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Professor of Earth System Science and Remote Sensing
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Schmid College of Science and Technology, Chapman University, USA

and

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OBJECTIVE To extend my educational capabilities and to work on challenging research through a growth oriented position in scientific computing, remote sensing, physics of the atmosphere, meteorology, earth system sciences, land use / land cover, natural Hazards and geographic information system.

EDUCATION

Ph.D. in Computational Science & Informatics	September 2000 – May 2004 George Mason University, VA, USA Major: Environmental Physics/Remote Sensing Dissertation: “Regional Monitoring of Environmental Physics Climate Related Anomalies” Honors: Dissertation passed “with Distinction” GPA: 4.0
M.Sc. in Earth System Science	September 2002 – May 2004 George Mason University, VA, USA Major: Earth Sciences/Remote Sensing/GIS Honors: Dissertation passed “with Distinction” GPA: 4.0
M.Sc. in Computational Science	September 2001 – May 2003 George Mason University, VA, USA Major: Computational Sciences/Remote Sensing Honors: Degree passed “with Distinction” GPA: 4.0
Post Graduate Studies in Geophysics	January 1998 – January 2000 Alexandria University, Egypt Major: Geophysics Honors: Degree passed “with Distinction” GPA: 3.8
B.Sc. of Science	September 1994 – May 1997 Alexandria University, Egypt Major: Geophysics/Physics/Geology Honors: Degree passed “with Distinction” GPA: 3.99

WORK EXPERIENCE

Chapman University, USA	Professor of Earth System Science and Remote Sensing March 2016 - Present
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	<ul style="list-style-type: none"> • Program Director of the master and PhD. degrees in Computational and Data Sciences (CADS) • Member of the curriculum committee of the Environmental Science and Policy Degree. • Member of the curriculum committee of Schmid College of Science and Technology. • Member of the University Faculty Research Development Council (FRDC) (2015-2017) • Member of the university Freshman Foundation Committee (FFC) • Member of the Dean’s Advisory Committee • Teaching introductory and graduate level courses in Hazards, Global Environmental change and Remote Sensing
Chapman University, USA	<p>Associate Professor of Earth System Science and Remote Sensing <u>April 2011 - Present</u></p> <ul style="list-style-type: none"> • Program Director of the master degree in Hazards, Global and Environmental Change (HGEC) • Program Director of the master and PhD. degrees in Computational Science (CS) • Member of the curriculum committee of the Environmental Science and Policy Degree. • Member of the curriculum committee of Schmid College of Science and Technology. • Member of the faculty senate representing Schmid College of Science and Technology. (2010-2012) • Member of the Faculty Personnel Committee (FPC) • Member of the Dean’s Advisory Committee • Teaching introductory and graduate level courses in Hazards, Global Environmental change and Remote Sensing
Chapman University, USA	<p>Assistant Professor of Earth System Science and Remote Sensing <u>August 2008 – March 2011.</u></p> <ul style="list-style-type: none"> • Program Director of the master degree in Hazards, global and Environmental Change (HGEC) • Member of the local organizing committee of the Workshop on “Electromagnetic Signals Associated with Earthquakes and Volcanoes” (EMSEV) October 3-6, 2010 Chapman University, Orange, CA, USA • Member of the curriculum committee of the Environmental Science and Policy Degree. • Member of the Dean’s Advisory committee • Developed two master’s degrees in Hazards, Global and environmental Change and Computational Science. • Currently developing a Ph.D degree in Computational Science. • Studying air pollution problem over Egypt, Middle East and Mediterranean Region and Africa using satellite technology. • Analyzing aerosols and meteorology related parameters over South Korea. • Analyzing Glaciers retreat over the Himalayas.

	<ul style="list-style-type: none"> • Member, local organizing committee of the Earthquakes and climate change. • Teaching an introductory course in Hazards, Global Environmental change and Remote Sensing
<p>National Authority of Remote Sensing and Space Science (NARSS), Cairo, Egypt</p>	<p>Part time consultant – “Modeling lab using the remote sensing technology” <u>December 2005 - Present</u></p> <ul style="list-style-type: none"> • Succeeded in obtaining a joint research grant between Chapman University and NARSS funded through the NSF for US partner and Science & Technology for Development Fund (STDF) for Egypt partner. • Member of the sensors group for research and development for different areas of interest for Egypt development. • Participated in developing a dust module to be associated with global weather models for simulating dust events. • Lead the efforts for studying air pollution problem over Cairo using satellite technology • Contributed in analyzing assimilated temperature data products and observations over location in Egypt in a trial for studying the black cloud phenomenon over Cairo. • Participated in the U.S.–Egypt Workshop on Predictive Methodologies for Global Weather-Related Disasters that is held from March 13-15, 2006.
<p>Faculty of Science Alexandria University, Egypt</p>	<p>a) Associate Professor – “Faculty of Science, Environmental Science Department” <u>August 2009 – Present (on leave)</u></p> <ul style="list-style-type: none"> • Working closely with Graduate students • Working closely with the Dean to Establishing the AERONET station in Alexandria • Invited to give a series of lectures last was on April 2013 <p>b) Assistant Professor – “Faculty of Science, Environmental Science Department” <u>July 2005 – July 2009 (on leave since 2008)</u></p> <ul style="list-style-type: none"> • Department representative for developing course description and report as a part of quality assurance process for the whole university • Succeeded in leading the research team for current collaboration with the European Union and obtaining a research grant of 57,600 Euros studying the climate change impact of the Mediterranean basin, in particular sea level rise and beach erosion. This project started on April 2007 for four years. • Participated as an organizer in the Environmental Day, April 22, 2007. • Program coordinator for a workshop on Remote Sensing of the Environment and Earth image processing during the period April 15-17 2007. • Participated in the Educational reformation meeting of Alexandria University as a representative of the faculty of Science.

