

# CURRICULUM VITAE



**Prof. AYMAN SOLIMAN HASSAN AGUIB**

أ.د. أيمن سليمان حسن عجيب

**EDUCATION** : PH.D. in Civil Engineering, THE OHIO STATE UNIVERSITY, U.S.A.,  
June 1989. ( Surveying, Remote Sensing & Water Resources ).

M.SC. in Civil Engineering, AIN SHAMS UNIVERSITY, CAIRO, EGYPT,  
1982. ( Geodesy ).

B.SC. in Civil Engineering, AIN SHAMS UNIVERSITY, CAIRO, EGYPT  
1975. ( Public Works ).

## **PROFESSIONAL WORK** :

- 2009- present - Professor in the Civil Engineering Department , College of Engineering, King Saud University, Kingdom of Saudi Arabia.
- 2009-present - Under Call consultant for Al Shethry Consultant office trough King Abdullah Institute for Consultations at KSU.
- 2000 –2009 -Associate Professor in the Civil Engineering Department, Ain Shams University in Cairo.
- 1998 - Authorized consultant engineer for surveying and mapping in the Egyptian Syndicate of Engineers.
- 1989 - 2000 - Assistant Professor in the Civil Engineering Department, Ain Shams University in Cairo.

Teaching undergraduate and graduate courses in the Public Works Department, Ain Shams University and King Saud University, which include the following teaching courses:

**A-Under Graduate Courses Ground Surveying and Mapping** (plane, construction and topographic surveying, computation and adjustment, map projections and cartography).

**Geodesy**, (fundamentals, vertical and horizontal control systems, precise leveling, datums and positioning).

**Advanced Ground Surveying;** (professional surveying, tunnels surveying, statistical estimation and analysis)

**Photogrammetry;** (principles, computations, analytical stereoplotting, digital map production).

**Bachelor Project** (Ground Surveying and GIS Data Set Up).

#### **B-Graduate Courses**

**Remote Sensing;** (principles, photo interpretation, image processing, qualitative and quantitative applications and Analysis).

1989-1997      -Lecturer for graduate courses in **Surveying, Remote Sensing, Photo Interpretation** and **GIS** in the Institute of Environmental Research and Studies, in Shams University, Cairo.

-Consultant Engineer in Surveying and Mapping, and owner of The Scientific Office for Computer Aided Design and Engineering Consultations (CADEC-A), in Cairo.

1995-1997      -Consultant Engineer for Data Management and Mapping for GIS and Mapping Laboratory in the RNPD II Project with SNC-Lavalin Canada, project Funded by Canadian International Development Agency CIDA.

-Surveying and Field Data Manager for the Development of GIS system for the Egyptian Red Sea Coastal and Marine Resource Management Project, Funded from The Global Environment Trust Fund, The International Bank For Reconstruction and Development.

1990-1997      -Consultant Engineer for the National Water Research Center, the Nile Research Institute (NRI) in The Ministry of Public Works and Water Resources of Egypt.

-Consultant Engineer for Remote Sensing and Environmental Services CENTER, in Cairo.

1982-1989      -Assistant Lecturer in the Civil Engineering Department, Ain Shams University.

1982-1983      -Surveying Coordination Engineer for the American British Consultants in Cairo (AMBRIC).

1978-1981      -Surveying Engineer for the Egyptian Building Systems Company in Cairo (EBS).

