

CURRICULUM VITAE



NAME : **AYMAN NASR HAMED NASR**
DATE OF BIRTH : 31 October,1959
PLACE OF BIRTH : Giza, Egypt
NATIONALITY : Egyptian
MARITAL STATUS : Married, Three sons
LANGUAGES : Arabic (mother tongue), English , German
PERMANENT ADDRESS : 17 M. Metwally El-Sharawy st., El-Sharawy Tower, El Maryotayah, El Haram, Giza, Egypt
Tel : 002-02-33827192
Mobile: 01008818020

PROFESSION : Space data analyst and systems electronics Engineer, Computer processing of digital data in different fields of applications in Remote Sensing and Environmental Issues

PRESENT POSITION : Research Professor, Head of Data Reception, Analysis and Receiving Station Affairs Division. National Authority for Remote Sensing and Space Sciences (NARSS). 23 Joseph Broz Tito st., El-Nozha El-Gedida, Cairo, Egypt. Postal Code: 11769
Tel.: 26251231, Fax: 26225833-26225800
E-mail: aymanasr@hotmail.com
aymanasr@narss.sci.eg

ACADEMIC DEGREES :

- Ph.D. in Electronics and Communications, Faculty of Engineering, Cairo University (2002). Thesis entitled “A Novel Change Detection Technique for Multi-temporal Remotely Sensed Data”.
- M.Sc. in Electronics and Communications, Faculty of Engineering, Cairo University (1986). Thesis entitled “Change Detection in Remote Sensing, The Sequential Similarity Detection Algorithms”
- B.Sc. in Electronics and Communications, Faculty of Engineering, Cairo University (1981).

EDUCATIONAL EXPERIENCE :

- Numerous formal and informal courses, seminars, and workshops in remote sensing applications, digital image processing, GIS, and different computer techniques.
- Scientific computer course (FORTRAN) at the Computer Center of Cairo University, Egypt (1979).
- Training program on principles of data processing for earth scientists, USGS, Reston, Virginia, USA (1983).
- Training program on digital image processing techniques applied to remotely sensed data and photomap production, at the Environmental Research Institute of Michigan, Ann Arbor, Michigan, USA (1984).
- Scientific computer course (VAX/VMS Utilities & Commands) Giza Systems Engineering, Cairo, Egypt (1989).
- Scientific computer course (VAX/VMS System Management) Giza Systems Engineering, Cairo, Egypt (1989).
- Training program on ERDAS software package and geographic information systems (GIS) by a German Company (Geosystems) at the Remote Sensing Center, U.A.E. University, Al Ain, United Arab Emirates (1990) .
- Two workshops on “Advanced procedures for the thematic classification of multispectral imagery” & “Erdas image processing” at the International Institute for Aerospace Survey and Earth Sciences (ITC), Enschede, The Netherlands (1993).
- Two seminars on “GIS for water and sewerage ” (Dubai), and “Unlocking innovation experience the new technology from Silicon Graphics computer systems” (Abu Dhabi), United Arab Emirates (1996)
- Workshop on “ New methodologies and technologies in teaching science”, U.A.E. University, Faculty of Science, in cooperation with UNISCO Regional Office/Cairo, British Council/Abu Dhabi and German Research Council, DFG (1996).
- Seminar on “The roll of remote sensing in sustainable development”, the Remote Sensing Society of Egypt, Cairo, Egypt (1997).
- US/Egypt Workshop on “Priorities of desert studies”, Cairo, Egypt (1998).
- National Forum on “Support of remote sensing techniques to planning and decision making process for sustainable development in Egypt”, Cairo, Egypt (1998).
- Seminar on “Geographic imaging and GIS- the future”, Cairo, Egypt (1998).
- Seminar on “The new developments in remote sensing Radar technology and multisource applications”, Cairo, Egypt (1998).
- Egypt/US Workshop on “Global Climate Change”, co-sponsored by NARSS, EEAA and USEPA, Cairo, Egypt (1999).
- Seminar on “For an Infrastructure of the GIS in Egypt”, Cairo, Egypt (1999).

- UN/IAF Workshop on “Space: an integral part of sustainable development”, co-sponsored by the Government of the Netherlands, the European Space Agency, CNES, ITC, NLR and Station 12. Enschede, the Netherlands (1999).
- Seminar and Mid-Term Meeting on “Changes in Arid Mediterranean Ecosystem on the Long Term through Earth Observation (CAMELIO)” Cairo, Egypt (1999).
- Training Course on SAR Ocean Features and Meteorological Forecasts for Oil Spill Monitoring in the Mediterranean Sea, ESA/ESRIN Frascati, Italy (2000).
- Workshop on “The Use of Radar Imageries and Their Applications in Different Fields”, conducted in cooperation with the Canadian Ministry of Environment, NARSS, Cairo, Egypt (2000).
- Workshop on RAMSES "Oil Spill Detection in the Mediterranean Region Using Remote Sensing", Ain Shams University conference hostel, Cairo, Egypt (2000).
- Workshop on "The Canadian RADARSAT Program: Opportunities for Applications in Egypt", Cairo, Egypt (2000).
- Egyptian-Japanese Joint Seminar on “Space Sciences and Technology”, Cairo, Egypt (2002).
- Seminar on “Mathematical Modeling and Remote Sensing for Environmental Applications”, conducted in cooperation with Cairo and Alexandria universities, NARSS, Cairo, Egypt (2002).
- First Japanese-Egyptian Workshop on “PI-SAR Environmental Application Campaign over Egypt - Peace ”, Cairo, Egypt (2002).
- Training Workshop on “High Resolution Imagery (Spot 5, IKONOS, Quick Bird)”, conducted in cooperation with Spot Image France and Digitech International, at CRTEAN Headquarters, Tunis, Tunisia (2003).
- Training Course on “Online Database Searching and Document Delivery Services”, conducted by Egyptian National Scientific & Technical Information Network (ENSTINET) at NARSS, Cairo, Egypt (2003).
- The first ICAMS Nile Delta Workshop on “Information Technology for Coastal Zone Management of the Nile Delta: Stakeholder Priorities and Needs”, Ismailia, Egypt (2003).
- Workshop on “Parallel Computing for Remote Sensing and GIS”, NARSS, Cairo, Egypt (2004).
- Workshop on “Early Warning Systems and Usage of Space Technology in the Field of Natural Disasters”, conducted in cooperation with UNESCO Cairo Office, NARSS, Cairo, Egypt (2004).
- Workshop on “Identifying the Priorities of Remote Sensing and GIS Applications in Oceanography and Coastal Zones Management”, NARSS, Cairo, Egypt (2005).
- Project Management Training Program "MS Project Server 2003", NARSS, Cairo, Egypt (2005).

