

# **CURRICULUM VITÆ**

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# Mohamed Hassen Ali El-kiki

**Nationality** Egyptian

**Date of birth** January 24, 1970 **Place of birth** Port Said, Egypt

Married (have three sons)

# **EDUCATIONAL RECORD**

**Institution** Suez Canal University, Faculty of Engineering

DepartmentCivil EngineeringLocationPort-Said, EgyptMajor Field of studyCivil Engineering

Degree B.Sc.

**General grade** Excellent with Honor

**Years** (from – to) 1988 – 1992

**Institution** Suez Canal University, Faculty of Engineering

DepartmentCivil EngineeringLocationPort-Said, EgyptMajor Field of studyCivil Engineering

Degree M.Sc.

**Research Title** "Hydraulic Stability of Skew Syphon Pipes"

**Years (from – to)** 1993 – 1997

Institution Tsukuba University, Institute of Engineering

Mechanics

DepartmentCivil EngineeringLocationTsukuba, JapanMajor Field of studyCivil Engineering

**Degree** Ph.D. (issued from Suez Canal University)

**Research Title** "Hydraulic Stability of Narrow Rivers under

Severe Navigation Conditions"

**Years (from – to)** 2000 – 2003

### **LANGUAGE PROFICIENCY**

**Arabic** Mother tongue

**English** Very Good (International Toefl – Grade 563)

### **COMPUTER SKILLS**

- Programming language: Extensive knowledge and experience with Basic, Fortran, and C languages.
- Computer aided design: Very good experience with AutoCAD, 3DS, Staad, and Sap.
- Other software: High level of experience in computer programs such as Windows XP, Microsoft Office, Adobe Photoshop, Grapher, Surfer, Mathworks, Mathlab, Hydrus, INN and GAP.

#### MAJOR FIELD OF RESEARCH

- 1 Irrigation and Hydraulics
- 2 Fluid Mechanics
- 3 Environmental Engineering
- 4 Soil Salinity and Solute Transport
- 5 Irrigated Water Resources
- 6 Internal Navigation.
- 7 Shore Protection
- 8 ANN and its applications in Hydraulics
- 9 GAP and its applications in Hydraulics

# **PROFISIONAL ACTIVITIES**

#### **EMPLOYMENT**

Name of employerPort Said University, Faculty of EngineeringAddress of employerPort-Fouad, Port-Said, Egypt, P.O. 42523

**Type of organization** Governmental

Activities Educating under-graduates to be awarded the

Engineering B.Sc. and supervising post-graduates to be awarded the M.Sc. and Ph.D for engineers

Positions - Demonstrator (1993-1997) (Suez Canal University)

- Assistant lecturer (1997-2003) (Suez Canal University)

- Lecturer (2003 -2005) (Suez Canal University)
- Lecturer (2005 -2008) (Altahadi University-Libya)
- Lecturer (2008 -2009) (Suez Canal University)
- Associate Professor in environmental Hydraulics (2009 2010) (Suez Canal University)
- Executive Manager of the Quality and accreditation unit (2009 -2010) (Suez Canal University)
- Associate Professor (2010 2016) (Aljouf university Saudi Arabia)
- Associate Professor in environmental Hydraulics (2016 2018) (Port Said University)
- Professor of irrigation, Hydraulics & environmental Hydraulics (2018 uptill now) (Port Said University)
- Chairman of the Civil Engineering Department (2022
  to date) (Higher Institute of Engineering and Technology - New Damietta)

#### TEACHING EXPERIENCES

- 1- Fluid Mechanics
- 2- Hydraulics
- 3 Irrigation and Drainage Engineering
- 4 Design of Irrigation Works
- 5 Harbor and Navigation Engineering
- 6 Shore protection
- 7 Civil Engineering Drawing
- 8 Sanitary Engineering
- 9 Water and Waste Water Engineering
- 10 Ground Water and Surface Water Hydrology
- 11 River Engineering
- 12 Environmental Engineering
- 13 Environmental Hydraulics
- 14 Descriptive Geometry
- 15 Drawing Using AutoCAD
- 16 Computer Application in Civil Engineering (Hydraulics)
- 17 Survey
- 18 Structure Analysis
- 19 Properties of materials
- 20 Concrete Structure
- 21 Steel structures
- 22 Irrigation Projects

