

RESUME

Dec.2018

Name:



Prof. Mohamed El-Raey, Professor of Environmental Physics and Remote Sensing
Department of Environmental Studies.
Dean of Institute of Graduate Studies and Research(1994-2004)
University of Alexandria, Egypt
163 Horreya Road Alexandria
Phone :(203) 4276807
Mobile +201223109051

Melraey@gmail.com
Mohamed.Elraey@alexu.edu.eg

Date of Birth:

October 22nd 1943 (Egypt)

Marital status:

Married, have two children

Qualifications:

1. B.Sc. with "Distinction First Class Honour" in Physics, University of Alexandria, Alexandria, Egypt, June 1963
2. Ph.D. (Space Physics), University of California, Physics Department and Space Sciences Laboratory, Berkeley, California, United States; March, 1971.

Honoraria:

1. Fellow of the Egyptian Academy of Sciences and Technology (Space Council) 2015- today
2. Certificate of Appreciation, for contributing to IPCC Nobel Price 2007 on Climate Change
3. University of Alexandria Prize of Scientific Appreciation, 2006
4. Prize of the Council of Ministers of Environment of the Arab States (1999) on Integrated Coastal Zone Management.
5. Presidential Medal of Arts and Sciences, of the First Class, 1985.
6. Incentive State Award in Physics, 1983 Egyptian Academy of Sciences and Technology for research on Remote Sensing.
7. University of Alexandria Award in Physics (Silver Medal, 1976).
8. Egyptian Government Fellowship for Ph.D. in Space Physics (USA (1965 - 1971)).

Fine Speciality:

Remote Sensing and GIS for Integrated Coastal Zone Management, Environmental Impact Assessments (EIA), Strategic Assessments, Site Selection and Risk Assessment of projects. Vulnerability, adaptation to Climate Change; Impacts of climate change on the coastal zone and time series analysis of aerosol conditions in the atmosphere. Air pollution and satellite monitoring networks. Time series analysis and environmental applications. Early warning systems and disaster reduction

Research Experience: In the areas of Space and Atmospheric Sciences, Remote Sensing of Environment with Applications to Coastal Problems; Satellite Image Processing, Spectral Processing and Analysis of Environmental Phenomena; Monitoring and Assessment of Air Pollution. Environmental Management Systems, Environmental Vulnerability and Adaptation to Climate Change Impacts. Landfills; Geographic Information Systems (GIS) and Applications for Site Selection and Environmental Impact Assessments of Projects

Work Experience

1. A member of the National Committee of Climate Change
2. National Consultant of National Action Plan Update, National Plan to Combat discharge of Land-Based Sources in The Mediterranean Sea of Barcelona Convention, Egypt , EEAA , 2015
3. Environment Advisor, Arab Academy of Science and Technology and Maritime Transport and Executive Director of the Regional Center of Disaster Risk Reduction (RCDRR) League of Arab States(Cairo),2009 – Dec 2010
4. Professor of Environmental Physics, Institute of Graduate Studies and Research; University of Alexandria- Consultant National Authority of Remote Sensing and Space Sciences (NARSS)- Senior Consultant CEDARE
5. Chairman, Environment Sector, Supreme Council of Egyptian Universities, 2008- to 2014
6. Dean, Institute of Graduate Studies and Research, University of Alexandria (1994-1997; 1997-2000; and 2000 to 2004).
7. Professor of Environmental Physics (1989-1994), and Head of Department of Environmental Studies, Institute of Graduate Studies and Research, University of Alexandria. (1984 to 1989), and Chairman of Scientific Committee of Department of Information Technology (April, 1989- 1991).
8. Associate Professor of Physics. Faculty of Science and Institute of Graduate Studies and Research (1983), Department of Physics (1978-1983), University of Alexandria. Egypt.
9. Lecturer, Department of Physics, University of Alexandria. Postgraduate Research Centre (1972 - 1978)

10. Visiting Assistant Research Professor University of California Space Sciences Laboratory, Berkeley, California, (June to September 1974).

11. Postdoctoral Physicist, U.C. Space Sciences Laboratories, Berkeley, California (1971-1972).

Have taught courses in postgraduate Space Physics and Remote Sensing, Environmental Physics, Geophysical Exploration, Energy and Environment, Air Pollution Monitoring and modelling and Control, Climate Change, Techniques of Environmental Impact and Risk Assessment, GIS, Advanced Remote Sensing and Satellite Image Processing and EIA.

M.Sc. Theses Co-supervised:

1. R. Amer: a Spectral study of time-varying phenomena in the solar atmosphere (Awarded, 1976). Physics Department, University of Alexandria
2. N. El-Meshad: Study of time variations of cosmic rays (Awarded, 1978). Physics Department
3. N. Roshdy: Propagation of CO₂ laser pulses in a scattering and absorbing medium (Awarded, 1978). Physics Department
4. S. Massoud: The possibility of remote sensing of the geomagnetic field using O₂ microwave line (Awarded, 1979). Physics Department
5. I. Sabbah: Time variations of neutron component of cosmic rays (Awarded, 1979). Physics Department
6. S. Gaber: Application of Remote Sensing Techniques to the primary component of cosmic rays (Awarded, 1980). Physics Department
7. N. El-Said, Propagation of CO₂ Laser pulses in non-uniform distribution of fog droplets (Awarded, 1985). Physics Department
8. A. Asal; Gain spectroscopy of some dyes (Awarded, 1986) Physics Department
9. M. Farhoud: High-resolution study of dye laser beams (Awarded, 1987). Physics Department
10. A. El-Hadidi: Remote Sensing of atmospheric aerosol distribution over Alexandria (Awarded, 1987) Physics Department.
11. I. Shafik: Analysis of Environmental Pollutants by Fluorescence Spectroscopy. Department of Environmental Studies (Awarded, 1987).
12. S. Mesbah: Information content in Remote Sensing. Department of Environmental Studies (Awarded, 1987)
13. M.S. Abdel-Motaleb; A new multistage technique for classification of remote sensing images. Department of Environmental Studies (Awarded, 1987).

14. S.Hussein; A resistivity inversion technique for geophysical prospecting. Physics Department (Awarded, 1987)
15. A.Gaber; Radioactivity pollutants over Alexandria (Awarded, 1988). Physics Department
16. M.Hamza; Remote Sounding near Abu-Quir-Lake Idku area, Department of Environmental Studies. (Awarded, 1988)
17. M.Morsi; Electrical Resistivity exploration for sludge disposal in desert. Department of Environmental Studies (Awarded, 1988)
18. H.Amin; A data acquisition system for environmental measurements. Department of Environmental Studies (Awarded 1988)
19. M.Abdel-Khalek; Image enhancement and classification technique by relaxation. Department of Environmental Studies (Awarded, 1988).
20. M.Mesbah; Groundwater Resources evaluation near Es- Sadat City using electrical resistivity Technique - Department of Environmental Studies. (Awarded, 1988)
21. I.M.Kamel: Data compression of Environmental Satellite Images. Department of Environmental Studies (Awarded, 1988)
22. N.A.Abbas: Knowledge-based system For Weather conditions over Alexandria Region. Department of Environmental Studies (Awarded, 1988)
23. M.Mohammaden; Geophysical Studies in the south-western desert of Egypt. Department of Environmental Studies (Awarded, 1990)
24. M.Husain: Coastal erosion of the Nile Delta over the present century. (Awarded, 1991)
25. N.Nassar; Environmental Impact of the radioactive air pollution from a Nuclear Power Plant at Dabaa (Awarded, 1990).
26. E.Botros; Environmental modelling of radioactivity release in the marine environment (Awarded, 1991).
27. S.Ahmed: Remote Sensing of Vegetation covers and soil parameters in Northwestern region by SPOT Satellite (Awarded, 1990).
28. S.Fayed; Air pollution model over Alexandria Department of Environmental Studies, Awarded, 1990.
29. M.Elhattab; Remote Sensing and aerial photography of coastal erosion near Rashid (Awarded, 1993).
30. A.El-Zoghabi: An information representation and retrieval system (Department of Information Technology, (Awarded, 1991).
31. F.Abdel-Ghaffar: Remote Sensing and aerial photography of natural Resources near Dabaa West of Alexandria - (Awarded, 1993).
32. Y.Ayyad; Remote sensing of urban encroachment on agricultural land (Awarded, 1992).
33. Z. Ghattas; Monitoring of radioactive fallout over Alexandria (Awarded, 1992)
34. Y.Fouda; A Geographic Information System for urban development in a desert area. (Awarded, 1992)

