

EnviroConsult

For Infrastructure & Env. Studies
Dr. Hisham Abdel-Halim



Registered consulting office No. 602

إنفيريكونسلت

لدراسات البيئة والبنية الأساسية
د. هشام عبد الحليم

EnviroConsult

For Infrastructure and Environmental Studies

Company Profile

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EnviroConsult's Company Profile

1. Introduction

EnviroConsult is a multi-disciplinary firm, founded in 1994 by Prof. Dr. Hisham Abdel Halim, Professor at Cairo University, Faculty of Engineering and a group of experts to provide engineering consulting and integrated management services to government, and private sector institutions. EnviroConsult is certified as Egyptian Consulting Firm from the Egyptian engineers Syndicate (Consulting Firm No. 602). EnviroConsult staff are 94 employees consist of consultants, experts and senior engineers in engineering and management. EnviroConsult provides consultancy services in the field of water and wastewater treatment, potable and irrigation water networks, sewerage networks, environmental impact assessment, and waste management.

EnviroConsult aiming at quality control ensuring in the projects implementation and achieving highest standards and quality through integrated professional expertise and consulting experience to ensure sustainability.

EnviroConsult is performing and implementing projects include the study, design, construction supervision, and set the standard operation and maintenance manuals and procedures of water supply and sewerage systems, storm drainage networks, treatment facilities for urban/industrial areas, and solid wastes management programs.

2. Vision

EnviroConsult aiming at quality control ensuring in the projects implementation and achieving highest standards and quality through integrated professional expertise and consulting experience to ensure sustainability.

3. Mission

EnviroConsult is performing and implementing projects include the study, design, construction supervision, and set the standard operation and maintenance manuals and procedures of water supply and sewerage systems, storm drainage networks, treatment facilities for urban/industrial areas, and solid wastes management programs.

4. Organizational Setup

Owner Prof. Dr. Hisham Abdel-Halim Halim, Water, Wastewater and Environmental Consultant- Chairman; Member of Board Dr.-Eng. Walid Abdel-Halim. Water, Wastewater and Environmental Consultant – Vice-Chairman; Dr.-Eng. Mohamed Nazih, Water, Wastewater and Environmental Consultant – Executive Manager; Engineers : 70 (28 in home office + 22 in branch offices + 20 in Sites); Training Staff 15 in additions to 60 training experts short listed in EC expert pool; Assistant Training Staff 8; Management Staff 2; Financial staff 4; Administrators 6; Technicians 16; Draftsmen 4; Specialties 10 (Refer to Organization Chart, Figure 4-1)

5. Office Facilities

Work Spaces Main Office: 2 (full Furniture/ equipped) Floors with total Area 550 m² ; 8 Branch offices in different sites in upper Egypt: total area Ca. 120 m² per each; Construction Supervision offices: 15 with area Ca. 40 m² per each. Hardware 80 PC's; 20 notebook computers; 15 Scanners; 8 overhead projectors; 20 Laser printers (A4 'A3); 5 electronic projectors (Data show); 8 Photo copying machine; 10 Ink jet Printer Certified Software all programs required for engineering works and applications

6. Clients

International United States Agency for International Development USAID; World Bank, IFAT, IDA.; CARE, Egypt; Danish International Dev. Agency, DANIDA.; Kreditanstalt für Wiederaufbau (KfW); German Gesellschaft für international Zusammenarbeit GIZ; Canadian International ; Agha Khan Trust for Culture AKTC; Development Agency, CIDA, SIDA, UNDP, UN-Habitat, and WFP

National National Organization for Potable Water & Drainage NOPWSD; Holding Co. for Water & Wastewater HCWW; 15 Affiliated Water & Wastewater Co. in 13 Governorates; Cairo Authority for Potable Water & Wastewater CAPOW; Suez Canal Authority; Water & Wastewater Construction Companies; Egyptian Environmental Affairs Agency EEAA..

7. Summary Experiences

Projects implementation including Project Management, Technical Assistance, Full design, tender documents, and construction supervision and organization development and management during last 10 years:

- PM/TA consultancy services for mega Projects funded by WB, USIAD
- Ca. 90 water supply projects ; Ca. 154 Wastewater management Projects; 25 Rural Sanitation Projects; 35 Environmental studies and 5 Waste Management Projects; 50 Water Hammer studies
- 40 Plumbing works for buildings incl. Ca. 20 Swimming pools
- Ca. 250 Construction supervision sites management
- 3 capacity building projects including 135 training modules

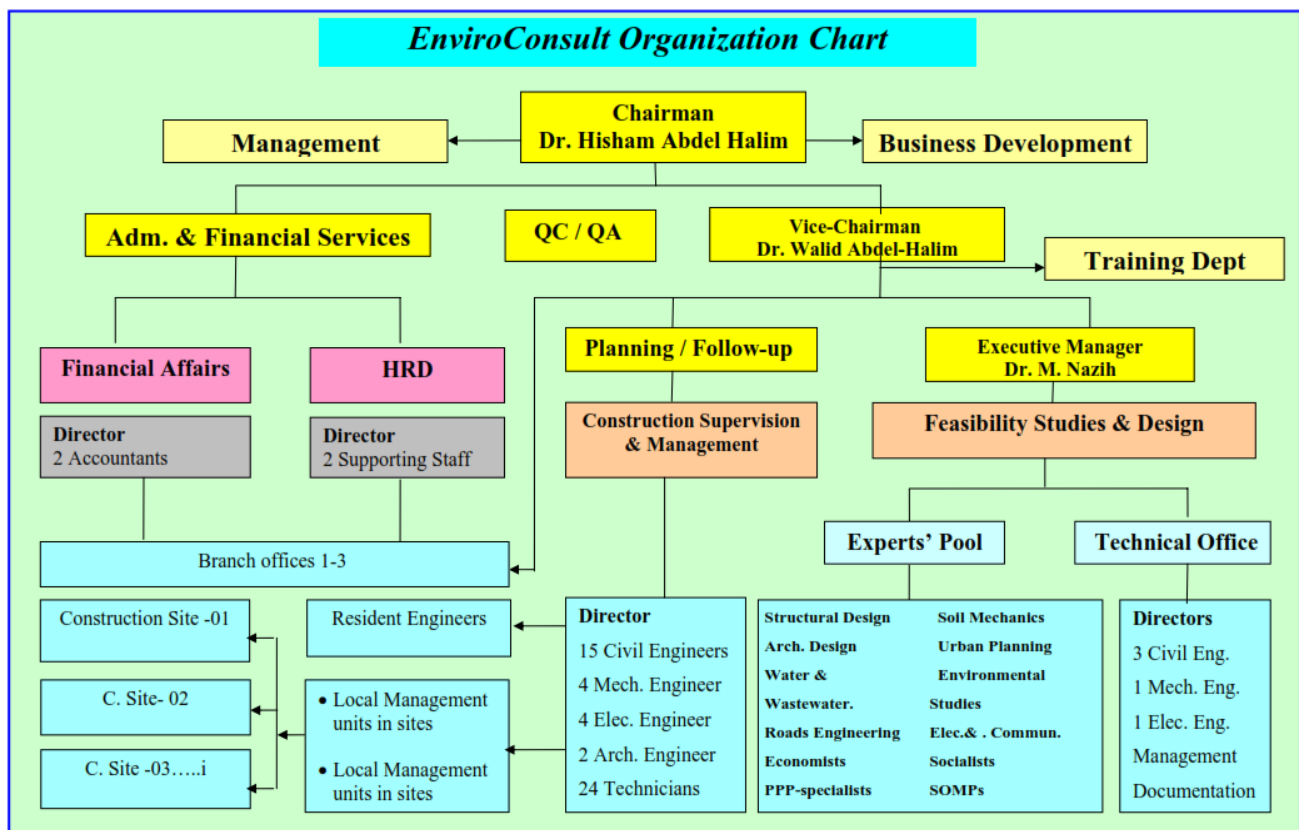


Figure 4-1: Enviroconsult's organization chart

8. Consultancy Services Provided

- Project Management, Technical assistance and Construction supervision and Management
- Full design, tender documents preparation and construction supervision of all projects of Water Distribution Systems and Water Treatment Plants, Wastewater System, (Collection, Treatment, and Disposal). Rural Water Supply and Sanitation, Environmental Studies and EIAs; Solid Waste Management, Anti-Hammer Systems for Water Pipelines; Swimming Pools. Plumbing Systems: (Water, Wastewater & fire fighting networks; Irrigation, Drainage & Hydraulic.
- Studies & Providing of Institutional Support / Capacity Building & Preparation of technical and financial feasibility.
- Studies for turnkey, supply/erection and construction projects for water / wastewater projects.
- Performing preliminary designs and detailed designs, to be used for pricing, for various types of treatment plants including the preparation of technical specifications and detailed engineering documents.
- Development of detailed engineering documents.
- Development of project work plans (schedules) for the follow-up, monitoring and implementation of activities.
- Establishing man-power, material and equipment requirements.
- Preparation of project budgets and cash-flow for projects.
- Follow-up on local/foreign procurement activities.
- Review of and approving equipment and materials.
- Co-ordination of electrical and instrumentation work in accordance with process design and operation procedures.
- Management of construction supervision, pre-commissioning, commissioning and start-up phases.
- Development of SOPs, SMPs and SOMP for water and wastewater project components (GIS applications and analyses for infrastructure and environmental projects).
- Development Project Management Plans (PMPs).

9. Sample of Projects implemented by EnviroConsult

Project Management and Technical Assistance for ISSIP1 Project funded by the World Bank	Egypt
Full design and tender documents for centralized and decentralized sewerage systems for 90 centralized villages (10 clusters) and 9 decetralized clusters within ISSIP1 Project funded by WB	Egypt
Feseabilty Study and full desin and tender documents for ISSIP2 Project funded by the World Bank	Egypt
Full Design and tender document and construction supervision of 2 water treatment plants funded by USIAD	Egypt
Full Design and tender document and construction supervision of 6 sewrega systems funded by USIAD	Egypt
Detailed Water / Wastewater Master Plan for 10 cities.	Egypt
Information Map for Water and Wastewater Facilities in Region 3 including Port Said, Suez , Ismailia , El Sharqeya , North Sinai , and South Sinai Governorates.	Egypt
Design of Water and Wastewater Facilities for New Fayoum City.	Egypt
Master Planning For Water and Wastewater for Kafr El – Shiek Governorate.	Egypt
Consulting Works for Nazlet Badran Zone.	Egypt
Consulting Works for Conveying Culvert between Ameria & Khosos P. Stations.	Egypt

Consulting Works for Water and Wastewater Systems at Sodec Area.	Egypt
Consulting Works (CW) for Water and Wastewater at Family Housing Area.	Egypt
CW for Main Wastewater Collector from El Sheik Zayed city to Abu Rawash WWTP.	Egypt
CW for Family Housing Area, Obour City.	Egypt
CW for Wastewater Facilities at New Cairo including PS No. 1.	Egypt
CW for Wastewater Systems at Nahya / El Mina & Shorafa Villages.	Egypt
CW for Water Supply System at 36 Villages, National Project for 240 Villages.	Egypt
CW for Ebni Betak Project at Aswan City.	Egypt
CW for Water Treatment Compact 18 plants 30-120 e/s.	Egypt
Hydraulic Modeling of Water Distribution System at Mahalla City.	Egypt
CW for Water Distrubution Square for 1200 fed. Irragation at Toshka.	Egypt
Rural Sanitation at 3 Villages – Beni Seuif Governorate.	Egypt
Wastewater System at Koneysa Village (Rural).	Egypt
Rural Sanitation for Naseria, Sereria / shabak and Malky WWTP.	Egypt
Water / Wastewater Facilities at EDASP, World Bank Fund Project.	Egypt
Detailed Eng. For Wastewater Systems at Zenien / Bolak.	Egypt
Sohag Rural Development Project. Financed by World Bank.	Egypt
Sohag Rural Development Project. Institutional Support More than 30 Training Modules. Financed by World Bank.	Egypt
Training of Water cad & Sewer Cad for HCWW affiliated Companies Personnel. Financed by GTZ.	Egypt
Rural Satiation for 9 Villages at Beni Seuif.	Egypt
Wastewater Facilities at Al-Azhary District. Financed by USAID.	Egypt
Main water Trunk Line 800 mm from BS WTP. Financed by USAID.	Egypt
Wastewater Project for Emergency Canal & Hykstep Zone.	Egypt
Rural Satiation of Wastewater at 5 Villages In Giza.	Egypt
Wastewater System at 12 V. in Qena Governorate.	Egypt
Extension of salheya WTP +sludge handling system reuse irrigation.	Egypt
Water / Wastewater System for many Locations at New Valley Governorate.	Egypt
Water services for 10 villages at Assuit. Financed by USAID.	Egypt
Waste water services for 5 clusters at Assuit. Financed by USAID.	Egypt
Water services for 8 clusters at Sohag governorate. Financed by USAID.	Egypt
Hydraulic models for water and waste water at Nubareya city.	Egypt
Master Plan of Water & Wastewater Facilities for Beni Suif Governorate.	Egypt
Water services for 2 villages at Sohag. Financed by USAID.	Egypt
Waste water& storm water system of 1000 ha zone in eastern part in Libya.	Libya
Water/Wastewater Facilities for 2 Organic Fertilizer Factories.	Syria

10. Enviroconsult's Technical Staff

Enviroconsult (EC) has a very strong capable technical staff covering the different specialization required for water, wastewater and environmental projects. EC-Staff is covering all fields required such as project planning, feasibility studies, master planning, site investigation, design, scheduling, tender documents preparation, procurement of bids, bid evaluation, construction supervision and construction management. The technical experience of EC-staff is supported by the academic and professional background and certifications. The main key EC-Staff have a very strong academic background as university professors as well as professional certifications as certified/ chartered professional consultants. The range of experience of the EC-Staff ranged between 40 to 10 years of experience for the management, senior and junior staff within EnviroConsult.

The EC-Staff is professionally covering the following fields:

- Water and Wastewater Management
- Design of all water and wastewater systems including networks, pumping stations, treatment plants.
- Design of Mechanical and Electrical works
- Environmental studies including EIAs, ESIA's, EMPs,...etc.
- Design of architectural works
- Providing the site works (Surveying works, geotechnical studies, soil investigation studies...etc)
- Hydraulic analysis and modeling systems
- Design of roads and highways
- GIS for infrastructure projects
- Design of measuring and instrumentation systems
- Construction Supervision and construction management
- Project Management
- Technical Assistance

List of Key Personnel

SN	Name of person	Age or Year of birth	Professional experience (years)	Employment with company (years)	Education Degree	Function within company	Specialisation	Languages
1	Prof. Dr. Hisham Abdel Halim	1960	31	20	Professor Faculty of Engineering, Cairo University / PhD	Managing Director	Civil Engineering , Water , Wastewater , and environment Engineering consultant. Water and Wastewater treatment technologies.	English and Arabic
2	Dr. Walid Abdel- Halim	1970	21	18	Ass. Professor , Institute of Sanitary and Environmental Engineering, HBNRC- Cairo, Egypt / PhD	Water and Sanitation Engineering Expert/ Deputy MD	Civil Engineering, Water and Sanitation Engineering . Water and Wastewater Process Engineering.	English , German and Arabic
3	Dr. Mohamed Nazih Abdullah	1970	21	18	Ass. Professor , Institute of Sanitary and Environmental Engineering, HBNRC- Cairo, Egypt / PhD	Head of Technical Dept	Civil Engineering, Water, Wastewater, Sanitation, and Infrastructure Engineering	English and Arabic
4	Prof. Dr. Ahmed Farahat	1957	34	16	Professor Faculty of Engineering, Cairo University / PhD	Structural, Civil, and Works Expert/ H of Structural Dept	Civil/ Structural Engineering	English and Arabic

List of Key Personnel

SN	Name of person	Age or Year of birth	Professional experience (years)	Employment with company (years)	Education Degree	Function within company	Specialisation	Languages
5	Prof. Dr. Moheb El Gafar	1961	30	8	Professor Faculty of Engineering, Cairo University / PhD	Structural, Civil, and Construction Supervision Management Expert / Head of Construction Supervision Section	Structural, Civil, and Construction Supervision Management	English and Arabic
6	Prof. Dr. Mohamed Abdallah El Kholy	1960	31	13	Professor Faculty of Engineering, Cairo University / PhD	Soil and Geotechnical Works Expert/ Head of Geotechnical Sector	Civil Engineering , Soil and Geotechnical Works	English and Arabic
7	Prof. Dr. Hozayen Ahmed Hozayen	1955	35	11	Professor Faculty of Engineering, Cairo University / PhD	Roads , Transportation and Traffic Works Expert/ Head of Section	Civil Engineering , Roads , Transportation and Traffic Works	English and Arabic
8	Prof. Dr. Ashraf Nasr Seif	1958	32	9	Professor Faculty of Engineering, Cairo University / PhD	Survey Works and GIS Systems Expert/ Head of Section	Civil Engineering , Survey Works and GIS Systems	English and Arabic
9	Prof. Dr. Kamal Khalf Ismail	1963	28	11	Professor Faculty of Engineering, Cairo University / PhD	Architect Works Expert	Architectural Engineering	English and Arabic

List of Key Personnel

SN	Name of person	Age or Year of birth	Professional experience (years)	Employment with company (years)	Education Degree	Function within company	Specialisation	Languages
10	Prof. Dr . Kamal Abo El Hassan Ibrahim	1952	38	13	Professor Faculty of Engineering, Cairo University / PhD	Irrigation and hydraulic Works Expert/ H of Hydraulic Des Section	Civil Engineering , Irrigation and hydraulic Works	English and Arabic
11	Prof. Dr. Sayed Hosny Ahmed El Bana	1955	36	9	Professor Faculty of Engineering, Azhar University / PhD	Electrical works and Telecommunications Expert / Head of section	Electrical Engineering and Telecommunications Works	English and Arabic
12	Prof. Dr. Soher Imam Abo El ela	1950	40	20	Professor of Water Quality National Research Center/ PhD	Environmental Engineering Works Expert/ short term Expert	Environmental Engineering	English and Arabic
13	Eng. Mohamed Helmy Abdel Rahman	1957	34	13	Technical Military Faculty of Engineering / BSc.	Construction Supervision Management Expert/ Site Manager	Construction Engineering/ Civil Engineering and Construction Supervision Management	English and Arabic
14	Eng. Ahmed Abd El Moatty Mohamed	1958	33	11	Faculty of Engineering, Cairo University / BSc.	Construction Supervision Management Expert/ Site Manager	Construction Engineering/ Civil Engineering and Construction Supervision Management	English and Arabic
15	Eng. Ayman Hassan Mohammed Fayek	1962	29	12	Faculty of Engineering, Cairo University / Mechanical BSc.	Mechanical works / Head of Mechanical section	Mechanical Engineering	English and Arabic