- 23- Hydraulic Projects
- 24- Harbor Projects.
- 25 Water systems projects
- 26 Sewer Engineering Projects

#### Other Research Activities

Name of the Institute Tsukuba University, Institute of Engineering

Mechanics

Name of the DepartmentCivil Engineering DepartmentActivitiesConducting my Ph.D. thesisPositionVisitor Doctoral Student

**Years (from-to)** 2000-2003

# **PROFISIONAL EXPERIENCE**

Project that I involved as a co-investigator: 2004-2006, A cooperation

project between Suez Canal University and both of Ain Shams University (Egypt) and Lund University (Sweden) under the title: "Different Strategies to control or reduce the environmental impact of soil salination when irrigated with saline water".

This project is funded by SIDA, Sweden.

Project that I involved as a co-investigator: 2008- 2010, A cooperation

project between Suez Canal University and Lund University (Sweden) under the title: "Study the effect of erosion on Elarish city shore". This

project is funded by SIDA, Sweden.

Project that I involved as a co-investigator: 2008-2010, A cooperation

project between Suez Canal University and Lund University (Sweden) under the title: "Sustainable use of Cairo waste water; environmental effects of the Bahr el Baqar Drain". This project is

funded by SIDA, Sweden.

Project that I involved as a co-investigator: 2016-2019, A cooperation

project between Port Said University and Academy of Scientific Research and Technology under the title "Salinization in irrigated areas: Risk evaluation and preventation". This project is funded by Academy of Scientific Research and

Technology, Egypt.

#### Membership of the Egyptian Society of Shore Protection.

# Attending and holding capacity development courses for faculty members at the university, as follows:

# A – Programs in (Center for Developing the Capacity of Faculty Members and Leaders)

- 1 Program of quality standards in the educational process.
- 2 Strategic Planning Program.
- 3 Program for developing effective communication skills.
- 4 Professional Development Program (Scientific Publishing of Research).
- 5 Examination Systems and Student Evaluation Program.
- 6 Effective Presentation Skills Program.
- 7 A program for preparing a self-study document.
- 8- A comprehensive research plan preparation program.
- 9 Academic Standards Program.
- 10 Course and Program Description Program.
- 11 Ethical Charter Program.
- 12 Ethics and behavior of the university profession.
- 13 Using technology in teaching.
- 14 Global databases.
- 15 Scientific Research Methods.
- 16 Organizing scientific conferences.
- 17 Creative thinking skills.

#### **B.** Courses and workshops in (Al-Jouf University - Saudi Arabia)

- 1 Qualification requirements for institutional and program accreditation
- 2- Performance indicators
- 3- Preparation for international accreditation (ABET)
- 4 The objectives of the educational process
- 5- Preparing course content
- 6 Teaching and evaluation strategies
- 7 Assessment and evaluation of the educational process
- 8 Measuring program outputs
- 9- Preparing the internal auditors
- 10- Preparing the external auditors

# Attend courses in the National Authority for Quality Assurance and Accreditation

- 1 Strategic planning for colleges and institutes of higher education (2008).
- 2 Training of trainers for external auditors of higher education institutions (2008).
- 3 External Reviewers for Pre-University Education Institutions ("External Reviewers + Simulations" packages (2009).
- 4- Strategic planning for colleges and institutes of higher education (2023).

- 5 Self-evaluation of colleges and institutes of higher education (2023).
- 6 Description of programs and courses and evaluation of learning outcomes for colleges and institutes of higher education (2023).
- 7 Effective Teaching and Learning Strategies for Colleges and Institutes of Higher Education (2023).
- 8 Examination systems and student evaluation for colleges and institutes of higher education (2023).
- 9 External review of colleges and institutes of higher education (2023).

Working as a lecturer and an academic Supervisor for three years (six Semesters) in Credit Hours System in LIBYA (Faculty of Engineering – Altahdi University) since October 2005 till July 2008.

Working as a lecturer and an academic Supervisor for six years (twelve Semesters) in Credit Hours System in KSA (Faculty of Engineering – Aljouf University) since October 2010 till July 2016.

Participation in the establishment of laboratories of the Department of Civil Engineering at the Universities of Al-Tahadi (Libya) and Al-Jouf (Kingdom of Saudi Arabia) and preparing a statement of equipment specifications for the various laboratories.