- Second Egyptian-Japanese Workshop on “Use of Remote Sensing Technologies in Archaeology”, NARSS, Cairo, Egypt (2006).
- Training Course on "Coral Reefs and the Associated Living Organismes in the Red Sea, Its Economy and Protection", The National Institute of Oceanography and Fisheries, Hurgada, Egypt (2006).
- Canada-Egypt Day on “Earth Observation”, organized by NARSS, Canadian Space Agency, and Canadian Embassy in Egypt, Cairo, Egypt (2006).
- Training Course on “RADARSAT SAR and Applications Training Program”, conducted by MDA Geospatial Services International, Canada, at NARSS, Cairo, Egypt (2007).
- Seminar on “The Roll of Remote Sensing and GIS in the Integrated Management of the Fishary Resources in Egypt”, held in the Suiz Canal University, El Esmailyah, Egypt (2008).
- International Workshop on "Supercomputing Applications in Climate Sciences and Remote Sensing", conducted in cooperation with Connecticut University (UAS), Cairo, Egypt (2008).
- Third Egyptian-Japanese Workshop on “Applications of Remote Sensing in Archaeology”, Supreme Council of Antiquities, Cairo, Egypt (2009).
- Training Course on "Quality Management systems-Requirements (ISO 9001/2000)", The National Institute for Quality, conducted at NARSS, Cairo, Egypt (2009).
- Seminar on "Solutions Expo 2009 - Power Up", Mentor Graphics, at Four Seasons Hotel, Garden City, Cairo, Egypt (2009).
- Seminar on "Solutions Expo 2010 – Design a New World", Mentor Graphics, at Four Seasons Hotel, Garden City, Cairo, Egypt (2010).
- ISNET/NARSS Seminar on "Bridging the Gap through Satellite Technology", Meredian Hotel, Heliopolis, Cairo, Egypt (2010).
- Seminar on “Integrated Development in Sinai – Future Plans”, NARSS, Cairo, Egypt (2011).
- Training Course on "Project Management Program", Leadership & Management Development Center, conducted at NARSS, Cairo, Egypt (2011).
- US-Egypt Workshop on “LIDAR Applications”, conducted in cooperation with Hamilton University, NY, UAS. At NARSS, Cairo, Egypt (2012).
- Training Workshop on “Radar Remote Sensing for Arid Regions Development”, conducted in cooperation with Environment Canada, NARSS, Cairo, Egypt (2012).
- Workshop on “The Authorship and Reviewing”, conducted by (STMPU) at the Academy of Scientific Research, Cairo, Egypt, in cooperation with Elsevier Publisher, Polska (2012).
- The 4th Egyptian-Japanese Joint Symposium on “Remote Sensing and its Applications; From Archaeology to Social Sciences”, Novotel El Borg Hotel, Cairo, Egypt (2012).

- Workshop on “AGRO-ICT-Infrastructure for Egypt”, conducted by NARSS in cooperation with the Austrian Embassy and PROGIS Software Company, at the Four Season Hotel, Garden City, Cairo, Egypt (2012).
- Workshop on “Environmental and Coastal Zone Modeling”, conducted by Faculty of Engineering, Cairo University in cooperation with Kyushu University, Japan and NARSS, Cairo, Egypt (2013).
- Training Course on "Radar Polarimetry", conducted in cooperation with Canada Center for Remote Sensing at NARSS, Cairo, Egypt (2014).
- Elsevier Info-Day Workshop on EKB Contents and SciVal “Towards a society that thinks, learn and innovates”, conducted at NARSS, Cairo, Egypt (2016).
- The 4th International ASD Users Meeting In Middle East, training course on: “Analytical Spectrum Devices (ASD) Spectroradiometer”, conducted by Mapping Solutions at NARSS, Cairo, Egypt (2016).
- ISNET/NARSS Workshop on "Earth Remote Sensing with Synthetic Aperture Radar (SAR)", conducted at NARSS, Cairo, Egypt (2016).
- Workshop on “Regional Coordination on Improved Water Resources Management and Capacity Building program”, conducted at NARSS, Cairo, Egypt (2017).
- Workshop on “COSMO SkyMed for Cultural Heritage: “Eye on the Globe”, conducted by the Italian embassy in cooperation with NARSS, Mena House Hotel, Greater Cairo, Egypt (2018).
- Inauguration of the travelling exhibition “Eye on the Globe”, jointly organized by the Italian embassy in Egypt, the Italian Space Agency (ASI) and (NARSS), Hilton Cairo Heliopolis Hotel, Egypt (2019).
- Workshop on “Decision Makers and the Benefits of Using Space Technologies for the North African Countries”, conducted by the Regional Center of Remote Sensing for the North African Countries (CRTEAN) in cooperation with (NARSS) and (ISESCO), Le Passage Hotel, Cairo, Egypt (2019).
- Workshop on “The Available Research Means from (El Sevier) through the Egyptian Knowledge Bank (EKB)”, conducted at NARSS, Cairo, Egypt (2019).

PROFESSIONAL EXPERIENCE :

- Broad experience in the analysis of space and airborne sensor collected data, digital image processing and GIS, for remote sensing application purposes, natural resource assessment and management, terrain analysis, and various environmental Issues (See project listing).