35. S.El-Desouki; GIS processing of impact of Sea level rise west of Rosetta branch of River Nile. (Awarded, 1993)
36. A.El-Sebahy: Remote Sensing of Vegetation index East of Alexandria, (Awarded, 1992)
37. Kh.Dewidar: Environmental Impact of Sea-level rise over Alexandria beaches (Awarded, 1992)
38. H.El-Gogary: Risk Assessment of potentially Hazardous Sources west of Alexandria (Awarded 1995).
39. A. Ramzy; An environmental assessment of a slum area in Alexandria (Awarded, 1993)
40. H.Ezzat; A geographic information system for marine pollution of Abu-kir bay (Awarded, 1994)
41. Y.Mokhtar: Satellite observation of Climatic Changes over Northern Egypt (Awarded 1995).
44. H.Aboldahab: Some pollution problems of ground water near Mahmoudia Canal (Awarded, 1992).
45. M.Metwally; Energy conservation and air pollution control in a Petroleum refinery (Awarded, 1995).
46. M.Othman; Risk assessment of transport of hazardous materials near Alexandria (Awarded, 1993)
47. H.El Gamily; Sensitivity Analysis of Ras Mohamed (Red Sea) by remote sensing and GIS techniques (Awarded, 1995)
48. Maged Abdelmonim; Remote sensing and budget analysis of Lake Burullus, Egypt (Awarded, 1995)
49. Intesar Ahmed; Water pollution variation in Alexandria and relation to health indicators (Awarded, 1997)
50. H.El-gogary; Impact and risk assessment of some industrial hazards in Alexandria (Awarded, 1995).
51. Y.Ramadan; Remote sensing of mineral resources and groundwater in Sinai ;(Awarded, 1995)
52. A.Shalaby; Application of remote sensing and GIS techniques for planning of Fuka- Ras El-Hekma coastal zone (Awarded, 1996)
53. M. Masoud; Establishment of a GIS for natural resources of Behaira Governorate, Egypt (Awarded, 1997)
54. Ashraf M. Hassan; Remote Sensing and GIS for environmental analysis and planning of a coastal area west of Alexandria (Awarded, 1997).
55. M. Kotb: Plasma emission spectrometer and its environmental application.(Awarded,1999)
56. Wesam Mohamed; Change detection of the semiarid area west of Alexandria(awarded,2002)
57. Soha Ahmed; GIS and remote sensing of Borg Elarab new City; (Awarded,2003)
58. Ghada Abdelmonem; Building up and analyzing a GIS for pollutants of New Borg Elarab industrial sector (submitted, 2005)
59. Tamer Saber; Remote sensing and GIS technologies for El Omeid conservation site (Awarded,2004)

60. Heba Alhosaini; Impact of sea level rise over Alexandria(Awarded,2006)
61. Heba Marei; Analysis of air pollution data of Alexandria(Awarded, 2006)
62. Iman Eleskandrani; Impact of Sea level rise on Marina Elalamain tourist Center (Awarded,2006)
63. Ghada abdelmoem; GIS and Risk assessment of New Borg El Arab Industrial city (Awarded, 2007)
64. Sara Hamdy; Change detection of coral reef in the Red Sea (Awarded, 2010)
65. Yasmin Aboelfetouh: Remote sensing of atmospheric aerosol by satellites (Awarded, 2012)
66. Dina Maher; Vulnerability assessment of Mex Bay due to sea level rise using DIVA software, (awarded, 2013)
67. Sami Elsafy; Monitoring of air pollutants over Alexandria. (Awarded, 2013)
68. Marwa Hafez, GIS analysis of Rosetta region (Awarded, 2013)
69. Mostafa Amer; GIS and Risk analysis of Abu Qir Region (Awarded, 2014)
70. Mohamed Aly Hamed: Urban Coastal development of Abu Qir City area (awarded,2017)
71. Mariam Zaki; Risk assessment of Abu Qir Bay area (Awarded, 2015)
72. Neema Husein; GIS for sustainability of Lake Maryut; Awarded 2016
73. Hanan Ramadan; Climate Change and Urban Heat Islands over Alexandria, (Awarded,2017)

Ph.D. Theses Co-Supervised:

1. R.Amer; High-resolution spectroscopic analysis by Lasers. Department of Physics, (Awarded, 1986).
2. Ihsan El-Mosally; Geophysical studies of the northern part of Egypt Physics Department. University of Alexandria (Awarded, 1988)
3. S.Guirgis; Modelling of radioactive release from Chernobyl nuclear reactor; Department of Electrical and Electronic Engineering. University of Cairo (Awarded 1988)
4. M.Farag; Remote Sensing of Mediterranean Pollution. Department of Oceanography, University of Alexandria (On a Cooperative Channel with Imperial College) (Awarded, 1991)
5. S.Gaber; Remote Sounding of the earth's resistivity. Department of Physics, University of Alexandria (Awarded, 1994)
6. S.M. El-Kaffas; Remote Sensing of Environment by meteorological satellites, Department of Environmental Studies (Awarded, 1993)
7. Maher Mesbah: Geophysical exploration of Bahareya Oasis by remote sensing techniques. (Awarded, 1993)
8. Samah, Ahmed: A new techniques for Remote Sensing of Environmentally hazardous areas west of Alexandria (Awarded, 1997).
9. S. Abdel Kawy; Application of image processing techniques to geophysical data (Awarded, 1995)

- 10 F. Eldemerdash; Monitoring and assessment of Ammonia pollution in Abu Qir Area; East of Alexandria, (Awarded, 1995)
11. H. Azzam; Pollution and planning for Wadi El Kamar area, Faculty of Fine Arts, (Awarded, 1995).
12. Bakr Abozeid; Remote sensing of the coastal changes near Damietta promontory (Awarded, 1996).
- 13 Mervat Amin; An air pollution Model over Alexandria (Awarded, 1996)
14. Hussain; M. Monitoring and impact assessment of oil spills on the Arabian Gulf during the Gulf war (Awarded, 1997).
15. Ghattas; Z. Assessment of Sources of Atmospheric pollution over Alexandria by a Receptor model (Awarded, 1997).
16. El-Gamily; H. Remote sensing and GIS for the coastal studies of Red Sea. (Awarded, 1998)
17. Hindawy; I. Environmental Radioactivity in Rosetta region; (Awarded, 1998)
18. Dewidar; Kh. Remote sensing and coastal studies of changes from Port Said to Alamain. (Awarded, 1998).
19. El-Hattab M. Remote sensing and change detection analysis of Fuka Matruh area. (Awarded,2002)
20. Shalaby, A. Strategic impact assessment for development plans in Fuka Matruh coastal area. (awarded,2002)
21. Ashraf Mostafa Hasan; A GIS/RS based decision support system for Alexandria, (Awarded, 2001).
22. M.Metwally: Energy Conservation and Energy Management in Petroleum Industry. (Awarded, 2001).
23. Manal Okba: Monitoring and assessment of the aerosol component of air pollution over the Nile delta; (Awarded, 2003).
24. A. Zahran; Air pollution modeling of industrial installations in the city of Alexandria (Awarded,2003)
25. Masoud Masoud; A GIS/ Remote sensing Decision Support System for sustainable development of Siwa Oasis. (Awarded,2004)
26. Mohieldin; Remote sensing and GIS analysis of Bani Ghazy (Awarded,2003)
27. Mahmoud Adel: Establishment of GIS for Urban applications in Damanhour City; (Awarded,2003)
28. Adham Ramzy; GIS and DSS for State of Environment of Alexandria (Awarded,2003)
29. Sabah Goneid; Remote sensing and GIS for impact assessment of Sea Level rise over the Kingdom of Bahrain; (Awarded,2005)
30. H.Elhogary: Risk Assessment in selected industries in Alexandria (Awarded, 2008)
31. Hany El Shaer; Remote sensing and change detection analysis of Coral Reef in Ras Mohamed (Awarded,2009)
32. Mervat El Jissry; High resolution change detection analysis in the coastal region of the Mediterranean (Awarded, 2012)