List of Key Personnel

SN	Name of person	Age or Year of birth	Professional experience (years)	Employment with company (years)	Education Degree	Function within company	Specialisation	Languages
16	Eng. Ashraf Sabry Abd-Elmawgoud Elmokadm	1967	25	10	B.Sc. of Construction Engineering	Construction Supervision Management Expert/ Head of Construction Management section	Construction Engineering and Project Management	English and Arabic
17	Eng. Ezzat Shehatta	1965	25	11	Faculty of Engineering, Helwan University / Electrical BSc.	Electrical works and Telecommunications Expert	Electrical and instrumentation engineering	English and Arabic
18	Mr. Atef abdel-Aziz	1965	26	5	Faculty of commerce, B.Sc. Commerce	Procurement Specialist / FIDIC Contracts Specialist	Procurement/ Contracts Management	English and Arabic
19	Mr. Hossam Abdel-Halim	1966	25	15	Faculty of commerce, B.Sc. Commerce	Financial Management Specialist/ Head of Financial section	Financial Management	English and Arabic
20	Dr. Mohamed Mohamed Shafik	1954	38	8	Ph.D. Social Science	Social Studies Expert	Socialist	
21	Dr. Manal Metwali	1963	29	8	Professor of Economic, Economics Department, Faculty of Economics and Political Science,	Economic Expert	Economist	English and Arabic

Annex 1: EnviroConsult's Project List during the last 10 years

SN	Project Title	Project Description	Country of region	Project Duration (Month	Partners	Client	Financing institute	Consulting Fees (L.E)	Project Value (L.E)
1	First Integrated Sanitation and Sewerage Infrastructure Project (ISSIP1)/ Funded by the World Bank (in association with Hydroplan)	The purpose of this consultancy assignment is to provide day-to-day programme management technical assistance (PM/TA) support to ISSIP. The small communities' component of the Project builds WSC capacity to engage community associations in planning, O&M management, and cost recovery of small wastewater schemes. The Project comprises three components: <ul style="list-style-type: none"> • Component 1: Provision of sanitation systems within selected drainage sub-basins. • Component 2: Establishment of a local result-based monitoring and evaluation system. • Component 3: Institutional Development and Capacity Building. The project includes also the design, tender document preparation of 222 rural centralized villages and 120 Decentralized villages. The construction management of the phase 1 and 2 of the project is also within the Scope of the PMC.	Egypt (Delta Region)	48	Hydroplan	HCWW	World Bank	26,617,600	1,267,000,000
2	Second Integrated Sanitation and Sewerage Infrastructure Project (ISSIP1)/ Funded by the World Bank (in Association with CCERS)	Consultancy services including feasibility study and design of wastewater management system for 24 villages in rural Sohag-Upper Egypt. The project is divided into two phases; the phase one include 5 villages and the second one includes 19 villages. The service includes:	Egypt (Sohag – upper Egypt)	24	CCERS	HCWW	World Bank	3,000,000	525,000,000

SN	Project Title	Project Description	Country of region	Project Duration (Month	Partners	Client	Financing institute	Consulting Fees (L.E)	Project Value (L.E)
		<ul style="list-style-type: none"> Full Feasibility study Full Design works and tender documents preparation for the 24 wastewater systems (collection- transport- treatment – disposal) Technical assistance in tendeing process and conctrcts award. 							
3	Feasibility Study and full design , tender documents and construction supervision for Water Treatment Plants and wastewater / Sanitation systems in Sohag and Assuit Governorates (3 contracts)	<ol style="list-style-type: none"> Consultancy services including feasibility study and full design and Tender documents of: <ul style="list-style-type: none"> Wastewater management system for 8 villages in rural Sohag-Upper Egypt. Wastewater management system for 5 villages in rural Assuit-Upper Egypt. New Construction for one WTP by Slow Sand filtration technology (5,000 m3/day) New Construction of three WTPs by Iron & Manganese Removal (2x 75 L/S and 1x150L/S) in Assuit and Sohag Governorates. Technical assistance in tendeing process and conctrcts award. Construction Supervision and construction Management for whole designed WTPs and 	Sohag and Assuit Egypt	24	None	HCWW- Sohag and assuit WSCs	USAID	6,400,000	220,000,000

SN	Project Title	Project Description	Country of region	Project Duration (Month	Partners	Client	Financing institute	Consulting Fees (L.E)	Project Value (L.E)
		Sewerage projects in both Sohag and Assuit Governorates. These contracts are managed by FIDIC red book “ Detailed design construction contracts”							
4	Master Planning For Water & Wastewater for Kafr El – Shiek Governorate	<p>Preparation of long-term Plans for Water / Wastewater Facilities up to year 2037 including Short- term Plans for 2012 including Hydraulic Modeling. Technical Support and Consultancy Services in cluding:</p> <ul style="list-style-type: none"> • Data Collection, analysis and verification • Surveying of Existing situation • Evaluation of WTPs and WWTPs • Hydraulic analysis for Water and wastewater networks • Preparation of Mater-Planning for water and wastewater works for the period until 2037 • Alternatives of WTPs and WWTPs modifications and updating to cope with population and water consumption increase • Preparation of upgrading plans for water and wastewater networks. • Preparation of all documentation in both of reports and GIS amps • Economic study for different alternative of future projects with the planning period until 2037 	Kafr El – Shiek Delta , Egypt.	12	Utilities Consulting Office.	HCWW	National budget GOE	500,000	200,000,000 For Short – term Plans.

SN	Project Title	Project Description	Country of region	Project Duration (Month	Partners	Client	Financing institute	Consulting Fees (L.E)	Project Value (L.E)
		<ul style="list-style-type: none"> Quality report for water resources Water and wastewater flow-measurements 							
5	National Project for providing of non-served 240 villages with drinking water (Contract B)	<p>The project was in the framework of a national plan for water supply for non-served rural communities. The project contains 31 small water plants mainly for iron and manganese removal with different capacities ranged between 25 liter/sec and 125 liter/sec. the scope of work includes:</p> <p>Technical support and consultancy services for the contracting company (Arab Contractors) including:</p> <ul style="list-style-type: none"> Feasibility study for different treatment alternatives Preparation of workshop drawings of mechanical and hydraulically works of ground water treatment plants. Work includes 36 plants with different capacities from 25 l/sec to 125 l/sec. Specifications and equipment list Bill of quantities for civil/ electromechanical works 	Egypt	24	Arab Contractors and the German consulting office (BAMAG)	NOPWAS D	National budget GOE	800,000	1,012,000,000
6	Design of wastewater management system (collection, pumping, treatment and disposal) for different	Studies, design and tender documents preparation of wastewater management system including gravity sewer network, pumping stations (Hydraulic, civil, architectural, and	Egypt	24	None	Sohag Rural Development Project,	World Bank	4,800,000	1,170,000,000

SN	Project Title	Project Description	Country of region	Project Duration (Month	Partners	Client	Financing institute	Consulting Fees (L.E)	Project Value (L.E)
	villages and cities in Sohag Governorate for Kawamel Bahri ; Awlad Gharib; Arabat (Abu-Aziz and Abu-Dahab); Wakdat ; Ghoreyzat ; Betakh; Ghabat; Al-Hagarsa villages	electromechanical works), Force-mains and wastewater treatment plant (Hydraulic, civil, architectural, and electromechanical works including administrative and services buildings). Phase (1): <ul style="list-style-type: none"> Design and preparation of Tender documents of all sanitation works for El-Hagarsa Village, Sohag. Design and preparation of Tender documents of all sanitation works for El-Kawamel Bahary and Awlad Ghareeb Villages, Sohag Design and preparation of Tender documents of all sanitation works for El- Ghoraizat Village, Sohag Design and preparation of Tender documents of all sanitation works for El-Batakh Village, Sohag Phase (2): Construction supervision of all sanitation works for all Villages, Sohag				Sohag Governorate			
7	Wastewater system for Al-Azhary Area, Beni Suef Governorate	<ul style="list-style-type: none"> Consultancy services studies, design, and tender documents preparation and construction supervision including Studies, design and tender documents preparation of wastewater management system including gravity sewer network, pumping stations (Hydraulic, civil, 	Egypt	12	CCERS	Beni Suef WSC	USAID	278,000	27,800,000

SN	Project Title	Project Description	Country of region	Project Duration (Month	Partners	Client	Financing institute	Consulting Fees (L.E)	Project Value (L.E)
		architectural, and electromechanical works), Forcemains and wastewater treatment plant (Hydraulic, civil, architectural, and electromechanical works including administrative and services buildings). ■ Phase (1): ■ Design and preparation of Tender documents of all sanitation works for Zone no. 7 El-Azhry, Beni Suef City Beni Suef Governorate. ■ Phase (2): ■ Construction supervision of all sanitation works for Zone no. 7 El-Azhry, Beni Suef City Beni Suef Governorate. ■ These contracts are managed by FIDIC red book “ Detailed design construction contracts”							
8	Consultancy Service for Alexandria West Wastwater Treatment Plant PPP-Transaction within the framework of the Water Policy and Regulatory Refom Program,	Technical Support and Consultancy Services including: • Data Collection and analysis • Master Plan review and existing data evaluation and assessment. • Summarize the demand for WWTP capacity for the planning period. • Assessment of required treatment levels and other regulatory issues including influent/ effluent quantity and quality for WW and sludge. Also discussing the regulatory issues related to noise, gaseous emmisiion, energy consumption, power	Egypt	14	None	Chemonics International INC.	USAID	500,000	760,000,000

SN	Project Title	Project Description	Country of region	Project Duration (Month	Partners	Client	Financing institute	Consulting Fees (L.E)	Project Value (L.E)
		saving, O&M cost recovery. • Providing the process engineering for the secondary process options. • Conceptual design of identified secondary treatment options including WW and sludge management. • Preparation of cost estimate for O&M on a life cycle basis. • Preliminary Design of secondary treatment for the WWTP including all of drawings, electromechanical machinery list, table of CAPEX and OPEX. And equipment procurement list. Input for bidding and transaction documents.							
9	Consulting Services for Preliminary Design, Detailed Design, ESIA's, Tender Documents, Assistance in Tendering and Construction Supervision Upgrading of Pump Stations at four WTPs and Reinforcement of Delivery Mains in Beheira Governorate (Package Ref.: B-WS-P1B-1CF)	Preliminary Design, Detailed Design, ESIA's, Tender Documents, Assistance in Tendering and Construction Supervision for the Upgrading of Pump Stations at four WTPs and Reinforcement of Delivery Mains in Beheira.	Egypt	34	None	BWADEC	KFW-IWSP	1,200,000	50,000,000
10	Design of Water & Wastewater	Design of Water & Wastewater Systems including	Fayoum.	18	Urban	GONC ,	National	150,000	65,000,000

SN	Project Title	Project Description	Country of region	Project Duration (Month	Partners	Client	Financing institute	Consulting Fees (L.E)	Project Value (L.E)
	Facilities for New Fayoum City.	Networks, PS, and Treatment.			Planning Consultant	MOH	budget GOE		
11	Consulting Works for Nazlet Badran Zone.	Design / Construction Supervision (CS) of Wastewater Systems.	Giza, Egypt.	48	None	CAPOW	National budget GOE	700,000	85,000,000
12	Consulting Works for Conveying Culvert between Ameria & Khosos P. Stations.	Design Review and Construction Supervision for 5 Vents Wastewater Culvert.	Cairo , Egypt	48	None	CAPOW	National budget GOE	1,130,000	180,000,000
13	Consulting Works for Water & Wastewater Systems at Sodec Area.	Design Review & Construction Supervision (CS) for water & Wastewater Systems.	El Sheik Zayed , Egypt.	24	None	CAPOW	National budget GOE	400,000	16,000,000
14	Consulting Works (CW) for Water & Wastewater at Family Housing Area.	Design Review & CS for water & Wastewater Systems.	15 th of May City , Egypt	12	None	CAPOW	National budget GOE	200,000	29,000,000
15	Design and Construction Supervision for Main Wastewater Collector from El Sheik Zayed city to Abu Rawash WWTP.	Design & construction Supervision for 1800 mm Wastewater Collector.	El Sheik Zayed , Egypt.	18	None	CAPOW	National budget GOE	300,000	75,000,000
16	Consultancy Works for Family Housing Area , Obour City .	Design Review & CS for water & Wastewater Facilities.	Obour city , Egypt.	12	None	CAPOW	National budget GOE	130,000	70,000,000
17	CW for Wastewater Facilities at New Cairo including PS No. 1.	Design Review & CS for water & Wastewater Facilities.	New Cairo City, Egypt.	18	None	CAPOW	National budget GOE	600,000	40,000,000
18	CW for Wastewater Systems at	Design & CS for Wastewater systems.	Giza , Egypt	48	CERSS,CU	CAPOW	National	600,000	220,000,000

SN	Project Title	Project Description	Country of region	Project Duration (Month	Partners	Client	Financing institute	Consulting Fees (L.E)	Project Value (L.E)
	Nahya / El Mina & Shorafa Villages.						budget GOE		
19	CW for Water Treatment Compact 18 plants 30-120 e/s .	Design of GU units Water Treatment Plants.	Gharbya – Qena , Egypt.	18	None	HCWW, Nasr Co.	National budget GOE	280,000	46,000,000
20	CW for Water Distrubution systems for 1200 fed. Irragation at Toshka.	Design / CS of Water System.	Toshka , Egypt.	18	None	KADCO	Private Sector	200,000	25,000,000
21	Rural Sanitation at 3 Villages – Beni Seuif Governorate.	Non – Conventional Wastewater System for Rural Sanitation	3 Villages at Beni Seuif Governorate .	4	None	CARE	CARE	80,000	2,500,000
22	Wastewater System at Koneysa Village.	Design of Wastewater Systems.	Beni Seuif Governorate .	6	None	BSW WC, Danida Fund	DANIDA	35,000	5,500,000
23	Rural Sanitation for Naseria , Sereria / shabak and Malky WWTP. (4 Contracts)	Design & CS for Wastewater Collection & Treatment Systems.	Aswan , Egypt.	8	None	(Aswan WC, Danida Fund)	DANIDA	150,000	10,000,000
24	Water / Wastewater Facilities at EDASP, World Bank Fund Project. (4 Contracts)	Design & CS for 5 asp + 2 Main G.Lines + 3 E.Tanks + WWTP	Port Said , Egypt.	(24)	None	EDASP, WB – Fund.	World Bank	60,000	60,000,000
25	Detailed Eng. For Wastewater Systems at Zenien / Bolak	Water Distribution system & Wastewater Rehabilitation.	Giza , Egypt.	18	None	Mokhtar Ibrahim Co. KFW Funded.	National budget GOE	90,000	13,000,000

SN	Project Title	Project Description	Country of region	Project Duration (Month	Partners	Client	Financing institute	Consulting Fees (L.E)	Project Value (L.E)
26	Sohag Rural Development Project (World Bank Fund) Institutional Support More than 30 Training Modules. (4 Contracts)	Institutional Support in the field of Water / Wastewater Management, and Procurement.	Sohag , Egypt.	24	CERSS,CU	Sohag Governorate s World Bank Fund.	World Bank	2,100,000	NA
27	Rural Satiation for 9 Villages at Beni Seuif.(5 – Contract)	Design / CS for Wastewater Facilities.	Beni Seuif, Egypt.	18	CERSS,CU	BSWC	National budget GOE	200,000	52,000,000
28	Main water Trunk Line 800 mm from BS WTP (USAID Fund)	Design / CS for water T. Line. This contract are is by FIDIC red book “ Detailed design construction contracts”	Beni Seuif , Egypt.	18	CERSS,CU	BSWC	USAID	200,000	7,000,000
29	Wastewater Project for Emergency Canal & Hykstep Zone (2 Contracts).	Wastewater System & Conveyance to Main Wastewater Screw Pump.	Cairo, Egypt.	18	CERSS,CU	CAPOW	National budget GOE	400,000	40,000,000
30	Rural Satiation of Wastewater at 5 Villages In Giza.(2 – Contract)	Design & Cs for Wastewater System & Conveyance to WWTP.	Giza , Egypt.	24	CERSS,CU	CAPOW	National budget GOE	1,700,000	180,000,000
31	Wastewater System at 12 V. in Qena Governorate.	Design & Cs for Wastewater Chester in Qena Governorate.	Qena , Egypt.	36	None	NOPWAS D	National budget GOE	2,200,000	1,200,000,000

SN	Project Title	Project Description	Country of region	Project Duration (Month	Partners	Client	Financing institute	Consulting Fees (L.E)	Project Value (L.E)
32	Water / Wastewater System for many Locations at New Valley Governorate.	Iron & Manganese Removal +Water Wastewater Facilities.	New Valley, Egypt.	24	None	NOPWAS D	National budget GOE	1,500,000	200,000,000
33	Extension of salheya WTP +sludge handling system reuse irrigation.	Extension of WTP to 32000 M ³ – design / cs including sludge handling reuse	Salheya Egypt.	18	None.	NOPWAS D	National budget GOE	350,000	80,000,000
34	Hydraulic models for water & waste water at nubareya city.	Hydraulic Modeling for water/ waste water system as step ahead to long / short term MP.	Alex, Egypt.	12	None	NOPWAS D	National budget GOE	250,000	60,000,000
35	Master Plan of Water & Wastewater Facilities for Beni Suif Governorate.	Preparation of Long-term Plans for Water/Wastewater Facilities up to year 2037 including Short-term Plans for 2012 including Hydraulic Modeling.	Beni Suif, Egypt.	18	DRTPC,C U	BSWWC, HCWW	National budget GOE	1,100,000	200,000,000 For Short-term Plans.
36	Waste water& storm water system of 1000 ha zone in eastern part in Libya.	Design of storm / waste water system of E- ZONE (1000ha)	Libya	12	Entag Co.	l- Water & E- Authority	Libyan Water Authority	300,000	500,000,000
37	<u>Detailed Water / Wastewater Master Plan for 10 Cites :-</u>	Preparation Master Plans for water & wastewater Facilities for: <ul style="list-style-type: none"> Edwa City – El Mina Governorate. Maragha City – El Mina Governorate. Ahanasia – Beni Suif Governorate. Farafra City – New Valley Governorate. 	Upper & Lower Egypt.	12	None.	General Organization for Physical Planning, GOPP	National budget GOE	250,000	50 ,000,000

SN	Project Title	Project Description	Country of region	Project Duration (Month	Partners	Client	Financing institute	Consulting Fees (L.E)	Project Value (L.E)
		<ul style="list-style-type: none"> Deir Mowas – El Mina Governorate. El Fayioum City Governorate. Hehya –El Sherqeya Governorate. The zone between Shooting Square and 26th of July – Cairo Alex Desert Road . Koren City – El Sherqeya Governorate. East Bank – Samalot City – El Mina Governorate. 							
38	Information Map for Water & Wastewater Facilities in Region 3 including Port Said , Suez , Ismailia , El Sharqeya , North Sinai , and South Sinai Governorates .	Data Collection Analysis, Step ahead to preparation of M – Planning and GIS for Water & Wastewater Facilities at 6 Governorates.	Suez Canal Cities – North / South Sinai – El Sharqeya Egypt.	12	Urban Planning Consultant	GOPP, Ministry of Housing & New Communities (MOH).	National budget GOE	90,000	600,000

