



Curriculum Vitae

Name : Safaa Mohamed Hassan Sayed
Residence : 60, Abou Dawode el Zahry st., Nasr city, Cairo, Egypt.
Date of Birth : 1 February, 1965
Nationality : Egyptian
Religion : Moslem
Marital Status : Married, Three children.
Languages : Arabic (mother tongue), English (v. good), Germany (Good)
Present Position : **Head of Geographic information systems division 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.
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Title : Remote Sensing & GIS Expert.

ACADEMIC DEGREES :

professor: Remote sensing applications, Permanent Scientific Committee of Research Centers and Institutes, National Research Center, Cairo, Egypt.

Associate professor: Remote sensing applications, Permanent Scientific Committee of Research Centers and Institutes, National Research Center, Cairo, Egypt.

-Ph.D. Remote Sensing, GIS and geological application, Faculty of Sciences, Helwan University (2008).
The thesis entitled “Improved image processing and geographic information systems techniques for Lithological, structure and geomorphology)

- M.Sc. In geo-environmental science, GIS and remote sensing, Institute of Environmental Studies and Research, Ain Shames University, (2003). Thesis entitled “Geo-Environmental study in Shalateen Area Using Remote Sensing and GIS Techniques”
- B.Sc. In geophysics, Faculty of science, Ain Shames University (1987).

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).
- Experienced in teaching under/post graduates.
- Experienced in scientific research.
- Experienced in writing research proposals and seeking fund.
- Expert in GIS design, application and implementation.
- Proficient in using remote sensing in irrigation water and environment management.
- Operation, 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.
- Operation of Thermo vision 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).
- Using some operating systems.
- Sun ULTRA 1 (Solaris, ERDAS Imagine 8.4)
- Sun ULTRA 2 (Solaris, ERDAS Imagine 8.4)
- Alpha 3000 / 600 (OSF 1, ERDAS Imagine 2013, ARC / INFO)
- VAX 8350 (VMS, ERIM IPF, ARC / INFO)
- 10 Personal computers (Windows NT4 and 97, ERDAS Imagine 2011, PCI, ARC / INFO, Arcview and ARC-GIS version10.1)
- Operating Computer system of (VAX 8350 / VMS, micro VAX2/ VMS and PDP 11/44 RSX).
- Participation in the training courses conducted by National Authority for Remote Sensing and Space Sciences (NARSS), Cairo, Egypt.

- Participation in the organization of several exhibitions, workshops, and seminars related to different remote sensing and GIS fields.
 - 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).
 - Teach both undergraduate and postgraduate fundamentals and advanced of remote sensing and image processing and other environmental courses such as:
 - Environmental pollution
 - Environmental studies.
 - Environmental Hazard
- At Faculty of Science, Helwan University, Helawn, Egypt (2008-2009, 2009-2010, 2010-2011, 2011-2012 and 2012-2013).
- Teaching Geographic Information System (GIS), urban planning and regional planning courses for undergraduate (architecture departments) students, faculty of Engineering, **El Shrowq Academy**, Egypt (2008 till now).
 - Teaching Geographic Information System (GIS) courses for undergraduate and postgraduate (computer sciences Department) students, faculty of computer sciences, **Arab Academy for Science, Technology & Maritime transport**, Egypt (2009 till now).
 - Teaching Geographic Information System (GIS) courses for undergraduate and postgraduate (computer sciences Department) **students, faculty of computer sciences, Future** university of Egypt, Cairo, Egypt (2009 till now).
 - Graduation project supervision for AI Enterprise web based system (i.e. Artificial intelligent Enterprise management system for ARCHIVING AND temporal DESERTIFICATION PROBLEMS evaluation using remote sensing big Data analysis) (computer sciences Department) students, faculty of computer sciences, Future university of Egypt, Cairo, Egypt.
 - Training Geographic Information System (GIS) courses for some petroleum company, Egypt.
 - Training course of introduction to remote sensing and digital image processing and its applications, Sohag University, Egypt within the activities of the Technology management and Integrated Modeling in Natural Resources (TEMPUS Project), 14-18 November, 2009.