33. Wesam Ahmed; A spatial decision support system for a coastal region (Awarded,2008)
34. El Hadidi; Ali; Modelling of Air pollution based on emission inventory (Awarded,2009)
35. Khaled Gougo, Disaster risk code for Maritime Arab Academy of Science and Technology (Awarded, 2011, ASSMT)
36. Sara Hamdy, Change detection of Landforms over the Nile delta coastal zone(Ended)
37. Soha Ahmed, Risk assessment of Alexandria City (Awarded, 2017)
38. Rania Bekheet; Coastal vulnerability of Alexandria to sea level rise, Faculty of Engineering, Alexandria university (Awarded, 2013, Faculty of Engineering)
39. Neemat Ahmed; Sustainable development of Lake Maryut (In progress)
40. Badria Elawadhi; Sustainable Development of human resources in Kuwait (Awarded, 2015)
41. Abdelaaty Mohamed; Drainage pattern and Groundwater in Tarhuna valley, Libya by RS and GIS techniques (Awarded, 2017).
42. Dina Maher, Risk reduction of Climate Change extremes at Alexandria

1.Consultations Team Leader

Has been a Principal Investigator or a team leader for the following projects:

- 1.Ford Foundation (1984/1987), Grant for Development of Department of Environmental Studies at IGSR
- 2.Ford Foundation (1987/1988) Initiation of Dept. of Environmental Studies Supplement Grant for Development of Department of Environmental Studies at IGSR.
 - i. Overseas Development Agency.
 - ii. Development of a Mobile Air Pollution Laboratory and Air pollution Database over Alexandria
 - iii. Meteorological station
 - iv. Dust and gas pollutants Laboratory
 - v. Environmental Radioactivity Laboratory
- 3.Third World Academy of Science (TWAS); Development of an Image Processing Laboratory for Remote Sensing, Education and Research (Concluded, 1992)
4. UNESCO (ROSTAS) Contract for Editing and Printing of the Proceedings of the First Symposium on Environmental Sciences, 1988.
- 5.MED POL (1992) second phase for monitoring of water pollution, Air pollution, Radioactivity over Alexandria.
6. ISESCO (1992): Remote Sensing of Water Pollution over Alexandria.
- 7.FAO: Water pollution measurements at some specific sites near Rosetta promontory.
- 8.EEAA/ and PAP/RAC for the development of a GIS for Fuka Matruh project. (1995-1996), Carrying capacity assessment (CCA), Integrated coastal area management (ICAM), and a strategic impact assessment (SEA).

9. Building a GIS system for Development Rosetta region. Tourist Development Authority.
10. Multimedia for environmental education of natural resources and modelling on Internet; European Commission, (GAIA Project).
11. Welling to Pay, Water Supply Survey Analysis for Alexandria region; USAID, 2000
12. DANIDA project on monitoring of Coastal Pollution Monitoring along the Mediterranean (This project has been upgraded and continued at IGSR until today)
13. Principal Investigator, National Air Pollution Monitoring Network over Alexandria and Nile Delta cities (EIMP program), Egypt. (EEAA /DANIDA /EIMP), 1997 until 2007. The Laboratory has been upgraded and project continued until today
14. UNEP Consultant to Evaluate and Assess GEF/UNEP/World Bank Projects on Coastal Zone Management in the Red Sea and Gulf of Aden, 1999-2000.
15. CEDARE Consultant for Development of PERSGA GIS for the coastal zone of the Red Sea, 2002- to date.
16. CEDARE Consultant and Principal Investigator; Project for Sustainable Management of Scarce Resources (SMART); INCOMED, European Community, 2002- to 2004.
17. Senior Consultant of Cedare; ALAMIM project on lake Maryut,
18. Have carried out many EIA for the governorate of Alexandria including landfills in Alexandria and Cairo , Stanley Bridge, Japanese Compost plant, risk assessment of power plants

Membership of Committees

- 1. Fellow of the Egyptian Academy of Science and Technology (Space Council), 2015-todate**
- 2. President of the Committee on the Environment Sector, Supreme Council of Universities; 2009-2014**
- 3. Initiator and Director of the Regional Centre on Remote Sensing and Risk Reduction, Arab Academy of Science and Technology, 2007 - 2010**
4. Vice President of Committee on Environment, Supreme Council of Universities (2002-2009).
5. A member of the National Council on Climate Change, Egypt. 2007-to-2009, EEAA and 2016- until todote
6. A member of the National Scientific Committee for Disaster Reduction, IDSC, Pri Ministerial Cabinet

Consultants Groups Membership

1. Served as a Member of the Governorate Committee to investigate Environmental Risk from Liquid Ethylene Transport to Petrochemicals Complex, near Dekhaila, Alexandria, 1987.
2. Served as a Member of Committee to investigate Dispute of Wastewater Discharge from Ameria Oil Refinery Company to Lake Maryut, 1987.
3. Served as a Member of Governorate Committee to investigate water pollution of Lake Maryut, 1988.
4. Served as a consultant member of the Egyptian Atomic Energy Establishment Committee on "National Environmental Radiation Network".

5. A member of the Governorate team on investigation proposals for building a Planetarium in Alexandria. (1977)
6. Vulnerability and National Action Plan for impact of climate change on Egypt. Egyptian Environmental Affairs Agency (EEAA). 1994-1997
7. Member of Technical Steering Committee; Red Sea Tourist Development Project. The World Bank. 1996-1997.
8. A member of the Advisory Committee of AGOSD/EP3. 1997-1999
9. Chairman of the Steering Committee of NASA/EOEI (Earth Observation and Environmental Information) Conference, 1997.
10. Consultant on EIA for Hazardous Waste Landfill, Centre for Environmental Hazard Mitigation, Cairo on Occasions of meetings of Arab State representatives
11. Chairman of Governorate Committee for investigation of Problems of Lake Maryut, 1999
12. A member of the Ministerial Committee of the Supreme Council of Space Technology, Climate Change; Ministry of Scientific Research. (Climate Change Committee)
13. A member of the Committee for "In Depth Study of Climate Change Policy for Poland, OECD, 2002-2003"; UNFCCC
14. Chairman of steering committee on building up a multimedia GIS for Archaeological sites of Rosetta, Siwa, and Alexandria; A NGO project; Friends of Environment (NGO)
15. Contributing author to the Egyptian Initial National Communication of Egypt, UNFCCC and Action Plan on Climate Change and EEAA State of Environment Report 2004
16. Senior Advisor, CEDARE project on building up an institutional capability for Lake Maryut Management, in cooperation with Governorate of Alexandria
17. A member of the National Committee of Climate Change, Egypt Decree by Prime Minister, 2007 to date
18. A member of the Steering Committee on Second National Communication of Egypt; UNDP and EEAA
19. Senior Consultant on Environment and Disaster Risk Reduction, Arab Academy of Science, Technology and Maritime Transport

International Scientific Activities:

- 1) Represented Egypt in many International Environmental Conferences. In particular:
 - a. United Nations Expert Meeting on Remote Sensing for Arabic Speaking Countries, Tunis, Tunisia, 1986.
 - b. United Nations Expert Meeting on Development of Inter Regional Remote Sensing Centres, Warsaw, Poland, 1988.
 - c. United Nations International Meeting of Experts on the Development of Remote Sensing Skills and Knowledge, Dundee, Scotland, 1989.
 - d. Workshop on Adaptive Options and Policy Implications of sea level Rise and their impacts of Global Climatic Changes. (EPA) Miami, Florida, Dec. 1989.