<p>Faculty of Science Alexandria University, Egypt</p>	<ul style="list-style-type: none"> • Major contributor in credit hour system establishment and curriculum development for bachelor degree in the department of Environmental Science. • Currently participating in teaching courses related to Remote Sensing for undergraduate level and a full course for postgraduate in Laser and its applications, Remote Sensing of the Environment, Environmental Pollution, Environmental Geology, Remote Sensing and Applied Geophysics. • Supervising students for graduation projects and students in Masters and PhD Degrees. • Currently participating in arranging a multidisciplinary colloquium series for the faculty of Science. • Succeeded in establishing a memorandum of understanding for collaborating with NASA, USA for the establishment of an Air quality monitoring station provided by NASA for the Faculty of Science. This project is currently under investigation by the Egyptian Government. • Developing a remote sensing related workshop and training course held during 15-17 April, 2007 • Main initiator and Co-PI of the project Climate Change and Impact Research over Mediterranean Environment funded by the European Union, through CEDARE organization 2007-2011. • Main initiator and Co-PI of the project Air Pollution over Greater Delta Region funded by the National Science Foundation, USA through Alexandria University 2007 -2010. <p>c) Teaching Assistant – “Faculty of Science, Physics and Geophysics Departments” 1997 – 2000</p> <ul style="list-style-type: none"> • Teaching Topics: Properties of Matter, Optics, Thermodynamics, Seismology, Magnetism, Electricity, Geohydrology, Gravity, Heat flow, Paleomagnetism, Geomagnetism, Applied Geophysics Labs and others. • Collaborated on curriculum and exam development, met with under graduate and postgraduate students upon request, and graded all written work, including final exam. <p>d) Computer instructor – “Alexandria University” 1996 – 1997</p> <ul style="list-style-type: none"> • Teaching Topics: Microsoft Office, Operating Systems, Networks and WWW. • Worked in computer centers and taught for graduate students in computer centers of Faculties of Science, Commerce, Agriculture, Law and Fine Arts.
<p>George Mason University, Fairfax, VA, USA</p>	<p>a) Research Scientist – “Center for Earth Observing and Space Research” May 2004 – May 2008</p> <ul style="list-style-type: none"> • Co-I in NASA funded project dealing with Air pollution over Mega Cities funded through the congress 2006. • Teaching a graduate level course summer 2006, titled “Introduction to Natural Hazards and Remote Sensing” • Teaching a training course summer 2006, titled “Introduction to Earth Observing, Climate change and Disasters” to the Chinese

	<p>delegates of the Heilongjiang Bureau of Surveying and Mapping (HLJBSM), China</p> <ul style="list-style-type: none"> • Succeeded in leading the research team to submit a joint proposal between Alexandria University and George Mason University for the National Science Foundation (NSF) that got funded 60,000 USD for three years starting 2006. • Currently involved in a research grant funded by NASA for studying the impact of pollution over megacities and I am representing Cairo case study in this project that got funded for two years starting 2007. • Currently involved in the committee of a PhD student in the George Washington University. • Participated as Co-PI and Co-I in Proposals funded by NASA and WMO. • Co-P.I. The Global Climate and Regional Impacts project, NASA Funded. • Developed overall structure for dual degrees programs. <p>b) Research Assistant – “Center for Earth Observing and Space Research.” 2001 – April 2004</p> <ul style="list-style-type: none"> • Participated in many research areas including ENSO detection, Dust Storms monitoring, Flash Floods, Global Climate Change and others. • Worked as Webmaster for the Center for Earth Observing and Space Research. http://ceosr.gmu.edu <p>c) Teaching Assistant – “School of Computational Sciences, Physics Department” 2001</p> <ul style="list-style-type: none"> • Teaching Topics: Properties of Matter, Physical optics, Heat and Astronomy. • Collaborated on curriculum and exam development, met with students upon request, and graded all written work.
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PUBLICATIONS (IN CHRONOLOGICAL ORDER) *(student co-authors are italicized and underlined)*