Member of the Committee for amending and updating the internal regulations of the Faculty of Engineering, Suez Canal University (2003-2005)

Member of the committee for amending and updating the internal regulations of the Faculty of Engineering, Port Said University (2018)

Member of the committee for amending and updating the list of postgraduate studies, Port Said University

# **ATENDED CONFERENCES**

August 2003 XXX IAHR Congress, THEME C, 20- 24 August

2003, Thessaloniki, Greece.

June 2005 IV Regional Conference on Civil Engineering

Technology& IV International Symposium on Environmental Hydrology, 7-9 June 2005, Cairo,

Egypt.

March 2006 X International Water Technology Conference, 23-

25 March 2006, Alexandria, Egypt.

September 2007 V Regional Conference on Civil Engineering

Technology& V International Symposium on

Environmental Hydrology, 2-4 September 2007,

Cairo, Egypt.

March 2009 Thirteenth International Water Technology Conference,

IWTC 13 2009, Hurghada, Egypt.

March 2015 18th International Water Technology Conference

2015, 12-14 March. Sharm El Sheikh, Egypt.

#### **International awards:**

Recipient of the Prize for Excellence in Publishing from King Abdulaziz University - Kingdom of Saudi Arabia for the academic year 2013-2014 for research: "Assessment of Heavy Metals Pollution and Microbial Contamination in Water, Sediments and Fish of Lake Manzala, Egypt"

#### **Scientific committees:**

- Member of the arbitrators' committees in the permanent scientific committee to examine scientific production for the positions of professors and assistant professors the 14<sup>th</sup> session 2022-2025 (water resources).
- An accredited external auditor with the National Authority for Quality Assurance and Accreditation of Education.

#### **Journal Reviewer**

REVIEWER TO THE FOLLOWING JOURNALS

- International Journal of Plant Breeding and Crop Science
- PORT SAID ENGINEERING RESEARCH JOURNAL
- Egyptian International Journal of Engineering Science and Technology (EIJEST)
- Journal of Engineering Sciences, Faculty of Engineering, Assiut University
- American Journal of Water Science and Engineering
- Journal of Water Science, National Water Research Center
- Journal of Water, International Water Research Association

# **LIST OF PUBLICATIONS**

- 1- El-kiki M., Balah M., Elrayes M. 1997. Hydraulic Stability of Skew Syphon Pipes. Thesis submitted for fulfilling the requirements of M.Sc Faculty of Engineering- Suez Canal university.
- 2- El-kiki M., Hammad M., Nishimura H., Balah M., Shishtawi A. 2003. Hydraulic Stability of Narrow Rivers under Severe Navigation

- **Conditions.** Thesis submitted for fulfilling the requirements of Ph.D. Faculty of Engineering- Suez Canal university.
- 3 El-kiki M., Hammad M., Balah M., Shishtawy A., Kyotoh H., Kitamura E., Nishimura H.2003. **Hydraulic Stability of a Very Narrow Navigation Channel.** XXX IAHR Congress, Thessaloniki, Greece, THEME C, pp. 211-218.
- 4 Elkiki, M., 2004. Environmental effects of ship movement on restricted navigable channels. Report submitted for Egyptian Society of Shore Protection.
- 5 Hamed, Y., Shishtawy A., Elkiki, M., Balah M., Berndtsson, R.. Spatial Variation Of Soil Water Content And Electrical Conductivity Influenced By Surface Leveling. IV Regional Conference on Civil Engineering Technology& IV International Symposium on Environmental Hydrology, Cairo, Egypt, March 2005.
- 6 Mirdan, A., Elkiki, M., Shishtawy A., Balah M., Hammad M., Numerical modeling of velocity distribution through open channel with submerged aquatic weeds. IV Regional Conference on Civil Engineering Technology& IV International Symposium on Environmental Hydrology, Cairo, Egypt, March 2005.
- 7 Hamed, Y., Elkiki, M., Kamel, S., Berndtsson, R., Effect of separate clayey patches in loamy sand soil on both of soil permeability and salinity distribution. Tenth International Water Technology Conference, Alexandria, Egypt, 23-25 March 2006. Vol. II, pp. 569-583.
- 8 Hamed, Y., Elkiki, M., Kamel, S., Berndtsson, R., Investigating the effect of land alignment and soil salinity distribution on plants yield. Ain Shams University, Scientific Bulletin, Vol. 41, No. 1, March 2006, pp. 398-404.
- 9- Elkiki, M., Hamed, Y., Balah, M., Kitamura H., Experimental study on effects of ship movement in narrow navigation channel and channel side slopes on water surface profile fluctuations. Port-Said Engineering Research Journal, Faculty of Engineering, Suez Canal University, Volume 11, No. 2, Seprember 2006
- 10 Mirdan, A., Elkiki, M., Shishtawy A., Balah M., Numerical model of the additional resistance to flow introduced by submerged aquatic Weeds. V Regional Conference on Civil Engineering Technology& V International Symposium on Environmental Hydrology, Cairo, Egypt, September 2007.