- Training course of advanced digital image processing and applications, Asyut University, Egypt within the activities of the Technology management and Integrated Modeling in Natural Resources (TEMPUS Project), 2-6 January, 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).
- I have delivered many Human Resources (HR) training courses to the National Authority for Remote Sensing and Space Sciences as well as other research institutes to develop and improve the human resource efficiency. This includes:
 - Time management
 - Presentation Skills
 - Mentoring and coaching
 - Project Management.
- use a wide array of instruments and equipment such as terrestrial LiDAR and ASD mineral identifier.
- Experience in 3D cloud point LIDAR data model building for rock fall and landslide Hazard.
- Apply advanced image processing techniques on satellite data and determines and the lithological and structure features as well as mineral maps.
- Ability to interpret the extracted information on basement rock, alteration zones and rock forming mineral compositions.
- Make use of GRACE data to evaluate the groundwater changes with global scale.
- Make use of Digital elevation model (DEM) to evaluate the possible flash flood hazard.
- Prepared reports for internal use, based on provided data analysis sheets, and assisted in reviewing results.
- Managing the activities of crew members, ensuring that they are working according to procedures and protocols.
- I am a supervisor for many Master and Ph.D. thesis in different remote sensing applications.
- I have many geological remote sensing publications in high ranking journals.
- **Further Education:**
- Training Program on GIS system and its application at Remote Sensing Center (RSC) Cairo, Egypt (1990).

- Training course on Watershed Analysis Using GIS (Arcview). The center for environment & development for Arab Region & Europe (CEDARE) Egypt, Cairo, July (1997).
- Workshop on "The Canadian RADARSAT Program: Opportunities for Applications in Egypt", Cairo, Egypt (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).
- Training course in environmental sciences at institute of Environmental Studies and Research, Ain Shames University, Cairo, Egypt (2000).
- Training workshop STAR GIS 5, CRTEAN headquarters –Tunis; 29 June -01 July 2005.
- 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).
- Training Program on innovative application of remote sensing and geoinformation sciences for female professionals in the earth sciences presented by International Institute for Geo-Information Science and Earth Observation (ITC) and held at the National Authority for Remote Sensing and Space Sciences (NARSS), Cairo, Egypt. From 03 November to 16 November 2006.
- Training course "Radarsat SAR Applications Training Program" by MDA Geospatial Services International, held at the National Authority for Remote Sensing and Space Sciences (NARSS), Cairo, Egypt. NARSS Cairo, 14-25 May 27, 2007.
- International Workshop on "Supercomputing Applications in Climate Sciences and Remote Sensing", conducted in cooperation with Connecticut University (UAS), Cairo, Egypt (2008).
- Workshop on "SAR and optical data applications for natural resources and environmental management " 2-5 Nov. 2009, GORS Headquarters, Damascus, Syria, organized by Inter-Islamic Network on Space Sciences and technology (ISNET).
- Workshop on "Space Technology and Geoinformation for Sustainable Development. Held in Cairo June 14-17 -2010.

- SPIE Europe Sensing 20-23 September 2010 International conference For Optical Engineering (the Security and Defence/Remote Sensing) in Toulouse, France at the Pierre Baudis Conference Centre, in Toulouse, France.
- The Security and Defense /Remote Sensing Conferences 2010 (20-23 September 2010),
- Workshop on Application of Satellite Technology in Water Resources Management 18-19 September 2011 jointly organized by Inter Islamic Network on Space Science & Technology (ISNET) & Royal Jordanian Geographic Center (RJGC) Amman, Jordan. Training on Application of Satellite Technology in Water Resources Management. Estimation of Groundwater Volume to Satellite Image by using GIS and RS. Estimation of Rainfall and Runoff of Indus River to Satellite Image by using GIS & RS. Registration of Radar Image by using Erdas Imagine. 20-22 September 2011 jointly organized by Inter Islamic Network on Space Science & Technology (ISNET) & Royal Jordanian Geographic Center (RJGC) Amman, Jordan.
- The international Maritime Transport and Logistics Conference (MARLOG 2) "Sustainable Development of Suez Canal Region" Held on 17-19 March, 2013- Alexandria, Egypt. Arab Academy for science, Technology and Maritime Transport.
- Geography and contemporary global changes conference held on Tiba University, Saudi Arabia from 1-4 April 2013.
- 13th International Multidisciplinary Scientific GeoConference & EXPO SGEM2013 in June 16-22, 2013, Albena Resort & Spa, Bulgaria.
- SPIE Asia Pacific Remote Sensing, 13-16 October, 2014. Beijing International Convention Center, Beijing, China.
- Advanced Image Processing Training Course using LiDAR (Laser Data), Calgary University, Canada 2014.
- International Multidisciplinary Earth Science Symposium WMESS 2016 which held in Congress Centre, Prague, Czech Republic on September 5-9, 2016.
- Use of GRACE and Relevant Remote Sensing Data to Estimate Spatial and Temporal Changes in Terrestrial Water Storage (TWS) for the Nubian Aquifer System, Western Michigan University, Kalamazoo, Michigan, USA, from 1-7 to 30-8-2016.