Peer reviewed Journals	<ol style="list-style-type: none"> 1. <i>Danielle S. Platt</i>, Andrea Molle, Hesham El-Askary, Cyril Rakovski, Peter Simi, “Understanding the Effects of Temperature and Precipitation on the Frequency of Terror Attacks by Country”, <i>Political Geography</i> (Under review, 2020). 2. Wenzhao Li, <i>Sachi Perera</i>, Erik Linstead, <i>Rejoice Thomas</i>, Hesham El-Askary, Thomas Piechota and Daniele Struppa, “Intercomparison among multiple hydrological products for the investigation of land cover changes in the Mediterranean Region”, <i>Hydrological Processes</i> (Under review, 2020). 3. Rommel Maneja; Jeffrey Miller; Wenzhao Li; <i>Rejoice Thomas</i>; Hesham El-Askary, <i>Sachi Perera</i>; Ace Flandez; Abdullajid Basali; Joselito Alcarria; Jinoy Gopalan; Surya Tiwari; Mubarak Al-Jedani; Perdana Prihartato; Ronald Loughland; Ali Qasem; Mohamed Qurban; Wail Faltah; Daniele Struppa, “Multidecadal analysis of beach loss at the major offshore sea turtle nesting islands in the northern Arabian Gulf”, <i>Ecological Indicators</i>, 121, 2021, 107146, ISSN 1470-160X, https://doi.org/10.1016/j.ecolind.2020.107146. 4. Wenzhao Li, Hesham El-Askary, Rejoice Thomas, Surya Prakash Tiwari, K. P. Manikandan, Thomas Piechota and Daniele Struppa, “An Assessment of the Hydrological Trends using Synergistic Approaches of Remote Sensing and
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- Model Evaluations over Global Arid and Semi-Arid Regions”, *Remote Sens.* **2020**, *12*, 3973.
5. Le, J., **El-Askary H.**, Allali, M., Sayed, E., Sweliem, H., Piechota, T., Struppa, D., “Characterizing El Niño-Southern Oscillation Effects on the Blue Nile Yield and the Nile River Basin Precipitation using Empirical Mode Decomposition”, *Earth Syst Environ* **4**, 699–711 (2020). <https://doi.org/10.1007/s41748-020-00192-4>.
 6. Li, W., Thomas, R., El-Askary, H., Piechota, T., Struppa, D. and Abel-Ghaffar, K. Investigating the Significance of Aerosols in Determining the Coronavirus Fatality Rate among Three European Countries. *Earth Syst Environ* **4**, 513–522 (2020). <https://doi.org/10.1007/s41748-020-00176-4>
 7. Zheng, J., Chu, H., Struppa, D., Zhang, J., Yacoub, M., El-Askary, H., Chang, A., Ehwerhemuepha, L., Abudayyeh, I., Barrett, A., Fu, G., Yao, H., Li, D., Guo, H., Rakovski, C., Optimal Multi-Stage Arrhythmia Classification Approach. *Scientific Reports* **10**, 2898 (2020). <https://doi.org/10.1038/s41598-020-59821-7>
 8. *Li, Wenzhao*; Tiwari, Surya; **El-Askary, Hesham**; Qurban, Mohammad; Amiridis, Vassilis; Kandan, Mani; Garay, Michael; Kalashnikova, Olga; Piechota, Tom; and Struppa, Daniele, “Synergistic use of Remote Sensing and Modeling for Estimating Net Primary Productivity in the Red Sea with VGPM, Eppley-VGPM and CbPM models Intercomparison, *IEEE Transactions on Geosciences and Remote Sensing*, 2020, doi: 10.1109/TGRS.2020.2990373.
 9. Li, W.; **El-Askary, H.**; Lakshmi, V.; Piechota, T.; Struppa, D. Earth Observation and Cloud Computing in Support of Two Sustainable Development Goals for the River Nile Watershed Countries. *Remote Sens.* **2020**, *12*, 1391.
 10. Rommel Hilot Maneja, Jeffrey D Miller, *Wenzhao Li*, **Hesham El-Askary**, Ace Vincent B Flandez, Joshua J Dagoy, Joselito Francis A Alcaria, Abdullajid U Basali, Khaled A Al-Abdulkader, Ronald A Loughland and Mohammed Ali B Qurban, “Long-term NDVI and recent vegetation cover profiles of major offshore island nesting sites of sea turtles in Saudi waters of the northern Arabian Gulf”, *Ecological Indicators*, Vol. 117, October 2020, 106612, ISSN 1470-160X, <https://doi.org/10.1016/j.ecolind.2020.106612>.
 11. *Sudibyo S. Sardi*, *Wenzhao Li*, Mohammad A. Qurban, Krishnakumar P.K., Mustafa M. Hariri, Bassam S. Al-Tawabini, Amjad B. Khalil, **Hesham El-Askary**, “Assessment of areas environmentally sensitive to oil spills in the western Arabian Gulf, Saudi Arabia, for planning and undertaking an effective response”. *Marine Pollution Bulletin.* 150, 2020, 110588, <https://doi.org/10.1016/j.marpolbul.2019.110588>
 12. *Maram Elnadry*, *Wenzhao Li*, **Hesham El-Askary**, Mohamed Awad , Alaa Ramadan, “Urban Health Related Air Quality Indicators over the Middle East and North Africa Countries using Multiple Satellites and AERONET Data”, *Remote Sensing* *11*(18), 2096; <https://doi.org/10.3390/rs11182096>
 13. *Li, Wenzhao*, Ali, Elham, Abou El-Magd, Islam, Moustafa Mourad and **El-Askary, Hesham**, “Studying the Impact on Urban Health over the Greater Delta Region in Egypt due to Aerosol Variability using Optical Characteristics from Satellite Observations and Ground-Based AERONET Measurements” *Remote Sen.* **2019**, *11*(17), 1998; <https://doi.org/10.3390/rs11171998>
 14. *Odeyemi, Y.*, *Pollind, M.*, Peeler, R., Nozawa, K., Vesely, D., Page, A., Rakovski, C. and **El-Askary, H.**, “Review of Climate Research and Funding