- 11. **M. Elkiki**; "Prediction of scour parameters downstream skew siphon pipes by using Artificial Neural Networks", Port-Said Engineering Research Journal, Faculty of Engineering, Suez Canal University, Volume 17, No. 1, March 2008, pp. 77-45
- 12. M. Elkiki; "Application of Artificial Neural Networks to Predict the Drawdown Depth Due to Ship Movement in Narrow Navigation Channels", Port-Said Engineering Research Journal, Faculty of Engineering, Suez Canal University, Volume 17, No. 1, March 2008, pp. 45-59
- 13. M. Elkiki, Sheshtawy, A., Balah, M., Kitamura H; "Experimental Study on Effect of Channel Side Slope on Ship Return Velocity in Narrow Navigation Channels", Egyptian Journal for Engineering and Technology, Faculty of Engineering, Zagazeg University, Volume 12, No. 1, January 2009.
- 14. Y. A. Hamed, M. H. El-Kiki and A. M. Mirdan; "Scour Downstream Oblique V-Notch Weir", Thirteenth International Water Technology Conference, IWTC 13 2009, Hurghada, Egypt.
- 15. K. M. Medan, M. H. Elkiki and A. E. Sheshtawy; "Assessment and evaluating of important Water Quality parameters along El-Salam Canal using Monitoring Water Quality Data (2008-2009) ", Port-Said Engineering Research Journal, Faculty of Engineering, Port Said University, Volume 15, No. 2, September 2011, pp. 47-59.
- 16. Y. A. Hamed, M. H. El-Kiki and A. A. Ali; "The Optimum Practical Method for Reducing Environmental Effects of Polluted Stream Water", Port-Said Engineering Research Journal, Faculty of Engineering, Port Said University, Volume 16, No. 2, September 2012, pp. 1-15.
- 17. M. H. Elkiki et.al. "Influence of geometric design of alternate partial root-zone subsurface drip irrigation (APRSDI) with brackish water on soil moisture and salinity distribution "Journal of Agricultural Water Management 103 (2012) 182–190
- 18. M. H. Elkiki et.al. "Assessment of inter-plant emitter distance and effects of irrigation water salinity on APRSDI using Hydrus-2D" European Journal of Scientific Research Volume 58 Issue 2. 2012
- 19. M. H. Elkiki et.al. "Numerical evaluation of subsurface trickle irrigation with brackish water" Journal of Irrig. Science (2013) 31 5:1125-1137.