- Operation, maintenance, and utilization of the digital image processing facilities at the National Authority for Remote Sensing and Space Sciences (NARSS), Cairo, Egypt, which provide latest techniques.
- Development of some software packages used in the image data analysis computer system.
- Operation of Thermovision Infrared Cameras (AGA) and the analysis of thermal images (Temperature distribution in: cotton worms, plant leaves, integrated circuits, dental research, and other archaeological applications (sphinx)).
- Ground truth data collection during the remote sensing field check trips using Radiometers (Multispectral measurements).
- Researches leading to the development of both, the Turn-Off model of Silicon controlled rectifier as part of the B.Sc. project work (Grade: Distinction), and the Change detection techniques as part of the M.Sc. and Ph.D. Thesis.
- Development of course material “Digital Image Processing of Remotely Sensed Data” taught in the training courses offered by the Remote Sensing Center, Cairo, Egypt (1986).
- Participation in lectures, exercises, and experimental instructions in training courses for remote sensing trainees at the Remote Sensing Center, Cairo, Egypt (1986-1989).
- Establishment and supervision of Space Data Analysis and Computer Laboratory, in the Remote Sensing Center of the United Arab Emirates University (1989 – 1993).
- Preparation and supervision of the training courses conducted at the Remote Sensing Center and Faculty of Science, Geology Department, U.A.E. University, including development of course material:
 - Training course on Fundamentals of Remote Sensing (13/10 – 21/11/1990).
 - Training course on Inventory and Classification of Soil in the United Arab Emirates, Faculty of Agricultural Sciences, Al-Ain, U.A.E. (11/1993).
 - Training course on Remote Sensing and its Applications in Water and Meteorology, Ministry of Agriculture and Fisheries, Dubai, U.A.E. (10/1994).
 - Workshop on Remote Sensing Applications and Supporting Systems (25 – 27/12/1996).
- Operation and experience of several computer application (M-DAS, ERIM (IPF), ERDAS, and IMAGINE) software packages and utilization of (DOS, VMS, RSX, SOLARIS and WINDOWS) operating systems.

- Supervision of the digital image processing Lab's of both, the Remote Sensing Center (1989-1993), and the Remote Sensing Unit of the Geology Department, Faculty of Science (1993-1997), U.A.E. University.
- Teaching remote sensing practical courses for both undergraduate (Geology Department) and postgraduate (M.Sc. Environmental Sciences) students, Faculty of Science, U.A.E. University, Al -Ain, U.A.E. (1993–1997).
- Participation in lectures, exercises, and experimental instruction in training courses conducted at the National Authority for Remote Sensing and Space Sciences (NARSS), Cairo, Egypt:

- The first training course on remote sensing applications in the fields of agriculture, soils and image processing techniques (24/5/1998 - 4/6/1998).
- Training course on the use of remote sensing in agriculture statistics (6-10/12/1998).
- Regional training workshop on remote sensing and GIS, in cooperation with the Italian Embassy in Egypt and UNESCO Cairo office (25-28/1/1999).
- Training courses conducted for the UNDP-UNESCO joint project for the capacity building of The Egyptian Geological Survey & Mining Authority and The National Authority for Remote Sensing and Space Sciences for the sustainable development of the south valley and Sinai:

- Principles of Remote Sensing (7-8/4/1999).
- Introduction to Geographic Information Systems (GIS) (16-17/5/1999).
- Remote Sensing Applications (4-6/7/1999).

- Training course on the use of remote sensing in the detection of the underground water (14-18/4/2002).
- Training courses conducted for the General Authority for meteorology and the Research Institute for Ground Water trainees:
 - Introduction to Remote Sensing (1-5 /9/2002).
 - Introduction to Digital Image Processing (8-19 /9/2002).
- Training course conducted for the General Authority for meteorology (Egypt), the municipality of Dubai (UAE), and NARSS trainees:
 - Fundamentals of Remote Sensing and GIS & their Applications (12-21/10/2003).
- Regional training course on: Diagnosing, Monitoring, Combating, and early warning system for the Rift Valley Fever. For trainees from different Arab Countries, (8-10/12/2003) NARSS, Cairo, Egypt.
- Training course conducted for trainees from the General Authority for Meteorology, Badr Petroleum Company and the Urban Planning Authority.
 - Introduction to Remote Sensing and Digital Image Processing (29/3 - 11/4 2004).

- Team leader of remote sensing and image processing activities for the UNDP-UNESCO joint project for the capacity building of The Egyptian Geological Survey & Mining Authority and The National Authority for Remote Sensing and Space Sciences for the sustainable development of the north western desert, Egypt (2004-2005).
- Training Course on “Application of Remote Sensing in Coastal Lagoons”, conducted at NARSS, Cairo, Egypt (2005).
- Training courses on Introduction to Remote Sensing and Digital Image Processing held at NARSS. Conducted for trainees from:
 - Universities post graduates and NARSS staff (3-7/2/2008).
 - Egyptian Environmental Affairs Authority (EEAA) employees (10-14/2/2008).
 - National Center for Educational Research and Development experts and researchers (16-18/3/2008).
 - Research assistants of the Geology Department, Faculty of Science, Helwan University (17-21/8/2008).
 - Local committee of Siwa City (16-20/11/2008).
 - National Center for Educational Research and Development experts and El Tabary high school teachers (8-11/2/2009).
 - Under graduates students of the higher institute of engineering, El sheroq Academy (6-10/9/2009).
- Training course on “Introduction to Remote Sensing and Digital Image Processing and It's Applications” for the teaching staff of the Geology Department, Faculty of Science, Sohag University (TEMPUS-Project) (14-18/11/2009).
- Training course on “Advanced Digital Image Processing and Applications” for the teaching staff of the Geology Department, Faculty of Science, Assiut University (TEMPUS-Project) (2-6/1/2010).
- Training course on “Production of Space Atlas of Syria” for the staff of the General Organization of Remote Sensing, El Saborra, Syria (23/5 - 1/6/2010).
- Summer training courses on “Remote Sensing, Digital Image Processing and GIS” for undergraduate students of different Egyptian Universities (2010-present).
- Training course on “Introduction to Remote Sensing and Digital Image Processing” for the newly employed scientific staff in NARSS different divisions, conducted at NARSS, Cairo, Egypt (1-5/1/2017).
- Training course on “Essential and Advanced Digital Image Processing and Pattern Recognition for Remotely Sensed Images for Geological Applications (Processing and Interpretation)” for experts from the General Authority for geological researches in Sudan (1th group), conducted at NARSS, Cairo, Egypt (8-21/7/2018).

- Training course on “Essential and Advanced Digital Image Processing and Pattern Recognition for Remotely Sensed Images for Geological Applications (Processing and Interpretation)” for experts from the General Authority for geological researches in Sudan (2^{ed} group), conducted at NARSS, Cairo, Egypt (25/11- 8/12 / 2018).

