

Curriculum Vitae

Prof. Dr. Hussein I. Anis

Personal Data

Full Name : **Hussein Ibrahim Anis**
Date of Birth : November 20, 1945
Nationality : Egyptian
Present Occupation : Professor , Electrical Power & Machines Department
Head of the High Voltage Group, Cairo University, Egypt
Social Status : Married with two sons

Academic Qualifications

B.Sc. Degree : Cairo University, Egypt, Electrical Engineering (Top of Class), 1966.
M.Eng. Degree : McGill University, Montreal, Canada, Electrical Engineering, 1970.
Ph.D. Degree : McGill University, Montreal, Canada, Electrical Engineering, 1973.

Past Employment

1971 - 1973 Lecturer, Concordia University, Canada.
1973 - 1974 Researcher, Hydro-Quebec Research Institute, Montreal, Canada
1977 - 1978 Lecturer, American University in Cairo, Egypt.
1979 - 1981 Visiting professor, University of Waterloo, Canada.
Summers of 1983 & 1984 Visiting professor, University of Waterloo, Canada.
Summer of 1985 Visiting professor, University of British Columbia, Canada.
1989 - 1990 Visiting professor, Kuwait University, Kuwait.
March 2002 - Vice President of the Arab Open University (on leave from
Cairo University)

Other International Collaborations

- American Agency for International Development (AID), 1983-1988.
- UNESCO organization ,1992- .
- World Bank, 1991- .
- Massachusetts Institute of Technology (MIT), USA, 1977-1981
- University of Cincinnati, USA, 1985-1987.
- University of New Orleans, USA, 1985-1987.
- United Nations Development Program (UNDP), 2001- .

Professional Memberships

- (1) The International Conference on Large Electric Power Systems (C.I.G.R.E.), Paris , France; *[Member]*.
- (2) The Institute of Electrical and Electronics Engineers (IEEE), New York; *[Senior Member]*.
- (3) The Egyptian Society of Engineers, Cairo, Egypt ; *[Member]*.
- (4) The Egyptian Syndicate of Engineers, Cairo, Egypt ; *[Member]*.
- (5) The New York Academy of Science ; *[Member]*.
- (6) The American Association for the Advancement of Science ; *[Member]*.
- (7) The Research Board of Advisors of the American Biographical Institute;*[Member]*.
- (8) The American Society for Engineering Education (ASEE) ; *[Member]*.

Honors & Awards

- (1) Scholarship of Distinction, Cairo University, 1961-1966.
- (2) Egyptian State Prize for [**Distinction in Engineering**], 1981.
- (3) **Medal of Science and Arts** of the First Order, granted by **the President of Egypt**, 1982.
- (4) Canadian Government Fellowship for **Distinguished International Scientists**, 1983 and 1984.
- (5) Biography appears in "**Biography International - Men & Women of Achievement & Distinction**" ,Vol.1, pp.86-87, South Asia Pub. Co.,New Delhi, India, 1987.
- (6) Biography appears in "**Men Of Achievement**", XIIIth Edition, International Biographical Center, Cambridge, England, 1988.
- (7) Biography appears in "**National Encyclopedia for Distinguished Egyptian Personalities**",Department of Information,Government of Egypt,1st ed.1989,2nd ed.1992
- (8) Biography appears in "**Five Thousand Personalities of the World**", The American Biographical Institute, Edition 2, USA, 1989.
- (9) Biography appears in "**Who's Who in Egypt**", Middle East News Agency, in Press.
- (10) Egyptian National Award for [**Scientific Distinction**], 1998.
- (11) Biography appears in "Who's Who in the World", Marquis Publications, 19th Edition, USA, 2002.

Research & Scientific Activities

1. Published more than one-hundred and thirty technical ,scientific ,and academic research papers. He is the author –with others- of world renowned book on High Voltage Engineering. Areas of research interest include:

Gas-Insulated Switch-gear , Electric and Magnetic Fields from Power Circuits and their Biological Effects , Reliability of Power Systems , Over voltage Transients in Power Networks , Polluted Insulators on Power Lines , Discharges in Gas Insulation , Breakdown of External Insulation , High Voltage Measurements .

2. Participated in more than fifty international technical and academic conferences.

3. Member of the National Committees of the "International Congress of Large Electric Power Sysstems" (C.I.G.R.E.), Paris.

4. Member of the National Commitees of the "International Electro-Technical Commission" (I.E.C.), Geneva.

4. Inventions and Constructions:

i- Constructed the first laboratory in the Middle East for studies on the bio-effects of power frequency (ELF) electromagnetic fields, Cairo University.

ii- Designed and tested an apparatus for the early detection of hazardous pollution on power line insulators.

iii- Designed and tested a circuit for remote triggering of impulse generators.

5- Reviewer of technical and scientific papers for many periodicals; examples:

IEEE Transactions

Arab Gulf Journal of Scientific Research

Journal of Engineering & Applied Science, Egypt.

6- Reviewer of technical and scientific papers for numerous international, national, and middle-eastern conferences.