- 20. Hamed Y. A., Abdelmoneim T. S., Elkiki M. H., Hassan M. A. and Berndtsson R. "Assessment of Heavy Metals Pollution and Microbial Contamination in Water, Sediments and Fish of Lake Manzala, Egypt" Life Science Journal 2013;10(1) 86-99
- 21. Hamed Y. A., Elkiki M. H. and O. S. Al Gahtani "Prediction of future ground water elevation by using Artificial Neural Network south of Riyadh, KSA (Case Study)" 18th International Water Technology Conference 2015, 149-162 March. Sharm El Sheikh, Egypt.
- 22 Mohamed Elkiki "Estimation of scour depth downstream the skew V-notch Weirs using Artificial Neural Network and Gene Expression Program" International Water Technology Journal, IWTJ 8(1):March 2018.
- 23 Tarek Selim, Mahmoud Hesham and **Mohamed Elkiki** "**Effect of sediment transport on flow characteristics in non-prismatic compound channels**", Ain Shams Engineering Journal, Volume 13, Issue 6, November 2022, <a href="https://doi.org/10.1016/j.asej.2022.101771">https://doi.org/10.1016/j.asej.2022.101771</a>.
- 24 Tarek Selim, Samah M. Elkefafy, Ronny Berndtsson, **Mohamed Elkiki** and Ahmed A. El-kharbotly "**Can Potato Crop on Sandy Soil Be Safely Irrigated with Heavy Metal Polluted Water?**", Water 2022, 14, 1226. <a href="https://doi.org/10.3390/w14081226">https://doi.org/10.3390/w14081226</a>.
- 25 Tarek Selim, Mahmoud Hesham, **Mohamed Elkiki** and Mohamed Elsakka "**Numerical analysis of sediment transport and depth averaged flow velocity in non-prismatic compound channels**", Ain Shams Engineering Journal, Available online 14 March 2023, 102229, https://doi.org/10.1016/j.asej.2023.102229.
- 26 Tarek Selim, Noha Moghazy, Romysaa Elasbah, Mohamed Elkiki and Mohamed Eltarabily "Sustainable agricultural development under different climate change scenarios for El Moghra region, Western Desert of Egypt", Environment, Development and Sustainability Journal, Published: 10 April 2023, 10.1007/s10668-023-03230-z
- 27 Tarek Selim, Samah M. Elkefafy, Ronny Berndtsson, **Mohamed Elkiki**, and Ahmed A. El-kharbotly "**Heavy Metal Transport in Different Drip-Irrigated Soil Types with Potato Crop**", Sustainability **2023**, 15, 10542., <a href="https://doi.org/10.3390/su151310542">https://doi.org/10.3390/su151310542</a>
- 28 Tarek Selim, Abdelrahman Kamal, **Mohamed Elkiki**, and Mohamed Eltarabily. "**Numerical Investigation of Flow Characteristics and Energy Dissipation over Piano Key and Trapezoidal Labyrinth Weirs**

- under Free-Flow Conditions", Modelig Earth Systems and Environment 2023, 6:605:616. https://doi.org/10.1007/s40808-023-01844-w.
- 29 Mohamed Eltarabily, Mohamed Elshaarawy, Mohamed Elkiki, and Tarek Selim. "Modeling Surface Water and Groudwater Interactions for Seepage Losses Estimation from Unlined and Lined Canals", Water Science, Taylor & Francis Publisher, Aug 2023. <a href="https://doi.org/10.1080/23570008.2023.2248734">https://doi.org/10.1080/23570008.2023.2248734</a>.
- 30 Mohamed Eltarabily, Mohamed Elshaarawy, Mohamed Elkiki, and Tarek Selim. "Computational Fluid Dynamics and Artificial Neural Networks for Modeling Lined Irrigation Canals with Low-Density Polyethylene and Cement Concrete Liners", Irrigation and Drainage, Willy Publisher, Nov. 2023. https://doi.org/10.1002/ird.2911.
- 31 Mohamed Eltarabily, Mohamed Elshaarawy, **Mohamed Elkiki**, and Tarek Selim. "**Predicting Seepage Losses from Lined Irrigation Canals using Machine Learning Models**", Frontiers in Water, Frontiers Media S.A., Dec. **2023.** . <a href="https://doi.org/10.3389/frwa.2023.1287357">https://doi.org/10.3389/frwa.2023.1287357</a>.
- 32 Mohamed Eltarabily, Abdulrahman Amer, Mohammad Farzamian, Fethi Bouksila, **Mohamed Elkiki**, and Tarek Selim. **"Time-Lapse Electromagnetic Conductivity Imaging for Soil Salinity Monitoring in Salt-Affected Agricultural Regions"**, Eenvironmental and Earth Sciences, Jan. **2024**. 10.20944/preprints202401.1889.v1
- 33 Mohamed Eltarabily, Abdulrahman Amer, Mohammad Farzamian, Fethi Bouksila, **Mohamed Elkiki**, and Tarek Selim. **"Monitoring of Soil Salinity for Precision Management using Electromagnetic Induction Method"**, Land, Feb. **2024**. <u>10.3390/land13020225</u>
- 34 Tarek Selim, Mohamed Elshaarawy, **Mohamed Elkiki**, and Mohamed Eltarabily. " **Estimating seepage losses from lined irrigation canals using nonlinear regression and artificial neural network models** ", Applied Water Science, April **2024.** https://doi.org/10.1007/s13201-024-02142-1.