Annex 2: Data Sheets of Selected Projects

Ref. no: EC-01	Project title:		The First Integrated Sanitation and Sewerage Infrastructure Project I Project Management / Technical Assistance Consultancy (ISSIP1)					
Name of legal entity	Country	Overall project value (EUR)	Proportion carried out by legal entity (%)	No of staff provided (MM)	Name of client	Origin of funding	Dates (start/end)	Name of consortium members, if any
EnviroConsult	Egypt	Project Value 140 Million	55.6	470	Holding Company for Water and Waste Water (HCWW)	World Bank, WB	15.06.2011 - 30.06.2015	Hydroplan Ingenieur Gesellschaft mbH, Germany
Detailed description of project					Type of services provided			
<p>General Objective: The main objective of the ISSIP1 is to contribute to sustainable improvements in (i) sanitation and environmental conditions for the target resident communities (especially sustainable access to adequate and affordable sanitation services leading to improved health and quality of life for all villagers in the programme) and (ii) water quality in the selected drainage basins within the two main canal command areas of Mahmoudeya and Mit Yazid in the Egyptian Delta in the Beheira, Gharbiya and Kafr el-Sheikh Governorates. The Project became effective in January 2009 and its scheduled closing date is June 30, 2015. The Project will work within the national and local public institutions responsible for ISSIP implementation and wastewater service delivery to enhance their capacity to plan, design, construct, and manage O&M of the facilities. In addition to engineering and technical capacity building, the ISSIP will test a community-based approach to planning and management of the decentralised systems.</p> <p>Specific Objective: The small communities' component of the Project will build WSC capacity to engage community associations in planning, O&M management, and cost recovery of small wastewater schemes. The Project comprises three components:</p> <ul style="list-style-type: none"> • Component 1: Provision of sanitation systems within selected drainage sub-basins. • Component 2: Establishment of a local result-based monitoring and evaluation system. • Component 3: Institutional Development and Capacity Building. <p>The purpose of this consultancy assignment is to provide day-to-day programme management technical assistance (PM/TA) support to ISSIP.</p>					<p>Technical assistance and transfer of know-how in the following fields:</p> <ul style="list-style-type: none"> • Assistance to the Project Manager (in the PIU in the holding company) in planning, project implementation and oversight and reporting. • Assistance to NOPWASD in the management and oversight of the work of the NOPWASD-hired construction supervision consultants. • Assistance to the Rural Sanitation Units (RSU) in the implementation of the already tendered first batch of sanitation projects and in the planning, designing, procurement and implementation of remaining sanitation systems. • Strengthen the rural sanitation units set up for assisting rural communities in the three governorates in the collection and safe disposal of wastewater. • Assistance in the piloting of any technology and provision of full assessment of technology piloted. • Assistance to the RSUs in Contract Management. • Assistance to the RSUs in setting up sanitation management and operation systems and tools including training and implementation monitoring. • Production of all reporting documents and progress reports. • Monitoring of disbursement and financial management accounts. • Maintenance of project documentation and filing including all final civil, electrical and mechanical drawings. <p>Provision of comprehensive list of technological options and assistance in selecting the appropriate process.</p>			

Ref. no: EC-02	Project title:		The Second Integrated Sanitation and Sewerage Infrastructure Project (ISSIP2)					
Name of legal entity	Country	Overall project value (EUR)	Proportion carried out by legal entity (%)	No of staff provided (MM)	Name of client	Origin of funding	Dates (start/end)	Name of consortium members, if any
EnviroConsult	Egypt	Project Value 60 Million Consultancy fees 400,000	80	110	Holding Company for Water and Waste Water (HCWW)	World Bank, WB	12/2010 - 12/2013	CCERS*
Detailed description of project					Type of services provided			
<p>The ISSIP2 project aims at improvement of the rural sanitation systems (Collection systems and wastewater treatment) in four Egyptian Governorates (Sohag and Assuit) in upper Egypt, (Sharkyia and Mounofyia) in the delta area. The enhancement of the sanitation systema in those areas is considered as a potential to improve the water quality of the river Nileas well as reduction of the the organic loads in the irrigation canals and drains within the project area.</p> <p>Also the project tagets the increase of the sanitation coverage and enhancement of the hygienic level for those areas, empowering the capabilities of the WSCs to design review, implement, operate and maintain such sanitation projects.</p> <p>The specific objective of the project are:</p> <p>Preparation of the feasibility study, full design works and full tender documents for 24 villages in the project in Sohag governorate.</p>					<p>Consultancy services including feasibility study and design of wastewater management system for 24 villages in rural Sohag- Upper Egypt.</p> <p>The project is divided into two phases; the phase one include 5 villages and the second one includes 19 villages. The service includes:</p> <ul style="list-style-type: none"> • Full Feasibility study • Full Design works and tender documents preparation for the 24 wastewater systems (collection- transport- treatment - disposal) • Technical assistance in tendeing process and contrctcs award. 			

*CCERS: Center of Civil Engineering Research and Studies

Ref. no: EC-03	Project title:		Feasibility Study and full design , tender documents and construction supervision for Water Treatment Plants and wastewater / Sanitation systems in Sohag and Assuit Governorates (3 contracts)					
Name of legal entity	Country	Overall project value (EUR)	Proportion carried out by legal entity (%)	No of staff provided (MM)	Name of client	Origin of funding	Dates (start/end)	Name of consortium members, if any
EnviroConsult	Egypt	Project Value 22 M Consultancy fees 800,000	100	210	Sohag and Assuit Water and Sanitation Companies- HCWW	USIAD	7/2009-12/2013	None
Detailed description of project					Type of services provided			
<p>The lproject aims at improvement of the rural sanitation systems (Collection systems and wastewater treatment) in two Egyptian Governorates (Sohag and Assuit) in upper Egypt. Also the increament and improvement of the drinking water sources by construction of new water treatment plants. The enhancement of the saniation systema in those areas is considered as a potential to improve the water quality of the river Nileas well as reduction of the the organic loads in the irrigation canals and drains within the project area. Also the project tagets the increase of the saniation coverage and enhancement of the hygienic level for those areas, empowering the capabilities of the WSCs to design review, implement, operate and maintain such sanitation projects.</p> <p>The specific objective of the project are:</p> <p>Preparation of the feasibility study, full design works and full tender documents for:</p> <ul style="list-style-type: none"> • Wastewater/ Sanitation systems for 8 villages in the project in Sohag governorate (Markaz Tahta and Sohag). • Wastewater/ Sanitation systems for 5 villages in the project in Assuit governorate (Markaz Abu-Tieg, Baheej and Quesia). • New Construction for one WTP by Slow Sand filtration technology (5,000 m3/day) • New Construction of three WTPs by Iron & Manganese Removal (2x 75 L/S and 1x150L/S) in Assuit and Sohag Governorates. 					<ol style="list-style-type: none"> 1. Consultancy services including feasibility study and full design and Tender documents of: <ul style="list-style-type: none"> • Wastewater management system for 8 villages in rural Sohag- Upper Egypt. • Wastewater management system for 5 villages in rural Assuit- Upper Egypt. • New Construction for one WTP by Slow Sand filtration technology (5,000 m3/day) • New Construction of three WTPs by Iron & Manganese Removal (2x 75 L/S and 1x150L/S) in Assuit and Sohag Governorates. 2. Technical assistance in tendeing process and contrcts award. 3. Construction Supervision and construction Management for whole designed WTPs and Sewerage projects in both Sohag and Assuit Governorates. 			

Project Ref. no: EC-04	Project title		Consultancy Service for Alexandria West Wastewater Treatment Plant PPP-Transaction within the framework of the Water Policy and Regulatory Refom Program,					
Name of legal entity	Country	Overall project value (EURO)	Proportion carried out by legal entity (%)	No of staff provided (MM)	Name of client	Origin of funding	Dates (start/end)	Name of consortium members, if any
EnviroConsult	Egypt	Project Value 95 Million Consultancy fees 50,000	100%	12	Chemonics International INC.	USAID	Sep. 2010- Jan 2012	None
Detailed description of project						Type of services provided		
<p>Within the duties of the ministry of Housing, Utilities and Urban Development, the undertaking of the construction, operation and maintenance of the third phase of Alexandria West Wastewater treatment plant in Alexandria governorate, to upgrade the level of the treatment from primary treatment to secondary treatment. The plant capacity is 460,000 m3/day, but it will be extended as nessessary to handle the future flows. Implementation of the waster policy regulatory program is undertaken as a Public Private Partnership (PPP).</p> <p>objectives of the project are:</p> <ul style="list-style-type: none"> • Provide an environmentally safe wastewater treatment facility • Attract participation of the private sector for the development of infrastructure to better allocate and manage the resources, • Reduce the fiscal burden of building new infrastructure • Implement a regulatory framework for sustainability of the project and future PSP/PPP schemes. • Support the PPP procurement process for the secondary upgrade of the WWTP. <p>Specific objectives of the project are:</p> <ul style="list-style-type: none"> • Provide technical due diligence reports and basic design parameters review • Provide a preliminary conceptual design for the the upgrade of the wastewater treatment plant. • Provide cost estimates for construction, operation and maintenance of the WWTP. • Provide technical input for the legal and contractual documentation • Optimization of O&M based on energy saving-concepts and power-factor enhancement. • Support the marketing of the project to potential investors as well as answer technical questions raised by bidders. 						<p>Technical Support and Consultancy Services including:</p> <ul style="list-style-type: none"> • Data Collection and analysis • Master Plan review and existing data evaluation and assessment. • Summarize the demand for WWTP capacity for the planning period. • Assessment of required treatment levels and other regulatory issues including influent/ effluent quantity and quality for WW and sludge. Also discussing the regulatory issues related to noise, gaseous emmisiion, energy consumption, power saving, O&M cost recovery. • Providing the process engineering for the secondry process options. • Conceptual design of idenitfed secondary treatment options including WW and sludge management. • Preparation of cost estimatefor O&M on a life cycle basis. • Preliminary Design of secondary treatment for the WWTP including all of drawings, electromechanical machinery list, teable of CAPEXand OPEX. And equipement procurement list. • Input for bidding and transaction documents. 		

Ref. no: EC-05	Project title:		Master Planning For Water & Wastewater for Kafr El – Sheikh Governorate / HCWW					
Name of legal entity	Country	Overall project value (EUR)	Proportion carried out by legal entity (%)	No of staff provided	Name of client	Origin of funding	Dates (start/end)	Name of consortium members, if any
EnviroConsult	EGYPT	12.5 M	50%	10	HCWW	National	2008 - 2010	Sub-consultancy with UTILITIES
Detailed description of project					Type of services provided			
<p>The Egyptian Holding Company for Water and Wastewater (HCWW) had tendered all of the Egyptian Governorates for the consultant firms for the preparation of Master Plan for each Governorates for water and wastewater works.</p> <p>The project included three main stages:</p> <p>Stage I</p> <p>Survey and documentation and evaluation of existing situation for all components of water and wastewater facilities within the governorate at central level and main cities level as well.</p> <p>Stage II</p> <p>Based on the evaluation process of the existing situation, the High priority Projects HPP are proposed to solve the water and wastewater problems partially until 2012.</p> <p>Stage III</p> <p>Preparation of Master Plan until 2037 including full description of the planned projects until 2037 distributed among financial plans (with five years intervals), e.g. 2012-2017; 2017-2022;.....etc.</p>					<p>Technical Support and Consultancy Services in cluding:</p> <ul style="list-style-type: none"> • Data Collection, analysis and verification • Surveying of Existing situation • Evaluation of WTPs and WWTPs • Hydraulic analysis for Water and wastewater networks • Preparation of Mater-Planning for water and wastewater works for the period until 2037 • Alternatives of WTPs and WWTPs modifications and updating to cope with population and water consumption increase • Preparation of upgrading plans for water and wastewater networks. • Preparation of all documentation in both of reports and GIS amps • Economic study for different alternative of future projects with the planning period until 2037 • Quality report foe water resources • Water and wastewater flow-measurements 			

Ref. no: EC-06	Project title:		National Project for providing of non-served 240 villages with drinking water (Contract B)					
Name of legal entity	Country	Overall project value (EUR)	Proportion carried out by legal entity (%)	No of staff provided	Name of client	Origin of funding	Dates (start/end)	Name of Consortium members if any
EnviroConsult	Egypt	135,714,29	85%	10	National Organization for Potable Water and Sanitary Drainage (NOPWSD)	National	May 2008 / Feb. 2010	Drawings were prepared and reviewed in association with the German consulting office (BAMAG)
Detailed description of project						Type of services provided		
<p>Main Objective The project was in the framework of a national plan for water supply for non-served rural communities. The project contains 31 small water plants mainly for iron and manganese removal with different capacities ranged between 25liter/sec and 125 liter/sec</p> <p>Specific objectives Some areas in the rural communities in Egypt depend on ground water as source of drinking water. The quality of ground water in most of Egypt suffering from high concentration of iron and manganese. This high concentration causes some problems to the water quality and affects on the social acceptance of the water consumer. The concentration of the iron in most of Delta region ranged between 1.2 and 2.0 ppm, but in the rural areas as new Valley area the concentration becomes so much as 10 ppm. Therefore different technologies must be applied for iron removal depends on the concentration of iron and manganese and pH as well. EnviroConsult took a role of Contractor consultant for preparation of design and detailed engineering drawings in association of the German consulting office (BAMAG).</p>						<p>Technical support and consultancy services for the contracting company (Arab Contractors) including:</p> <ul style="list-style-type: none"> ▪ Feasibility study for different treatment alternatives ▪ Preparation of workshop drawings of mechanical and hydraulically works of ground water treatment plants. Work includes 36 plants with different capacities from 25 l/sec to 125 l/sec. ▪ Specifications and equipment list ▪ Bill of quantities for civil/ electromechanical works 		

Ref. no: EC-07	Project title		Design of wastewater management system (collection, pumping, treatment and disposal) for different villages and cities in Sohag Governorate for Kawamel Bahri ; Awlad Gharib; Arabat (Abu-Aziz and Abu-Dahab); Wakdat ;Ghoreyzat ; Betakh; Ghabat; Al-Hagarsa villages					
Name of legal entity	Country	Overall project value (EUR)	Proportion carried out by legal entity (%)	No of staff provided	Name of client	Origin of funding	Dates (start/end)	Name of Consortium members if any
EnviroConsult	Egypt	124,529,05	100%	29	Sohag Rural Development Project, Sohag Governorate	World Bank	March 2008	NA
Detailed description of project						Type of services provided		
General Objectives: <ul style="list-style-type: none"> Egypt has about 4617 main villages and 12000 satellites have only 4 % of sanitation level. Therefore the main objective of this project is servicing of some of the main villages of Sohag governorate in the framework of sohag rural development program. Specific Objectives: <ul style="list-style-type: none"> Sanitation works for El-Hagarsa village Gravity Sewers with diameters 200 uPVC; Pre-cast Reinforced concrete manholes; Pump Station of capacity 45 l / s and sump diameter 3.5 m including all civil, mechanical, and electric works for the sump and service buildings; UPVC force main of diameter 200 mm and total length 1630 m including all valve chambers; Wastewater treatment plant with oxidation ponds (stage one). Sanitation works for El-Kawamel village Gravity Sewers with diameters 200 uPVC; Plain concrete manhole; Pump Station of capacity 20 l / s and sump diameter 3 m including all civil, mechanical, and electric works for the sump and service buildings; uPVC force main of diameter 200 mm and total length 1912 m including all valve chambers; Wastewater treatment plant with oxidation ponds (stage two). Sanitation works for El- Ghoraizat Village village Gravity Sewers with diameters 200, 250, 300, 400, 500 mm uPVC pipes; Plain concrete manholes; Pump Station of capacity 158 l / s and sump diameter 4.5 m including all civil, mechanical, and electric works for the sump and service buildings; uPVC force main of diameter 560 mm and total length 4070 m including all valve chambers. Wastewater treatment plant (oxidation ponds system); Sanitation works for El- Wakdat village Gravity Sewers with diameters 200, 250, 300, 400mm uPVC pipes; Plain concrete manholes; Pump Station of capacity 135 l / s and sump diameter 4.5 m including all civil, mechanical, and electric works for the sump and service buildings. uPVC force main of diameter 450 mm and total length 4070 m including all valve chambers ; Wastewater treatment plant (oxidation ponds system). 						<p>Studies, design and tender documents preparation of wastewater management system including gravity sewer network, pumping stations (Hydraulic, civil, architectural, and electromechanical works), Force-mains and wastewater treatment plant (Hydraulic, civil, architectural, and electromechanical works including administrative and services buildings).</p> <p>Phase (1):</p> <ul style="list-style-type: none"> Design and preparation of Tender documents of all sanitation works for El-Hagarsa Village, Sohag. Design and preparation of Tender documents of all sanitation works for El-Kawamel Bahary and Awlad Ghareeb Villages, Sohag Design and preparation of Tender documents of all sanitation works for El- Ghoraizat Village, Sohag Design and preparation of Tender documents of all sanitation works for El-Batakh Village, Sohag <p>Phase (2):</p> <p>Construction supervision of all sanitation works for all Villages, Sohag</p>		

Ref. no: EC-08	Project title		Wastewater system for Al-Azhary Area, Beni Suef Governorate					
Name of legal entity	Country	Overall project value (EUR)	Proportion carried out by legal entity (%)	No of staff provided	Name of client	Origin of funding	Dates (start/end)	Name of Consortium members if any
EnviroConsult	Egypt	3427415	<ul style="list-style-type: none"> 100% 	8	Company of Water and Wastewater, Beni Suef Governorate	U.S. Agency for International Development (USAID)	2006	Centre of Civil Engineering Research and Studies, Faculty of Engineering, Cairo University
Detailed description of project						Type of services provided		
<p>General objective Service for Al-Azhary Area, Beni-Suef Governorate with comprehensive wastewater system (collection, pumping, and disposal) General objective</p> <ul style="list-style-type: none"> Gravity Sewers with diameters 200,300 mm uPVC and 350, 600, 700 mm verified clay. Pre-cast Reinforced concrete manholes. Pump Station of capacity 150 l / s and sump diameter 10 m including all civil, mechanical, and electric works for the sump and service buildings. Ductile Iron force main of diameter 500 mm and total length 2700 m including all valve chambers. House connections including 160 mm uPVC pipes with total length 7000m and inspection chambers. Crossings (for crossings) under highway road, cannels and railway 						<p>Consultancy services studies, design, and tender documents preparation and construction supervision including Studies, design and tender documents preparation of wastewater management system including gravity sewer network, pumping stations (Hydraulic, civil, architectural, and electromechanical works), Forcemains and wastewater treatment plant (Hydraulic, civil, architectural, and electromechanical works including administrative and services buildings). Phase (1): Design and preparation of Tender documents of all sanitation works for Zone no. 7 El-Azhry, Beni Suef City Beni Suef Governorate. Phase (2): Construction supervision of all sanitation works for Zone no. 7 El-Azhry, Beni Suef City Beni Suef Governorate.</p>		