## **PROFESSIONALEXPERIENCE & RESEARCH**

(1989-present) **Academic Work**

-Researcher and proposals preparation for the following:

- Principal Investigator for research project titled “Developing a Precise Gravimetry System for Mapping Ground Water Table Variation in Saudi Arabia” for National Program for Science and Technology Transfer, Of KSU, 20012 – 2014 (on going)
- Co- Investigator in research project titled “Development of Dynamic Computerized Noise Pollution Maps for Riyadh City” for National Program for Science and Technology Transfer, Of KSU, 20012 – 2014 (on going)
- Co – Investigator in research project titled “Noise Mapping For Riyadh City (Area Between The First And The Second Ring Roads) King Abdulaziz City for Science and Technology General Directorate of Research Grants Program, 2009-2011 (completed)
- Principal Investigator for research Project Titled “Application of Remote Sensing and GIS for Locating Suitable Mangrove Plantation Sites Along the Saudi Arabian Red Sea Coast” for National Program for Science and Technology Transfer, Of KSU, 2009 – 2011. (completed)
- Co-Investigator in Research Project Titled "Noise Mapping of Riyadh City-area Enclosed by Ring Roads" for King Abdul Aziz City for Science and Technology KACST, 2007-2009 (completed)

"Application and Verification of Using Remote Sensing Data and Hydrodynamic Model for Sediment Process Calculation In Aswan Reservoir", for The Nile Research Institute in Quanaier.

-Proposal for the Development of Engineering Education Project supported by the AID, to establishing a GIS Laboratory and Courses in the Public Works Department at the Faculty of engineering, Ain Shams University.

-Hardware and Software Recruitment, and Courses Syllabuses assistance for GIS Diploma at The Geographic Department at Ain Shams University.

- Assisting in research done for the South Florida Water Management District to study the water quality of lake Okeechobee using satellite TM and AVHRR images, with Prof. Douglas Way from the Ohio State University.

#### **Supervisor for Master Degree Studies Titled:**

"Evaluation of the Current Egyptian Geodetic Surveying and Mapping Framework Towards The Establishment of National Unified Specifications".

"Environmental Study on The Nile Secondary Channels (khors) Between Beni-Suef and the Delta Barrage".

#### **PUBLICATIONS:**

- Abdel Monsef, H., A. Aguib, S.Smith, 2013 "Locating Suitable Mangrove Plantation Sites along the Saudi Arabia Red Sea Coast" accepted for publication at Journal Of African Earth Sciences. Monthly Issn: 1464-343x Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford, England, Ox5 1g
- Abdel Monsef, H., S. Smith, and A. Aguib, 2013 "Assessing the Probability of High Floods in Potential Mangrove Plantation Sites along the Saudi Arabian Red Sea Coast" ASPRS conference, 24-28 March,2013, Baltimore, Maryland USA.
- Alsaif K., ElMadany M., Foda M., and Aguib A., 2012 "Integrated Real Measurements &GPS for Noise Mapping of Riyadh City" Internoise 2012 Conference, 24-28August, New York, USA.
- Foda M., M Medany, K. Alseif, and A. Aguib , 2010,"The Noise Mapping Of Riyadh City Using Measured Noise And Gps Data"Internoise 2010, Noise and Sustainability,conference, 13-16 June, 2010 Lisbon, Portugal.
- Ayman Aguib, "Two-Step Procedure For Road Edge Extraction From *Ikonos* Image " ICASTOR Journal of Engineering, India; " Volume 2, No. 3(1) (January 2009)
- Ayman Aguib , " Assessment Of Interpolation Methods For 3-D Presentation Of Subsurface Stratifications" ICASTOR Journal of Engineering, India; Volume 2, No. 3(1) (January 2009).
- Aguib, A. Soliman, 2006, "Quality Assurance Charts for Precise Determination of the Deformation of Cylindrical Tanks Using Ground Surveying", Journal of Spatial Science, Australia, Volume 51, No 1, June, 2006.
- Aguib, A. Soliman, 2006, "Free Ground Surveying Approach for Imperfection and Deformation Measurements of Cylindrical Tanks" The Scientific

Bulletin of The Faculty of Engineering, Ain Shams University, Cairo, Egypt Volume 57. March 2006.