- 2013-2017: A Multinomial Logistic Regression Approach,” *Journal of Environmental Informatics Letters*, 2019, 1, 94-101, doi:10.3808/jeil.201900011.
15. Gapper, J.J.; **El-Askary, H.**; Linstead, E.; Piechota, T. Coral Reef Change Detection in Remote Pacific Islands using Support Vector Machine Classifiers. *Remote Sensing* **2019**, 11(13), 1525; <https://doi.org/10.3390/rs11131525>.
 16. Nick Lahaye, Jordan Ott, Micheal Garay, **Hesham El-Askary** and Erik Linstead, “Toward Generic, Multi-Modal Object Tracking and Image Fusion with Unsupervised Deep Learning”, *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, vol. 12, no. 8, pp. 3056-3066, Aug. 2019.doi: [10.1109/JSTARS.2019.2920234](https://doi.org/10.1109/JSTARS.2019.2920234)
 17. Wenzhao Li, **Hesham El-Askary**, Mohamed A Qurban, Jingjing Li, K. P Manikandan, Thomas Piechota, “ Using Multi-indices Approach to Quantify Mangrove Changes over the Western Arabian Gulf along Saudi Arabia Coast”, *Ecological Indicators*, Vol. 102, March 2019, 734-745, ISSN 1470-160X, <https://doi.org/10.1016/j.ecolind.2019.03.047>.
 18. Kosmopoulos, P.G.; Kazadzis, S.; **El-Askary, H.**; Taylor, M.; Gkikas, A.; Proestakis, E.; Kontoes, C.; El-Khayat, M.M. Earth-Observation-Based Estimation and Forecasting of Particulate Matter Impact on Solar Energy in Egypt. *Remote Sens.* **2018**, 10(12), 1870; <https://doi.org/10.3390/rs10121870>.
 19. Gapper, J.J.; **El-Askary, H.**; Linstead, E.; Piechota, T. Evaluation of Spatial Generalization Characteristics of a Robust Classifier as Applied to Coral Reef Habitats in Remote Islands of the Pacific Ocean. *Remote Sens.* **2018**, 10(11), 1774; <https://doi.org/10.3390/rs10111774>.
 20. Dimitra Konsta, Ioannis Binietoglou, Antonis Gkikas, Stavros Solomos, Eleni Marinou, Emmanouil Proestakis, Sara Basart, Carlos Perez, **Hesham El-Askary** and Vassilis Amiridis, “Evaluation of BSC-DREAM8b v2 regional dust model using the 3D LIVAS-CALIPSO product”, *Atmospheric Environment*, 195, 46-62, ISSN 1352-2310, 2018. <https://doi.org/10.1016/j.atmosenv.2018.09.047>.
 21. Kristen Whitney, Elia Scudiero, **Hesham M. El-Askary**, Todd H. Skaggs, Mohamed Allali, Dennis L. Corwin, Validating the use of MODIS time series for salinity assessment over agricultural soils in California, USA, *Ecological Indicators*, Vol.93, October 2018, 889-898, ISSN 1470-160X, <https://doi.org/10.1016/j.ecolind.2018.05.069>.
 22. **Hesham El-Askary**, Jingjing Li, Wenzhao Li, Thomas Piechota, Tommy Ta, Ariane Jong, Xinyi Zhang and Tiantian Yang, “Impacts of Aerosols on the Retreat of the Sierra Nevada Glaciers in California,” *Aerosol and Air Quality Research*, [10.4209/aaqr.2018.03.0089](https://doi.org/10.4209/aaqr.2018.03.0089), 2018.
 23. A. T. Fontenot, **H. M. El-Askary**, M. J. Garay, J. R. Campbell and O. V. Kalashnikova, "Characterizing the Impact of Aerosols on Pre-Hurricane Sandy," in *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, vol. 11, no. 5, pp. 1378-1386, May 2018. doi: 10.1109/JSTARS.2018.2813095
 24. Li, W.; **El-Askary, H.**; Qurban, M.A.; Proestakis, E.; Garay, M.J.; Kalashnikova, O.V.; Amiridis, V.; Gkikas, A.; Marinou, E.; Piechota, T.; Manikandan, K.P. An Assessment of Atmospheric and Meteorological Factors Regulating Red Sea Phytoplankton Growth. *Remote Sens.* **2018**, 10(5), 673; <https://doi.org/10.3390/rs10050673>.