EMPLOYMENT CAREER :

- (2016 – 2019) Research Professor, Head of Data Reception, Analysis and Receiving Station Affairs Division. National Authority for Remote Sensing and Space Sciences (NARSS), Cairo, Egypt.
- (2009 – 2016) Associate Research Professor, Head of Data Reception, Analysis and Receiving Station Affairs Division. National Authority for Remote Sensing and Space Sciences (NARSS), Cairo, Egypt.
- (2002 – 2009) Researcher, Acting Head of Data Reception, Analysis and Receiving Station Affairs Division. Supervisor of Digital Image Processing and its Applications Department. National Authority for Remote Sensing and Space Sciences (NARSS), Cairo, Egypt.
- (1997 - 2002) Assistant Researcher, Data Reception, Analysis and Receiving Station Affairs Division. National Authority for Remote Sensing and Space Sciences (NARSS), Cairo, Egypt.
- (1993 – 1997) Teaching Assistant, Remote Sensing Unit, Geology Department, Faculty of Science, U.A.E. University, Al-Ain, United Arab Emirates.
- (1989 - 1993) Research Assistant, Space Data Analysis and Information Transfer Section. Remote Sensing Center, U.A.E. University, Al-Ain, United Arab Emirates.
- (1981 - 1989) Space Data Analyst and Systems Electronics Engineer, Remote Sensing Center (RSC), Academy of Scientific Research and Technology, Cairo, Egypt.

MEMBERSHIP OF REGIONAL AND INTERNATIONAL CONFERENCES :

- First Thematic Conference, Remote Sensing of Arid and Semi-Arid Lands, Cairo, Egypt, (January 19-25 , 1982) .
- Third Thematic Conference, Remote Sensing for Exploration Geology, Colorado Springs, Colorado, USA, (April 16-19 , 1984) .

- Twentieth International Symposium on Remote Sensing of Environment, Nairobi, Kenya, (December 4-10 , 1986).
- International Conference on High Salinity-Tolerant Plants in Arid Regions, U.A.E. University, Al-Ain, United Arab Emirates, (December 8-15,1990).
- The 5th European ERDAS Users Group Meeting, Prien Am Chiemsee, Germany, (May 25-27, 1992).
- International Symposium, Operationalization of Remote Sensing, ITC, Enschede, The Netherlands, (April 19-23 , 1993) .
- Regional Environmental Symposium on Ecosystems, Environmental Protection and Graduate Education in Environmental Science, U.A.E. University, Al-Ain, United Arab Emirates, (December 11-14 , 1994).
- International Conference on Quaternary Deserts and Climatic Change, Al Ain, United Arab Emirates, (December 9- 11 , 1996).
- The Second Arab Conference on Space Researches, Remote Sensing, and Geographic Information Systems (GIS), Cairo, Egypt, (November 2-5, 1997).
- Africa/Middle East Second International Geophysical Conference and Exposition (Exhibitor), Cairo, Egypt, (February 17-19 , 1998).
- UN/ESA Symposium on Economic Benefits of Using Space Technology Applications in Developing Countries, Graz, Austria, (September 7-10 , 1998).
- 14th Petroleum Conference (Exhibitor), Cairo, Egypt, (October 12-15 , 1998).
- The 50th International Astronautical federation (IAF) Congress, Amsterdam, The Netherlands, (October 4-8 , 1999).
- International Conference on the Western Desert of Egypt, Geological Environment and Development Potentials, Cairo, Egypt, (January 17-20, 2000).
- The First Conference of the Space Sciences and Technology Research Council on Egypt and Space Industry, Cairo, Egypt, (April 8, 2000).
- The 2nd International Conference on Earth Observation and Environmental Information, Cairo, Egypt, (November 11-14, 2000).
- 8th International Symposium on Remote Sensing (SPIE), Centre de Congres, Toulouse, France, (September 17-21, 2001).
- 8th Cairo International Symposium on Energy and Environment (Exhibitor) Cairo, Egypt, (January 4-7, 2003).
- The 2nd International Conference and Exhibition on Geographic Information System (Exhibitor), Cairo, Egypt, (May 6-7, 2003).
- FIG Working Week 2005 and 8th International Conference on the Global Spatial Data Infrastructure (GSDI-8), Cairo, Egypt, (April 16-21, 2005).
- The 1st National Conference on Developing the Scientific Research System and Exhibition, Cairo, Egypt, (May 28-29, 2005).
- ITI 6th Arab GIS Conference, Towards Improved Governance and Better Environment, Cairo, Egypt, (September 11-13, 2005).
- 12th SPIE Europe International Symposium on Remote Sensing, Congres Ctr., Bruges, Belgium, (September 19-22, 2005).

- The 1st Interational Conference on Environmental Change of Lakes, Lagoons & Wetlands in the Southern Mediterranean Region, Cairo, Egypt, (January 4-7, 2006).
- The Annual Spot Image DRS Meeting, Cannes, France, (May 15-17, 2006).
- The 6th Int. AARSE Conference on Earth Observation & Geoinformation Sciences in Support of Africa's Development, Semiramis InterContinental Hotel, Cairo, Egypt, (30 October - 2 November, 2006).
- The 2nd WSEAS International Conference on Remote Sensing (REMOTE'06), Tenerife, Canary Island, Spain, (December 16-18, 2006).
- XXI ISPRS Congress "Silk Road for Information from Imagery", Beijing, China, (July 3-11, 2008).
- The 16th International Symposium on Remote Sensing and Spatial Information, General Organization of Remote Sensing (GORS) Headquarters, Damascus, Syria, (November 10-12, 2008).
- The 5th WSEAS International Conference on Remote Sensing (REMOTE'09), University of Genova, Genova, Italy, (October 17-19, 2009).
- The 17th International Symposium on Space Technology Management and Applications, General Organization of Remote Sensing (GORS) Headquarters, Damascus, Syria, (November 8-10, 2010).
- IEEE-GRSS and ISPRS International Joint Urban Remote Sensing Event (JURSE-2011), Technische Universität München, Munich, Germany, (April 11-13, 2011).
- XXII ISPRS Congress, "Imaging a Sustainable Future", Melbourne Convention and Exhibition Centre, Melbourne, Australia, (25 August – 01 September 2012).
- The 8th International Symposium on Digital Earth, Transforming Knowledge into Sustainable Practice, Borneo Convention Center Kuching, Sarawak, Malaysia, (August 26-29, 2013).
- SPIE Europe International Symposium on Remote Sensing, RAI Exhibition and Convention Centre, Amsterdam, Netherlands, (September 21-26, 2014).
- The 27st International Cartographic Conference (ICC 2015), Rio de Janeiro, Brazil, (August 23-28, 2015).
- XXIII ISPRS Congress, Prague kongresove Centrum, Prague, Czech Republic, (July 12–19, 2016).