Ref. No: EC-09	Project title		Water purification plants for Bahr Al-Bakar and Al-Kab and Sedk					
Name of legal entity	Country	Overall project value (EUR)	Proportion carried out by legal entity (%)	No of staff provided	Name of client	Origin of funding	Dates (start/end)	Name of Consortium members if any
EnviroConsult	Egypt	2151429	100%	12	Agricultural services project for eastern Delta	World Bank	Jan 2006/ Dec 2008	N/A
Detailed description of project						Type of services provided		
<p><u>Modifications to the existing units:</u></p> <p>Revamping the first water treatment plant (Air craft factory) by the following:</p> <ul style="list-style-type: none"> Replacing the PVC sheet by a new type of lamella counter flow type. Supply new pump complete with motor for raw water and city feeding pumps. Replace the gate valves on the delivery branches of the pumps and all filters with another butterfly type. Supply one submersible pumps for sludge sump complete with guide rails, lifting chain, float switches and related accessories. Supply and install magnetic flow meter complete with indicator/ totalizer to be installed at the delivery header of raw water pumps and treated water pumps, also new differential pressure switches for each filter complete with alarm to indicating the backwashing of the filters. Maintenance facilities for all steel tanks from handrails, walkways and covers for the tanks which cover with lamella, also the maintenance of the tanks from repair the old parts, sand blasting and painting all the tanks. Readjusting the pipe work so the velocity at gravity not exceed 0.6 – 0.8 m/s and pressure pipes 2 – 2.5 m/s. Supply workshop equipment and laboratory instruments as mention in technical specifications. <p>Revamping the second water treatment plant (Netherland company) by the following:</p> <ul style="list-style-type: none"> Supply and install new water pumps complete with motor for raw water, filter feed pumps and treated water pumps. Supply and install the required pipes with valves and fittings necessary for new arrangement with suitable dimensions (the valves on the suction and delivery branches shall be butterfly type). Supply and install the lamella on the primary and secondary Clarifiers complete with support and backwash system. Supply and install new flash mixing tank complete with flash mixer. supply and install new flocculators complete with low speed agitators for the folcculators. Supply and install magnetic flow meter complete with indicator/ totalizer to be installed at the delivery header of raw water pumps and treated water pumps, also new differential pressure switches for each filter complete with alarm to indicating the backwashing of the filters. Supply and install addition new pressure filter complete with all accessories. Maintenance facilities for all steel tanks from handrails, walkways and covers for the tanks which cover with lamella, also the maintenance of the tanks from repair the old parts, sand blasting and painting all the tanks. Readjusting the pipe work so the velocity at gravity not exceed 0.6 – 0.8 m/s and pressure pipes 2 – 2.5 m/s. <p><u>New Compact WTP.</u></p> <ul style="list-style-type: none"> Design, supply, install, commissioning, start up, and hand-over of the following components on the bases of turn-key concept (All inclusive) Civil Works for chlorination, chemical and diesel generator building . One Underground tanks 200 m3 two compartments complete with treated pump room. 						<ul style="list-style-type: none"> Consultancy services studies, design, and tender documents preparation and construction supervision Design and preparation of Tender documents of all works necessary for Revamping and Extension of El-Cab Water Treatment Plant. Studies design and tender documents preparation of water purification plants, internal water networks, civil works for service buildings as well as mechanical and electrical works for the plant 		

- New intake structure complete with intake pipeline.
- Two raw water pumps
- One flash mixing tank complete with flash mixer.
- Two flocculator steel tanks complete with paddle agitator.
- Two Settling tank (totally covered by lamella system)
- One intermediate storage tank.
- Chemical (Alum) and Chlorination dosing equipment
- Three pressure filters complete with filter feed pumps, air blowers and backwash pumps.
- Two treated water pumps
- All Pipework and valves
- Diesel generator complete with all required accessories . All Electrical and instruments works

Sedk WTP

- new compact water treatment unit with capacity 2000 m3/day
- Upgrading the existing intake to increase it's capacity and reached with it to 4400 m3/day raw water for El-Eslah.
- Replacing the PVC sheet by a new type of lamella counter flow type.
- Supply new pump complete with motor for filter feeding .
- Replace the gate valves on the delivery branches of the pumps and all filters with another butterfly type.
- Supply two submersible pumps for sludge sump complete with guide rails, lifting chain, float switches and related accessories.
- Supply magnetic flow meter complete with indicator/ totalizer to be installed at the delivery header of raw water pumps and treated water pumps, also new differential pressure switches for each filter complete with alarm to indicating the backwashing of the filters.

Maintenance facilities for all steel tanks from handrails, walkways and covers for the tanks which cover with lamella, also the maintenance of the tanks from repair the old parts, sand blasting and painting all the tanks.

Ref. no: EC-10	Project title		Information Map for Water & Wastewater Facilities in Region 3 including Port Said , Suez , Ismailia , El Sharqeya , North Sinai , and South Sinai Governorates .					
Name of legal entity	Country	Overall project value (EURO)	Proportion carried out by legal entity (%)	No of staff provided	Name of client	Origin of funding	Dates (start/end)	Name of consortium members, if any
EnviroConsult	Egypt	<ul style="list-style-type: none"> 85715 	90%	5	GOPP, Ministry of Housing & New Communities (MOH).	National	Feb. 2006 / March 2007	Urban Planning Consultant
Detailed description of project						Type of services provided		
<p>Within the duties of General organization of Physical Planning (GOPP) in the framework of survey and documentation of infrastructure information overall the main regional planning sectors of Egypt, GOPP tendered each sector for a consultant to collect data, survey, correct and document them in both formats (reports and GIS-maps)</p> <p>The scope of EnviroConsult was implementing of Information map for water and wastewater facilities in Region 3 , which including Port Said, Suez, Ismailia, El-Sharkia, North Sinia and south Sinai Governrates</p>						<p>Technical Support and Consultancy Services including:</p> <p>Data Collection</p> <p>Data Analysis, Step ahead to preparation of M – Planning</p> <p>Mater Planning alternatives</p> <p>Preparation of GIS for Water & Wastewater Facilities at the six Governorates.</p>		

Ref. no: EC-11	Project title		Sohag Rural Development Project (World Bank Fund) 3 – Contracts.					
Name of legal entity	Country	Overall project value (EURO)	Proportion carried out by legal entity (%)	No of staff provided	Name of client	Origin of funding	Dates (start/end)	Name of consortium members, if any
EnviroConsult	Egypt	• 18,000,000	80%	22	Sohag Governorates World Bank Fund.	National	April 2006/ Dec. 2008	CERSS,CU
Detailed description of project						Type of services provided		
<p>General Objectives: Egypt has about 4617 main villages and 12000 satellites have only 4 % of sanitation level. Therefore the main objective of this project is servicing of some of the main villages of Sohag governorate in the framework of sohag rural development program.</p> <p>Specific Objectives:</p> <ul style="list-style-type: none"> • Gravity Sewers with diameters 200 to 500 mm UPVC. • Pre-cast Reinforced concrete manholes. • Pump Station of different capacities and sumps including all civil, mechanical, and electric works for the sump and service buildings. • UPVC force main of different diameters including all valve chambers. • Wastewater treatment plant with oxidation ponds / Stabilization ponds 						<p>Studies, design and tender documents preparation of wastewater management system including gravity sewer network, pumping stations (Hydraulic, civil, architectural, and electromechanical works), Force-mains and wastewater treatment plant (Hydraulic, civil, architectural, and electromechanical works including administrative and services buildings).</p> <p>Phase (1): Design and preparation of Tender documents of all sanitation works for 10 Villages, Sohag. Design and tender documents preparation for four WWTPs Preparation of Rural Sanitation Master Plan including feasibility studies , socio-economic studies and computerized selection tool of most appropriate sanitation systems as a decision making helps support.</p> <p>Phase (2): Construction supervision of all sanitation works for all Villages, Sohag</p>		

Ref. no: EC-12	Project title:		Sohag Rural Development Project (World Bank Fund) Institutional Support More than 35 Training Modules/ 135 Training Courses (4 Contracts)					
Name of legal entity	Country	Overall project value (EUR)	Proportion carried out by legal entity (%)	No of staff provided	Name of client	Origin of funding	Dates (start/end)	Name of consortium members, if any
EnviroConsult	Egypt	1,200,000	90%	66	Sohag Governorates World Bank Fund.	National	2008	CERSS,CU
Detailed description of project					Type of services provided			
<p>More than 34 Courses has been implementing in Sohag Governorate covering different engineering, environmental and management themes. Sohag Rural Development Project, World Bank funded project.</p> <p>1. Projects Management:</p> <ul style="list-style-type: none"> Project Management and planning, Projects Cycle and Management. Water Supply Systems: Planning and Design of water supply systems, including water treatment and distribution systems, Construction of water distribution systems, Engineering, cost estimates and bidding documents for water supply projects, Construction supervision of water supply systems. Operation and maintenance of water distribution systems, Computer Applications in design of water distribution systems, Special treatment for ground water, including iron and manganese removal, organic pollution and TDS reduction, Water analysis and Monitoring of drinking water quality, Operation and maintenance of water pumping stations. Wastewater Systems: Planning and Design of Wastewater Systems, Planning and Design of wastewater collection Systems, including gravity sewers, pumping stations, and rising mains, Design of Wastewater treatment Plants, Planning and design of rural sanitation systems. Construction supervision of wastewater projects, Operation and maintenance of wastewater projects including collection, treatment, and disposal, Operation and maintenance of wastewater pumping stations, Wastewater Monitoring and pollution indicators. Roads : Planning and design of rural accessing roads, Construction supervision of rural roads. Maintenance of rural roads, Monitoring and quality control. Buildings: Planning and design of public buildings, Construction supervision, Maintenance of buildings. <p>2. Training Services according to Sohag Project for Provincialism development</p> <ul style="list-style-type: none"> Water and Wastewater, Irrigation, Buildings, Computer, Environment and Management. 					<p>The types of services being provided:</p> <p>Technical Support and Consultancy Services including Institutional Support in the field of Water / Wastewater Management, and Procurement</p> <ul style="list-style-type: none"> Training Need Assessment (TNA) Preparation of training courses materials (Training Manual and Trainer Manual and Lesson Plans) Providing Training Courses in different fields related to the Water and Wastewater Sector including all of technical, administration, management, accounting, economical fields Evaluation of training program (Assessment reporting) 			

CVs of the Key Management Team

Curriculum vitae

Personal data

Name:	Hisham Sayed Abdel Halim Salem
First Name:	Hisham
Title:	Consultant Engineer, Water, Sanitation and Environmental, PhD
Nationality:	Egyptian
Date of Birth:	13 November 1960
Marital Status:	Married
Children:	Two (one daughter and one son)
	Age: 17 and 15 years old

Educational background

- **Ph.D.** Civil / Environmental Engineering, Cairo University 1994
- **M.Sc.** Civil / Sanitary Engineering, Cairo University 1988
- **B.Sc.** Civil Engineering, Cairo University 1983

Advanced Training

- Post Doctoral Training in Industrial Wastewater Management, Nagoia, Japan, 1994. JICA grant.
- Research Visit at NJIT, New Jersey, USA May / June 2002.
- Research Visit at TUHH, Hamburg, Germany, Sept/October 2002.
- Research Visit at Auburn University, Alabama, USA, October 2004.
- Research Visit at University of Arizona, Tucson, Arizona, USA, Nov. 2008.

Key Qualification

- Twenty years of experience in Research, Management and Administration of water, domestic and industrial waste treatment projects.
- Great Experience with rural sanitation including low cost sanitation and Ecological sanitation.
- Involved in the design, preparation of tender documents and execution of large number of wastewater (domestic and industrial) and water treatment plants; including, but not limited to, development of basic designs/PID's/PFD's, MTO's, equipment data sheets and bid pricing. Extensive experience in project management, construction supervision, commissioning and start-up of treatment plants.

- Delivered training courses to engineers and technicians related to design, construction supervision and operation of water, domestic and industrial wastewater systems. All training courses were sponsored by financing agencies (USAID, DANIDA, FINIDA, CARE Projects).
- Eight years experience in Industrial Wastewater management and treatment comprising cleaner production, in plant/in process measures, and end of pipe treatment.
- Consultant to the General Organization for Physical Planning and the General Organization for New Communities, Ministry of Housing, in the fields of water, wastewater and solid waste management.
- Consultant of Environmental facility for industry pollution abatement plans and measures including Environmental Impact assessment of different projects.
- Has knowledge of computer applications for system design and cost analysis.
- Formulated construction, installation and operation and maintenance budgets including capital replacement accountants for water and wastewater projects.
- Member of several professional societies, including the Engineers Syndicate, Sanitary Engineering Society and the Japan Economic Review.
- Author of several publications on water and wastewater treatment.

Professional background

Period	1983 - Present
Country	Cairo, Egypt
Employer	Environmental and Sanitary Engineering Division, Civil Engineering Dept. , Faculty of Engineering, Cairo University
Position	Demonstrator, Teaching Assistant, and Associate Professor
Projects/Tasks/Management Experience	Academic Teaching and Services related to Environmental and Sanitary Engineering (Wastewater management "treatment and reuse/ disposal")

Period	1994 - Present
Country	Cairo, Egypt
Employer	EnviroConsult for Infrastructure & Env. Studies Consultant Firm
Position	Water and Sanitation Consultant . President of EnviroConsult for Infrastructure & Env. Studies.
Projects/Tasks/Management Experience	<ul style="list-style-type: none"> • Main Consultant of more than 40 water and wastewater projects belonging to NOPWASD, Capow, HCWW. Many of those projects financed by local as well as USAID, German, and WB funds. • Rural Sanitation Consultant for Sohag rural Sanitation Project, World Bank Project. A smart wastewater system selection tool using computer soft wares was developed as a step ahead to

Period	1994 - Present
	<p>the preparation of complete rural sanitation master plan. Moreover, prioritization criteria have been developed to set implementation priorities for different rural sanitation projects.</p> <ul style="list-style-type: none"> • Training Provider in the fields of water, wastewater, environment, and management for Sohag Project for Rural Development, World Bank funded project. • Rural Sanitation Consultant for CARE covering many rural areas for cost effective cost wastewater systems in different villages. • Water and Sanitation Consultant of Strategic Urban Planning for Small Cities Project in Egypt, GOPP, UN-HAPITAT. • Consultant for ACC for 240 villages water supply projects, Contract B, ground water Plants, Iron and Manganese removal units. • Consultant of ACC for Marg WTP, 600000 m³/day. • Consultant of CAPOW for many water and wastewater projects with contracts amounting at LE 4 Mio. • Water Supply and Sanitation Consultant for East Delta Agricultural Program Services EDASP, Funded by IFA, WB. • Water and Wastewater Consultant for Sohag Project for Rural Development, World Bank funded project. • Consultant of Azhary wastewater project in Beni Suif Governorate, USAID funded. • Consultant of water line 800 mm in Baeni Suif Governorate, UsAID funded. • A Team Member (Infrastructure and Environmental Consultant) of International Multi-Donors Review Mission for Social Fund Programs performed in Cairo from Jan. 23 to Feb. 11, 2000, representing EU as a donor. • Detailed Engineering for Suez Gulf Wastewater (Domestic & Industrial) Treatment Plant, 55,000 m³/day. • Consultant of Bni Suif Governorate for Wastewater projects at El Kom El Ahmar, Beni Haroon, El Maymoon, El Reyad, Biad El Arab, and El Ezab. • Senior consultant at Hattab consulting Office, Design and review many of more than 30 water and wastewater projects. • Up-grading of Abu-Simbel water system (Intake, Treatment Plant, and Distribution System). • Consultant, <i>DANIDA</i>. Preparation of tender documents (Detailed engineering, general/technical specification, O&M instructions and cost estimates for Aswan City Slaughter House, Aswan, ARE (April 1997) • Consultant, <i>Chemonics Egypt</i>. Pre-screening / Project Identification for the Facility for Financing Environmental Protection in the Public Sector Industry financed by KfW. (1996)

Period	1994 - Present
	<ul style="list-style-type: none"> • Design of lead smelter air pollution mitigation systems (1994) • Consultant of <i>General Organisation for Physical Planning</i> in the field of Water, Wastewater, and solid waste. In the following: <ul style="list-style-type: none"> • <i>New Aswan city, Menoufeya Gov., El Edwa, Maghaagha, Dir Mowas, Marakez in Menya Gov. Ahnasya Markaz, Beni Suef Gov. El Farafra city, New Valley Gov. Sherbeen City, Daqahleya Gov. Old Fayoum city, Fayoum Gov. New Community north Wadi El Natroon City, Hehya City, and Sharqeya Governorate</i> • Consultant of <i>General Organisation for Tourist Development</i> planning in the field of Water, Wastewater, and solid waste. • Consultant of water and wastewater projects for <i>New Fayoum City, Ministry of Housing.</i> • Consultant in water and wastewater projects at <i>Center of Civil Engineering Research and Studies, Faculty of Engineering, Cairo University.</i>

Period	1997-2005
Country	Cairo, Egypt
Employer	Dorsch Consult
Position	Technical Manager. Coordinating Consultant
Projects/Tasks/Management Experience	Responsible for the review and approval of the Technical Feasibility Studies / Bidding Documents for the Industrial Pollution Abatement Facilities for projects under the Environmental Facility/Public Sector Industry Program (EEAA, KfW). Industrial Sectors included in that program are: Food, Chemical, Pharmaceutical, Engineering, Textile, Petroleum, and Mining. The scope includes preparation Pre and feasibility studies for Pollution abatement plans as well as preparation of EIA studies for different facilities and construction monitoring.