- e. International Seminar for Mediterranean Countries on the use of Remote Sensing for Land-use classification. Montpellier, France, October, 1989.
 - f. International Seminar on receiving and processing of digital satellite Images UNDP -Berlin 26 May-5June, 1991.
 - g. International Seminar on Environmental Education, Cairo 29 June to 4 July 1991.
 - h. World Coast Conference, Noordwijk, 1993
 - i. IPCC working Group II, 1995-2003
- 2) A member of the refereeing Committee of VERTIC (Verification Technology Information System, London) For the Scientific and Technical Aspects of the Verification of the Comprehensive Test Ban Treaty. (CTBT).
 - 3) A member of the Steering Committee for the International Conference on Sustainable Agricultural Development, Institute of International Foundation of Development, Fildafing, Germany.
 - 4) Represented Egypt in IPCC (Intergovernmental Panel on Climate Change), Working Group II, 1995 -2001.
 - 5) UNEP consultant for evaluation of GEF/UNEP/UNDP projects in the Red Sea and the Gulf of Aden, 1999.
 - 6) A member of evaluation team for PERSGA-SAP project, Jeddah, 2001
 - 7) Chairman of UNFCCC Committee on Assessment of Forth National Communication on Climate Change for Greece and Latvia, 2006-2007
 - 8) Member of UNFCCC committee on Assessment of Forth National Communication on Climate Change for Japan and Iceland; 2006-2007
 - 9) Member of the Mediterranean Committee on Sustainable Development (MCSD)

EIA Projects Experience (Team Leader and Expert)

1. Environmental Impact Assessment of potential sea level rise over the cities of Alexandria, Rosetta and Port Said using Remote Sensing and GIS techniques. US Country Study Program, EEAA.
2. Environmental Impact Assessment of Solid Waste Compost Plant at Abis, Alexandria, Governorate of Alexandria / EEAA approved by EEAA, 1996.
3. Building and analysis of a detailed GIS for Fuka-Matruh region (PAP/RAC), Carrying Capacity Assessment, Integrated Coastal Zone Management and Strategic Impact Assessment (UNEP/PAP-RAC and EEAA), 1992-1999.
4. Environmental Impact Assessment of Chloro-alkali Decontamination Project and Landfill, Misr Chemical Company, Alexandria (EEAA approved, 1997).
5. Environmental Impact assessment of a land/marine Fisheries farm near Abo Zeneima, Red Sea, (submitted, 1998).
6. Environmental Impact Assessment training consultancy for NGO in cooperation with Friends of Environment (EEAA/OSP/STEAM), 1997
7. Remote sensing and GIS techniques for site selection of tourist development in Rosetta region (Ministry of Tourism, 1998).
8. Environmental Impact Assessment of North Sukhna Egyptian Fertilizers Company, Red Sea. (Approved by EEAA; 1999).

9. Environmental Impact Assessment of Acrylic Fiber Plant, Nahda, Alexandria. (Approved, 2000).
10. Environmental Impact Assessment of site selection of Alexandria Governorate domestic waste landfill (Approved, 2000).
11. Development of bylaws and work plan of Alexandria EEAA Branch Office (OSP/EEAA).
12. EIA and site selection and assessment for landfill of Cairo Governorate (Approved, EEAA,2000)
13. EIA and site selection and assessment for Landfill of Menoufia Governorate(Approved, EEAA,2000)
14. EIA and site selection and assessment for landfill of Fayyum Governorate. (Approved,EEAA,2000)
15. EIA and site selection for transfer of foundries of Alexandria outside the urban area (approved, 2002).
16. Environmental Impact Assessment of Alexandria Stanley Bay Bridge (Approved,2000)
17. EIA and site selection of Alexandria industrial hazardous waste landfill (Approved,2002)
18. EIA and site selection of the Tenth of Ramadan industrial waste landfill (Ministry of Environment) Approved, 2003.
19. Monitoring and assessment of air emissions of MIDOR Petroleum Company, Alexandria (A continuous project starting 2000 in progress)
20. Site and impact assessment of the Medical Waste Network and general Incinerator for Alexandria City, Onyx of Alexandria Company
21. Site assessment of the 6 Oct Sanitary and Hazardous Waste Landfill; USAID project for EEAA (Approved, 2003).
22. Site Selection and Environmental Impact Assessment for Development and Transfer of Smelters from inside the city of Alexandria, Alexandria Governorate, Approved,2005
23. Sustainable Development of Scarce Resources in the Coastal Zone (SMART); Development of the coastal zone of Abu Qir bay through building and analyzing a GIS for Rosetta Region, European Commission, CEDARE,2003 (Finalized,2005)
24. Vulnerability and risk assessment of lowland south of Abu Qir Bay to potential impacts of sea level rise (CIRCE), European Commission; CEDARE,2007 to date (In progress)
25. EIA Acrylic Fibre Storage Farm at Misr Petroleum Company, El Mex (Approved, 2005)
26. Senior Technical Advisor; Alexandria- Lake Maryut Integrated Management (ALAMIM); CEDARE/SMAPIII, 2006 (Approved)
27. Senior Technical Advisor; Impact of Climate Change over Low land areas of the Nile Delta (CIRCE); European Commission, 2007 (Approved)
28. Team leader, Risk assessment of electric power plants; Sidi Krir, Cairo West, Elatf and Abu Kir (Approved)
29. Team Leader, World Bank project with AASTMT/RCDRR on Risk Assessment of the City of Alexandria to sea level rise and Tsunamis (2010)
30. National Consultant, NAP Update 2015, EEAA , In progress

In addition to many consultations and reviews on air pollution monitoring and management, industrial compliance, environmental impact and risk assessments.

NGO

- President; Friends of Environment (FOE) 2012-2014
- Member of the Council; Industry and Environment, 1999- to date

Environmental Management Systems (EMS)

1. Environmental Consultant for development and implementation of EMS of Alexandria General Organization of Sanitary and Drainage (AGOSD), Consultant for Chemonics, Cairo
2. Environmental Consultant for development of an EMS for Alexandria Harbor. Academy of Maritime Transport, Alexandria.

Publications:

1971

1. El-Raey: Eclipse measurements near 11.2-cm wavelength, Solar Physics Feb.1971.
2. El-Raey: Solar radiation and activity at millimetre wavelengths, University of California Spaces Lab. Sciences Berkeley, Series 12, Issue 19, 1971.

1972

3. El-Raey and Scherrer: Differential rotation in the solar atmosphere Solar Physics, Sept.1972.

1973

4. El-Raey and Scherrer, P.: Correlation and spectral analysis of solar radio flux, Solar Physics, 30, 149, 1973.

1974

5. Scherrer P. and El-Raey: The relationship between (SVC) and photospheric magnetic field patterns, Solar Physics, 35, 161, 1974.
6. El-Raey, Silver, Welch: Solar activity in the frequency band 22-25.5 GHz, presented at the URSI National Meeting, Washington D.C.1974.
7. Silver, El-Raey and Cannon: Spectral broadening as a probe of the corona and the interplanetary medium, presented at the URSI National Meeting, Washington D.C.Oct.1974.

1975

8. Silver, El-Raey and Cannon: Spectral broadening of signals from Mariner 9 and Pioneer 10, passing through the corona. U.C. Space Sciences Lab. Report Series 16, May 1975.
9. El-Raey and Amer: The variation of the atmospheric rotation Period over the sunspot cycle: Solar Physics, 45, 533, 1975.

1979

10. Bishara, El-Raey and El-Meshad: The spectrum of cosmic ray 11- year variations; Proc. Math. Phys. Soc. Egypt 47, 75, Jan. 1979.