25. **El-Askary H.**, *Nick LaHaye*, Erik Linstead, William A. Sprigg and Magdi Yacoub, “Remote sensing observation of annual dust cycle and possible causality of Kawasaki disease outbreaks in Japan”, *Global Cardiology Science and Practice*, 2017:22 <http://dx.doi.org/10.21542/gcsp.2017.22>.
26. *Li, W.*; **El-Askary, H.**; ManiKandan, K.P.; Qurban, M.A.; Garay, M.J.; Kalashnikova, O.V. Synergistic Use of Remote Sensing and Modeling to Assess an Anomalously High Chlorophyll-*a* Event during Summer 2015 in the South Central Red Sea. *Remote Sens.* **2017**, 9(8), 778; <https://doi.org/10.3390/rs9080778>.
27. *J. A. Le*, **H. M. El-Askary**, M. Allali, D. C. Struppa, “Application of recurrent neural networks for drought projections in California”, *Atmospheric Research*, 188, 100-106, 2017.
28. Ashraf Farahat, **Hesham El-Askary**, Peter Adetokunbo and Abu Tharr Fuad, “Analysis of aerosol absorption properties and transport over North Africa and the Middle East using AERONET data”, *Annales Geophysicae*, 34, 1031-1044, 2016.
29. Ashraf Farahat, **Hesham El-Askary** and Umran Dogan, “Aerosols size distribution characteristics and role of precipitation during dust storm formation over Saudi Arabia”, *Aerosol and Air Quality Research*, vol. 16, No.10: 2523-2534, doi: 10.4209/aaqr.2015.11.0656.
30. **Hesham El-Askary**, Seon K. Park, Slobodan Nickovic, and Mian Chin, “Remote Sensing and Modeling of Atmospheric Dust and Studying Its Impact on Environment, Weather, and Climate,” *Advances in Meteorology*, vol. 2015, Article ID 854968, 2 pages, 2015. doi:10.1155/2015/854968
31. **El-Askary H.**, Seon k. Park, Myung-Hwan Ahn, Anup Prasad, and Menas Kafatos, “On the Detection and Monitoring of the transport of an Asian Dust Storm Approaching the Korean Peninsula” *Journal of Environmental Informatics*, JEI 25(2)2015, 99-116, 2015.
32. *Sunmin Park*, **El-Askary H.**, *Hanbin Kwak*, Woo-Kyun Lee and Menas Kafatos, “Comparing three interpolation methodologies for air pollutants over Seoul metropolitan area” *International Journal of Environment and Pollution*, (In Press, 2015)
33. *Sunmin Park*, **Hesham El-Askary**, Ismail Sabbah, *Hanbin Kwak*, Anup Prasad, Woo-Kyun Lee and Menas Kafatos, “Studying Air Pollutants Origin and Associated Meteorological Parameters over Seoul from 2000 to 2009” *Advances In Meteorology*, vol. 2015, Article ID 704178, 12 pages, 2015. doi:10.1155/2015/704178.
34. Ashraf Farahat, **Hesham El-Askary** and Abdulaziz Al-Shaibani, “Study of Aerosols’ Characteristics and Dynamics over the Kingdom of Saudi Arabia using a Multi Sensor Approach Combined with Ground Observations” *Advances In Meteorology*, vol. 2015, Article ID 247531, 12 pages, 2015. doi:10.1155/2015/247531.
35. William Sprigg, Slobodan Nickovic, John N Galgiani, *Goran Pejanovic*, *Slavko Petkovic*, *Mirjam Vujadinovic*, *Ana Vukovic*, Milan Dacic; Scott DiBiase, Anup Prasad and **Hesham El-Askary** “Regional dust storm modeling for health services: the case of valley fever”, *Journal of Aeolian Research*, 14, 53-73, ISSN 1875-9637, 2014.
36. *Sora Kim*, Anup Prasad, **Hesham El-Askary**, Woo-Kyun Lee, Doo-Ahn Kwak, Seung-Ho Lee, and Menas Kafatos “Application of the Savitzky–Golay Filter to Land Cover Classification using Temporal MODIS Vegetation