Period	1993-1997
Country	Cairo, Egypt
Employer	The Arab Company for Engineering Works
Position	Design and Proposals Department Manager
Projects/Tasks/Management Experience	<ul style="list-style-type: none"> • Preparation of bid documents/offers for turn-key, supply/erection and construction projects for liquid treatment (industrial and domestic water/wastewater treatment) • Preparation of EIA studies for Wastewater treatment plants • Development of preliminary P&I diagrams, equipment data sheets and specifications for special equipment • Performing preliminary designs and detailed designs, to be used for pricing, for various types of treatment plants including the preparation of technical specifications and detailed

	<p>engineering documents</p> <ul style="list-style-type: none"> • Development of project work plans (schedules) for the follow-up, monitoring and implementation of activities • Establishing man-power, material and equipment requirements • Preparation of project budgets and cash-flow for projects • Follow-up on local/foreign procurement activities • Review of and approving equipment and materials • Co-ordination of electrical and instrumentation work in accordance with process design and operation procedures • Co-ordination of construction supervision, pre-commissioning, commissioning and start-up phases • Development of O&M manuals.
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Period	1987-1993
Country	Cairo, Egypt
Employer	Chemonics International /Wilber Smith (USAID-funded project).
Position	Engineering Advisor. Basic Village Services Project/Local Development II Provincial Project
Projects/Tasks/Management Experience	<p><u>Participated in the following activities covering 22 rural governorates:</u></p> <ul style="list-style-type: none"> • Technical and financial review and approval of tender documents • Developing model tender documents and design standards • Developing training manuals and providing training courses for governorate engineers and technicians on the use of these manuals • Monitoring construction and providing technical assistance for bid review/award, inspection, progress monitoring and dispute resolution for projects • Preparing monthly progress reports submitted to USAID • Developing databases and computer applications

Period	1986-1987
Country	Cairo, Egypt
Employer	Ministry of Housing and Reconstruction.
Position	Water/Wastewater Engineer. Regional Centre for Planning and Development-Region III Governorates
Projects/Tasks/Management Experience	As a team member typical assignments covered planning of water and wastewater schemes including evaluations of the existing situation and alternatives for future extensions in Ismailia, Port Said, Suez and North Sinai.

Period	1986-1987
Country	Cairo, Egypt
Employer	Regional Centre for Planning and Development-Region III

	Governorates, Ministry of Housing and Reconstruction.
Position	Water/Wastewater Engineer.
Projects/Tasks/Management Experience	As a team member typical assignments covered planning of water and wastewater schemes including evaluations of the existing situation and alternatives for future extensions in Ismailia, Port Said, Suez and North Sinai.

Period	1985-1986
Country	Cairo, Egypt
Employer	Regional Centre for Planning and Development-Region III Governorates, Ministry of Housing and Reconstruction.
Position	Water/Wastewater Engineer.
Projects/Tasks/Management Experience	<p><u>Participated in the following activities:</u></p> <ul style="list-style-type: none"> • Design of the Al-Arish potable water distribution system rehabilitation • Computer hydraulic analysis and design of the proposed and existing systems • Preparation of MTO's and cost estimates for different materials and equipment • Preparation of complete tender documents • Monitoring and preparation of progress reports for construction

Period	1984-1985
Country	Cairo, Egypt
Employer	Talaat Consulting Office.
Position	Water/Wastewater Engineer.
Projects/Tasks/Management Experience	<p><u>Participated in the following activities:</u></p> <ul style="list-style-type: none"> • Design services and supervision of construction for the rehabilitation of wastewater systems in old parts of Greater Cairo • Preparation of tender documents

Special Skills

- Software application in Civil/Environmental Engineering and working with spreadsheets.
- Autocad (Latest Versins)
- Presentations Softwares
- Microsoft Office (Word, Excel, and PowerPoint- Latest Versins)
- Microsoft Project for planning and time scheduling.
- Data base application programs.

Language Skills

Language	Spoken	Written	Reading/ Comprehension	Period in Language Area
Arabic	1	1	1	Egypt
English	1	1	1	--
French	4	4	4	--

Remarks

Societies Affiliation

- Member of engineering syndicate since 1983. Registered as a *Consultant Engineer No. 4586/1 in Hydraulic Design of Potable Water & Sewerage Networks and Plants*
- Member of Sanitary Engineering Society since 1989.
- Member of Japan Economic Review since March 1995.
- Member of Egyptian Environmental Engineering Society since Dec. 1998.
- Member of Filtration Separation Magazine since 1999
- Member of International Water Association IWA since Jan 2002.

Participation in Conferences / Seminars

1. “National Seminar on Appropriate Technologies for Groundwater Treatment and Conservation” organized by The National Organisation for Potable Water and Sanitary Drainage (NOPWASD) and WHO, Oct. 24, 25 1994, Cairo, Egypt.
2. “The Second International Conference on Potable water Management and Water Treatment Technologies, Aqua-Tec 96, Cairo Dec. 19th – 21st 1996.
3. First International Conference & Trade Fair on Environmental Management & Technologies Environment 97”, February 16-18, 1997, Cairo – Egypt.
4. “The Second International Conference & Trade Fair for Environmental Management and Technologies Environment 99”, November 24 – 26, 1999, Cairo, Egypt.
5. “The Third International Conference & Trade Fair for Environmental Management and Technologies Environment 2001”, October 29 – 31, 2001, Cairo, Egypt.
6. “The 12th International Trade Fair and conference on Wastewater and waste Disposal IFAT 99”, May 1999, Munich, Germany.

7. "Focus on Integrated Water Management Aqua-Tec 2000", Sept-Oct 2000 Amsterdam, Netherlands.
8. "The International Trade Fair and conference on Wastewater and waste Disposal" IFAT 2002, May 2002, Munich, Germany.
9. "The Euro Arab Environmental Conference 2002" Sept 2002, Rostock, Germany.
10. "9th Large Wastewater Treatment Plants Conference" organized by International Water Association IWA, September 1-4, 2003, Prague, Czech Republic.
11. "IWA Conference, Ecohazard 2003 – 4th IWA Specialized Conference on Assessment and Control of Hazardous Substances in Water", 14-17 September 2003 in Aachen, Germany.
12. "30th International Symposium and W062 Forthcoming Meeting" September 16-17, 2004. Paris, France.
13. 7th International Conference of Chemical Engineering. Conrad Hotel – Cairo Egypt, December 27-29, 2004.
14. "The 10th International Conference on Water Technology and Researches AQUA-TECH 2005", 8-9 February 2005, Cairo, Egypt.
15. Cairo 9th International Conference On Energy & Environment, March 13-17, 2005, Sharm El-Sheikh.
16. The Seventh International Symposium on Waste Management Problems in Agro-industries, Amsterdam RAI, The Netherlands 27-29 September, 2006.
17. "The International Trade Fair and conference on Wastewater and waste Disposal" IFAT 2008, May 2008, Munich, Germany.

Awards-Training / Research Visits

- 1- Post Doctoral Training in Industrial Wastewater Management, Nagoia, Japan, 1994. JICA grant.
- 2- PI of US-Egypt joint Science and Technology Board of a grant for joint research project incorporation with NJIT entitled "A Pilot Plant Study for Low Cost Treatment of Domestic Wastewater Using Biological Anaerobic Reactors." Award No. ENV5-002-003.
- 3- Co. PI, in association with Menoufya University, of US-Egypt joint Science and Technology Board of a grant for a joint research project incorporation with Auburn University entitled "A Pilot Plant Study for Treatment of Domestic Wastewater Using Hybrid Growth System." Award No. ENV7-002-001.
- 4- PI of US-Egypt joint Science and Technology Board of a grant for joint research project incorporation with University of Arizona, USA, Award No. ENV9-002-008.
- 5- Research Visit at NJIT, New Jersey, USA May / June 2002.
- 6- Research Visit at TUHH, Hamburg, Germany, Sept/October 2002.
- 7- Research Visit at Auburn University, Alabama, USA, October 2004.
- 8- Tempus Project Preparatory Visit, Lattinga Associates, Netherlands and Institute of water Quality, Hanover University, Germany. Nov-Dec, 2004.
- 9- Research Visit at University of Arizona, Tucson, Arizona, USA, Nov. 2008.

Publications

1. Hisham A. Halim "Treatment Technologies for Groundwater in Egypt" National Seminar on Appropriate Technologies for Groundwater Treatment and Conservation organized by The National Organisation for Potable Water and Sanitary Drainage (NOPWASD) and WHO, Oct. 24, 25 1994, Cairo, Egypt.

2. Keith R Brooke and Hisham Abdel Halim “Industrial Wastewater Pollution Abatement in the Egyptian Public Industries (I)”, The Second International Conference & Trade Fair for Environmental Management and Technologies, Environment 99, 24-26 Nov 99, Cairo, Egypt, pp 239-251.
3. Keith R Brooke and Hisham Abdel Halim “Industrial Wastewater Pollution Abatement in the Egyptian Public Industries (II)”, The Third International Conference & Trade Fair for Environmental Management and Technologies, Environment 2001, 29-31 October, 2001, Cairo, Egypt, pp 957-987.
4. Sadawi Mohamed, Abdel-Halim Hisham S, and Abo-Elhassan Eman Ezz “Assessment of Industrial Oil and Soap Wastewater Treatment Systems, (Case Study), Options for Reuse and Recovery”, Engineering Research Journal, Helwan University, Faculty of Engineering and Tech. Vol. 86, pp 78-92, April 2003.
5. Hisham S. Abdel-Halim, Khaled Zaher Abdalla, Usama Zaher, and Peter A. Vanrolleghem “Dynamic Modeling of The Return Activated Sludge Process for Real Time Monitoring and Control”, 9th Large Wastewater Treatment Plants Conference organized by International Water Association IWA, September 1-4, 2003, Prague, Czech Republic, pp 87-90.
6. Hisham S. Abdel-Halim, Zaher Abdallah, and Omar El-Hattab “Evaluation of Soil Aquifer Treatment Potential of Mixed Domestic / Industrial Wastewater”, IWA Conference, Ecohazard 2003 – 4th IWA Specialized Conference on Assessment and Control of Hazardous Substances in Water, 14-17 September 2003 in Aachen, Germany, pp 55/1-55/9.
7. Hisham S. A. Halim, Walid Abdel-Halim, and M. Nazih “Selection and Evaluation of Appropriate Sanitation Systems in Rural Egypt. Case Study in Sohag Governorate, Upper Egypt”. The 30th International Symposium in Water Supply and Drainage for Buildings (CIB W062 2004), September 16-17, 2004, Paris, France, Second Session p. no. 5.
8. Said El Nashaei, Parag Garhyan, Pradeep Prasad, Hisham S. Abdel Halim, and Ibrahim G. “Modeling of Hybrid Growth Wastewater Bio-Reactors” 7th International Conference of Chemical Engineering. Conrad Hotel – Cairo Egypt, December 27-29, 2004, pp 1343-1368.
9. Fayza A. Nasr, Hala S. Doma, Hisham S. Abdel-Halim, and Saber A. El-Shafai “Chemical Industry Wastewater Treatment” 7th International Conference of Chemical Engineering. Conrad Hotel – Cairo Egypt, December 27-29, 2004, pp 1183-1206.
10. H. S. Abd El Haleem, El-Ahwany A. H., Ibrahim, H. I., and Ibrahim G. “Modeling Aspects of Activated Sludge Process, Part II: Mathematical Process Modeling and Bio-kinetics of Activated Sludge Process” 7th International Conference of Chemical Engineering. Conrad Hotel – Cairo Egypt, December 27-29, 2004, pp 1073-1108.

11. Hisham S. Abdel Halim, and F. El Gohary “Wastewater Treatment for Dairy Processing Plants, Case Study “Aqua-Tec 2005, The 10th International Conference on Water Technology and Researches, Cairo International Conference Centre, Cairo, Egypt, February 8-9, 2005, pp 226-238.
12. Ezzat A. Shafei, Hisham S. Abdel Halim, and Ahmad Abou El-Magd “Upgrading of Activated Sludge Process for Better Organic Removal and Nitrification Using Hybrid System” Aqua-Tec 2005, The 10th International Conference on Water Technology and Researches, Cairo International Conference Centre, Cairo, Egypt, February 8-9, 2005, pp 207-217.
13. Ezzat A. Shafei, Hisham S. Abdel Halim, and Hazem Abdel Aziz Selmy “Options for Greywater Treatment and Reuse in Egyptian Schools” Aqua-Tec 2006, The 11th International Conference on Water Technology and Researches, Cairo International Conference Centre, Cairo, Egypt, February 15-16, 2006, pp 82-94.
14. Waseem El Sayed, Hisham S. Abdel Halim, M. Saadawy “Performance of Fixed-Bed Anaerobic Reactors Treating Domestic Wastewater” Workshop On Implementation of Anaerobic Sewage Treatment in the Middle East with a Focus on Jordan and Egypt: A Low-Cost, Low-Energy Alternative Workshop, Nile Hilton, Cairo, Egypt, March 13-15, 2006.
15. W. Abdel-Halim, D..Weichgrebe, H.S.A.Halim, K.H.Rosenwinkel "Development of Operation and Performance Monitoring Guidelines for Anaerobic Industrial WWTP, Case Study for Agro-Based Industries in Germany and Egypt". The Seventh International Symposium on Waste Management Problems in Agro-industries, Amsterdam RAI, The Netherlands 27-29 September, 2006.

Curriculum vitae**Personal data**

Name:	Walid Sayed Abdel-Halim
First Name:	Walid
Title:	Dr.-Engineer, Consultant Engineer, Deputy MD and Member of Board, EnviroConsult Consulting Engineering Firm, Cairo, Egypt
Nationality:	Egyptian
Date of Birth:	24.01.1970
Marital Status:	Married
Children:	Two (sons)
	Age: 6.5 and 2 years old

Educational background

Institution [Date from - Date to]	Degree(s) or Diploma(s) obtained:
Ain Shams University, Faculty of Engineering, Cairo, Egypt (1998 – 1993)	B.Sc. Civil Engineering Very good with honor degree – Rank 8/63 – Graduation Project (Sanitary and Environmental Engineering): Excellent
Cairo University, Faculty of Engineering, Cairo, Egypt (1996 – 2000)	M.Sc. Civil /Environmental Engineering
Hannover University, Institute of Water Quality and Waste Management, Hannover, Germany (2001-2005)	Ph.D. Environmental Engineering (Water and Wastewater treatment and waste management) Very Good

Membership of Professional Bodies:

Member of International Water Association (IWA). Member of IWA working groups for: ecological sanitation; anaerobic digestion; wastewater treatment and re-use. Member of German Association for water, wastewater, and solid waste management (DWA-DVWK). Member of American Society of Civil Engineers (ASCE). Member of Egyptian Engineering Syndicate. Member of Egyptian Association of Civil Engineers. Member of Egyptian Environmental Engineering Society. Member of Euro-Arab research group for waste treatment. Member of Filtration Separation Magazine since 1999. Member of *MENA-Water* Region Water Resources and Wastewater Network. Member of Taskforce for steering of Higher education reform process via strategic planning unit in the ministry of Higher education and scientific research. Member of ACWUA " Arab Countries Water Utilities Association". Member of Operation and Maintenance Arab Institute "OMAIN". Member of Project Management Institute (PMI). Member of Federation of Arab Engineers.

Certification:

- Certified Water and Wastewater Consultant from the Egyptian Syndicate of Engineers.
- Certified Project Management Professional
- Certified Engineering Arbitrator from the Egyptian Organization of Arbitration
- Under Preparation to be certified from the chartered Institute of arbitrators (CI Arb), UK.

Other skills: (e.g. Computer literacy, etc.)

Winword, 2007; Excel-5,7,2000, 2007; 2010; Windows 95,98,2000,XP, 2007, Windows 7; Power point (Présentations, Lectures,.etc.); Application of water Cad and Sewer Cad for water and wastewater networks analysis and design; Microsoft Project for planning and time scheduling; Software application in Civil/Environmental Engineering and working with spreadsheets; Internet and mail skills; Online Work-grouping and Networking

Major Experience:***Certified Water and Wastewater Consultant Engineer***

- ✓ Deputy Managing Director of EnviroConsult Consulting Firm
- ✓ Project Management Professional Specialist
- ✓ Infrastructure Expert
- ✓ Former Head of Department of Environmental Engineering Research and Studies (EERS), Institute of Sanitary and Environmental Engineering (ISEE), Housing and Building National Research Center (HBRC), Cairo, Egypt

Years within the firm: 18**Total Experience: 20 years****Key qualifications:**

- Twenty years experience in infrastructure, water, wastewater management and environmental studies freelance consultation including design, revision, planning, assessment, reporting, and supervision of different water, wastewater works (treatment, networks, storage ...etc.) including eight years experience in Industrial Wastewater management and treatment comprising cleaner production, in plant/in process measures, and end of pipe treatment
- Fifteen years Environmental studies including EIAs, EMPs, EMMFs and ESIA's for the water and wastewater projects. also deep experience in industrial hygienization and OHS and OHE procedures. Familiarity with the Environmental safeguards of the world bank .
- Eighteen years Technical Design and construction management for the infrastructure projects (water, Wastewater, and other utilities including electromechanical works.)
- Ten years experiences in water and wastewater operation and maintenance schedules and preparation of standard operation procedures (SOPs) including preparation of operating plans, determining training requirements, review operation works, preparing of operating manuals, estimate operating costs as well as works in environmental improvement including preparing of health and safety manuals. Implementation of operating plans: review the performance of recent / daily operating procedures, preparing / review maintenance plans as well as preparing operating and maintenance budget. Implementation of maintenance strategy. Collecting and analysing water production data: detection of water leakage. Planning public awareness program for the importance of leakage awareness: planning the program of leakage awareness, executing leakage awareness campaign and review the performance of

leakage awareness campaign. Estimate the Unaccounted for Water (UFW). Preparing and presenting periodic follow up reports.

- Fifteen years managerial experience in Engineering Consulting firms “EnviroConsult” passing through management positions of team leader, technical manager and executive manager leading a firm with 159 employees
- Ten years of managerial position (PM) within the Housing and Building National Research Center (HBRC), Environmental Engineering Institute, passing through team leader for research projects within the institute and then Head of the department of Environmental Engineering Research and Studies (EERS).
- Team member of the Task-Force Group in the Ministry of Higher education and scientific research aiming at strengthen, empower and reinforcement of the cooperation between industry and scientific research in the Egyptian universities and research institutes.
- Sixteen years of experience in Training skills for Engineering/Environmental courses including giving problem solving sessions, answering questions, grading assignments and laboratory reports as well as assessment of graduation/ research projects as well as training needs and evaluation. Delivered training courses to engineers and technicians related to design, construction supervision and operation of water, domestic and industrial wastewater systems. All training courses were sponsored by financing agencies (USAID, DANIDA, FINIDA, CARE, World Bank, UNDP Projects).
- Technical Evaluator in the European Commission (European Research Agency-ERA) evaluating the technical proposal submitted to the Engineering Panel of Career Re-establishment CAR. Scientific Evaluator in the Egyptian scientific and Technological Board and Research Development and Innovation (RDI) evaluating different research proposals under different S&T rounds.

Specific experience in the regions:

Egypt, Mozambique, Germany, the Netherlands, Tunisia, Syria, Lebanon, Saudi Arabia, Malawi, Kosovo, USA, Dominica, Kuwait, Sudan, Libya, Jordan, UAE.

