

Mohamed Elsanabary, PhD, PEng

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HIGHLIGHTS

- Over 15 years of experience in civil and water resources engineering including design, construction, and research;
- Extensive experience in investigating and analyzing meteorological and climatic data;
- Skilled in watershed delineation, hydrologic modeling, and estimating runoff and inflow design flood;
- Experience in collecting field data including snow and topographic surveying;
- Skilled in estimating climate variability impacts on river flows;
- Extensive knowledge in hydrologic and hydraulic modeling tools of water resources projects (HEC-RAS, SWMM variants, HEC-HMS, Mike 11, and EPANET);
- Skilled in hydrogeology and groundwater flow modeling (GMS) of oil and gas projects;
- Competent in the design of potable and sanitary water distribution piping systems;
- Have a keen eye for detail and work well in teams as well as independently;
- Strong communication, ability to work collaboratively, and skill in mentoring junior members; and
- Competent in preparing and writing technical reports.

EDUCATION

Ph.D. Water Resources Engineering	2012
University of Alberta, Edmonton, AB	
M.Sc. in Civil Engineering (Construction Management of Irrigation Projects)	2004
Suez Canal University, Port Said, Egypt	
B.Sc. in Civil Engineering	1997
Suez Canal University, Port Said, Egypt	

EMPLOYMENT HISTORY/PROFESSIONAL EXPERIENCE

Civil Engineer

CivEng Consulting Services
Civil Engineering Department
Edmonton, Alberta

July. 2019 – Present

- Support and lead the development of submissions in response to Requests for Proposals;
- Provide team direction, feedback, and learning opportunities for junior and intermediate team members;
- Design commercial buildings such as bike shop; and
- Perform scour analysis along bridge piers and abutments.

Assistant Professor

Water Resources Engineering
Civil Engineering Department
Port Said University, Port Said, Egypt

Sept. 2014 – Jun. 2019

- Provided recommendations for the development of El Manzala lake, Egypt, to develop a new regulatory act to control the lake pollution;
- Demonstrated the cumulative effective management;
- Taught several civil engineering courses e.g. water resources engineering, fluid mechanics, hydraulics...etc;
- Represented the department in the faculty committees;
- Developed a new regulatory through submitting monthly progress reports;
- Processed applications for new students;
- Provided students with advice in a timely manner; and
- Established the department laboratories for hydraulics, surveying, and material and concrete.

Post-Doctoral Fellow

Sept. 2012 – Aug. 2014

Geotechnical Engineering

Department of Civil & Environmental Engineering

University of Alberta, Edmonton, AB

- Investigated the impacts of hydrocarbon production from underground facilities SAGD/UCG on the groundwater and surface water bodies in oil sands projects and evaluate the risks and the benefits of such activities, This involves:
 - Administering the Water Act;
 - Applying scientific principles/theories;
 - Developing a groundwater model using GMS 9.04 software;
 - Providing technical and policy advice;
 - Helping in developing a new regulatory;
 - Provide advice in a timely manner;
 - Reviewing the environmental impact assessment (EIA); and
 - Providing recommendations to government authorities

Proctor, Scriber and Reader

Sept. 2007 – Aug. 2012

Specialized Support and Disability Services

University of Alberta & NAIT, Edmonton, AB

- Understand technical terms
- Had the ability and agility to deliver timely service to the students
- Demonstrated effective work in a changing environment

Research Assistant

Sept. 2006 – Aug. 2012

Department of Civil & Environmental Engineering

University of Alberta, Edmonton, AB

- Demonstrated effectively work in a changing environment as a member of a four-member team to calibrate a physically-based hydrologic model in the Paddle River Basin in Alberta;
- Taught and assisted in survey school course specifically, traverse alignment, leveling, stadia, vertical and horizontal curve alignment and staking, earthwork calculations, building layout;
- Conducted mapping as well as temporal and spatial classification of Ethiopia's precipitation in four major zones;
- Evaluated the impacts of climate variability on the hydrology of Upper Blue Nile Basin (UBNB);
- Forecasted the UBNB rainfall through correlation with the oceanic anomalies; and
- Forecasted the UBNB streamflow versus natural flow through correlation with the oceanic anomalies.

Design and Structural Engineer

Apr. 1999 – Aug. 2006

El Arabi Engineering Consultants, Port Said, Egypt

- Optimized design for farm irrigation systems (tertiary conveyance systems) to satisfy minimum cost with high-quality conditions to build trust in relationships with different stakeholders;
- Set up project procedures and relevant quality forms, This involved:
 - Representing the company
 - Administering the Construction Act
 - Resolving construction/management issues
 - Demonstrated cumulative effects management
 - understand technical terms
 - analyzed concepts
 - ability and agility to deliver timely service to the public
- Investigated the application of construction management in irrigation projects utilizing the Value Engineering technique;

- Planned and designed water management infrastructure e.g. wastewater treatment pipelines, and secondary canals;
- Prepared technical reports for projects bids and assisted with the cost estimates;
- Designed large span steel/concrete structures as well as high rise buildings against seismic forces;
- Fostered the growth of the company by providing high-quality design and building networks, connecting, and building trust in relationships with the clients;
- Designed and supervised the construction of a 12–story residential building;

Civil Engineer

Mar. 1998 – Mar. 1999

British Electronic Company, Port Said, Egypt

- Participated in the renovation of the company office building, including restoration of the roof and other maintenance tasks, This involved:
 - Resolving construction/management issues.
 - Providing recommendations for the contractor.

Design, Construction Engineer, and Surveyor

Jan. 1998 – Mar. 1999

Egyptian Armed Forces, Suez, Egypt

- ability and agility to deliver timely service to the public
- Designed and provided construction supervision for the entrance gate of the site, This involved:
 - Anticipating, assessing, and readily adapting to changing priorities, maintain resilience in times of uncertainty;
 - Leading and contributing to the conditions and environments that allow people to work collaboratively and productively to achieve the desired outcome.

COMPUTER SKILLS

- Hydraulic and hydrologic modeling: EPA-SWMM, XP-SWMM, EPA-NET, HEC-RAS, HEC-HMS, MikeURBAN, Mike 11, WaterCAD, COMSOL, and GMS;
- CAD and GIS software: AutoCAD, ESRI ArcGIS, ENVI;
- Structural design: SAP, STAAD pro, and can quickly learn new programs; and
- Microsoft Office Suite; Word, Excel, Access, PowerPoint.

ADDITIONAL INFORMATION

Memberships & Affiliations

- Professional Engineer (member of APEGA) (Nov. 2009 – Present)
- Member of the IAHS (Jan. 2008 – Present)
- Member of ASCE (Feb. 2007 – Oct. 2016)
- Member of the Egyptian Syndicate of Engineers (Sept. 1997 – present)
- Communication coordinator of the CWRA–SYP Edmonton chapter (Nov. 2011 – Jul 2012)

Certificates

- WHMIS, TDG, and Standard First Aid and CPR “C” – AED (April 2011);
- Defensive driving course (January 2008); and
- Class 2 6 Q, Alberta driver’s license with clean driver’s abstract.

REFERENCES

- References available upon request