11. El-Raey, Bishara and Gaber: The possibility of remote sensing of cosmic rays and its implications, Proc. Math. Phys. Soc. Egypt 47, 81, Jan., 1979.
12. El-Raey and Massoud: The possibility of remote sensing of geomagnetic field variations; Proc. Math. Phys. Soc. Egypt 48, 57, July 1979.
- 1980
13. El-Raey and Massoud: Remote Sensing of geomagnetic field variations at mesospheric heights, Appl. Phys.22, 115. 1980.
14. El-Raey and Gaber: Remote Sensing of muon variation spectra and interplanetary inhomogeneities; Fifth European Regional Meeting on Variability in Stars and Galaxies. Liege-Belgium, July 1980. (Abstract).
15. El-Raey and Roshdy: Velocity and delay of laser pulses in fog, in coherent laser radar for atmospheric sensing. Topical Meeting, Aspin, Colorado, July 1980.
16. Bishara, El-Raey and El-Meshad: The spectrum of 11-yr variations and hysteresis of cosmic rays, J. Math. Phys. Soc. Egypt. 50, 35, July 1980.
- 1981
17. El-Raey and Abou-Aly: On the amorphous silicon on crystalline silicon hetero-junctions, Revue Phys.Appl.16, 35; 1981.
18. El-Raey and Gaber: Remote Sensing of Muon variation spectra and interplanetary inhomogeneities, J.Geophys.Res.89, 7744, 1981.
19. Bishara, El-Raey and Sabbah: Effect of interplanetary sector structure on the intensity of the neutron component of cosmic rays, Egypt J.Phys.12, 27.1981.
20. El-Raey and Roshdy: Shape and delay of laser pulses in fog; Appl. Phys. (Germany), B26, 251, 1981.
21. El-Raey, Bishara and Sabbah: Power spectra of neutron flux over a wide range of rigidity, Egypt.J.Phys.21, 35 1981.
- 1982
22. El-Raey: Remote Sensing of atmospheric waves in O₂ and H₂O emissions; Radio Science, 17, 766, 1982.
23. El-Raey: Remote sounding of the earth's resistivity profile; Proceedings of the International Symposium of Society for Photogrammetry and Remote Sensing, Toulouse, France, Sep.1982.
24. El-Raey: The possibility of electromagnetic sounding of the earth's conductivity profile (Fall meeting, 1983 of the American Geophysical Union, San Francisco, Calif.) Trans. A.G.U.vol.63, No 45.P (1077). Nov.9, 1982 (Abstract).
25. El-Raey and Amer: Study of N₂ laser pumped dye laser pulses; Bull.Fac. Science, Univ. Alexandria vol.22, No.14, 1982.
- 1983
26. El-Raey: The Possibility of Remote Sounding of the Earth's Resistivity Profile Geophys.48, 636, 1983.
27. El-Raey and Helmi: A dye laser pumped by an air N₂ laser, Int.Conf.on Photochemistry and Photobiology.Jan.1983 Alexandria. Egypt (Edit. A. Zewail, Harwood Academic Publishers, Chur, Switzerland, 1983).
28. El-Raey: An integral equation method for inversion of electromagnetic soundings: Rem.Sens.Environm.13, 403, 1983.

- 1984
29. El-Raey and Helmi: Spontaneous and stimulated emission of dyes pumped by N₂-laser. Conference on Optical Spectroscopy, Lasers and Applications, Cairo. April 1983.
30. El-Raey and Amer: Remote probing of solar microwave sources. Third Arab Conf. of Physics and Math, (April 1984, Tunisia).
31. Helmi, El-Raey and Asal: Gain Spectra of dyes pumped by a N₂- laser; Bull. Faculty of Science, University of Alexandria vol 25, 1984.
32. El-Raey and Sabbah: Remote Sensing, eigenanalysis and information content of cosmic variations, J. Geophy. Research (July, 1984).
- 1985
33. El-Raey and El-Said: Multi-modal character of fog distribution caused by propagation of a laser beam; Optical Society of America; Topical Meeting on Optical Remote Sensing of the Atmosphere, lake Tahoe, Nevada, Jan, 1985.
- 1987
34. El-Raey; Shoaeb; Helmi and El-Hadidi: Remote Sensing of aerosol distribution; International Symposium on Natural and Man-made Hazards, Remouski, Quebec, Canada, August 3-9, 1986. Natural and Man-made Hazards, El-Sabh and Murty (Eds): Reidel Publishing Company, 1987.
35. Ammar, El-Khatib, Wahba and El-Raey: Radioactive contamination from Chernobyl Accident over Alexandria City, Isotopenpraxis (East Germany). 23, 8, p(303 - 305), 1987.
36. El-Raey, El-Mossally and El-Saharty: Remote Sensing of Deep Potential Sources over the Nile Delta; International Geo-science and Remote Sensing Symposium (IGARSS, 1987) Michigan, 1987.
- 1988
37. Korany, Iskandrani, El-Raey and Amin: Minicomputer based data acquisition system for environmental Measurements-First Symposium on Environmental Science, Alexandria, 1988.
38. Korany, Kamel and El-Raey: Development of an image compression technique for meteorological satellite images - First Symposium on Environmental Science, Alexandria, 1988.
39. Abdel-Fatah, El-Nekhaily, Mesbah and El-Raey: Resistivity exploration for groundwater resources at Es-Sadat City: First Symposium on Environmental Science, Alexandria, 1988.
40. ApSimon, Hassan, El-Raey and Guirgis: Application of combined Chemistry and Transport model (CCTM) to the Chernobyl-4 Reactor accident. First Symposium on Environmental Science, Alexandria, 1988.
41. El-Iskandrani, El-Raey, Korany and El-Kaffas: Optimum Selection of sensing channels for atmospheric inversion; First Symposium on Environmental Science, Alexandria, 1988.
42. Abdel-Fattah, El-Nekhaily, El-Raey, Abdel-Aziz and Morsi: Geo-electrical Exploration for groundwater protection from sludge disposal on land near Alexandria. First Symposium on Environmental Science, Alexandria, 1988.

43. El-Raey, Awad and Hussein: A complete numerical technique for resistivity exploration inversion. First Symposium on Environmental Science, Alexandria, 1988.
44. El-Raey, Abdel-Fatah and Mesbah: Groundwater quality determination by electrical resistivity exploration. First Symposium on Environmental Science, Alexandria, 1988.
45. El-Raey: Development of a Remote Sensing Unit at Alexandria University, Egypt. In Proceedings of Inter-Regional Seminar on Satellite Remote Sensing for Development, Warsaw, United Nations Department of Technical Co-operation for Development, 1988.
46. El-Raey: Remote Sensing of Environment; Invited Paper, First Symposium on Environmental Science 1988.
- 1989
47. El-Shishiny, Abdel-Mottaleb, El-Raey and Shoukry: A multistage Algorithm for fast classification of patterns, Pattern Recognition Letters, 10, 211-215, 1989.
- 1990
48. El-Raey and Farag: Remote Sensing of water pollution near Alexandria. Proc. Regional Symposium on Environmental Sciences Alexandria, 1990.
49. El-Raey: Responses to the impacts of Greenhouse - induced sea level rise on Egypt. In "Changing Climate and the Coast" volume II, PP (225); Report of Intergovernmental Panel on Climate Change (IPCC); Miami Conference, May 1990, EPA.
50. Abdel-Hady, Ahmed and El-Raey: Satellite Image Transformation for Soil Surface Indices; Proceed. Regional. Symp. on Environmental Studies, Alexandria, 1990.
- 1991
51. Frihy, Nasr, Ahmed and El-Raey: Temporal shoreline and bottom change of the inner continental shelf of the Nile Delta, J. Coast. Research 7, 2, 465, 1991.
52. El-Raey, Nasr and Frihy: National assessment of Sea level Rise over the Nile Delta. EPA (Unpublished report).
53. El-Raey, Frihy, Nasr and Ahmed: Trend and Bruun Analysis along the Nile Delta Coast; International Symposium on Geophysical Hazards in Developing Countries and their Environmental Impacts, Italy, 1991.
54. El-Raey: Commentary on Long Run Global Change: Implications for Agricultural sustainability; Proceedings of the Symposium on Agricultural Sustainability, Growth and Poverty Alleviation: Issues and Policies. German Foundation for International Development and International Food Policy Research Institute, Feldafing, Germany, 1991.
- 1992
55. El-Raey, Nasr, Frihy, Desouki and Dewidar: Impact of accelerated sea level rise over Alexandria Governorate. First Bahrain Symposium on Environmental Science, Bahrain, 1992.