Employment Career:

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- (1993–Present) National Authority for Remote Sensing and Space Sciences (NARSS), Cairo, Egypt. (Analyst Space Data and remote sensing and GIS application.)
- (1989 – 1993) Remote Sensing Center, Academy of Scientific research and Technology (RSC), Cairo, Egypt (Analyst Space Data and remote sensing application particularly in geology).

Sample Projects of Active Participation:

- Satellite Data Atlas of Sinai, Geometrically and radiometrically corrected Scale (1: 100,000) 1991.
- Monitoring urban development of El-Sharkya governorate from different Landsat TM and MSS imagery between 1978 and 1984 (1994).
- Monitoring urban development of Greater Cairo Area from sequential Landsat data between 1980 and 1982 (1993).
- Production of complete coverage of Sinai using TM data with different Scales (1991- 1992).
- Satellite Data Atlas of Egypt, Geometrically and radiometrically corrected (1: 250,000), Photomaps, as part of Mineral, Petroleum and Groundwater Assessment Project, in cooperation with Egyptian Geological Survey, Desert Research Institute, Egyptian Government- USAID project (1989 – 1990) .
- Underground water study using TM data covering the Nile valley for Underground Water Research Institute, Ministry of Irrigation (1989).
- Integrated Development of Halayeb and Shalateen Area using GIS Project, Conducted for Academy of Scientific Research and Technology (1997).
- Regional geomorphological study for upper Mokattam Plateau (1997).
- Regional rock study for upper Mokattam Plateau (1997).
- Structure geological study for upper Mokattam Plateau (1997).
- Hazard & geological study for upper Mokattam Plateau (1997).
- Mineral deposits study at “Gabal Elba”, Halayibe, southeastern desert (1997).
- Modeling and Mapping of Shore Line Sensitivity for Tourism Development Using Satellite Data “Marsa-Alam Baranies Area, Red Sea Coast”, (2002).
- Quantitative analysis of drainage network of selected parts of the Gulf of Suez and their impact on human development activities (2003-2004).
- Hazard assessment and imitative measures of flash flooding on the Red Sea towns, Egypt (1997).

- Environmental Monitoring of lagoons: Making Management Tools for Aquatic Resources in North Africa (MELMARINA international project), in co-operation with the European commission (2002-2004).
- Development of an Information System for Operational Monitoring and Integrated Management of the Nile Delta Coastal Zone (ICAMS international project), NARSS in cooperation with Food and Agriculture Organization of the United Nations (FAO), (2002-2003).
- Space images atlas of Egypt, Geometrically and radiometrically corrected (A3 size), Photomaps 2004-2005.
- Project for the Capacity Building of The Egyptian Geological Survey and Mining Authority (EGSMA) and The National Authority for Remote Sensing and Space Sciences (NARSS) In Cooperation with UNDP and UNESCO EGY /97/011(Executed by UNESCO Cairo Office) NARSS Office, Atlas of Space Images of the North Western Desert , Egypt (2005).
- Using Satellite Data in the Assessment of Water Quality Parameters in Some Areas along the Red Sea Coast, Egypt (2006-2007).
- Production of Photomaps and a Complete Mosaic of the Eastern Desert, the Valley and the Nile Delta Using Spot 4 Satellite Data (2007-2008).
- Super resolution image reconstruction using data fusion (2009-2010).
- GROUNDWATER AND MINERAL EXPLORATION IN NW SINAI, EGYPT, USING RADARSAT-2, ASTER REMOTE SENSING AND GIS.
- Regional coordination on improved water resources management and capacity building program. World bank project, 2012-2017.
- Sinai Information System for Land Management and **Environments Monitoring**. Satellite Base & HRPT Output Maps (Two phases). 2010-2013.
- Rock-fall Monitoring and scene modeling Using **LiDAR Imaging System** for Abu El Reesh area, Aswan or some other areas, 2013-2014.
- SAR, Multispectral, and Hyperspectral Data Applications in Halaiyb and Shalateen Area research project 2014-2015.
- New Trends in Image Classification Methods for Mid/High Resolution; Spectral/Object-based research project 2016-2017.
- Monitoring Temporal Changes and Developing their Desktop GIS-Toolbox: A Case Study of El Behaira Governerate 2017-2018.
- Building web application for standardized geo-spatial data System for The Egyptian Governorates, research project at NARSS 2017-2018.
- Potentiality of Remote Sensing data and Modeling in Pattern Analysis: Case Study of Water Consumption/Storage in the Nile Basin. research project at NARSS 2018-2020.

