: SAUDI RAILWAYS ORGANIZATION.
  OWNER CONSULTANT: FOSTER + PARTNER, DAR AL-HANDASAH.
  CONTRACTOR: SAUDI BINLADEN, YAPI MERKEZI.
  CONTRACTOR CONSULTANT: SAUDI DIYAR CONSULTANT.

- MAKKAH STATION, HARAMAIN HIGH SPEED RAILWAY PROJECT (KSA, MAKKAH)

  Design and preparing detailed design drawings and final design report for the project with total area 500,000 m^2 for the following networks

- Sewage Network.
- Storm Network.

OWNER: SAUDI RAILWAYS ORGANIZATION.
OWNER CONSULTANT: FOSTER + PARTNER, DAR AL-HANDASAH.
CONTRACTOR : SAUDI BINLADEN, YAPI MERKEZI.
CONTRACTOR CONSULTANT: SAUDI DIYAR CONSULTANT.

- RIYADH QURTOBA OASIS (KSA, RIYADH)

Coordination between plumbing works and site works for project area (300, 000 m^2) for the following works:
- Sewage network.
- Water distribution network.
- Firefighting network.
- Quantity surveying for water network and sewage network.

OWNER: SOLIDERE
CONTRACTOR CONSULTANT: SAUDI DIYAR CONSULTANT.

- KING FAISAL SPECIALIST HOSPITAL (KSA, JEDDAH)

Design and preparing drawings for the project with total area 1,500,000 m^2 for the following works:
- Water distribution network.
- Firefighting network.
- Irrigation network.
- Storm water network.
- Sewage network.

OWNER: MINSTRY OF HEALTH
OWNER CONSULTANT: RTKL
CONTRACTOR : SAUDI BINLADEN
CONTRACTOR CONSULTANT: SAUDI DIYAR CONSULTANT.

- AL BAHA UNIVERSITY (COLLEGE OF ARTS & SCIENCE) (KSA, ALBAHA)

  Design and preparing drawings and documents for the project (3 sites) for the following networks:
  - Water distribution network.
  - Firefighting network.
  - Irrigation network.
  - Storm water network.
  - Sewage network.

  OWNER: MINSTRY OF HIGHER EDUCATION.
  OWNER CONSULTANT: SAUDI DIYAR CONSULTANT.

- RIYAD ROYAL PALACES (KSA,RIYADH)

  Design and preparing drawings for the project with total area 20,000 m^2 for the following works:
  - Sewage network.
  - Coordination between plumbing works and site works.

  CONTRACTOR: SAUDI BINLADEN
  OWNER CONSULTANT: SAUDI DIYAR CONSULTANT.

- ALAZHAR BOA'TH CITY (EGYPT, CAIRO)

  Design and preparing (schematic and detailed design) drawings for the following works:
  - Water distribution network.
  - Firefighting network.
  - Irrigation network.
  - Storm water network.
  - Sewage network.

OWENER: ALAZHAR UNIVERSITY

CONTRACTOR: SAUDI BINLADEN

OWNER CONSULTANT: SAUDI DIYAR CONSULTANT.

- ALSAMRIYAH OASIS (KSA, RIYADH)

  Design and preparing drawings for the project with for the following networks:

  - Water distribution network.
  - Firefighting network.
  - Irrigation network.
  - Storm water network.
  - Sewage network.

  CONTRACTOR: SAUDI OGEL

  CONSULTANT: SAUDI DIYAR CONSULTANT.

- Design 6th of October City raw water carrying pipeline (3pipes, 2.2 m-diameter each, about 40 km long) to 6th Of October City water treatment plant. This includes develop procedures for filling and emptying the pipeline, design of the intake, review the design of pumping stations, and Waterhammer analysis (2010 -2012).

- Project: Waterhammer analysis (2011)
  Responsibilities: Analyzed the hydraulic transients in the main pipeline feeding the Port-Said water treatment plant, and the waterhammer analysis for Port-Said intake pumping station.

- Project: Waterhammer analysis (2010)
  Responsibilities: The waterhammer analysis for Ibshadat intake pumping station (Malawy City, Elminia Governorate).

- Design 10th Of Ramadan City raw water carrying pipeline (2pipes, 2.5 m-diameter each, about 20 km long) to 10th Of Ramadan City water treatment plant. This includes develop procedures for filling and emptying the pipeline, and review Waterhammer analysis (2009-2010).