- 7- Research collaborator with several national universities and some international universities, e.g. **the University of Waterloo, the University of British Columbia, Canada ; the University of Cincinnati, the Massachusetts Institute of Technology (M.I.T.), the University of Louisiana, U.S.A..**
- 8- Principal Investigator of numerous research projects many of which under international contracts ; most salient examples are:
- i) "Capacity expansions of Egypt's Power Systems", sponsored by the American Agency for International Development (AID), 1977-1979.
 - ii) "Pollution on High Voltage Insulators in Egypt", sponsored by American Agency for International Development ,1981-1983.
 - iii) "Residential and Commercial Energy Consumption in Egypt", sponsored by American Agency for International Development, 1984-1986.
 - iv) "A study of Electric Tariff in Egypt", sponsored by American Agency for International Development, 1984-1986.
 - v) "A study of insulation characteristics of SF₆ and its mixtures", sponsored by American Agency for International Development, 1983-1989.
 - vi) "Environmental Effects of AC Electric Fields", sponsored by American Agency for International Development, 1985-1989.
 - vii) "Distribution of Magnetic Fields in Electric Power Networks and working places", sponsored by the Egyptian Academy of Science & Technology ,1994-1997 .
 - viii) "Determination of the Insulation Level in Sinai under Various Environmental Conditions, sponsored by the Egyptian Academy of Science & Technology,1998- .

Academic Achievements

- (1) Supervised more than thirteen Ph.D. theses and more than twenty five Master's theses, some of which jointly with North American universities.
- (2) In December 1991, **Dr. H. Anis** was nominated by the Egyptian government to the International Bank for Reconstruction and Development (*the World Bank*) to direct a new World Bank project in Egypt, namely, **the Engineering Education Development**

Project (EEDP). This project aimed at upgrading engineering education in Egypt through re-equipping experimental and illustrative facilities, development of curricula, and training of faculty and support staff. The EEDP funded the plans drawn by all eighteen colleges of engineering to develop their programs. This was done through a competitive proposal process involving open review and assessment.

Dr. Anis was the chief administrator of the project with management responsibility for program implementation. The effects of the project on the quality of engineering education in Egypt at large have been quickly and significantly felt by both the World Bank and the government. Its policies, criteria, and achievements are now used by the government as a model for other educational disciplines. The World Bank, on the other hand, is using the Egyptian experience in this project as a model for application in other developing countries and in all disciplines of education.

- (3) Taught courses at both the under-graduate and post-graduate levels in several Egyptian universities, one Middle Eastern university, and some North American universities.
- (4) **Dr. Anis** is a recognized engineering program evaluator by the American "Accreditation Board for Engineering & Technology" (A.B.E.T.).
- (5) Member of the Advisory Group set up by the United Nations Development Program (UNDP) to supervise a project on evaluating the quality of university education in the Arab world.
- (6) Served on numerous academic and higher education committees. Dr. Anis served as the chairman of Cairo University's Research Planning Committee. He participated in the activities of the Supreme Council of Universities (SCU) in Egypt in several capacities, including :
 - The SCU Sector Committee on Engineering
 - Secretary of the SCU Permanent Committee for the promotion of faculty members in Electrical Engineering
 - Member of the Task Force to review the criteria and regulations for the promotion of faculty members in Egyptian universities at large
 - Advisor to the task force to prepare documents and procedures for the assessment of Universities, Colleges, and Programs
 - Member of the National Committee of Study Missions
 - Referee for the Degree Equivalence (Accreditation) Committee.

Industrial & Professional Experience

- (1) During 1966-1968, contribution was made to the design studies of Egypt's 500 kV, 800 km, double-circuit transmission line connecting the 2200 MW hydro-electric power station at the Aswan dam to Cairo.

The studies mainly included insulation design and air clearance dimensioning as well as related testing. Assessment of the line over voltage protection was also made.

- (2) During 1973 and 1974 with Hydro-Quebec Research Institute, Canada. Contribution was made to the development studies of Canada's prospective ultra-high voltage transmission system. Dr. Anis contributed to the design studies of the James Bay transmission line project. This is a 735 kV transmission complex connecting two hydro-electric power stations on La Grande river and Rupert river to the city of Montreal. Two double-circuit, 800 km long, lines from the former power station and one double-circuit 600 km long line from the latter were designed.
- (3) In his capacity as a member of the IEEE Working Group on Air Insulation (T & D Committee), Dr. Anis contributed to the setting of methodologies for the design of over head transmission lines at the extra-high voltage level. Original contributions in this area appeared in international journals (e.g. IEEE Transactions on Power Apparatus & Systems).
- (4) Member of the Cairo University team which, jointly with the Massachusetts Institute of Technology, USA, and the Egyptian Ministry of Electricity, conducted a study on the future expansion plan of Egypt's power generation and transmission complex. Dr. Anis headed the power system reliability group in this venture.
- (5) Member of the National committee formed to study the quality of power service and continuity to the heavily industrialized governorate of Giza.
- (6) Technical consultant on different occasions since 1979 to Ontario Hydro, Toronto, Canada, and British Columbia Hydro, Vancouver, Canada, on subjects relating to air and compressed SF₆ high voltage technology.
- (7) Contributed to the research project on the possible use of "Compact Towers" in Egypt. **Dr. Anis** assessed their use from environmental electro-magnetic fields view point.
- (8) Technical consultant on different occasions to industrial companies in Egypt, e.g. ElMaco Transformer Manufacturing Company, Egyptian Iron & Steel Company, Rural Electrification Authority, Egyptian Electric Power Company, ABB Industrial Systems Company, ARABB Company for Electrical manufacturing, Scientific Implementation Co. consulting firm,....