56. Amer, Helmi, Mohamed, El Shazely, and El-Raey; A fluorometric Method for monitoring dissolved organic matter in water; Proc. Fourth National Conf. on Physics and Environment, Cairo, 1992, p(97).
57. El-Raey, Naim, Guirguis, Balba, Ghattas and Zahran; Monitoring and analysis of some air pollutants over Alexandria, Egypt south of the Mediterranean: Meeting on Geophysics and Environment: Background Air pollution, University of Rome, Italy, June, 1992.
58. El-Raey Naim, Ghattas and Guirguis; Spectrometric and temporal analysis of Radioactive fallout over Alexandria, Proc. Fourth Nat. Conf. Role of Physics in the Development and Protection of Environment: Part I Nov, 1992.P (11).
59. El-Raey; Environmental Information Needs in the Middle East. Conference on Satellite Remote Sensing for Resource Management, Environmental Assessment and Global Changes Studies: Needs and Applications for developing countries. Boulder, Colorado, August 1992.
60. Frihy, Nasr, Dewidar and El-Raey; Spatial and temporal changes at Alexandria beaches. International Coastal Congress, ICC, Kiel, Germany.
61. Farag and El-Raey; Remote sensing of coastal currents near Alexandria, First Thematic Conference for Remote Sensing for Marine and Coastal Environment, New Orleans, June 1992.
62. Helmi; Mohamed; Amer; El-Shazly and El-Raey; Laser induced fluorescence some plant leaves. Conf. Physics and Environment, Cairo University, Nov 1992.
63. El-Shazly, Helmi, Mohamed; Amer and El-Raey; Light polarisation spectra of soil samples for remote sensing. Conf. Physics and Environment; Cairo University, Nov 1992.
64. El-Raey; Global Climatic changes and its impact over the northern part of the Nile delta, Seminar on the Coastal Road and Its Environmental Implications; Cairo, 5-8 May 1992.

1993

65. El-Raey; Vulnerability of the coastal zone; Keynote paper; World Coast Conference, Noortwijk The Netherlands, Nov. 1993.

1994

66. Naim, Shaker, Salem, El-Gamal and El-Raey; Tritium radioactivity in the aquatic environment over Alexandria region.(J. Water, Air and Soil Pollution, 73, 275-284, 1994)
67. Frihy, Nasr, El Hattab and El Raey; Remote sensing of beach erosion along Rosetta promontory, Int. J. Remote Sensing, 15, p 1649 -1660, 1994
68. Frihy, Nasr; Dewidar and El-Raey; Beach erosion along the coastline of Alexandria; Acta Oceanologica Sinica 13, 2, 243, 1994.

1995

69. El-Raey, Nasr, El-Hattab and Frihy; Change detection of Rosetta promontory over the last forty years, Int. J. Remote Sensing, 16, 825-834, 1995.
70. El-Raey, M.; D. El-Quosy; M. El-Shaer; O. El-Kholy and A. Soliman; Egypt: Inventory and Mitigation Options And Vulnerability And Adaptation Options; Interim Report On Climate Change Country Studies. (Edit. Ramos- Hane and Benioff), Berlin 1995

71. El-Raey, Nasr, Frihy, Desouki, and Dewidar; Potential Impacts of Accelerated Sea Level Rise on Alexandria Governorate, Egypt. J. Coastal Research Special Issue # 14, 190-204, 1995
72. El-Raey, Nasr, and Dewidar; Coastal zone management: Greater Alexandria case study; Egyptian- Danish-Dutch Co-operative Symposium on Coastal Zone Management Hurghada, May 1995.
73. Mohy, Mostafa and El-Raey; Environmental impact and risk assessment of Chlorine release in a chemical company, American University Conference on Environmental Hazards, 1995
74. Salem, El Cebahy and El Raey; Detection of land cover classes in agro-ecosystems of northern Egypt by remote sensing; Int. J. Remote sensing 16, 2581-2594, 1995.
75. Khalil, El Raey, Fanos, Salem, Elkaffas and Kadib; Role of Arc/Info Technology in Egypt; 10th European ARC/INFO User Conference, Prague, 2-4 October, 1995.

1996

76. Frihy, O.; M. El-Raey and Kh. Dewidar; Evaluation of the coastal problems at Alexandria; J. Ocean and Coastal Management, 30, 281-295, 1996.
77. Guirguis, Hassan, and El-Raey; Multi-temporal change of Lake Burullus, Egypt, from 1983 to 1991. Int. J. Remote Sensing, Vol. 17, No. 15, 2915-2921, 1996.

1997

78. Nasr, Abdel Kader, El Gamily and El-Raey; Coastal zone geomorphology of Ras Mohamed, Red Sea, Egypt; J Coast. Res. 13, 1, 134-140, 1997.
79. El-Raey, Abdel Kader, Nasr, and El Gamily; Remote sensing and GIS for an oil spill contingency plan: Ras Mohamed, Egypt. Int. J. Rem. Sensing (vol. 17, No 11, 2013-2026).
80. Nasr, El-Raey Ezzat and Ibrahim; Geographical Information system for sediments, heavy metals and pesticides in Abu-Kir Bay, Egypt; (J. Coastal Res., 1997)
81. Nasr, El Raey and Ahmed; Integrated coastal zone management for Alexandria, Egypt; Proc. 3rd International Conference on the Mediterranean Coastal Environment (MEDCOAST 97), Nov. 1997. Malta.
82. El-Raey, Fouda and Nasr; GIS Assessment of the vulnerability of Rosetta area, Egypt to the impacts of sea level rise; J. Environmental Monitoring, 47, 59-77, 1997.
83. El-Raey; Vulnerability assessment of the coastal zone of the Nile delta, Egypt, to the impacts of sea level rise. Ocean and Coastal Management, vol 37, No 1, 29-40, 1997
84. Nasr, Abdel Kader, El Gamily and El Raey; Coastal zone geomorphology of Ras Mohamed Area; J. Coastal Res. 13, 1, 134-140, 1997.
85. Galil, Meguid, El Quosy, Hamid, Eid, El Raey and Farghaly; Egypt: National Climate Change Action Plans: Interim. Report for Developing and Transition Countries, Oct, 1997.

1998

86. Abdel-Kader, Nasr, El-Gamily and El-Raey; Environmental Sensitivity Analysis of Potential Oil Spill for Ras-Mohammed Coastal Zone, Egypt, J. Coastal Research, 14, 2, 502-510, 1998.

87. El-Raey,Ahmed and Korany; Marine pollution assessment near Alexandria, Egypt by principal thematic components(TPC). Int. J. Remote Sensing, vol 19,No 7, 1395-1414, 1998).
88. El Raey, Coastal Zone Development and Climate Change; Internet homepage via GAIA project <http://www.ess.co.at/gaia>
89. Ahmed; El Raey, Nasr and Frihy; Socioeconomic impact of pollution on ecosystems of the Arabian Gulf; Environment International, Vol 24,p (229-237), 1998.
90. El Raey, M.; Vulnerability assessment and adaptation measures of the Mediterranean coastal zone of Egypt to the impacts of sea level rise, Proceedings of the International Conference on the Impacts of Climate Change on the Mediterranean Countries, Metsovo, Greece, Sept, 1998.
91. Frihy,Dewidar,Nasr, and El Raey; Change detection of the north-eastern Nile Delta of Egypt: shoreline changes, spit evolution, margin changes of Manzala lagoon and its islands; Int. J. Remote Sensing, vol 19,No 10,1901-1912, 1998.
92. Abou Shouk, Soheil, Abou Zahra,El Sebaa, El Raey, Aboul Dahab, and El Remisy; Hot spots Teams; Capacity Building Needs Reports; MEDBRANCH R-4.1998. METAP.