- Hydraulic analysis of the feeding network of drinking water for the extension of New Cairo City (2010)

- Design New Cairo raw water carrying pipeline (2pipes, 2.6 m-diameter each) to New Cairo City water treatment plant. This includes develop procedures for filling and emptying the pipeline (2008-2009).

- Design and preparing the shop drawings of the sewerage system for 4 villages in Kafr El-Sheikh Governorate (2009).

- Reviewing and preparing the shop drawings for Safaga-Qenna water pipeline, length of 160 km (2009).

- Reviewing and preparing the shop drawings for the water and sewerage system for New Qenna City (2009).

- Project: Preparing the master plan of sewerage system in Alexandria City 2037 (2006-2009).
  Responsibility: Manage the study team, review the collected data pertaining the existing conditions of sewerage networks, pumping stations, and sewage treatment plants. Review the hydraulic analysis of the sewerage system by SewerCAD, define the high priority projects and its design drawings and tender documents, and plan for the future needs of the sewerage system up to year 2037.

- Project: Preparing the master plan of water system in Qenna City 2037 (2006-2010).
  Responsibility: Review the hydraulic analysis of the water system by WaterCAD, define the high priority projects and its design drawings and tender documents, and plan for the future needs of the water system up to year 2037.

- Preparing the strategic master plan of water, sewers and solid waste for Fayoum City (2008).

- Preparing the strategic master plan of water, sewers and solid waste for El-Mahalla El-Kobra City (2007).

River engineering and irrigation:

- Project: Design of siphon to carry water of Belbees Drain underneath the Ismailia Canal. (2010)

  Responsibilities: Detailed design of the siphon (5 vents, 3.2 m-diameter each) including the entrance and exit structures and the earthen works.

- Project: Design of culvert (5 vents, 2 m × 3m each) to carry wastewater from Alkhosos Pumping Station to Alkhosos Drain (2008).

INVITATIONS

- (RWTH Aachen, Germany) September, 2007: Intensive Training Course at Aachen University, Germany.

- (UNESCO-IHE in Delft, Netherlands) January, 2008: Training for Trainers programme on Water and Environment.

- (UNESCO-IHE in Delft, Netherlands) May, 2009: eLearninig Workshop in Netherlands.

- (RWTH Aachen, Germany) from June, 2009: eLearninig Workshop in Germany.

- (UNESCO-IHE in Delft, Netherlands) December, 2009: Training for Trainers programme on Water and Environment.

SOFTWARE EXPERIENCE IN HYDRAULICS AND SURFACE HYDROLOGY

- Open channel & Surface hydrology: HEC-RAS, HY-8, HEC-HMS.
- Closed conduits: WaterCAD, SewerCAD, StormCAD, KYPIPE, and WH (Water hammer software).

STUDENT SUPERVISION

Helped in the supervision of:

1. The M.Sc. project of Eng. Khaled Abd-Allah Abd-Elghafar through his thesis on " Improving the hydraulic performance of highway culverts". Submitted to the Univ. of Helwan , Cairo, Egypt.
2. The M.Sc. project of Eng. Mohamed Hasan Ahmed through his thesis on " Draft optimization of Aswan high dam Reservoir with reference to upper Nile water conservation schemes". Submitted to the Univ. of Helwan , Cairo, Egypt.
3. The M.Sc. project of Eng. Malek Ahmed Mohammed Abd El-Fatah through his thesis on “Application of a new methodology for leak detection in water supply pipelines ". Submitted to the Univ. of Helwan , Cairo, Egypt.
4. The M.Sc. project of Eng. Radwa Mohammed Fathe through his thesis on “Computer Aided Analysis of The Different Waterhammer Protection System ". Submitted to the Univ. of Helwan , Cairo, Egypt.
5. The Ph.D. project of Eng. Ahmed Medhat Ismail Abd Elhamid through his thesis on “Groundwater Resources Management For Sustainable Development in North Sinai". Submitted to the Univ. of Helwan , Cairo, Egypt.
6. The Ph.D. project of Eng. Khaled Abd-Allah Abd-Elghafar through his thesis on “Verification of Khalil et al Approach to Total Sediment Load on River Nile – Application to High Dam Lake to Predict Rate of Silt-Deposition". Submitted to the Univ. of Helwan , Cairo, Egypt.