- Target Detection and Localization in Remote Sensing Bigdata for automatic updating/alarming of geographic resources and risks 2020-2021.
- The use of remote sensing data and techniques and geographic information systems in the study of urban encroachments in the Tenth District in Nasr City, contract project, 2020-2021.
- Enhancing remote sensing data using Deep learning models for better object detection, Research project, 2022-2023.
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CONTRIBUTIONS IN PUBLISHED ATLASES :

- 1- " Space Atlas of Misr ", (1990). Remote Sensing Center, Academy of Scientific Research and Technology, Cario, Egypt.
- 2- " Atlas of Space Images of the Sinai Peninsula and South Western Desert of Egypt ", (2002). Untited Nations Development Programme Project of the Arab Republic of Egypt (Egy/97/011).
- 3- " Atlas of Space Images of the North Western Desert of Egypt ", (2005). Untited Nations Development Programme Project of the Arab Republic of Egypt (Egy/97/011).

List of Publications:

1. M. A. Yehia, M. H. Ashmawy, H. A. El Etr, H. Abdel Monsef and **S. M. Hassan** (1999), "Flash flooding threat to the red sea coastal towns of Safaga, Quseir and Marsa El Alam". The Egyptian Journal of Remote Sensing and Space Sciences, Volume 2,1999.
2. Abdeen, M. M., Sadek, M. F. , Hassan, S. M. and Greiling, R. O. (2003) "Kinematic indicators and strain analysis in the East African Orogen, Wadi Hodein, South Eastern Desert, Egypt".
3. Sadek M. F., El-malky M. G. , Yehia M. A. ., Hassan S. M. (2003) "Remote sensing signatures of some rock units in Shalatin area, South Eastern Desert of Egypt. Journal of Institute of Environmental Studies and Research, Ain Shames University.
4. Sadek M. F., S. M. Hassan Morphometric GIS Modeling for Sustainable Development of Wadi Rahaba-Hoden Area, Red Sea Coast, SE Egypt. Asian Conference of Remote Sensing, 22-26 November 2004.

5. S. M. Hassan; M. M. Abdeen; Y. A. H.A.El-Kazzaz ; M. A. Yehia; G. M. Atya (2008). Characterization of Oligocene sands and gravels on terra ASTER images using spectral signature and principal component analysis, Wadi Ghoweiba, Northwestern Gulf of Suez, Egypt. Egypt. J. Remote Sensing & Space Sci., V.11, PP, 73-92.
6. M. M. Abdeen; Y. A. H. A. EL-Kazzaz; G. M. Attia; M. A. Yehia and S. M. Hassan (2008). MAPPING GEOLOGICAL STRUCTURES IN WADI GHOWEIBA AREA, NORTHWEST GULF OF SUEZ, EGYPT, USING ASTER-SPOT DATA FUSION. Egypt. J. Remote Sensing & Space Sci.
7. S. M. Hasan and B. M. El Leithy. COMARTIVE STUDY OF MULTI-DATA FUSION TECHNIQUES IN MAPPING GEOLOGICAL FEATURES, WADI GHOWEIBA, NORTHWEST GULF OF SUEZ, EGYPT. SPIE Europe Sensing 20-23 September 2010 International conference For Optical Engineering (the Security and Defence/Remote Sensing) in Toulouse, France at the Pierre Baudis Conference Centre, in Toulouse, France.
8. M.H. Ahmed, B.M. El Leithy, J.R. Thompson, R. J. Flower, M. Ramdani, F. Ayache, and S.M. **Hassan**, (2009). Application of remote sensing to site characterization and environmental change analysis of North Africa coastal lagoons. Hydrobiologia vol. 622, pp.147–171.
9. Mohamed F. Sadek and **Safaa M. Hassan**, (2009): Rock discrimination and geological mapping of basement rocks at Gabal Gharib area north Eastern Desert of Egypt with application of Landsat ETM and egyptosat-1 data, SPIE Europe Remote Sensing Conference.
10. **Safaa M. Hassan**, Sultan A. Sultan, Talaat M. Ramadan1 and Shokry A. Soliman. EXPLORATION FOR GROUNDWATER IN NORTH EASTERN DESERT, EGYPT: USING ASTER, RADAR AND GEOPHYSICAL DATA. Workshop on Application of Satellite Technology in Water Resources Management 18-19 September 2011 jointly organized by Inter Islamic Network on Space Science & Technology (ISNET) & Royal Jordanian Geographic Center (RJGC) Amman, Jordan.
11. M. F Sadek and **S. M. Hassan**, 2013. APPLICATION OF REMOTE SENSING IN LITHOLOGICAL DISCRIMINATION AND GEOLOGICAL MAPPING OF PRECAMBRIAN BASEMENT ROCKS IN THE EASTERN