1999

93. El Raey, M.; Frihy, O.; Nasr, S. M.; Dewidar, Kh. 1999: "Vulnerability Assessment of Sea level Rise over Port-Said Governorate, Egypt", in: *Journal of Environmental Monitoring*, no **56**: 113–128,
94. Naim; Saleh and El Raey; Radioactivity in soil and building material; Fourth Radiation Physics Conference, Alexandria Nov., 1998(Earth and Environmental Sciences Section) Arab Journal of Nuclear Sciences and Applications, Special Issue; vol 32, June, 1999.
95. Saleh, Naim and El Raey; Seasonal variation of indoor and outdoor radon and its progeny concentration in Alexandria, Egypt; Fourth Radiation Physics Conference, Alexandria Nov.,1998 (Earth and Environmental Sciences Section) Arab Journal of Nuclear Sciences and Applications, Special Issue; vol 32, June,1999 .
96. El Raey, Sharafeldin, Khafagy and Abo Zed; Remote sensing of beach erosion/accretion patterns along Damietta Port Said shoreline, Egypt. Int. J. Remote Sensing 20/6,1087-1106,1999
97. El Raey and Frihy; Vulnerability and adaptation to climate change on the coastal zone of Egypt; Egypt-US workshop on Global Climate Change, Cairo; May,1999,
98. El Raey; M.; Kh. Dewidar and M. El Hattab 1999; Adaptation to the impacts of climate change in Egypt; Climate Research, CR Special Issue 6, 1999; Inter Research, Vol 12, Nos 2 and 3, pp(117-128).
99. Husland; Jensen; Nasr, Poulsen; Boison; Ibrahim; El Seoud; El Raey; El Shennawy; El Gamal and Aziz; First results from the Egyptian coastal Water Monitoring Programme. MEDCOAST 97. The Joint Conference on Land Coast Interactions: Managing Coastal Ecosystems; 9-13 Nov., 1999; Antalya Turkey.
100. Selim;S. and M. El Raey; Environmental Education and Training in Egypt; UNESCO report,1999.

101. Guerguis;Sh; M. Amin; H. Baghdady; A. El Sharkawy; and M. El Raey; Modelling and assessment of industrial air pollution in Alexandria; International conference on Environmental Management, Health and Sustainable Development, Alexandria, 1999

2000

102. El Raey, Fouda and Gal; GIS for Environmental assessment of impacts of urban encroachment of Rosetta Region, Egypt. J. Environmental Monitoring and Assessment, 60(2): 217-233,Jan. 2000
103. El Raey, Nasr and El Hattab; Assessment of land cover changes along the Northwestern coastal zone; Second International Conference on Earth Observation and Environmental Information; Cairo, November, 2000.
104. Elkaffas, Hasan and El Raey; A GIS based DSS for planning in Alexandria Governorate;2nd International Conference on Earth Observation and Environmental Information; Cairo, November,2000.
105. Elkaffas, Aref and El Raey; Remote Sensing of Environmental Changes in New Borg Elarab area. 2nd International Conference on Earth Observation and Environmental Information; Cairo, November, 2000.
106. El Raey, Mohamed, Sadek and Elsobky; Identification and mapping of exposed soil and rock types using Thematic Mapper (TM) data in Siwa region, Western Desert, Egypt; 2nd International Conference on Earth Observation and Environmental Information; Cairo, November,2000
107. Elkaffas, Khalil and El Raey; Merging of Radarsat imagery and optical images; 2nd International Conference on Earth Observation and Environmental Information; Cairo, November, 2000

2001

108. El-Gamily, Nasr, and El Raey; An assessment of natural and human induced changes along Hurghada and Ras Abu Soma coastal area, Red Sea, Egypt. First NASA Conference, (EOEI97) Alexandria, Oct.1997; Int. Journal of Remote Sensing, vol. 22, No 15,2999-3014, 2001

2002

109. Ghattas, Mohamed, Nashed, Elsayed and El Raey; A Fluorometric Technique for Diagnostics of Water quality; Egyptian J. Biophysics; vol. 8, 65,2002
110. Mohamed El Raey, 2002; CAMP “Fuka- Matruh”, Egypt; In Coastal Area Management Programmes: Improving the Implementation; Report and Proceedings of the MAP/PAP/METAP Workshop, Malta, January 2002

2003

111. El Raey, Balajka, Borst, Hertoghs and Diaz-Bone; Report on the In-Depth Review of the Third National Communication of Poland, UNFCCC, 28 November, 2003

2004

112. El Raey, Vulnerability and adaptation to climate change in Egypt, Adaptation workshop, International Convention on Climate Change, UNFCCC/IPCC; Bonn, 2004
113. Agrawala S., Moehner A., El Raey M., Conway D., Van Aalst M., Hagenstad M., and Smith J. 2004; "Development and climate change in Egypt: focus on

coastal resources and the Nile", Organization for Economic Co-operation and Development (OECD), Paris

2005

114. El Raey, M.; S. Nasr, O. Frihy, Y. Fouda, M. El Hattab, Elbadawy, A. Shalaby and W. Mohamed; Remote sensing and GIS for sustainable development of the Coastal zone of Abu Qir Bay, Egypt; Sea to Sea Conference, Cairo, Feb.2005

2006

115. El Raey, M.; S. Nasr; O. Frihy; Y. Fouda; M. El-Hattab; O. Elbadawy and W. Mohammed; Sustainable Development of The Coastal Area of Abu Qir Bay, Egypt; Presented at the International conference of Changes of Lakes, Lagoons and Wetland, Cairo,2006
116. El Raey, Y. Fouda and I. Eleskandrani; Potential Impact of Sea Level Rise On Marina El-Alamein Tourist Resort, Egypt; Presented at the International Conference of Changes of Lakes, Lagoons and Wetland, Cairo,2006
117. El Raey, Elhattab and Nasr; Remote sensing of Environmental Changes of Lake Maryut and Valley, African Association of Remote Sensing Conference (AARSE), Cairo, 2006;
118. El Raey M; and Wesam Mohamed; Impact of Sea level rise over Matruh City, Egypt: A spatial approach; African Association of Remote Sensing Conference (AARSE), Cairo, 2006

2007

119. Al-Janied, Bahnacy Nasr, and El Raey; Vulnerability assessment of the impact of sea level rise on the Kingdom of Bahrain; J. Mitigation and Adaptation Strategies of Climate Change 2007
120. Shalaby, E.A. Z.F. Ghatass and M.E. El-Raey; A Simple Technique for Measurements of SO₂ and NO in Alexandria and Delta Region, Egypt; American-Eurasian Journal of Scientific Research 2 (2): 106-111, 2007

2008

121. El Raey; SMAP Interview
http://www.smap.eu/DOC/Bulletins/SMAP_Bulletin_23_EN.pdf

2009

122. El Askary, H. ; M. El Raey and M. Kafatos; Investigation of aerosol and water vapour over Cairo and the Nile delta Region using satellite data (submitted, 2009)
123. El Raey; Mohamed; 2009; Mapping Areas Affected by Sea-Level Rise due to Climate Change in the Nile Delta Until 2100; In Hexagon Series on Human and Environmental Security and Peace (HESP); Edited by Hans Günter Brauch, Free University of Berlin, UNU-EHS and AFES-PRESS
124. El Raey; Mohamed; Impacts and Implications of Climate Change for the coastal Zones of Egypt; Stimson Center Publications, Washington D.C.