LIST OF PUBLICATIONS :

- CONTRIBUTIONS IN PUBLISHED ATLASES :

- 1- " Space Atlas of Misr ", (1990). Remote Sensing Center, Academy of Scientific Research and Technology, Cairo, Egypt.

- 2- " The National Atlas of the United Arab Emirates ", (1993). U.A.E. University, Al Ain, United Arab Emirates.
- 3- " Atlas of Space Images of the Sinai Peninsula and South Western Desert of Egypt ", (2002). United Nations Development Programme Project of the Arab Republic of Egypt (Egy/97/011).
- 4- " Atlas of Space Images of the North Western Desert of Egypt ", (2005). United Nations Development Programme Project of the Arab Republic of Egypt (Egy/97/011).

- TECHNICAL PUBLICATIONS :

- 5-**Nasr, A.H.**, Saleh, F.H., Shaheen, S.I., and Abdel Hady, M.A., (1986): "Change Detection in Remote Sensing, the Sequential Similarity Detection Algorithms". Proc. of the 20th Inter. Symposium on Remote Sensing of Environment, Nairobi, Kenya, pp. 1339-1351.
- 6-**Nasr, A.H.**, and Embabi, N.S., (1992): "Terrain Classification of Two Urban Regions in U.A.E. Using Landsat TM Data and ERDAS System". Proc. of the 5th European ERDAS Users Group Meeting, Prien Am Chiemsee , Germany, pp. 1-11.
- 7-Yehia, M.A., and **Nasr, A.H.**, (1992): "Use of Thematic Mapper Satellite Data for the Study of the Geology and Geomorphology of Jabal Hafit, United Arab Emirates". Bull. of the Middle East Research Center (MERC), Ain Shams Univ., Earth Science Series, Vol. 6, pp. 169-183 .
- 8-Yehia, M.A., and **Nasr, A.H.**, (1992): "Using the Geographic Information System as a Tool for Environmental Evaluation at Jabal Hafit, United Arab Emirates". Bull. of the Middle East Research Center (MERC), Ain Shams Univ., Earth Science Series, Vol. 6, pp. 192-200 .
- 9-Yehia, M.A., and **Nasr, A.H.**, (1992): "In Situ Rock Reflectance - A Case Study in Jabal Hafit, United Arab Emirates". Bull. of the Middle East Research Center (MERC), Ain Shams Univ., Earth Science Series, Vol. 6, pp. 184-191.
- 10-**Nasr, A.H.**, and Yehia, M.A., (1993): "Using Landsat TM Data in Supervised Terrain Classification of Ras Al Khaimah Region, United Arab Emirates". Proc. of the Inter. Symposium Operationalization of Remote Sensing, ITC, Enschede, The Netherlands, Vol. 9, pp. 159-165 .
- 11-El-Etr, H.A., Rizk, Z.S., Hassan, O.A., and **Nasr, A.H.**, (1994): "Application of Remote Sensing Techniques and GIS in a study of the effect of Geology on the Roads Network in the United Arab Emirates". Proc. of Symposium on Desert Studies in The Kingdom of Saudi Arabia; Extant and Implementations, King Saud University, Riyadh, Saudi Arabia. Vol. 3, pp. 497-539.

- 12-EldougDoug, A., and **Nasr, A.H.**, (1995): "Merging Aerial Photographs and Landsat TM Data for the Delineation of the Weathered Zone of the Ophiolitic Ultramafic Rocks of Siji area, Northern Emirates Mountains, U.A.E.". Journal of The Faculty of Science, U.A.E. University, Vol. 8, (Spacial Issue – Part 2), pp. 253-259.
- 13-El-Ghawaby, M., El-Etr, H.A., and **Nasr, A.H.**, (1995): "Role of Remote Sensing and GIS Technologies in the Future Urban-Extension Planning of the Greater Al Ain City, United Arab Emirates". Journal of the Faculty of Science, U.A.E. University, Vol. 8, (Spacial Issue – Part 2), pp. 302 -315.
- 14-El-Sayed, M.I., **Nasr, A.H.**, and El-Gawaby, M., (1996): "Classification of Quaternary Surface Deposits in the Northeastern Part of Ar Rub' Al-Khali, U.A.E.". Third International Conference, Geology of the Arab World, Cairo University, Cairo, Egypt, pp. 287-308.
- 15-**Nasr, A.H.**, (1998): "National Authority for Remote Sensing and Space Sciences: Capability, Structure, and Strategy". Proc. of the UN/ESA Symposium on Economic Benefits of Using Space Technology Applications in Developing Countries, Graz, Austria.
- 16-EldougDoug, A., El-Etr, H.A., and **Nasr, A.H.**, (1998): "A Contribution to the Geology of Dalma and Sir Bani Yas Islands, United Arab Emirates". The Egyptian Journal of Remote Sensing and Space Sciences, Vol. 1, No. 1, pp. 351-367.
- 17-**Nasr, A.H.**, and Darwish, A.M., (1998): "Change Detection of the Western Part of El Fayoum Area and El Rayan Lakes Using Multitemporal TM Data". The Egyptian Journal of Remote Sensing and Space Sciences, Vol. 1, No. 1, pp. 195-206.
- 18-**Nasr, A.H.**, (1999): "Capacity Building for Sustainable Development of the South Valley and Sinai". Proc. of the UN/IAF Workshop on "Space: an integral part of sustainable development". Enschede, The Netherlands.
- 19-Shair, I.M., and **Nasr, A.H.**, (1999): "Using Satellite Images to Detect Land-Use Change in Al-Ain City, United Arab Emirates". The Arab World Geographer, Vol. 2, No. 2, pp. 139-148.
- 19-Shair, I.M., and **Nasr, A.H.**, (1999): "The Use of Satellite Data to Detect Land-Use Change in Al-Ain City, U.A.E.". The Egyptian Journal of Remote Sensing and Space Sciences, Vol. 2, pp. 107-116.
- 20-Yehia, M.A., Cherif, O.H., Ahmed, M.H., El-Leithy, B.M., and **Nasr, A.H.**, (2000): "Monitoring Oil Spills in the Exclusive Economic Zone of the Egyptian Mediterranean Water by Using Near Real Time Satellite Data". 2^{ed} International Conference on Earth Observation and Environmental Information, Cairo, Egypt (Abstract).
- 21-**Nasr, A.H.**, Darwish, A.M., and Shaheen, S.I., (2001): "Use of Intensity-Hue-Saturation (IHS) Transformations in Change Detection of Multi-temporal Remotely Sensed Data". Proc. Of SPIE, the 8th International

Symposium on Remote Sensing, Centre de Congres, Toulouse, France, Vol. 4541, pp. 318-327.