Employment Record:

From –To (Years)	06/2011 – Present
Employer	HYDROPLAN Ingenieur Gesellschaft mbH in Association with EnviroConsult for Infrastructure and Environmental studies Consulting Firm
Position held	Deputy Team Leader and senior process engineer for World Bank ISSIP1 Project
From –To (Years)	10/2005 – 05/2011
Employer	Enviroconsult Engineering Consultancy Firm
Position held	Water and wastewater Consultant, Deputy Managing Director, Member of the Management Board
From –To (Years)	2002 – 2005
Employer	Hannover university, Institute of water Quality and Waste Management (ISAH), Germany
Position held	Scientific Researcher and international Research proposals preparation coordinator.
From –To (Years)	1994 - 2002
Employer	Enviroconsult Engineering Consultancy Firm

Position held	Water and wastewater Expert, Executive and technical Manager, Member of the Management Board
From –To (Years)	Since 1996 (Currently in long Leave)
Employer	Housing and Building National Research Center (HBRC), Institute of Sanitary and Environmental Engineering (ISEE)
Position held	Head of Department of Environmental Engineering Research and Studies (EERS)

Freelance consultancy Assignments/ Contracts/ Teaching and Research activities :

From –To (Years)	1995 – 1998 (Part-time Basis)
Employer	The American University in Cairo (AUC) at Construction Engineering Unit (Water & Environmental Department).
Position held	Teaching Assistant and scientific researcher (Environmental Engineering, Hydraulics, Water and sanitation Courses).
From –To (Years)	2006 – 2008 (Short-Term Contract)
Employer	German Technical cooperation organization GTZ/ GIZ
Position held	Short-Term Technical and Training Expert (Cairo and Syria)
From –To (Years)	2005 – 2012 (Short-Term Contract)
Employers	Various: <ul style="list-style-type: none"> ▪ CARE International ▪ United Nation Development Program and UN-Habitat ▪ Dorsch Consult (Water and Environment) ▪ Chemonics Egypt Company ▪ Civil Engineering Research and Studies Center, Faculty of Engineering, Cairo University ▪ UNDP and WFA
Positions held	Water and Sanitation Expert, Environmental Expert, Short-Term W&WW and Environmental Expert, Technical, Research and Training W&WW Expert.
Technical Evaluation Missions	<ul style="list-style-type: none"> ▪ Technical Evaluator in the European Commission (European Research Agency- ERA) evaluating the technical proposal submitted to the Engineering Panel of Career Re-establishment CAR ▪ Technical Evaluator in the Egyptian scientific and Technological Board and Research Development and Innovation (RDI) evaluating different research proposals under different S&T rounds. ▪ Reviewer of Engineering projects under the STDF research panel and Member of Scientific Task-Force to evaluate the cooperation between research institution with the industries within the frame work of programs in the ministry of Higher education.

Professional experience

Date from - Date to	Location	Company	Position	Description
2011 - Present	Cairo, Egypt	HYDROPLAN ingenieur- Gesellschaft mbH In Association with ENVIROCONSULT Firm	Deputy Team Leader of the First Integrated Sanitation & Sewerage Infrastructure Project (ISSIP-01) Funded by the World Bank (220 million USD)	<ul style="list-style-type: none">▪ Consultancy services for Technical Assistance and Project Management of Wastewater projects in 222 villages in Behera, Gharbyia and Kafr El-Sheikh Governorates, Egypt.▪ Leading technical, financial and procurement team consists of 30 team members.▪ Full assistance to the PIU in the holding company for Water and Wastewater (HCWW)▪ Preparation works in Planning, Technical Supervision of all Water, wastewater management and environmental studies including design, revision, planning, assessment, reporting, and supervision of different water, wastewater works (treatment, networks, storage, etc.) and especially in the design of centralized and decentralized wastewater treatment systems. Direct experience in costing of civil structures, estimating Operation and Maintenance costs of wastewater treatment infrastructure, designing and managing a water quality-sampling regime, and wastewater modelling.▪ Design Management (Review, QA, QC and Deliverables production)▪ Full Design of four wastewater treatment plants and thirty decentralized systems (Micro-clusters)▪ Participation in preparation of PPP wastewater treatment plant for design, construction and O&M.▪ Full design of 4 WWTPs 5000/10000 and 10000/20000 m3/day in capacity.▪ Full coordination with the client (HCWW, World Bank and water companies)

Date from - Date to	Location	Company	Position	Description
2008-2010	Cairo, Egypt	ENVIROCONSULT Firm	Team Leader of the consultancy services within the Second Integrated Sanitation & Sewerage Infrastructure Project (ISSIP-02) Funded by the WorldBank (300 M USD)	<ul style="list-style-type: none">▪ Consultancy services for Planning and Design of Wastewater projects in 24 villages in Sohag Governorate, Upper Egypt including Feasibility study, project prioritization, Project Implementation manuals and full design Packages of Centralized and Decentralized systems▪ Leading a technical and procurement team consists of 12 team members.▪ Full assistance to the PIU in the holding company for Water and Wastewater (HCWW)
2007-2010	Cairo, Egypt	ENVIROCONSULT Firm	Team Leader of the consultancy services of 8 wastewater projects and 4 water projects in Sohag and Assuit Governorates funded by USAID (40 M USD)	<ul style="list-style-type: none">▪ Consultancy services for full design and construction Management of Wastewater projects in 8 villages in Sohag and Assuit Governorate, Upper Egypt including Feasibility study, and full design Packages and tender documents as well as construction management and supervision.▪ Leading a technical design team consists of 10 team members and construction team of 15 members▪ Full reporting requirements to the USAID Egypt

Date from - Date to	Location	Company	Position	Description
1994-2002 and 2005-2011	Egypt	EnviroConsult Engineering Consulting Firm	Deputy Managing director/ Executive Manager (Partner and Member of Board)	<p>▪ Executive Manager and MOB managing the technical issues including preparation of technical and financial offers submitted to different organizations; design phase follow-up and review; tender documents; contractor evaluation and control the awarding process; and construction supervision management.</p> <p>Assigned Duties: Team Leader for Projects implementation including design, tender documents, and construction supervision and management during last 5 years: Ca. 80 water supply projects ; Ca. 160 Wastewater management Projects; 55 Rural Sanitation Projects; 25 drainage projects; 35 Environmental studies and 5 Waste Management Projects; 25 Water Hammer, 40 Plumbing works for buildings incl. Ca. 20 Swimming pools, Ca. 200 Construction supervision sites management, 3 capacity building projects including 135 training modules. Detailed Engineering for more than 25 factories, collection and treatment of industrial WW. Preparation of more than 15 EIAs, EMPs including the Environmental Safeguards procedure before, during and post infrastructure projects implementation. All of Top Management activities, business plans and strategic action plans for the whole firm. Business development activities at level of public and private sectors. Procurement plans for infrastructure projects funded by World Bank, USAID , KFW and Danida.</p> <p>List of Projects within last 10 years implemented under my management as Executive Manager and MOB in Enviroconsult (Available upon Request)</p>

Date from - Date to	Location	Company	Position	Description
Since 1996 (in long Leave)	Cairo, Egypt	Housing and Building National Research Centre (HBRC.), (Institute of Sanitary and Environmental Engineering).	Former Dr.-Eng. "Associate Professor"/ Head of Department of Environmental Engineering Research and Studies (EERS)	<ul style="list-style-type: none">▪ Managerial activities of EERS Department including technical, financial and administrative duties.▪ Investigation of integrated low-cost sanitation systems and their application▪ Develop and evaluation of water and wastewater treatment systems among urban and rural areas in several Egyptian Governorates.▪ Develop new technologies for low cost wastewater treatment and sustainable reuse for new communities and small villages in Egypt.▪ Preparation, providing and teaching of training courses for environmental engineers, technicians, and water industry specialists.▪ Evaluation of water pollution and pollution control for water resources.▪ Design of water and wastewater treatment plants.▪ Mathematical modelling of treatment processes.▪ Consultation concerning water and wastewater management including design, operation, and monitoring.▪ Business development for the department covering official and private sectors.▪ Design of different infrastructure projects▪ Participation in national research planning and Supervise M.Sc. and Ph.D. Students▪ Design and full coordination of the different infrastructure networks for the National Housing projects for youth people in Egypt (8 projects). The infrastructure included water, wastewater, irrigation, telecom, electricity networks.

Date from - Date to	Location	Company	Position	Description
2002-2005	Hannover Germany	Institute of Water Quality and Waste Management, Hannover University (ISAH), Water and Wastewater department	W& WW Scientific Researcher Teaching Assistant Projects Proposal Developer for EU funded project	<ul style="list-style-type: none">▪ Develop and evaluation of Modern technologies for domestic/industrial wastewater treatment and waste management including the application of in process/in plant modification as an application of Cleaner Production (CP) concepts.▪ Evaluation of operation and maintenance of Mesophilic anaerobic municipal wastewater treatment using UASB-reactor incl. some application of ADM1.▪ Design, operation and evaluation of anaerobic pilot plants.▪ Participation on preparation of planning report and environmental study of water treatment and distribution system for Tabouk city, Saudi Arabia.▪ Performing of anaerobic batch tests to evaluate the anaerobic biodegradability of domestic and various industrial wastewaters.▪ Participation on preparation of operation and monitoring manuals for anaerobic industrial wastewater plants.▪ Participation on design of full scale anaerobic domestic and industrial wastewater treatment plants.▪ Participation on preparation of new projects proposals in wastewater treatment to be submitted and funded by European Commission FP6.▪ Participation in development of IWRM programs for developing countries▪ Providing training courses on water and sanitation sector for engineers, technicians and inspectors.

Date from - Date to	Location	Company	Position	Description
	Germany 2005	AquaConsult- Hannover (Via ISAH)	Short-Term W&WW Expert	<ul style="list-style-type: none">▪ Participation in the study of water supply system for Tabuk city in Saudi Arabia including study of different alternatives of pipeline layout, booster pumping stations and storage works.▪ Several tradability studies for different industrial wastewater types using anaerobic and aerobic best available batch techniques in association with ISAH institute. Hannover University

Date from - Date to	Location	Company	Position	Description
	Egypt(2007-2009) Syria (2006)	German Technical cooperation organization GIZ	Short-Term Technical and Training Expert	<ul style="list-style-type: none">▪ Prepare, coordinate and providing technical training courses for master planning units in Holding company for water and wastewater (HCWW) and all of 16 affiliated companies. The courses include design of water and wastewater networks, Design of water and wastewater treatment plants as well as Water cad and sewer cad courses and economical analysis. The courses have been prepared and provided for engineers and economists in HCWW and affiliated companies.▪ Management and evaluation of Training programme provide to the Master plan units in affiliated companies of HCWW▪ Technical Support for the TSM project for getting the certification of quality from German association DWA for operation and maintenance in water and wastewater treatment plant belonging to HCWW. The duties included the preparation of TSM question catalogue according to the DWA guidelines, user manual “how to fulfil the question catalogue” preparation of water and wastewater treatment plants in Qena, Sharkia water and wastewater companies as well as El-Berka WWTP and Obour WTP for TSM inspection. Participation in the evaluation of the first 5 pilot W&WWTPs awarded for TSM Egypt certification.▪ Providing presentations of ecological sanitation and wastewater treatment systems for WW-decision makers in the Damascus governorate, Syria▪ Technical Inspector for the O&M of WTPs and WWTPs and Networks.

Date from - Date to	Location	Company	Position	Description
	Egypt (2005-2008)	CARE international	Water and Sanitation Expert	<ul style="list-style-type: none"> Integrated Design of low cost decentralized system for rural area (four villages with population of 2000 to 6000 persons) and providing presentations of low-Cost wastewater management. Providing workshops in integrated low cost sanitation systems Study and post assessment of wastewater systems and providing solutions for upgrading and enhancement for the non-comply low-cost WWTPs Design of wastewater treatment plants in several villages in Beni Suf Governorate.
Freelance Consultation for different companies (As Water & Wastewater Management and Environmental Expert)	Egypt (2008-2011)	United Nation Development Program UNDP Habitat	Water and Sanitation Expert	<ul style="list-style-type: none"> Preparation of strategic master plan of Fowa City , Kafr El-Sheikh governorate and Kom Hamada City, Behera governorate for Basic Urban Service BUS (Water, Sanitation and Solid waste management) via direct contract with Habitat in the framework of the project of Strategic master plan for Small cities overall Egypt. Participated in BUS workshop for the alternative sanitation solution for developing and stressed countries. Master Plan of BUS for Naqada, Hamoul and Etai El-Baroud cities Master plans of BUS for Sahl Selim, Dengat and Shoubrakheet cities including infrastructure design
	Egypt (2008)	Dorsch Consult (Water and Environment)	Environmental Expert	Participation in Revision of Environmental Impact Review and assessment for Environmental facilities program/ Public Sector Industry (FACE program). During the program, 43 projects are completed and in operation and 5 projects remain in progress. The grant fund allocated was 25565 Euros. The revision duties were assessment and review of the facility documentation and records combined with outstanding PCA inspections and visits to selected older ten projects to assess the longer term impacts and sustainability of the project. Also the assignment included supervision of demonstration workshop coordinated with KFW and EEAA.

Date from - Date to	Location	Company	Position	Description
	Egypt (2006-2008)	Danida – SDEM Component	Water and Sanitation Expert	<ul style="list-style-type: none"> Integrated Design of wastewater networks in several villages and cities in Aswan and Beni Suef Design of wastewater treatment plants in Behera governorate (8000 m3/d) Low Cost technologies for wastewater integrated systems in rural areas of Egypt Feasibility study for the integrated drainage systems for wastewater, storm and water reuse.
Freelance Consultation for different companies (As Water & Wastewater Management and Environmental Expert)	Egypt	Chemonics Egypt Company	Short-Term W&WW and Environmental Expert	<ul style="list-style-type: none"> Design of shop drawings for several environmental works including the development of the program followed to study the tender documents, appraisal, installation, and monitoring of the project. Review and assessment of the tender documents including design check, appraisal, price analysis, cost sheets preparation, and negotiation with suppliers and subcontractors. Participated in several infrastructure and environmental feasibility studies in local provincial governorates as financed by the Egyptian Social Fund for Development. Data collection, analysis and evaluation for different studies including social, environmental, and public health data. Planning, design, tendering and coordination of infrastructure and environmental projects. Participated in Pre-screening / Project Identification for the Facility for Financing Environmental Protection in the Public Sector Industry financed by KfW.

Date from - Date to	Location	Company	Position	Description
	Egypt (2005-Present)	Civil Engineering Research and Studies Center, Faculty of Engineering, Cairo University	Technical and Training W&WW Expert	<ul style="list-style-type: none"> Design of water and wastewater networks and treatment plant Evaluation and review of design, planning reports and tender documents for water and wastewater systems. Providing training Courses in water, wastewater and waste management Preparation and providing of water and sanitation training courses for engineers and technicians within the Sohag Rural Development project funded by World Bank Voice General Project Manager of the contract of consultancy services in water, wastewater and sanitation projects within the Sohag Rural Development Project funded by World Bank.
	Egypt- KSA (2009)	Katib and Aalamy Consulting Firm	Technical Water and wastewater Consultant	<ul style="list-style-type: none"> Master Planning of water and wastewater projects for several cities in KSA Technical support to the Managing of the Water and Wastewater department Design Review and Design Team Leading of water and wastewater projects
Freelance Consultation for different companies (As Water & Wastewater	Egypt - Saudi Arabia 2007-2008	Beeah office (Saudi Arabian engineering consulting office- Cairo Branch)	W&WW and Infrastructure Expert	<ul style="list-style-type: none"> Technical advisor and Project manager of infrastructure study for Mecca, Madina, Mena, Araffat, Mozdalifa cities in Saudi Arabia, the study including all types of water, wastewater, storm, fire fighting, and solid waste management systems. The end product of the study will be a GIS database and for the different infrastructure networks analysis as well as decision taking support for future planning for infrastructure sharing for the future. Technical advisor for design of storm/Rain drainage for Mecca 2nd Ring Road, Saudi Arabia. Technical advisor for hydrological study and storm drainage study for two walk-tunnels under Mena city, Saudi Arabia. Review and supervision several wastewater treatment projects

Date from - Date to	Location	Company	Position	Description
	Egypt 2009-2010	Emaar, Cairo via Arab Consulting Engineers ACE	W&WW Consultant/ Infrastructure Expert	<ul style="list-style-type: none">▪ Technical consultant for design of water and wastewater works (concept, networks, and Desalination and treatment) for Marassi project at Sedi Abdel-Rahman, Alex. Owned by Emaar Egypt and technically managed by Turner international.▪ Project manager and general coordinator for water and wastewater works for City Star- Sharm El-Sheikh, Egypt▪ Full coordination for the project integrated infrastructure networks (water, Wastewater, Rain, irrigation, hot water, lightening cables, telecommunication cables, Data cables, low voltage cables, fire fighting, and seawater network) based on the concept of infrastructure sharing.▪ Full design of the routing for the entire infrastructure networks among the project site (6.5 million square meters).