- Indices”, *Photogrammetric Engineering & Remote Sensing*, 80 (7), 675-685, 2014.
37. **El-Askary H.**, *Hamdy S.*, J. Li, Hattab M., and El-Raey M., “Change Detection of Coral Reef Habitat Using Landsat-5 TM, Landsat-7 ETM+ Data and Landsat-8 OLI in the Red Sea (Hurghada, Egypt)”, *International Journal of Remote Sensing*, 35(6): 2327–2346, 2014.
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 39. *Y. Aboel Fetouh*, **H. El Askary**, El Raey, M. Allali, W. A. Sprigg, and M. Kafatos “Annual Patterns of Atmospheric Pollutions and Episodes over Cairo Egypt” *Advances In Meteorology*, vol. 2013, Article ID 984853, doi:10.1155/2013/984853, 2013.
 40. **El-Askary, H.M.**, Allali, M., Rakovski, C., Prasad, A.K., Kafatos, M., and Struppa, D., “Computational Methods for Climate Data”, *Wiley Interdisciplinary Reviews: Computational Statistics*, WIREs Comp Stat. doi: 10.1002/wics.1213, 2012.
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 43. *Marey, H. S.*, Gille, J. C., **El-Askary, H. M.**, Shalaby, E. A., and El-Raey, M. E.: Aerosol Climatology over Nile Delta based on MODIS, MISR and OMI satellite data, *Atmos. Chem. Phys.*, 11, 10637-10648, 2011.
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 46. *Marey H.*, Gille J., **El-Askary H.**, Shalaby S., and El-Raey M., “Study of the formation of the “Black Cloud” and its dynamics over Cairo, Egypt using MODIS and MISR sensors”, *Journal of Geophysical Research*, 115, D21206, doi:10.1029/2010JD014384, 2010.
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 43. Panagiotis Kosmopoulos, Stelios Kazadzis, Michael Taylor, **Hesham Mohamed El-Askary**, Panagiotis Raptis, Iphigenia Keramitsoglou and Christos Kiranoudis, “Estimation of the solar energy potential in Egypt by developing high resolution solar Atlas and nowcasting service in real time”, American Geophysical Union, SanFrancisco, December 12-16, 2016.
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 45. **Hesham El-Askary**, and Justin Li, “Forecasting Interactions Between ENSO and Extreme Drought Conditions with Recurrent Neural Networks” AOGS 13th Annual Meeting, Beijing, 31Jul - 05 Aug, 2016.
 46. *Andrew Fontenot* and **Hesham El-Askary**, “Aerosols, Hurricanes, and their Interactions: A Case Study of Hurricane Sandy”, American Meteorological Society 32nd Conference on Hurricanes and Tropical Meteorology, San Juan, Puerto Rico, 18 – 22 April, 2016.
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47. Nirasindhu Desinayak, Anup K. Prasad, **Hesham M. El-Askary**, Menas Kafatos and Ghassem Asrar, "Status of meltwater lakes in Himalaya and Tibetan Plateau using long term MODIS observations (2000-2015)" 10th SPIE Asia-Pacific Remote Sensing Symposium, New Delhi, India, 4-7 April, 2016.
 48. Nirasindhu Desinayak, Sarmistha Patel, Anup Prasad, **Hesham El-Askary** and Menas Kafatos, "Dynamics of snow cover and melt-water lakes over Himalaya and Tibetan Plateau using long term MODIS observations (2000-2015)", American Geophysical Union, SanFrancisco, December 14-18, 2015.
 49. **Hesham El-Askary**, Jingjing Li, Tommy Ta, Ariane Jong and Xinyi Zhang, "Impacts of Aerosols on the Retreat of the Sierra Nevada Glaciers in California", American Geophysical Union, SanFrancisco, December 14-18, 2015.
 50. Luciano Rodriguez, **Hesham El-Askary**, Cyril Rakovski and Mohamed Allai, "Long Term Ground Based Precipitation Data Analysis in California's 7 Climate Divisions: Spatial and Temporal Variability", American Geophysical Union, SanFrancisco, December 14-18, 2015.
 51. Nehal Idris, Leticia Perez Cruz and **Hesham El-Askary**, "The Effects of El Niño on Precipitation in Southern California Climate Divisions: Year 2016 Precipitation Forecast", American Geophysical Union, SanFrancisco, December 14-18, 2015.
 52. Kristen Whitney and **Hesham El-Askary**, "Utilizing Remote Sensing Landsat 7 Data to Measure Changes in Soil Salinity in Central Valley, CA", American Geophysical Union, SanFrancisco, December 14-18, 2015.
 53. **Hesham El-Askary**, Ashraf Farahat, and Abdulaziz Al-Shaibani, "Long Range Transport of Dust across the Middle East and the Gulf Region and Its Impact on the Marine Environment" AOGS 12th Annual Meeting, Singapore, 02 Aug - 07 Aug, 2015.
 54. Rachel Baugh and **Hesham El-Askary**, "How Climate Change Affects Thermohaline Circulation in the North Atlantic" AOGS 12th Annual Meeting, Singapore, 02 Aug - 07 Aug, 2015.