- 22-Faid, A., El Zawahry, M., and **Nasr, A.H.**, (2002): "Surface and Subsurface Factors Controlling Ground Water Recharge in Kom Ombo, Nile Valley, Egypt". The Thirteen Symposium on Phanerozoic and Development in Egypt, Al Azhar University, Cairo, Egypt.
- 23-**Nasr, A.H.**, El-Leithy, B.M. and Khalaf, F.I., (2003): "Environmental Modeling Using Remote Sensing and GIS for Sustainable Ecotourism Development of Ras Banas Area, Red Sea Coast, Egypt". The Egyptian Journal of Remote Sensing and Space Sciences, Vol. VI, pp. 3-12.
- 24-**Nasr, A.H.**, (2004): "Comparative Study for the DEM Generation from RADARSAT Stereoscopic Data and Topographic Maps". The Egyptian Journal of Remote Sensing and Space Sciences, Vol. VII, pp. 15-24.
- 24-**Nasr, A.H.**, (2005): "Comparative Study for the DEM Generation from RADARSAT Stereoscopic Data and Topographic Maps". Proc. Of SPIE, the 12th Europe International Symposium on Remote Sensing, Congres Ctr., Bruges, Belgium, pp. 1-9.
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- Technology (ICGST) - International Journal on Graphics, Vision and Image Processing (GVIP), Volume 7, Issue 3, pp. 25-30.
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- 39-Metwalli, M.R., **Nasr, A.H.**, Farag Allah, O.S., El-Rabaie, S. and Abd El-Samie, F.E., (2012): "Estimation of the Optimal Set of Parameters for PAN-Sharpener of Satellite Images Based on the Non-Sub-sampled Contourlet Transform". Proc. of the 29th National Radio Science Conference (NRSC-2012) Faculty of Engineering/Cairo University, Egypt, pp. 271-278.
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- 41-**Nasr, A.H.**, El Leithy, B.M. and Badr, H.S., (2012): "Estimation of Radiometric Calibration Coefficients of Egypstsat-1 Sensor". Proc. of the XXII ISPRS Congress, Melbourne Convention and Exhibition Centre, Melbourne, Australia, pp. 139-143.
- 42-Laban, N.A., El Saban, M., **Nasr, A.H.**, and Onsi, H., (2012): "Spatial Cloud Detection and Retrieval System for Satellite Images". The International Journal of Advanced Computer Science and Applications (IJACSA), Vol. 3, No. 12, pp. 212-217.
- 43-Metwalli, M.R., **Nasr, A.H.**, Farag Allah, O.S., El-Rabaie, S. and Abd El-Samie, F.E., (2013): "Combining Superresolution and Fusion Methods for Sharpening Misrsat-1 Data". IEEE Transactions on Geoscience and Remote Sensing, Issue , Volume 51, Issue 4, pp. 2292- 2301. **(IF: 3.467)**
- 44-**Nasr, A.H.**, Helmy, A.K., and El-Taweel, G.S., (2013): "Reconstructing a super-resolution image from images with inconsistent sub-pixel shift: A case study of Egypstsat-1 data". Proc. of the 8th International Symposium on Digital Earth, Transforming Knowledge into Sustainable Practice, Borneo Convention Center Kuching, Sarawak, Malaysia, pp. B.16-1-B.16-9.
- 45-**Nasr, A.H.**, El-Taweel, G.S., and Helmy, A.K., (2014): "Super Resolution for EGYPTSAT-1 Images with Erratic Shift". Journal of Computer Science, Vol.10, No. 8, pp. 1324-1335. **(IF: 1.35)**
- 46-Metwalli, M.R., **Nasr, A.H.**, Farag Allah, O.S., El-Rabaie, S., Abbas, A. M., Alshebeilid, S.A., and Abd El-Samie, F.E., (2014): "Efficient pan-sharpening of satellite images with the contourlet transform". International Journal of Remote Sensing, Vol. 35, No. 5, pp. 1979–2002. **(IF: 1.138)**
- 47- **Nasr, A.H.** and Metwalli, M.R., (2014): "Comparative Performance of the Integration of ETM-8 and ERS-1 Data for Geological Application".

- International Journal of Computer Applications (IJCA), Volume 94, Number 7, pp. 1-8. **(IF: 0.82)**
- 48-Zeyada, H.H., Ezz, M.M., **Nasr, A.H.** and Harb, H.M., (2015): "Classification of Crops using Polarimetric SAR Parameters based on Scattering Mechanism". (ICGST)-International Journal on Graphics, Vision and Image Processing (GVIP), Volume 15, Issue 1, pp. 55-62. **(IF: 1.511)**
- 49-Helmy, A.K., **Nasr, A.H.** and Hassan, S.M., (2015): "Mutual Use of Derived Information from Radarsat-2 and ETM-8 Data for the Improvements of Feature Extraction". (ICGST)-International Journal on Graphics, Vision and Image Processing (GVIP), Volume 15, Issue 1, pp. 45-53. **(IF: 1.511)**
- 50-**Nasr, A.H.** and Abdelhamid, H.Z., (2016): "Identifying Polarimetric Signatures for Different Features in Radarsat-2 PolSAR Image of Part of Halayib Area, EGYPT". (ICGST)-International Journal on Graphics, Vision and Image Processing (GVIP), Volume 16, Issue 1, pp. 11-18. **(IF: 1.511)**
- 51-Hind H. Zeyada, Mohammed M. EZZ, **Ayman H. Nasr**, Mohammed Shokr and Hany M. Harb, (2016): "Evaluation of the discrimination capability of full polarimetric SAR data for crops classification". International Journal of Remote Sensing, Vol. 37, No. 11, pp. 2585-2603. **(IF: 1.65)**
- 52-Abdellatif, B.M., **Nasr, A.H.** and Hassan, S.M., (2016): "Detection of Ground Hazards of El Mokattam Plateau, East Cairo (Egypt), Using Terrestrial Laser Scanning". International Journal of Computer and information technology (IJCIT), Volume 5- Issue 3, pp. 326-336.
- 53- Sayed, A. Mohamed, A. S. EL sherbeny, **Ayman H. Nasr** and A. K. Helmy: (2017): "A New Image Super-Resolution Restoration Algorithm". International Journal of Computer Applications (0975 – 8887) Volume 173 – No.10, pp. 1-8.