- Aguib, A. Soliman, 2005, Translation into Arabic of Book Titled "Datums and Map Projections for Remote Sensing, Surveying and GIS" Publisher King Saud University, 2005.
- Aguib, A. Soliman, 2005, "GIS Application For Constructing Knowledge Base And Representing 3d Geotechnical Data" Eleventh International Colloquium on Structural and Geotechnical Engineering, 11<sup>th</sup> ICSGE, Cairo, Egypt, May 2005.
- Aguib, A. Soliman, 2004 "Procedure for Monitoring the Safety and Security of Steel Tanks Using Ground Surveying Techniques" Second International Industrial Engineering Conference 2<sup>nd</sup> IIEC – AlRiyadh, Saudi Arabia, Dec 2004.
- Bahr, M. Awad and A. S. Aguib, 2003, "Utilization of Information Technology (IT) for Mapping the Subsurface Soil Description" Civil Engineering Research Magazine (CERM) Al Azhar University, Cairo, Egypt, Volume 25 No 1, January 2003.
- Aguib, A., and M. Bahr, 2000. "Precise Surveying Control System for Monitoring Settlement Based On Soil-Site Analysis". The Scientific Bulletin of The Faculty of Engineering, Ain Shams University, Mars, 2000.
- AlHassan, E. and A. Aguib, 1999. "Comparative Study of Upgraded Analytical (AC-1) and Analogue (B8-S) Photogrammetric Instruments". The Scientific Bulletin of The Faculty of Engineering, Ain Shams University, Vol. 34 No 3. September, 1999.
- Aguib, A. Soliman, 1999. "Evaluation of Topographic Maps Produced from Grid Observations". Civil Engineering Research Magazine, Civil Engineering Department, Al-Azhar University, Vol. 21 No2, April, 1999.
- Aguib A., and Atallah, M., 1998. "Use of Surveying Procedure for Optimizing Location Errors of Piles". Scientific Bulletin of the Faculty of Engineering, Ain Shams University, Vol. 33, No.4 December, 1998.
- Aguib. A, Meunier, F., 1996. "Accuracy Assessment of Vectorized Maps". Civil Engineering Bulletin of the Faculty of Engineering, Al-Azhar University, Vol. 18, No. 7, April, 1996.
- Aguib, A., 1996. "Assessment of Geometrical Accuracy of Egyptian Surveying Authority (ESA) Orthophoto Product" Civil Engineering Research

Magazine, Civil Engineering Department, Al-Azhar University, Vol. 18, No.7. April, 1996.

- Aguib, A. ,1995. "Potential of Remote Sensing for Water Quality Parameters Monitoring". Civil Engineering Research Magazine, Civil Engineering Department, Al-Azhar University, Mars, 1995.
- AbuBeih, O., A. Aguib, and A. Rashwan, 1995. "Evaluation of The Egyptian Ground Control Points in View of Current Requirements" The Civil Engineering Bulletin of the Faculty of Engineering, Al Azhar University, Cairo, Egypt. Vol 17 No 3, 1995.
- Aguib, A., 1994. "Reliability of Different Hydrographic Surveying Techniques For Determining Average Values of Suspended Sediment Concentration". Military Technical College, Second Conference for Civil Engineering, Cairo, Egypt. Nov. 1994.
- Al Moatasseem M., A. Aguib, and Z. Albarbary, 1994 "Evaluation Of Secondary Channels And Their Wetlands As Water Fronts", International Symposium on River Water Front Development, Cairo 1994.
- Baraka M., and A. Aguib, 1993."Surveying and Digital Mapping Uses and Applications in Transportation Engineering Within a GIS Setup" Al Azhar Engineering Third International Conference, Dec., Cairo, Egypt,1993
- Aguib A., 1993, " Spectral Technique for Monitoring Sediment Process Distribution", International Symposium and Workshop on Shifting Desert Margins Sep., 1993, Cairo Egypt.
- Aguib A., and A. Abdelfadeel, 1992, "Cross Section Averaging for Sediment Concentration Estimation According to Sampling Procedure For Aswan reservoir", The International Conference Nile 2000, Feb., 1992, Cairo Egypt.
- Aguib A., Smith S., and El Moatasseem M., 1992," Application of Satellite Remote Sensing Techniques for Monitoring Sedimentation Patterns in Lake Nasser", The International Conference Nile 2000, Feb., 1992, Cairo Egypt.
- Aguib A., 1992, "Determination of Cross Section Locations for Sedimentation Studies in Lake Nasser Using Remote Sensing Technique", The International Conference Nile 2000, Feb., 1992, Cairo Egypt.
- Aguib A., 1989, "A Technique For Sediment Process Calculation In Aswan Reservoir Using A Hydrodynamic Model And Remote Sensing Data". Unpublished Ph.D. Dissertation, The Ohio State University, U.S.A.