 55. Ashraf Farahat, **Hesham El-Askary** and Abdulaziz Al-Shaibani, "Analysis of the Impact of Major Dust Events on the Aerosols Characteristics over Saudi Arabia", European Geoscience Union, Vienna, Austria, April 27- May 02, 2015.
 56. *Sawyer Johnson*, *Nehal Idris*, **Hesham El-Askary** and Mohammed Ali B. Qurban, "Tracking the Effect of Algal Mats on Coral Bleaching Using Remote Sensing", American Geophysical Union, SanFrancisco, December 15-19, 2014.
 57. *Nehal Idris*, *Sawyer Johnson*, Hesham El-Askary and Mohammed Ali B. Qurban, "Change Detection Analysis of Costal Habitat Using Remote Sensing Technologies in the Western Arabian Gulf (Saudi Arabian Coast) over a Thirty-Year Period", American Geophysical Union, SanFrancisco, December 15-19, 2014.
 58. Ashraf Farahat, **Hesham El-Askary** and Abdulaziz Al-Shaibani, "Analysis of Aerosols Climatology over Saudi Provinces Based on Satellites and Ground Stations Data", American Geophysical Union, SanFrancisco, December 15-19, 2014.
 59. **El-Askary H.M.**, Abd El-Mawla S.A., Allali M., El-Hattab M.M., El-Raey M., Farahat A.M., Kafatos M., Nickovic S., Park S.K., Prasad A.K, Rakovski C., Sprigg W., Struppa D., Vukovic A., "An Integrated Multisensor/Modeling Approach addressing Climate related Extreme Events", ICESCC 2014: XI
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- International Conference on Earth Science and Climate Change - Dubai, UAE, October 18 - 19, 2014. (**Keynote Speaker**)
60. **Hesham El-Askary**, Andrew Fontenot and William Lau, "Saharan Dust Possible Impact on the Formation of Hurricane Sandy", AOGS 11th Annual Meeting, Sapporo, Japan, 28 Jul - 01 Aug, 2014.
 61. Andrew Fontenot, **Hesham El-Askary**, and William Lau, "Hurricane Sandy and Saharan Dust", IEEE International Geoscience and Remote Sensing Symposium IGARSS2014, Quebec, Canada, 13 - 18 July, 2014.
 62. A. Vukovic, M. Vujadinovic, V. Djurdjevic, B. Rajkovic, S. Nickovic, G. Pejanovic, B. Cvetkovic, M. Djordjevic, W. Sprigg **H. M. El-Askary**, and A. K. Prasad, "High resolution modeling of the atmospheric dust transport", Dust 2014, Castellaneta Marina (Taranto, Italy), June 01 - 06, 2014.
 63. K. Rasmussen and **H. El-Askary**, "A Trend Analysis of Aerosol Related Parameters and their Relation to Precipitation Variability in Arizona", European Geoscience Union, Vienna, Austria, April 27- May 02, 2014.
 64. Ashraf Farahat, **Hesham El-Askary**, Abdulaziz Al-Shaibani and A. Umran Dogan, "On the aerosols and water vapor dynamics over the Kingdom of Saudi Arabia", European Geoscience Union, Vienna, Austria, April 27- May 02, 2014.
 65. L. Rodriguez, and **H. El-Askary**, "Long Term Ground Based Precipitation Data Analysis: Spatial and Temporal Variability", American Geophysical Union, SanFrancisco, December 09-13, 2013.
 66. Mubei Sun and **Hesham M. El-Askary**, "Analysis of Seasonal Snow Cover Changes in the Himalayan Region and the Associated Temperature Variability", American Geophysical Union, SanFrancisco, December 09-13, 2013.
 67. Yibing Jiang and **Hesham M. El-Askary**, "Monitoring Troposphere Carbon Dioxide Spatial and Temporal Distribution Changes over China", American Geophysical Union, SanFrancisco, December 09-13, 2013.
 68. Thomas Banh, Jing Jing Li, and **Hesham M. El-Askary**, "Mapping the Progression of Phytophthora Ramorum", American Geophysical Union, SanFrancisco, December 09-13, 2013.
 69. Tommy N. Ta and **Hesham M. El-Askary**, Volcanic Aerosols and its effects on Land Surface Temperature", American Geophysical Union, SanFrancisco, December 09-13, 2013.
 70. L. Rodriguez, **H. El-Askary**, and C. Rakovski, "Long Term Ground Based Precipitation Data Analysis: Spatial and Temporal Variability" International Conference on Regional Climate - CORDEX 2013 A partnership between WCRP, the European Commission and IPCC, Brussels, Belgium 4-7 November 2013.
 71. B. Myoung, S.-H. Kim, D. Stack, and **H. El-Askary**, "Impacts of climate variability on crop yield in the Southwestern United States" International Conference on Regional Climate - CORDEX 2013 A partnership between WCRP, the European Commission and IPCC, Brussels, Belgium 4-7 November 2013.
 72. **Hesham M. El-Askary**, Menas Kafatos and Anup Prasad, "On the Synergy of Remote Sensing observations and Modeling for Tracing Dust Storms and Atmospheric Pollution: Case Study" AOGS – AGU (WPGM) Joint Assembly, Brisbane, Australia, 23 - 28 June, 2013.
 73. **Hesham M. El-Askary**, Menas Kafatos, David H. Stack, David Medvigy, Jinwon Kim, Seung Hee Kim, Craig Tremback, Robert L. Walko, Nikolaos