DESERT OF EGYPT. The 33RD ASIAN CONFERENCE ON REMOTE SENSING
NOVEMBER 26-30, 2012, PATTAYA, THAILAND.

12. Mohamed F. Sadek and **Safaa M. Hassan**, 2012. Application of Egyptsat-1 and Landsat-ETM Data Fusion in Discrimination of Volcanic and Granitic rocks at Gabal Gharib Area, Northeastern Egypt. Australian Journal of Basic and Applied Sciences.6(13) pp. 471-480, 2012.
13. Omar S. Soliman , Amira S. Mahmoud , **Safaa M. Hassan**,2012. Remote Sensing Satellite Images Classification using Support Vector Machine and Particle Swarm Optimization. 2012 Third International Conference on Innovations in Bio-Inspired Computing and Applications (IEEE).
14. M. F Sadeek and **S. M. Hassan**, 2013. FLASH FLOOD HAZARD AND SUSTAINABLE DEVELOPMENT OF WADI RAHABA-HODEIN AREA, RED SEA COAST. Geography and contemporary global changes conference, from 1- 4 April, Tibal University, Saudia Arabia.
15. **Safaa M. Hassan** and Sultan A., 2013. GROUNDWATER EXPLORATION IN NORTH EASTERN DESERT, EGYPT: USING RADAR, ASTER AND GEOPHYSICAL DATA • 13 the International Multidisciplinary Scientific GeoConference & EXPO SGEM 2013 in June 16-22, 2013, Albena Resort & Spa, Bulgaria.
16. E.A. Zaghloul, **S.M. Hassan**, A.M. Bahy El-Dein, S.F. Elbeih 2013. Detection of ancient irrigation canals of Deir El Hagar playa, Dakhla Oasis, Egypt, using Egyptsat-1 data. The Egyptian Journal of Remote Sensing and Space Sciences. Vol. 16, 153-161 pp.
17. **S. M. Hassan** & T. M. Ramadan 2014. Mapping of the late Neoproterozoic Basement rocks and detection of the gold-bearing alteration zones at Abu Marawat-Semna area, Eastern Desert, Egypt using remote sensing data (in press). Arabian Journal of Geosciences.
18. **Safaa M. Hassan** & Mohamed F. Sadek & Reinhard O. Greiling, 2014. "Spectral analyses of basement rocks in El-Sibai-Umm Shaddad area, Central Eastern Desert, Egypt, using ASTER thermal infrared data". Arab J Geosci.