For Reference Persons, please refer to clause 21

1. Other relevant information (e.g., Publications)**Awards**

- Ph.D. Scholarship in Germany (2001-2005): from the German Academic Exchange Services “Deutsche Akademische Austausch Dienst- DAAD” organization at Hannover University, Institute of Water Quality and Waste Management.
- Tempus- IMG grant from the EU to finance attendance to water and civilization conference in Paris, France 2005.
- Award of US-Egypt joint Science and Technology Board of a grant for a joint research project entitled “Demonstration of Anaerobic Digestion for cost-effective municipal wastewater treatment in Egypt-DAD project” In year 2004 as Co. PI.
- Young Researcher, in association with Menoufya University, of US-Egypt joint Science and Technology Board of a grant for joint research project incorporation with Auburn University entitled “A Pilot Plant Study for Treatment of Domestic Wastewater Using Hybrid Growth System.” Award No. ENV7-002-001.
- Research Visit at Rostock University, Germany, summer school Sept 2002
- Research visit at Wageningen University, the Netherlands Nov. 2004
- Events Coordinator of IWA-Specialized Group of Institutional Governance and Regulation since Jan. 2007
- Anakoma cooperative project for anaerobic- aerobic wastewater treatment using natural UASB-Pond. The project is funded by BMBF and its partners are Hannover University, Cairo University, UCY company, Passavant Company and coordinated in Cairo by Dr. Walid Abdel-Halim, HBRC
- Summer School in Water and Waste management, DAAD- Alumni, University of Siegen, Gummersbach, Germany 5-18 September 2010, funded by DAAD
- International Training Programme on Transboundary Water Management (TWM) in the Middle East and Northern Africa Region (MENA) 2010/11 in the period of 31.10-12.11.2010 in Amman, Jordan and of 21-25 Feb., 2011 in Stockholm, Sweden Funded by Swedish International Development Agency- Sida.
- Research Visit in Water and Waste management, DAAD- Alumni, University of Berlin, Germany in May 2011, funded by DAAD
- Coordinator for Study tour to investigate the centralized and Decentralized wastewater systems in Germany and the Netherlands funded by ISSIP2 projects- World Bank, March 2012

Publications**Some Selected Scientific Publications:**

- Walid Abdel-Halim "Cost-Effective Anaerobic-Aerobic Treatment System for High Strength Wastewater" Journal of Al-Azhar University Engineering Sector ,2013.
- S.I. Abou-Elala, M. E. Fawzy and W. Abdel-Halim " Packed Bed Up-Flow Anaerobic Sludge Blanket Combined with Multistage Sand Fine Roughing Filtration for Municipal Wastewater Treatment and Reuse " Reviewed and Accepted for publication in the International Journal of Sustainable Development and Planning published by WIT Press, UK, 2013
- Abou-Elala S.I, Abou Taleb E., M.A. El-Khateeb, Badr N. and Abdel-Halim W. " Environmental Management of Pharmaceutical Wastes: Experience from Egypt " International Water Technology Journal, Vol. 2 – No.2, June 2012.
- S.I Abou-Elala, M. E. Fawzy, M. El-Khateeb and W. Abdel-Halim " Integrated sustainable anaerobic treatment for low strength wastewater " Fifth International Conference on sustainable Development and Planning, New Forest, UK, July 2011

- Walid Abdel-Halim, D. Weichgrebe, Hisham S. A. Halim and K.-H. Rosenwinkel " Development of operation and performance monitoring guidelines for anaerobic industrial wastewater treatment plants- Case study for agro-based industries in Germany and Egypt" The Seventh International Symposium on Waste Management Problems in Agro-Industries, Amsterdam RAI, The Netherlands, 27-29 September 2006.
- Walid Abdel-Halim and K.-H. Rosenwinkel "Municipal Wastewater Treatment and sustainable Reuse in Arab Countries: Standards and Technologies" Arab water Council Journal, volume 1 No.1, March 2007
- W. Abdel-Halim (2011): Low cost wastewater management for green building. HBRC international conference for Green Building concepts.
- W. Abdel-Halim, D. Weichgrebe, and K.-H. Rosenwinkel (2004): Using of ABT/AFBT techniques to predict design, start-up, and operation parameters for mesophilic anaerobic municipal wastewater treatment using UASB reactor. Proceedings of IWA-, 10th World Congress of Anaerobic Digestion AD10-2004, Montreal Canada. Vol.3, 1421-1425.
- Abdel-Halim W., Weichgrebe, D., and Rosenwinkel, K.-H. (2010): Determination of anaerobic biodegradability of domestic wastewater, comparison between inoculation with digested and granular sludge. Proceedings of the second CIWEM conference, Sep. 2010. The Chartered Institution of Water and Environmental Management CIWEM, Wakefield, England. Vol. 2, 45-52.
- Hisham A. Halim, Walid Abdel-Halim, and M.Nazih (2004): Selection and Evaluation of appropriate sanitation systems in rural Egypt. Case study in Sohag Governorate, Upper Egypt. Proceedings of the 30th International CIB Water symposium, CIB W062-2004, CSTB, Paris, France.
- Walid Abdel-Halim and Ezzat A. Shafi (2000): Surface Water Treatment by Multi-Stage Horizontal in-line Direct Filtration Systems, Cairo University Magazine, Vol.6-2000.
- Walid Abdel-Halim (2011): Evaluation of anaerobic digestion as a low cost technology for domestic wastewater treatment in Egypt. Workshop, Housing and Building Research Centre, HBRC, Cairo, Egypt. Feb. 2011.
- Walid Abdel-Halim, Hisham S. A. Halim, and K.-H. Rosenwinkel (2010): Anaerobic Municipal Wastewater Treatment in Developing Countries, Comparable Alternative Systems and Prospective Proposals. Proceedings of International conference on future vision and challenges for urban development, Housing and Building Research Center, Cairo, Egypt.
- Walid Abdel-Halim and K.-H. Rosenwinkel (2005): Municipal wastewater treatment, reclamation and re-use- Technologies and standards. Proceeding of 1st German-Arab Water conference, Hannover, Germany 20-21 June, 2005.
- Walid Abdel-Halim and K.-H. Rosenwinkel (2005): Wastewater treatment, reclamation and sustainable reuse-Experiences from Germany. Keynote presentation is presented by Prof. Rosenwinkel on the 7th Gulf Water Conference held on 19-23 November 2005, State of Kuwait.
- Walid Abdel-Halim, Dirk Weichgrebe, Johan Verink and K.-H. Rosenwinkel: Environmentally sound municipal wastewater treatment and sustainable re-use for maintaining natural eco-systems (ESNES)- Prospective proposal for cost-effective technology in developing countries. Specialized IWA conference for wastewater treatment for sustainability, South Korea, November 2005.
- Walid Abdel-Halim: Renewable bio-Energy and Sustainable Waste treatment Techniques (REST). *Abstract* submitted to the 1st Cleaner Production Conference, Cairo, Egypt 2011
- Walid Abdel-Halim and K.-H. Rosenwinkel (2005): Domestic Wastewater treatment and sustainable reuse-Closing the Loop, EMPOWERS Regional Symposium, Nov. 2005, Cairo, Egypt.
- Demonstration of Anaerobic Technology for cost-effective municipal wastewater treatment and reuse- Experiences from Germany and Egypt, Syrian water symposium, Damascus, Syria Dec. 2007
- Walid Abdel-Halim, Hisham S. A. Halim and M. Nazih (2009): Alternative Sanitation systems in rural Egypt, Regional Arabian Conference "Joint between Urban and –rural", , Cairo, Egypt. ***"this paper was selected and awarded among the most innovative 3 papers presented in this conference"***

- Walid Abdel-Halim, Dirk Weichgrebe, and J. Verink (2006): Natural-Oriented municipal Wastewater Treatment and Reuse (NOWTR)- Answering for Sustainability, EMWater Regional Conference 30 Oct.- 01 Nov. 2006, Amman, Jordan ***"this paper was selected among the most innovative 5 papers presented in EMWater conference"***

Training courses

- Research Visit at Rostock University, Germany, summer school Sept 2002
- Research visit at Wageningen University, the Netherlands Nov. 2004
- Research Visit at University of Arizona, Tucson, Arizona, USA, Nov. 2008
- Training coordination Visit for Advanced Wastewater Management and Water Quality Courses at Unesco-IHE, Delft, The Netherlands, 2009
- Cooperative research visit at ISAH institute , University of Hannover, Germany, 2007
- "Geographical Information System (GIS) for Urban Planning and Administration", Egypt Netherlands Cooperation Project " TRHUD "
- "Cleaning Production Assessment Training of Egyptian Consultant – Capacity Building"
- The Environmental Compliance Office (ECO) – Federation of Egyptian Industries (FEI), 2005, Cairo, Egypt
- Water, Wastewater, Environmental Engineering, and Hydraulic Analysis and Modelling Courses” for junior and professional Engineers at Housing and Building National Research Centre, HBRC, Cairo, Egypt.
- “WaterCad and SewerCad Hydraulic Analysis and Modelling technical training courses” for master planning units’ engineers belonging to Holding Company for Water and Wastewater HCWW and all its 16 affiliated companies.
- Training Service of "Sohage Rural Development Project", funded by the World Bank, 2006, Egypt
- Training of Trainers (TOT) in certification of Engineering inspectors (2009)
- Intensive course in six workshops on Leadership, Management, Strategic Planning and communication skills, DAAD (2009)
- Workshop on Decentralization of utilities sector in Egypt, USAID (2009)
- TSM information sessions, GTZ and HCWW (2008, 2009)
- International Training course on Transboundary Water Management in MENA Countries, funded by Sida in cooperation with Jordanian University Amman 2010 and to be completed in Stockholm Feb., 2011
- Intensive training course on water and Sanitation, CASEB, Brasilia, Brazil, March 2013
- PMP preparation Course for the certification exam, 2013

Curriculum vitae

Personal data

Name:	Mohamed Nazih Abd-Allah
First Name:	Mohamed
Title:	<ul style="list-style-type: none"> ▪ Consultant Engineer, Water, Sanitation and Environmental, PhD ▪ Assistant Professor, Head of Environmental and Project Management Department, Institute of Sanitary and Environmental Engineering, Housing and Building National Research Center (HBNRC), Cairo, Egypt ▪ Executive Manager and Member of Board, EnviroConsult Engineering Consulting Firm, Cairo, Egypt
Nationality:	Egyptian
Date of Birth:	5 July 1970
Marital Status:	Married
Children:	Two (one son and one daughter)
	Age: 3.5 and 1 years old

Educational background

Institution [Date from - Date to]	Degree(s) or Diploma(s) obtained:
Ain Shams University, Faculty of Engineering, Cairo, Egypt (1998 – 1993)	B.Sc. Civil Engineering Very good –Graduation Project (Sanitary and Environmental Engineering).
Cairo University, Faculty of Engineering, Cairo, Egypt (2000)	M.Sc. Civil /Environmental Engineering
Cairo University, Faculty of Engineering, Cairo, Egypt (2008)	Ph.D. Environmental Engineering (Water and Wastewater treatment and waste management)

Advanced Training

▪ As a Trainer (Training Provider):

- Water, Wastewater, Environmental Engineering, and Hydraulic Analysis and Modelling Courses” for junior and professional Engineers
- *Housing and Building National Research Centre, HBRC, Cairo, Egypt.*
- “Technical training courses on Water and Wastewater Egyptian Codes”
- *Housing and Building National Research Centre, HBRC, Cairo, Egypt.*

- "WaterCad and SewerCad Hydraulic Analysis and Modelling technical training courses" for master planning units' engineers belonging to Water and Wastewater Holding Company WWHC and all its 16 affiliated companies.
- *German Technical cooperation organization, GTZ in cooperation with Water and Wastewater Holding Company WWHC, 2009, Cairo, Egypt.*
- "Design and Planning of Water Networks & its Facilities"
- *Training Service of "Sohage Rural Development Project", funded by the World Bank, 2005, Sohag City, Egypt*
- "Computerised Software Application for Design and Planning of Water Networks and its Facilities"
- *Training Service of "Sohage Rural Development Project", funded by the World Bank, 2005, Sohag City, Egypt*
- "Environmental Management and Assessment"
- *Training Service of "Sohage Rural Development Project", funded by the World Bank, 2005, Sohag City, Egypt*
- "Application of Geographical Information System (GIS) for Infrastructure and Utilities-I "
- *Egypt Netherlands Cooperation Project "TRHUD"*
- *Urban Training and Studies Institute "UTI" in cooperation with International Institute for Aerospace Survey and Earth Science "ITC", 2003, Cairo, Egypt*
- "Application of Geographical Information System (GIS) for Infrastructure and Utilities-2 "
- *Egypt Netherlands Cooperation Project "TRHUD"*
- *Urban Training and Studies Institute "UTI" in cooperation with International Institute for Aerospace Survey and Earth Science "ITC", 2004, Cairo, Egypt*

▪ **As a Trainee (Training Attendance):**

- "Non-Revenue Water Management II, and Water Leakage Detection"
 - *Japan International Cooperation Agency "JICA", 2002, Nagoya City, Japan*
- "Technical Training Course of Water Leak Survey"
 - *FUJI-TECOM Training Centre, 2002, Tokyo, Japan*
- "Domestic Wastewater Treatment Techniques"
 - *Japan International Cooperation Agency "JICA" and Kitakyushu International Techno-Cooperative Association "KITA", 2003, Kitakyushu City, Japan*
- "Toefl Preparation Course for English Language"
 - *Centre of Developing English Language Teaching, Sep., 2001 to Nov., 2001 – Ain Shams University*
- "Geographical Information System (GIS) for Urban Planning and Administration"
 - *Egypt Netherlands Cooperation Project " TRHUD "*

- *Urban Training and Studies Institute "UTI" in cooperation with International Institute for Aerospace Survey and Earth Science "ITC", 2001, Cairo, Egypt*
- "Project Cycle Management Participatory Planning"
 - *IC-Net Limited Company, 2003, Kitakyushu City, Japan*
- "Effective Project Management Principals"
 - *Egypt Netherlands Cooperation Project "TRHUD "*
 - *Urban Training and Studies Institute "UTI" in cooperation with International Institute for Aerospace Survey and Earth Science "ITC", 2004, Cairo, Egypt*
- "Cleaning Production Assessment Training of Egyptian Consultant – Capacity Building"
 - *The Environmental Compliance Office (ECO) – Federation of Egyptian Industries (FEI), 2005, Cairo, Egypt*

Key Qualification

Profession: **Expert, Teacher, and Trainer,** Water and Wastewater Management and Environmental Studies, and Researches

- Teaching, Training and Research skills in Environmental and Sanitary Engineering including Applications on modern technologies in water and domestic, industrial anaerobic and aerobic wastewater treatment and water pollution control programs as well as application of cleaner production concept by in process, plant modifications, and end of pipe treatment in food, engineering, and agro-based industry sectors including environmental audit and impact management, development and evaluation of operation guidelines and procedures leading to process optimization.
- Fifteen years experience in water, wastewater management and environmental studies freelance consultation including design, revision, planning, assessment, reporting, and supervision of different water, wastewater works (treatment, networks, storage ...etc.) including five years experience in Industrial Wastewater management and treatment comprising cleaner production, in plant/in process measures, and end of pipe treatment
- Fifteen years experience in managerial activities and team leading in design, review, tender preparation, bid evaluation and construction, and ecological sanitation projects.
- Eleven years experience in participation in preparation and production of water and wastewater codes and regulation for design and operation and maintenance processes.
- Eleven years of experience in Teaching/Training skills for Engineering/Environmental courses including giving problem solving sessions, answering questions, grading assignments and laboratory reports as well as

assessment of graduation/ research projects as well as training needs and evaluation.

- More than ten years experience in ecological sanitation systems, water resources and water demand management, cost-effective sewage management concepts as well as management of wastewater reuse standards and technologies.
- Delivered training courses to engineers and technicians related to design, construction supervision and operation of water, domestic and industrial wastewater systems. All training courses were sponsored by financing agencies (*World Bank, GTZ, and CARE Projects*).
- Expert of Environmental facility for industry pollution abatement plans and measures including Environmental Impact Assessment (EIA) and management (EIM) of different projects.
- Has knowledge of computer applications for system design and cost analysis specially related to water and wastewater fields (*WaterCad and SewerCad,...etc*).
- Formulated construction, installation and operation and maintenance budgets including capital replacement accountants for water and wastewater projects.
- Member of several professional societies, including the Engineers Syndicate, and Sanitary Engineering Society.
- Author of several publications on water and wastewater treatment including dissemination of Research results.
- Variant technical, advising and managerial experiences via Participation in:
 - Preparation of Environmental Assessment Studies and Reports;
 - Technical evaluation of governmental projects (Social Fund Projects);
 - Community based projects including Environmental Awareness.
 - Preparation of socio-economic and environmental studies including data collection and reports preparation.
 - Design of different systems for industrial wastewater according to effluent characteristics.
- Design of water and wastewater networks, force-mains, pumping stations, irrigation networks, plumbing works, fire fighting, swimming pools, and water and wastewater treatment plants (i.e. water and wastewater industry in general). Tender documents study, appraisal, price analysis, and negotiation with suppliers and subcontractors at high level.

Professional background

Refere to the under mentioned table:

Date from - Date to	Location	Company	Position	Assigned Duties Description
1997- Present	Cairo, Egypt	Housing and Building National Research Centre (HBRC), (Institute of Sanitary and Environmental Engineering).	Dr.-Eng. "Assistant Professor"/ Head of Environmental Pollution Department	<p><u>Main Tasks and Duties:</u> Teaching, Training, Scientific Research, Consultancy Services, Local and International Research Cooperation, Environmental Studies, Egyptian Codes Preparing, Quality Control Services and Tests, Scientific Committees, Performance Evaluation, and other related tasks to water, wastewater, sanitation, and Environmental Fields including the following activities:</p> <ul style="list-style-type: none"> ▪ Managerial activities of Environmental Pollution department including financial and administrative duties. ▪ Assisted in teaching of Environmental, Sanitary and Hydraulic courses including giving problem Solving sessions, answering questions and grading assignments and lab reports. ▪ Implementation of environmental research projects (Water/Wastewater treatment) including proposal preparation, scheduling, follow-up, execution and reporting. ▪ Providing and Developing a technical training courses on Water and Wastewater Egyptian Codes ▪ Participation as a member in scientific committees for preparing the Egyptian regulation codes and policies: <ul style="list-style-type: none"> - "Operation and Maintenance of Wastewater Treatment Plant" code. - "Reuse of Treated Wastewater" code. - "Building Water and humidity Insulation" code. ▪ Participation as a member in Plumbing Works Special Inspector Approval committee. ▪ Evaluation and quality control of the performance of existing water and wastewater treatment plants. ▪ Evaluation of water pollution and pollution control for the water resources. ▪ Water quality control, analysis, tested, documents and evaluations reports. ▪ All quality control tests required for ductile, caste iron, galvanized steel, plastic, vitrified clay...etc pipes according to Egyptian standards. ▪ Water and wastewater laboratory analyses.

Date from - Date to	Location	Company	Position	Assigned Duties Description
				<ul style="list-style-type: none"> ▪ Training courses for environmental engineers, technicians, and water industry specialists. ▪ Participation in preparing Geographic Information Systems (GIS) for new urban areas. ▪ Execution supervision for plumbing, water and wastewater network ▪ Consultancy Services related to wastewater system (collection, treatment and disposal) including design, monitoring, supervision. ▪ Consultancy Services related to water system (collection, treatment and distribution) including design, monitoring, supervision. ▪ Consultation concerning water and wastewater management including design, operation, and monitoring. ▪ Preparing Municipal and Industrial water supply and sanitation assessment reports ▪ Feasibility study and tender documents for wastewater treatment system to comply environmental regulation standards ▪ Environmental studies including environmental impact assessment EIA and management studies for different projects. ▪ Research projects serve the development of water and wastewater technologies for rural areas and small communities as a low cost tech. ▪ Infrastructure and environmental feasibility studies in local provincial governorates as financed by the Egyptian Social Fund for Development. ▪ Investigation of integrated low-cost sanitation systems and their application ▪ Develop and evaluation of water and wastewater treatment systems among urban and rural areas in several Egyptian Governorates. ▪ Develop new technologies for low cost wastewater treatment and sustainable reuse for new communities and small villages in Egypt. ▪ Developing and providing of training courses for environmental engineers, technicians, and water industry specialists. ▪ Developing and providing training courses on water and sanitation systems, especially for low cost technologies in rural areas. ▪ Development of new technologies for water and wastewater

Date from - Date to	Location	Company	Position	Assigned Duties Description
				<p>treatment especially low cost technologies.</p> <ul style="list-style-type: none">▪ Evaluation and quality control of the performance of existing water and wastewater treatment plants.▪ Evaluation of water pollution and pollution control for water resources.▪ Design of water and wastewater treatment plants.▪ Mathematical modelling of treatment processes.▪ Consultation concerning water and wastewater management including design, operation, and monitoring.▪ Business development for the department covering official and private sectors.