2010

125. El Raey; Mohamed, 2010; Impacts and Implications of Climate Change for the Coastal Zones of Egypt; Stimson Center Publications, Washington D.C.

126. Heba S. Marey, John C. Gille, Hesham M. El-Askary, Elsayed A. Shalaby and Mohamed E. El Raey, 2010; Study of the formation of the “Black Cloud” and its dynamics over Cairo, Egypt using MODIS 2 and MISR sensors; Journal Of Geophysical Research, Vol. 115, D21206, Doi:10.1029/2010JD014384
127. El Raey, Mohamed; (2010); Impact of Sea Level Rise on the Arab Region; Arab Climate Resilience Initiative; UNDP; http://www.arabclimateinitiative.org/Countries/egypt/ElRaey_Impact_of_Sea_Level_Rise_on_the_Arab_Region.pdf Impact of Sea Level Rise on the Low Land

2011

Mohamed El Raey; Mapping Areas Affected by Sea-Level Rise due to Climate Change in the Nile Delta Until 2100 VOL 5; Hexagon Series On Human And Environmental Security Y And Peace, 2011; Coping with Global Environmental Change, Disasters and Security Threats, Challenges, Vulnerabilities and Risks; Hans Gunter Brauch et al (edit)- Springer- Verlag, 2011

129 El Askary , H. , M. El-Hattab,, M. El-Raey and Menas Kafatos, 2011; Impact of Sea Level Rise on the Low Area South East of Alexandria, Egypt Land (In press)

130. El-Askary,H; Anup K. Prasad, George Kallos, Mohamed El-Raey and Menas Kafatos; Analyzing Black Cloud Dynamics over Cairo, Nile Delta Region and Alexandria using Aerosols and Water Vapor Data

131. Marey ; H. S.; J. C. Gille¹, H. M. El-Askary; E. A. Shalaby, and M. E. El-Raey; Aerosol climatology over Nile Delta based on MODIS, MISR and OMI satellite data Atmos. Chem. Phys., 11, 10637–10648, 2011; www.atmos-chem-phys.net/11/10637/2011/

132. Agustín Sa´nchez-Arcilla ; Cesar Mo´sso ; Joan Pau Sierra ; Marc Mestres Ali Harzallah . Mohamed Senouci ; Mohamed El Raey. 2011 Climatic drivers of potential hazards in Mediterranean coasts

133. Saleh Elkaffas¹, M. Massoud², M. El-Raey³ and H. El-Wakeel, An Intelligent Information System for Groundwater Resources Categorization and Assessment, International Journal of Water Resources and Arid Environments 1(6): 490-498, 2011,ISSN 2079-7079

2012

134. El-Askary H.M ; A.K. Prasad; H.M. Marey ; M.E. **El-Raey** ; G.R. Asrar ; M Kafatos; Studying and analyzing the formation and dynamics of the black cloud over Cairo, Egypt, using a multi sensor approach; Geophysical Research Abstracts; Vol. 14, EGU2012-PREVIEW, 2012; EGU General Assembly 2012

135. Adaptation to a Changing Climate in the Arab Countries, MENA Development Report Number 64635, Dorte Verner , Editor

2013

135. Regional Assessment of Climate Change in the Mediterranean (RACCM) A. Navarra and L. Tubiana (eds.), *Regional Assessment of Climate Change*

the Mediterranean: Volume 3:Case Studies, Advances in Global Change Research 52, DOI 10.1007/978-94-007-5769-1_1, Springer - Science + Business Media Dordrecht 2013

136.

Y

AboelFetouh, Y.H. El Askary, M. El Raey, M. Allali, W. A. Sprigg, and M.Kafatos ; *Annual Patterns of Atmospheric Pollutions and Episodes over Cairo Egypt (accepted,2013*

137.

2014

El-Askary, S. H. Abd El-Mawla, J. Lia , M. M. El-Hattab, and M. El-Raey Change detection of coral reef habitat using Landsat-5 TM, Landsat 7 ETM+ and Landsat 8 OLI data in the Red Sea (Hurghada, Egypt), int. j. rem. Sens

2015

138.

A

Ali Elhadidi and M. El Raey; Properties and Time Variation of Aerosol over Alexandria, Egypt Using MODIS and OMI Satellites Data Submitted, 2015

2015

139- Abdulla Elhamoudy; M. El Raey and ; Early warning systems in the arab region

2016
level

140 – Bekheet, El Raey and Yasin, The crescent methodology for sea rise, Int. J. Climate Change Mitigation and Adaptation.

2017

142 - El Raey And El Askary , Remote sensing and modelling of climate changes in Egypt , chapter in a book

143- El Raey and Abu Taleb , Biosensors, submitted

145- El Hattab, Ahmed and El Raey, Potential Tsunami Risk assessment in Alexandria, Egypt , Environmental Monitoring and assessment;2018 190,496 <https://doi.org/10.1007/s10661-018-6876-z>

74. Assesses the Resilience Index to Sea Level Rise Risk of Alexandria Governorate, Egypt, DOI: [10.19080/IJESNR.2018.12.555841](https://doi.org/10.19080/IJESNR.2018.12.555841)

Coming Soon

- 1. Vulnerability Assessment for Flash Floods Using GIS Spatial Modeling and Remotely Sensed Data in El-Arish City, North of Sinai-Egypt (Accepted bu **Natural Hazards Journal**)**

2. Sustainable Development of Qaroun Lake and Wadi El-Rayan using the Integrated Remote Sensing and GIS Techniques in El-Fayoum, Egypt **Accepted by Env. Mont. Ass. Journal)**
3. Assessment, Prediction and Future Simulation of Land Cover Dynamics Using remote sensing and GIS techniques **(Submitted to Assiut University Bulletin for Environmental Researches)**
4. Assessment of Urban Community Resilience to Sea Level Rise Using Integrated Remote Sensing and GIS Techniques **(Submitted to Assiut University Bulletin for Environmental Researches)**

Environmental Books edited of Books:

- (1) First Symposium on Environmental Science Alexandria, 1988.
- (2) Regional Symposium on Environmental Studies, Alexandria, Egypt, 1992.
- (3) Proceedings of the First International Conference on Environmental Management, Health and Sustainable Development, Alexandria, 1999, Vol I and Vol II.

Keynote Lectures and Articles

1. Lasers and Military Applications; Journal of Naval Academy, Egyptian Naval Academy, 1984.
2. Remote Sensing; Science and Technology: J. of University and Industry, Published by UNARC, August 1984.
3. Remote Sensing of Atmospheric Pollutants; Lecture Presented on the Occasion of "Day of the Environment", June 5, 1984. Symposium of Egyptian Committee on Medicine and Law.
4. Computers and Statistics in Environmental Studies. Third Symposium on Statistics, Ain Shams University, 1986.
5. Remote Sensing of Environmental pollution, Justice and Peace Symposium on Environment, Cairo, Nov 1988.
6. CO₂ and Ozone Environmental problems, Goethe Institute Alexandria Dec., 1988.
7. Processing of Remotely Sensed Images. Symposium on uses and Applications of SPOT imagery, Alexandria, 1989.
8. Effect of Global Climatic Changes over the Nile Delta (In Arabic)
9. Environmental Information Invited paper, International conference on Information Systems and Technology, Cairo, Sept 1990.
10. Climate change and Vulnerability of Egypt
11. Climate Change and Vulnerability of the Arab Region
12. Integrated Coastal Zone Management; International Conference on Environmental Management, health, and Sustainable Development, Alexandria, 1999
13. Remote sensing and GIS for Environmental and Coastal applications
14. Climate change and its impacts on sustainable development in Egypt, British Society of Civil Engineers Conference, Cairo, 2008

In addition to a large number of general lectures on remote sensing, GIS technologies and applications environmental assessment and pollution monitoring delivered at symposia on various occasions.