19. **Safaa M. Hassan**, Abdel Aziz A. Mahmoud, Munir El-Mahdy, Yahia A. El kazz.az, 2014 Automated, manual lineaments extraction and geospatial analysis using remote sensing techniques and GIS, Case Study: Gabal Shabrawet area, south Ismailia, Egypt. Australian Journal of Basic and Applied Sciences, 8(10) July 2014, Pages: 110-120.
20. Heba Abdu Al Aziz, **Safaa M. Hassan**, Saleh Mesbah and Ali Amasha Elkaffas. "GIS-Based Decision Support System Using Analytical Hierarchy Process for Solar Cells Site Selection in Sinai Peninsula, Egypt". 24th International Conference on Computer Theory and Applications, ICCTA (IEEE) 2014, 25-27 October 2014, Alexandria, Egypt.
21. Safwat S. Gabr, **Safaa M. Hassan** , Mohamed F. Sadek : Prospecting for new gold-bearing alteration zones at El-Hoteib area, South Eastern Desert, Egypt, using remote sensing data analysis, Ore Geology Reviews, 2015.
22. Mohamed F. Sadek, Mohamed W. Ali-Bik and **Safaa M. Hassan** :Late Neoproterozoic basement rocks of Kadabora-Suwayqat area, Central Eastern Desert, Egypt: geochemical and remote sensing characterization, Arab J Geosci (2015).
23. **Safaa M. HASSAN**, Omar S. SOLIMAN, Amira S. MAHMOUD, 2015. "Optimized data input for the support vector machine classifier using the aster data. Case study: Wadi Atalla area, eastern desert, Egypt". Carpathian Journal of Earth and Environmental Sciences, Vol. 10, No. 1, p. 15-26.
24. **S. M. Hassan** & T. M. Ramadan 2014. Mapping of the late Neoproterozoic Basement rocks and detection of the gold-bearing alteration zones at Abu Marawat-Semna area, Eastern Desert, Egypt using remote sensing data, Arabian Journal of Geosciences (DOI 10.1007/s12517-014-1562-0).
25. **Safaa M. Hassan**, Abdel Aziz A. Mahmoud, Munir El-Mahdy, Yahia A. El kazzaz, 2014 Automated, manual lineaments extraction and geospatial analysis using remote sensing techniques and GIS, Case Study: Gabal Shabrawet area, south Ismailia, Egypt. Australian Journal of Basic and Applied Sciences, 8(10), 110-120.
26. Ayman H. Nasr and Bassam M. Abdellatif and **Safaa M. Hassan**: Detection of ground deformation of El Mokattam plateau, East Cairo (Egypt), using Terrestrial Laser Scanning. International Journal of Computer and Information Technology, 2016.

27. **Safaa M. Hassan** and Esam Ismail, 2018. Detection and Evaluation Groundwater in Siwa Oasis, Egypt using hydrogeochemical and Remote Sensing, Water Environment Research, In press.
28. **Safaa M. Hassan**, Yahia A. El kazzaz, Maysa M.N. Taha, Abdullah T. Mohammad, 2017. Late Neoproterozoic basement rocks of Meatiq area, Central Eastern Desert, Egypt: Petrography and remote sensing characterizations. Journal of African Earth Sciences 131 (2017) 14-3.
29. Mohamed W. Ali-Bik , Said H. Abd El Rahima, Wael Abdel Wahab, Salwa D. Abayazeed, **Safaa M. Hassan**, 2017. Geochemical constraints on the oldest arc rocks of the Arabian-Nubian Shield: The late Mesoproterozoic to late Neoproterozoic (?) Sa'al volcano-sedimentary complex, Sinai, Egypt. Lithos 284–285 (2017) 310–326.
30. **Safaa M. Hassan** and Mohamed F. Sadek, 2017. Geological mapping and spectral based classification of basement rocks using remote sensing data analysis: The Korbai-Gerf nappe complex, South Eastern Desert, Egypt. Journal of African Earth Sciences 134 (2017) 404-418.
31. Mohamed W. Ali-Bik , **Safaa M. Hassan** , Moustafa A. Abou El Maaty, Said H. Abd El Rahim , Salwa . Abayazeed , Wael Abdel Wahab: The late Neoproterozoic Pan-African low-grade metamorphic ophiolitic and island-arc assemblages at Gebel Zabara area, Central Eastern Desert, Egypt: Petrogenesis and remote sensing – Based geologic mapping. Journal of African Earth Sciences 144 (2018) 17-40.
32. Ahmed Kotb, **Safaa Hassan**, Hesham Hassan. Comparative study among various lossless algorithms of airborne lidar data compression. ICENCO 2018, International Computer Engineering conference, IEEE conferences, Cairo, Egypt.
33. **Hassan Safaa** and Ismail Esam, 2018. Detection and Evaluation of Groundwater in Siwa Oasis, Egypt Using Hydrogeochemical and Remote Sensing Data Analysis. WATER ENVIRONMENT RESEARCH, May 2018.
34. Asran M. Asran and **S.M. Hassan**, 2019. Remote sensing-based geological mapping and petrogenesis of Wadi Khuda Precambrian rocks, South Eastern Desert of Egypt with emphasis on leucogranite. Egypt. J. Remote Sensing Space Sci.