- Aguib A., 1983, "Precise Leveling" Unpublished M.sc. Thesis, Faculty of Engineering, Ain Shams University.
- Aguib A., M. Nassar, and S. Soliman, 1983, " Actual Gravity Field and Orthometric Heights in Egypt", Civil Engineering Bulletin of the Faculty of Engineering, Al Azhar University, Cairo, Egypt.
- Aguib A., Nassar M., and S. Soliman, 1983, " Pilot Application of Actual Gravity Correction To The Orthometric Heights Used In Egypt", United Nations Fifth Regional Cartographic Conference for Africa, Mar., 1983, Cairo Egypt.

### **PROFESSIONAL WORKS:**

- Manual preparation for land and hydrographic surveying field work for the Nile River under the RNP II Project supported by CIDA.
- Ground surveying, contour mapping and setting out of several engineering projects (national and international: CADEC-A C.V).
- Automated Cartography and mapping set up for GIS applications and map production for the easter region of Saudi Arabia.
- Dissertation research in the area of water resources and remote sensing titled "A Technique For Sediment Process Calculation In Aswan Reservoir Using A Hydrodynamic Model And Remote Sensing Data"
- Graduate course studies in Civil Engineering Dep, Ohio State University in terrain analysis, photo interpretation, quantitative remote sensing, stream sanitation, transport phenomena in water resources engineering, sediment transport and engineering numerical models in water resources, water resources engineering applications of remote sensing, and cartography.
- Experience in working with ERDAS IMAGINE for image processing of remote sensing data analysis and image processing application using MultiSpectral Scanner images; MSS, Thematic Mapper TM Advanced Very High Resolution Radiometer AVHRR, and other.
- Experience in working with Microstation (INTERGRAPH) for mapping and GIS setup,ORIMA (Aerial stereoplotting), AutoCAD, ARC/VIEW,

ARC/INFO for GIS and Data Management, word processing, spread sheet and database software.

- Experience in working with all ground surveying instrument, ordinary and electronic.
- M.SC. Thesis in Geodesy titled "Precise Leveling", Ain Shams University, Cairo, Egypt.
- Coordinator of the surveying groups worked in the Greater Cairo Waste Water Project for the American British Consultants (AMBRIC) in Cairo.

### **AWARDS**

- The Honor Degree in B.Sc Ain Shams University.
- Peace Fellowship for two years 1983,1984 for Ph.D. study in The U.S.A.
- Governmental Mission for Completion of the Ph.D. Study in the U.S.A. 1985 - 1989.
- Teaching Skills Workshop Certificate, Ain Shams University, 1989.
- Support For Environmental Assessment and Management Training Certificate, by ENTEC 1995.

### **MEMBERSHIP** :

- Member of the American Society for Civil Engineer (ASCE)
- Member of the American Society for Photogrammetry and Remote Sensing (ASPRS).
- Member of Egyptian Society of Civil Engineers
- Member of the Egyptian Syndicate of Engineers.

### **PERSONAL**

**NATIONALITY** : Egyptian.

**DATE OF BIRTH** : December 15, 1953.

**PLACE OF BIRTH** : Cairo, Egypt.

**LANGUAGE** : Arabic , English,

**MARITAL STATUS** : Married.

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