Date from - Date to	Location	Company	Position	Assigned Duties Description
Since 1994 Freelance Consultation for different companies (As Water & Wastewater Management and Environmental Expert)	Egypt	North South Consultants Exchange Office NSCE In joint venture between General Organization for Physical Planning (GOPP) and United Nation Development Program (UNDP Habitat)	Short-Term Environmental and BUS Expert	<ul style="list-style-type: none"> Environmental and Basic Urban Services (BUS) studies in Integrated and Participatory Slum Upgrading in Egypt (including Local Economic Development) for Abu Helal, Menia Governorate through Strategic Urban Planning for Small Cities Project in Egypt (GOPP / UN-HABITAT). Joint venture project between General Organization for Physical Planning (GOPP) and United Nation Development Program (UNDP Habitat).
	Egypt	German Technical cooperation organization GTZ	Short-Term Technical and Training Expert	<ul style="list-style-type: none"> Providing technical training courses within the Water and Wastewater Management Program conducted by GTZ for master planning units' engineers belonging to Water and Wastewater Holding Company WWHC and all its 16 affiliated companies. The courses include WaterCad and SewerCad Hydraulic Analysis and Modelling.
	Egypt	The Cooperative for American Remittances to Europe, Cairo Office CARE international	Water and Sanitation Expert	In Cooperation with EnviroConsult office <ul style="list-style-type: none"> Integrated Design of low cost decentralized system for rural area (four villages with population of 2000 to 6000 persons) and providing presentations of low-Cost wastewater management. Providing workshops in integrated low cost sanitation systems Study and post assessment of wastewater systems and providing solutions for upgrading and enhancement for the non-comply low-cost WWTPs Design of wastewater treatment plants in several villages in Beni Suef Governorate.
	Egypt	United Nation Development Program UNDP Habitat	Water and Sanitation Expert	<ul style="list-style-type: none"> Preparation of strategic master plan of Maragha City and Monshaa City, Sohag governorate and Shohadaa City, Monofeya governorate for Basic Urban Service BUS (Water, Sanitation and Solid waste management) via direct contract with Habitat in the framework of the project of Strategic master plan for Small cities overall Egypt.
	Egypt	Danida – SDEM Component	Water and Sanitation Expert	In Cooperation with EnviroConsult office <ul style="list-style-type: none"> Integrated Design of wastewater networks in several villages and cities in Aswan and Beni Suef Design of wastewater treatment plants in Behera governorate.

Date from - Date to	Location	Company	Position	Assigned Duties Description
	Egypt	EnviroConsult Consulting Firm	Long-Term W&WW Expert/ Executive Manager (Partner and Member of Board)	<ul style="list-style-type: none"> Managing the technical issues including preparation of technical and financial offers submitted to different organizations; design phase follow-up and review; tender documents; contractor evaluation and control the awarding process; and construction supervision management. Deep experience in management and control of technical and financial issues required for managing a consulting firm (medium size enterprises) Technical Expert of the contract of consultancy services and execution supervision in water, wastewater and sanitation projects within for many villages in different governorates of Egypt belonging to National Organization for Potable Water & Sanitary Drainage (NOPWASD). Preparation of water and wastewater Master plan for Beni Suef Governorate via the development research and technological planning centre, Faculty of Engineering, Cairo University, within the framework of national master plans overall Egypt for all governorates in the field of water and wastewater funded and followed by Water and Wastewater Holding Company WWHC. Design of shop drawings for several environmental works including the development of the program followed to study the tender documents, appraisal, installation, and monitoring of the

Date from - Date to	Location	Company	Position	Assigned Duties Description
<p>Since 1994</p> <p>Freelance Consultation for different companies</p> <p>(As Water & Wastewater Management and Environmental Expert)</p> <p>(Cont'd)</p>				<p>project.</p> <ul style="list-style-type: none"> ▪ Develop and evaluation of Modern technologies for domestic/industrial wastewater treatment and waste management including the application of in process/in plant modification as an application of Cleaner Production (CP) concepts. ▪ Participation in preparing technical and financial offers for industrial wastewater treatment systems for several factories to comply environmental regulation standards (e.g. Milles feuilles for sweets and ice-cream in Por Said city, Olive oil extractors in Al-Arish city, Shony technology company in 10th of Ramadan city and Egyptian dairy and food stuff company"EDAFCO" in 10th of Ramadan city.) ▪ Preparation of Final feasibility study and tender documents for EDAFCO factory wastewater treatment system to comply environmental regulation standards funded by Canadian International Development Agency "CIDA" in association with EEIF project in Egyptain Environmental Affairs Agency. ▪ Participation in preparing Municipal and Industrial water supply and sanitation assessment reports for all Egyptain Markazs under project of National Water Resources Plan (NWRP) in the Ministry of Water Resources and Irrigation. ▪ Review and assessment of the tender documents including design check, appraisal, price analysis, cost sheets preparation, and negotiation with suppliers and subcontractors. ▪ Participated in several environmental and community based projects as financed by multi-donors as DANIDA, CARE, and private sector including planning for the business development.

Date from - Date to	Location	Company	Position	Assigned Duties Description
<p>Since 1994</p> <p>Freelance Consultation for different companies</p> <p>(As Water & Wastewater Management and Environmental Expert)</p> <p>(Cont'd)</p>		EnviroConsult Consulting Firm (Continued)		<ul style="list-style-type: none"> Detailed Engineering for Suez Gulf Wastewater (Domestic & Industrial) Treatment Plant, 55,000 m3/day. Consultant of Bni Suif Governorate for Wastewater projects at El Kom El Ahmar, Beni Haroon, El Maymoon, El Reyad , Biad El Arab, and El Ezab. Managerial assignments for different design, review of water and wastewater projects as well as coordination for the construction supervision in different sites in Sohag and Beni Suf Governorates. Participation in environmental study for Environmental Compliance Office program for different factories including assessment of existing situation of effluent treatment, proposal for in process and in plant modification as well as optimization and/or design of end of pipe treatment. Business development activities at level of public and private sectors Expert of water and wastewater projects for New Fayoum City, Ministry of Housing. Expert in water and wastewater projects at Center of Civil Engineering Research and Studies, Faculty of Engineering, Cairo University. Expert for CAR E Organisation, UN in water and wastewater for small communities. Consultant of water and wastewater in many Resorts. Preparation and Review of technical reports. Preparation of feasibility studies for environmental projects. Data collection for socio-economic, environmental and health studies. Health education and environmental awareness for water uses and conservation. Participation in preparation of EIAs reports. Supervision for several water, wastewater works and time plan monitoring/updating.

Date from - Date to	Location	Company	Position	Assigned Duties Description
Since 1994 Freelance Consultation for different companies (As Water & Wastewater Management and Environmental Expert) (Cont'd)		EnviroConsult Consulting Firm (Continued)		<ul style="list-style-type: none">▪ Preparation of feasibility studies for environmental projects.▪ Technical review of plans and tender documents.▪ Development of training manuals and programs.▪ Technical assistance to designated counterparts and governorate personnel and monitoring.▪ Low cost sanitation for different projects in Beni Suef Governorate▪ Providing training courses for integrated sanitation systems at low cost concepts▪ Management and design quality control and assurance▪ Project manager and general coordinator for several water and sanitation projects including data collection, studies, design, and supervision phases.▪ Several tradability studies with cooperation with the National Research Centre for different industrial wastewater.▪ Design of plumbing works and Infra-structure for several projects. (e.g. Zezenia city, El- Zohour city) and Universal Resorts in Sharm El-Sheikh, trouristics villas and residentail buldings).▪ Design of workshop drwings of water and wastewater networks for some projects in New-Cairo Zone

Date from - Date to	Location	Company	Position	Assigned Duties Description
<p>Since 1994</p> <p>Freelance Consultation for different companies</p> <p>(As Water & Wastewater Management and Environmental Expert)</p> <p>(Cont'd)</p>	Egypt	<p>Civil Engineering Research and Studies Center, Faculty of Engineering, Cairo University</p> <p>(CERSC)</p>	Technical, Research and Training W&WW Expert	<ul style="list-style-type: none"> Preparation of water and wastewater Master plan for Beni-Suef Governorate within the framework of national master plans overall Egypt for all governorates in the field of water and wastewater funded and followed by Water and Wastewater Holding Company WWHC. Technical Expert of the contract of consultancy services and execution supervision in water, wastewater and sanitation projects within for many villages in different governorates of Egypt belonging to Executive Organization of Greater Cairo and Alexandria Water & Sewage (CAPOW). Technical Expert of the contract of consultancy services and execution supervision in water, wastewater and sanitation projects within the Sohag Rural Development Project funded by World Bank. Technical Expert of the contract of consultancy services and execution supervision in water, wastewater and sanitation projects Al-Azahary project and 800 mm trunk main waterline project funded by USAID. Preparation and providing of water and sanitation training courses for engineers and technicians within the Sohag Rural Development project funded by World Bank Design of water and wastewater networks and treatment plant Evaluation and review of design, planning reports and tender documents for water and wastewater systems. Providing training Courses in water, wastewater and waste management

Date from - Date to	Location	Company	Position	Assigned Duties Description
Since 1994 Freelance Consultation for different companies (As Water & Wastewater Management and Environmental Expert	Egypt	Development Research & Technological Planning Centre, Faculty of Engineering, Cairo University DRTPC	Technical, Research and Training W&WW Expert	<ul style="list-style-type: none"> Preparation of water and wastewater Master plan for Beni Suef Governorate via the development research and technological planning centre – Cairo University, within the framework of national master plans overall Egypt for all governorates in the field of water and wastewater funded and followed by Water and Wastewater Holding Company WWHC.
	Egypt	Arab Consulting Engineers ACE	W&WW Consultant	<ul style="list-style-type: none"> Technical consultant for design of water and wastewater works (concept, networks, and Desalination and treatment) of Marassi project in Sedi Abdel-Rahman, Alex. Owned by Emaar Egypt and technically managed by Turner international. Technical consultant for design of water and wastewater works of City Star- Sharm El-Sheikh, Egypt
	Egypt	El-Nasr for Civil Works Contracting Company	W&WW Consultant	<ul style="list-style-type: none"> Technical services for design and shop drawing for several Water and Wastewater projects
	Egypt	Arab Contracting Company (CAIROMATIC)	Short-Term W&WW Expert	<ul style="list-style-type: none"> Process engineer and coordinator for the design of the shop drawings and installation of the environmental works including water /wastewater networks and plants for Swissotel in Sharm El-Sheikh.

Date from - Date to	Location	Company	Position	Assigned Duties Description
	Egypt	Misr Consult office	Long-Term W&WW Engineer	<ul style="list-style-type: none"> Participated in preparation of preliminary and final reports. Participation as one of a team work to provide a consultancy services related to the project "Support for Environmental Assessment and Management" (SEAM), mainly, to assist in preparing an Environmental Impact Assessment for several tourist projects at Hurghada city in the red sea coast. This project was funded by Britain's Overseas Developments Administration and implemented by the Egyptian Environmental Affairs Agency (EEAA) through the Technical Office for Environmental (TCOE) and ENTEC. UK. Ltd. Participation in tender document for industrial wastewater treatment. (e.g. industrial treatment, fiber recovery and water recycling Project for Middle East paper company "SIMO") Preparation of design drawings of several tourists villages in hurghada and sharm El-Shikh cities (e.g. Palm Beach Resort, Namaa Golf Resort...etc.) includes: plumbing works, water and wastewater networks, elevated and ground water tanks, pumping stations, forcemains, piping for kitchen, laundry, boiler, swimming polls, fountains, ...etc.
	Egypt	Misr Consult office	Long-Term W&WW Engineer	<ul style="list-style-type: none"> Participation as a team member in preparation of Environmental Studies for Tabia Pumping Station. Participation as a team member in design of Industrial Wastewater Treatment Plants for industrial factories (9- 99- 999) in Helwan. Design of water and wastewater networks. Design of plumbing works for several residential buildings. Design of compact water and wastewater treatment plants. Design of irrigation networks. Design of Ground and Elevated tanks and design of integrated sanitary works for tourist villages.
	Egypt	Talaat-Imam Consulting office	Water& Wastewater Engineer	<ul style="list-style-type: none"> Design of water and wastewater networks for El-Nobareya city. Design of pumping stations. Design of water and wastewater networks for many villages in Upper Egypt region.

Special Skills

- Application of Hydraulic Modelling Software's (WaterCad and SewerCad) for water and wastewater networks analysis, modelling and design
- Environmental application of GIS for water and wastewater management concept.
- Software application in Civil/Environmental Engineering and working with spreadsheets.
- Autocad (Latest Versions)
- Presentations Softwares
- Microsoft Office (Word, Excel, and PowerPoint- Latest Versions)
- Microsoft Project for planning and time scheduling.
- Data base application programs.
- Internet and mail skills.
- Online Work-grouping and Networking

Language Skills

Language	Spoken	Written	Reading/ Comprehension	Period in Language Area
<u>Arabic</u>	1	1	1	Egypt
<u>English</u>	1	1	1	--
<u>Japanese</u>	4	4	4	6 months/Japan

Remarks**Societies Affiliation**

- Member of International Water Association (IWA)
- Member of Japanese International Cooperation Alumni (JICA)
- Member of Egyptian Engineering Syndicate;
- Member of Egyptian Association of Civil Engineers;
- Member of Egyptian Environmental Engineering Society.
- Member of Egyptian Society of Plumbing Engineers.
- Member of Filtration Separation Magazine.

Participation in Conferences / Seminars**Some Selected Attended Conferences/Seminars/ Symposiums:**

- HBRC Symposium on Low Cost WW Treatment, organized by Habitat, UNDP, April 2006
- 14th International Conference on Potable Water Management and Water Treatment Technologies (Aqua-Tec 2009)", 2009, Cairo, Egypt

- 10th International Conference on Potable Water Management and Water Treatment Technologies (Aqua-Tec 2005)", 2005, Cairo, Egypt
- Scientific Conference of Water Treatment Technology and its Application (Water-Tec 2005)"
- Egyptian Water Association, 2005, Cairo, Egypt
- 30th International Symposiums, W062, 2004, Paris, France
- 9th International Conference on Potable Water Management and Water Treatment Technologies, (Aqua-Tec 2004)"
- Anaerobic Treatment of Wastewater and Option of Effluent Use in Irrigation Agriculture Symposiums, National Research Centre in cooperation with Wageningen University, 2003, Cairo, Egypt
- Urban Development in Arid Regions and Associated Problems Symposiums, Ministry of Public Works and Housing, 2002, Riyadh, Saudi Arabia
- International Symposium on Low Cost Wastewater Treatment and Reuse, National Research Centre (NRC) in association with IHE Institute at DELFT University and with Wageningen University, Netherlands, 2001, Cairo, Egypt
- 7rd International Conference on Potable Water Management and Water Treatment Technologies (Aqua-Tec 2001), 2001, Cairo, Egypt
- 6th International Conference on Potable Water Management and Water Treatment Technologies (Aqua-Tec 2000), 2000, Cairo, Egypt
- 2nd Environment-99 Conference and Environmental Management and Technologies, 1999, Cairo, Egypt.
- 3rd International Conference on Potable Water Management and Water Treatment Technologies (Aqua-Tec 97), 1997, Cairo, Egypt
- 2rd International Conference on Potable water Management and Water Treatment Technologies, Aqua-Tec 96, Cairo Dec. 19th – 21st 1996.
- 1st Environment-96 Conference and Environmental Management and Technologies,, 1996, Cairo, Egypt.

Awards

- Scientific award for research paper "Alternative Sanitation systems in rural Egypt", Regional Arabian Conference "Joint between Urban and –rural", 2005, Cairo City, Egypt, ***"this paper was selected and awarded among the most innovative 3 papers presented in this conference"***
- Scholarship for Training Courses in "Domestic Wastewater Treatment Techniques", Japan International Cooperation Agency "JICA" and *Kitakyushu International Techno-Cooperative Association "KITA"*, 2003, Kitakyushu City, Japan
- Scholarship for Training Courses in "Non-Revenue Water Management II, and Water Leakage Detection", Japan International Cooperation Agency "JICA" , 2002, Nagoya City, Japan
- Training Courses in "Technical Training Course of Water Leak Survey", FUJI-TECOM Training Center , 2002, Tokyo City, Japan
- Training Courses in "Project Cycle Management Participatory Planning", IC-Net Limited Company, 2003, Tokyo City, Japan

- Training Courses in "Effective Project Management Principals", Egypt Netherlands Cooperation Project (TRHUD), 2004, Cairo City, Egypt
- Training Courses in "Cleaning Production Assessment Training of Egyptian Consultant – Capacity Building " TRHUD ", 2005, Cairo City, Egypt

Publications

Some Selected Scientific Publications:

- Ezzat Abdel Shafi, Hisham S. Abdel Halim, Mohamed H. Mostafa, Mohamed Nazih (2009) " Anaerobic Domestic Wastewater Treatment using Fixed Film Reactor as a Low-Cost Treatment Alternative"
Thirteenth International Water Technology Conference, 13 IWTC 2009 Hurghada, Egypt
- Ezzat Abdel Shafi, Hisham S. Abdel Halim, Mohamed H. Mostafa, Mohamed Nazih (2008) " Anaerobic Domestic Wastewater Treatment using Fixed Film Reactor as a Low-Cost Treatment Alternative"
Al-Azhar University Engineering Magazine, 2008
- M. Nazih, Walid Abdel-Halim, Hisham S. A. Halim, and Sohair Abo Elaa, (2008) "*Pollution Control and Waste Minimization of Chemical Products Industry, a case Study of Polymers Production Industry*"
6th International Engineering Conference, 6th IEC, Faculty of Engineering – Mansoura University, Mansoura/Sharm El-Sheikh, 20 – 23 March 2008
- Walid Abdel-Halim, Hisham S. A. Halim and M. Nazih (2005) "Alternative Sanitation systems in rural Egypt"
Regional Arabian Conference "Joint between Urban and –rural", Dec. 15-18, 2005, Cairo, Egypt. ***"this paper was selected and awarded among the most innovative 3 papers presented in this conference"***
- Hisham A. Halim, Walid Abdel-Halim, and M. Nazih (2004) "Selection and Evaluation of Appropriate Sanitation Systems in Rural Egypt, Case Study in Sohage Governorate, Upper Egypt"
30th International Symposiums – W062/2004 , 16 to 17 Sep., 2004 – Paris, France
- M. Nazih (2002) "Using of Sandy Soil Layers for Domestic wastewater Treatment"
Urban Development in Arid Regions and Associated Problems Symposiums" Ministry of Public Works and Housing, Saudi Arabia, (2002).
- M. Nazih (2001) "Wastewater Treatment by Percolation Through Land Layers"
Cairo University Engineering Magazine, 2001