RESEARCH THESIS SUPERVISION:

- **M.Sc. Degree** “Proposed System for Content Based Satellite Image Retrieval”. Eng. Nour El Din El Sayed Abd El Fatah Laban. Department of Information Technology, Faculty of Computers and Information, Cairo University, Egypt (2013).
- **M.Sc. Degree** “Assessment of the discrimination capability of multi-channel SAR data for ground cover classification”. Eng. Hind Zeyada Abdel Hamid. Department of Computers and Systems, Faculty of Engineering, El Azhar University, Egypt (2013- on going).

- **Ph.D. Degree** “Assessing the Quality of Satellite Images Using Advanced Data Fusion Techniques”. Eng. Mohamed Roshdy Mohamed Metwalli. Department of Computer Science and Engineering , Faculty of Electronic Engineering, Minoufiya University, Egypt (2013).
- **Ph.D. Degree** “Developing an innovative technique to enable estimate of surface area and volume of high Aswan Dam Lake using satellite images”. Eng. Belal. M. El Leithy. Department of Environmental Engineering , Institute of Environmental Studies and Research, Ain Shams University, Cairo, Egypt (2013- on going).

RESEARCH THESIS JUDGMENT:

- **M.Sc. Degree** “Assessment of Some Water Quality Parameters of the NILE Delta Coast Using Satellite Data”. Eng. Belal M. El Leithy. Department of Environmental Engineering , Institute of Environmental Studies and Research, Ain Shams University, Cairo, Egypt (2012).
- **Ph.D. Degree** “Monitoring Changes in Wetlands Using Remote Sensing Techniques”. Eng. Ghada Abdullaleem Soliman. Department of Environmental Engineering , Institute of Environmental Studies and Research, Ain Shams University, Cairo, Egypt (2012).
- **M.Sc. Degree** “Proposed System for Content Based Satellite Image Retrieval”. Eng. Nour El Din El Sayed Abd El Fatah Laban. Department of Information Technology, Faculty of Computers and Information, Cairo University, Egypt (2013).

MEMBERSHIP OF SCIENTIFIC SOCIETIES & TECHNICAL COMMITTEES:

- The Egyptian Engineering Syndicate, Cairo, Egypt (1981- present).
- The Egyptian Society of Remote Sensing, GIS and Space sciences, Cairo, Egypt (1997- present).
- Participating in (member of) the technical committee responsible for putting the specifications for the establishment of the National Egyptian Ground Receiving Station, Cairo, Egypt (1999).
- Participating in (member of) the technical committee responsible for assessing the bidders (vendor’s offers) for the National Egyptian Ground Receiving Station, Cairo, Egypt (2000).

- Participating in (member of) the technical committee responsible for the Factory Acceptance Tests (FAT) of the National Egyptian Ground Receiving Station, Simi Valley, California, USA (2001).
- Participating in (member of) the technical committee responsible for the Site Acceptance Tests (SAT) of the National Egyptian Ground Receiving Station, Aswan and Cairo, Egypt (2006).
- Space Technology Applications and Climatic Changes Department, Space Sciences and Technology Research Council, Academy of Scientific Research and Technology, Cairo, Egypt (2007).
- Member of the Associate Editors of the Egyptian Journal of Remote Sensing and Space Sciences, hosted and produced by Elsevier Publisher (2010).
- Member of the Board of directors (Administration) of the National Authority for Remote Sensing and Space Sciences (2014-2016).

CERTIFICATES & AWARDS

AWARDS:

The Prize of the Best Paper of the 5th WSEAS International Conference on Remote Sensing (REMOTE'09), University of Genova, Genova, Italy (October 17-19, 2009) for the Paper "Exploration of Misrsat-1 Data in Different Change Detection Applications".

SAMPLE PROJECTS AND RESEARCHES OF ACTIVE PARTICIPATION:

- 1-Classification and color slicing of the shallow water surrounding Qatar Peninsula by digital processing of the Landsat data (1981).
- 2-Landsat digital data processing for estimation of agricultural land in Egypt (1982) .
- 3-Classification of soil, agriculture, geomorphology for Jeddah area, Saudi Arabia (1983) .
- 4- Earthquakes studies in Aswan area, applying space borne imagery interpretation and other techniques (1984).
- 5- Regional irrigation improvement project in a part of El Minia Governorate using satellite data, aerial photos, and field work (1986).
- 6-Identification and surface area calculation of water bodies by digital processing of satellite data for development of fisheries (1986).
- 7-Exploratory studies on white (Glass) sands in Sinai using remote sensing techniques (1989).
- 8-The use of different enhanced TM digital data in the identification of Gold distribution location in some Quartz veins, with special emphasis on