35. Wael Hagag, **Safaa Hassan** and Mostafa Toni. Active tectonic structures in northeastern Egypt: a geospatial analysis using structural, remote sensing, and seismic data. Arab J Geosci (2019) 12:572.
36. Mohamed W. Ali-Bik, **Safaa M. Hassan**, Mohamed F. Sadek2 , 2020. Volcanogenic talc-copper deposits of Darhib-Abu Jurdi area, Egypt: Petrogenesis and remote sensing characterization. Geological Journal. 2020;1–25.
37. Abdullah T. Mohammad, Yahia A. El Kazzaz, **Safaa M. Hassan**, Maysa M. N. Taha .Neoproterozoic tectonic evolution and exhumation history of transpressional shear zones in the East African orogen: implications from kinematic analysis of Meatiq area, Central Eastern Desert of Egypt International Journal of Earth Sciences <https://doi.org/10.1007/s00531-019-01801-y>.
38. Amira M. El Nazer , Ahmad S. Helaly, Safaa M. Hassan, Ahmed M. Abdel Gawad. (Tectonic Trend Analysis and their Effect on Groundwater Characterization in Some Specific Wadies, in Saint Catherine area South Eastern Sinai, Egypt. Annals Geol. Surv. Egypt. V. XXXVIII (2020), pp. 511-527
39. Mohamed W. Ali-Bik, Mohamed F. Sadek, Safaa M. Hassan. Basement rocks around the eastern sector of baranis-aswan road, Egypt: Remote sensing data analysis and petrology. The Egyptian Journal of Remote Sensing and Space Sciences 25 (2022) 113–124.
40. Safaa M. Hassan, Mohamed A.S. Youssef, Safwat S. Gabr , Mohamed F. Sadek. Radioactive mineralization detection using remote sensing and airborne gamma-ray spectrometry at Wadi Al-Miyah area, Central Eastern Desert, Egypt. Egypt. J. Remote Sensing Space Sci. 25 (2022) 37-53.
41. Mohamed W. Ali-Bik, Safaa M. Hassan, 2022 .Remote sensing-based mapping of the Wadi Sa'al-Wadi Zaghara basement rocks, southern Sinai, Egypt. Egypt. J. Remote Sensing Space Sci. 25 (2022) 593–607.

42. Mohamed W. Ali-Bik a, Safwat S. Gabr, Safaa M. Hassan. Spectral characteristics, petrography and opaque mineralogy of the Oligo-Miocene basalts at Wadi Abu Qada- Wadi Wata area, west-central Sinai, Egypt. *J. Remote Sensing Space Sci.* 25 (2022) 529–540.
43. Mohamed Zaki Khedr, Saif M. Abo Khashaba, N. H. El-Shibiny, Eiichi Takazawa, Safaa M. Hassan, Mokhles K. Azer, Scott A. Whattam, Reda A. El-Arafy, Yuji Ichiyama. Integration of remote sensing and geochemical data to characterize mineralized A-type granites, Egypt: implications for origin and concentration of rare metals. *International Journal of Earth Sciences* , <https://doi.org/10.1007/s00531-023-02323-4>.
44. Saif M. Abo Khashaba, N.H. El-Shibiny, Safaa M. Hassan, Eiichi Takazawa, Mohamed Zaki Khedr. Application of remote sensing data integration in detecting mineralized granitic zones: A case study of the Gabal Al-Ijlah Al-Hamra, Central Eastern Desert, Egypt. *Journal of African Earth Sciences* 200 (2023) 104855.

List of Awards:

- AARSE-ESA AWARD for best poster. Characterization of Oligocene sands and gravels on terra ASTER images using spectral signature and principal component analysis, Wadi Ghoweiba, Northwestern Gulf of Suez, Egypt. Presented at 6th ASSRE International Conference on Earth Observation and geoinformation Sciences in Support of Africa's Development held in Cairo-Egypt 30th October-2nd November 2006.