- oxidation reduction zone in the northern part of the eastern desert, Egypt (1989).
- 9-Space Atlas of Misr, geometrically and radiometrically corrected photomaps, as part of (MPGAP) Mineral, Petroleum, and Ground water Assessment Project in cooperation with US-AID project (1990).
 - 10-Environmental aspects of geographical distribution of Mangrove in the United Arab Emirates using Landsat TM data (1990) .
 - 11-Dune pattern in the United Arab Emirates using Landsat TM data (1991).
 - 12-Remote sensing and its application in the field of environmental oil pollution (1991).
 - 13-Identification and classification of soil and water studies of Al-Auha farm, Faculty of Agricultural Sciences, U.A.E. University (1991).
 - 14-Improvement of arid land agriculture in the United Arab Emirates (Satellite remote sensing technology). A joint study project between U.A.E. University and Japan International Cooperation Agency (JICA) (1991 - 1992).
 - 15-Application of remote sensing techniques to the study of sand dune fixation and afforestation areas, U.A.E. University and Japan International Cooperation Agency (JICA) (1991 - 1992) .
 - 16-Contribution to the geology & geomorphology of Jabal Hafit area, Al-Ain, U.A.E., using remote sensing techniques. Remote Sensing Center, U.A.E. University (1991 - 1992) .
 - 17-Drainage basins and flash flood hazards mitigation in Al-Ain area, U.A.E., Remote Sensing Center, United Arab Emirates University (1991 - 1993) .
 - 18-Detailed studies of lands affected by salts in selected parts in U.A.E., United Arab Emirates University, and Ministry of Agriculture and Fisheries (1991 - 1993) .
 - 19-Geological and geomorphological effects on the highway network of the United Arab Emirates using GIS techniques (1994) .
 - 20-A multidisciplinary study of sand dunes of Al-Ain region and their environmental implications, U.A.E. University (1992-1995).
 - 21-A multidisciplinary study of some mineral deposits in the United Arab Emirates and their potential as substitutes for imported industrial raw material, U.A.E. University (1993-1996).
 - 22-Satellite photomaps production of different concession areas, geometrically and radiometrically corrected and enhanced for optimal structure and lithology appearance, for various petroleum and oil companies in Egypt (Forum, Appach, Repsol, Seagull, Agiba, ...and others) (1997-1998).
 - 23-Preparation of Atlas of the rocks and minerals of the eastern desert of Egypt, NARSS (1998).
 - 24-Identification and area calculation of Mangrove communities at the Red Sea coast and the Gulf of Aqaba (1998).

- 25- Study in pattern recognition (structural approach) and it's application using TM data, NARSS (1998).
- 26- Study of the application of Neural Network in classifying remotely sensed data, NARSS (1998).
- 27- Using remote sensing applications in integrated development of Halaib and Shalateen region, (GIS) project conducted for the Academy of Scientific Research and Technology (1998-1999).
- 28- Study of the natural resources in El Natroun valley, Burg El Arab and El Dabaa region, Egypt, NARSS (1998-1999).
- 29- Environmental changes and its effect on diseases widespread in southern Sinai using GIS, NARSS (1998-1999).
- 30- A study of the sustainable development of the region east of Lake Nasser, Southeast Egypt, NARSS (1998-1999).
- 31- Prospective for radioactive material in the central eastern desert of Egypt, NARSS (1998-1999).
- 32- Sand dunes encroachment hazards on the 12,000 fedan reclamation land of Darb El-Arbaeen project.
- 33- UNDP-UNESCO joint project for the capacity building of The Egyptian Geological Survey & Mining Authority and The National Authority for Remote Sensing and Space Sciences for the sustainable development of the south valley and Sinai-Egy/97/011/A/01/13 (1999-2000).
- 34- Regional Earth Observation Application for Mediterranean Sea Emergency Surveillance (RAMSES) project, in co-operation with ESA/ESRIN (I), SPOTimage (F), Eurimage (I), MS & I (F), ACS (I), ICOD (M) and others (1999-2000).
- 35- Dune fields of the western desert of Egypt using Landsat data. Conducted for (ALECSO) Arab League Education, Culture, and Science Organiztaion (2001).
- 36- Preparation of base maps and geographic information system for Marsa Alam-Baranies area on the Red Sea coast (2002).
- 37- Development of an information system for operational monitoring and integrated management of the Nile Delta coastal zones (ICAMS), in co-operation with the Food and Agriculture Organization (FAO) of the United Nations (2003).
- 38- Monitoring and Modeling Coastal Lagoons: Making Management Tools for Aquatic Resources in North Africa (MELMARINA), in co-operation with the European Commission (2002-2004).
- 39- Water Use Efficiency in Natural Vegetation and Agricultural Areas by Remote Sensing in the Mediterranean Basin (WATERMED), in co-operation with the European Commission (2003-2004).
- 40- Comparative study for the (DEM) generation from the Radar satellite data & the topographic maps (2003-2004).

- 41- Use of Radarsat images in mineral exploration at Gabal Kamel, south western desert, Egypt (2003-2004).
- 42- Space images atlas of Egypt (2004-2005).
- 43- UNDP-UNESCO joint project for the capacity building of the Egyptian Geological Survey & Mining Authority and the National Authority for Remote Sensing and Space Sciences for the sustainable development of the north western desert, Egypt (2004-2005).
- 44- Development of a remote sensing technique for environmental assessment of coral reefs and mangroves in some areas along Hurgada region, Red Sea, Egypt (2006).
- 45- Using satellite data in the assessment of water quality parameters in some areas along the Red Sea coast, Egypt (2006-2007).
- 46- The use of remote sensing techniques and geographic information system for the delineation and monitoring of fish production in Egypt (2007-2008).
- 47- Production of photomaps and a complete mosaic of the eastern desert, the valley and the Nile Delta using Spot 4 satellite data (2007-2009).
- 48- Super Resolution Image Reconstruction Using Data Fusion (2009-2010).
- 49- Technology Management & Integrated Modeling in Natural Resources; A University-Enterprise Win-Win Partnership (TEMPUS–Project) in co-operation with the european commission (2009-2010).
- 50- Misrsat-1 Data Calibration (2010-2011).
- 51- Sinai Information System for Land Management and Environment Monitoring, (WP 10) Satellite Base & HRPT Output Maps (2011-2012).
- 52- Sinai Information System for Land Management and Environment Monitoring, (WP 10) Satellite Base & HRPT Output Maps, second phase (2012-2013).
- 53- Exploration and Processing of Different Types of Radar (SAR) Data and Their Applications (2013-2014).
- 54- SAR, Multispectral, and Hyperspectral Data Applications in Halaiyb and Shalateen Area (2014-2015).
- 55- SAR, Multispectral, and Hyperspectral Data Applications in Halaiyb and Shalateen Area- Second Phase (2015-2016).
- 56- New Trends in Image Classification Methods for Mid/High Resolution; Spectral/Object-based (2016-2017).
- 57- Monitoring Temporal Changes and Developing their Desktop GIS-Toolbox: A Case Study of El Behaira Governorate (2017-2018).
- 58- Evolving Guidelines for the General Criteria of the use of (DInSAR) Techniques for Surface Deformation Monitoring (2018-2019).