- Hatzopoulos*, and Boksoon Myoung, “Climate Change Impacts on Agricultural Ecosystems” AOGS – AGU (WPGM) Joint Assembly, Brisbane, Australia, 23 - 28 June, 2013.
74. W. Sprigg, A. Vukovic, M. Vujadinovic, G. Pejanovic, J. Andric, M. J. Kumjian, V. Djurdjevic, M. Dacic, A. K. Prasad, **H. M. El-Askary**, B. C. Paris, S. Petkovic, and S. Nickovic, “ Modeling wind-blowing desert dust in the Southwestern United States for Public Health Warning: A Case Study Valley Fever”, Airborne Mineral Dust Contaminants: Impacts on Human Health and the Environment NIEHS & The University of Arizona, Tucson, Arizona, May 19-21, 2013.
75. William Sprigg and **Hesham El-Askary**, “The Pan-American Center for the WMO Sand and Dust Storm Warning Advisory and Assessment System” Meeting of the Americas, Cancun Mexico, 14-17 May, 2013.
76. **Hesham M. El-Askary**, “A Multi Sensor Approach for Detecting and Monitoring Natural and Anthropogenic Aerosols: Case Studies”, BIT’s 2nd Annual World Congress of Biodiversity, Ecology and Environment (BioD-2013), Nanjing, China April 25-27, 2013.
77. **Hesham M. El-Askary**, and Menas Kafatos “Sensing the formation and dynamics of dust and anthropogenic pollution using a multi sensor approach: Case Studies” First International Conference on Remote Sensing and Geoinformation of Environment, Paphos-Cyprus April 8-10, 2013.
78. **Hesham M. El-Askary**, Anup K. Prasad, Hebaalah S. Marey, Mohamed El-Raey, Ghassem R. Asrar, Menas Kafatos “On the dust long range transport contribution to the dynamics of the biomass burning, and black cloud formation over the Nile Delta” American Geophysical Union, SanFrancisco, December 03-07, 2012.
79. *Sunmin Park*, **Hesham M. El-Askary**, Ismail S. Sabbah, Anup K. Prasad, *Hanbin Kwak*, Woo-Kyun Lee, Menas Kafatos, “On the temporal and spatial variability of air pollutants characteristic and origin using ground-based and satellite observations over Seoul” American Geophysical Union, SanFrancisco, December 03-07, 2012.
80. Menas Kafatos, Ghassem R. Asrar, **Hesham M. El-Askary**, *Nikolaos Hatzopoulos*, Jinwon Kim, Seung Hee Kim, David Medvigy, Anup K. Prasad, Emmanuel Smith, *David H. Stack*, Craig Tremback, Robert L. Walko, “Climate change impacts utilizing regional models for agriculture, hydrology and natural ecosystems” American Geophysical Union, SanFrancisco, December 03-07, 2012.
81. *David H. Stack*, Menas Kafatos, David Medvigy, **Hesham M. El-Askary**, *Nikolaos Hatzopoulos*, Jinwon Kim, Seung Hee Kim, Anup K. Prasad, Craig Tremback, Robert L. Walko, Ghassem R. Asrar, “High-resolution, regional-scale crop yield simulations for the Southwestern United States” American Geophysical Union, SanFrancisco, December 03-07, 2012.
82. Seung Hee Kim, Jinwon Kim, Anup K. Prasad, *David H. Stack*, **Hesham M. El-Askary**, Menas Kafatos, “Impact of the Gulf of California SST on simulating precipitation and crop productivity in the Southwestern United States” American Geophysical Union, SanFrancisco, December 03-07, 2012.
83. **Hesham M. El-Askary**, Anup K. Prasad, *Heba M. Marey*, Mohamed E. El-Raey, Ghassem R. Asrar and Menas Kafatos “The dynamics of the biomass burning, dust storms, and black cloud formation over Nile Delta, Egypt using a multi sensor approach” AOGS – AGU (WPGM) Joint Assembly, Singapore, 13 - 17 August, 2012.

84. Anup K. Prasad, Sachchidanand Singh, **Hesham M. El-Askary**, Ashok Jaswal, Ghassem R. Asrar and Menas Kafatos “A decade of snow extent, snow water equivalent, snow deposition and melt season dynamics over Himalayas using EOS Terra and Aqua (2000-2012)” AOGS – AGU (WPGM) Joint Assembly, Singapore, 13 - 17 August, 2012.
85. Menas Kafatos, **Hesham M. El-Askary**, *Nick Hatzopoulos*, Jinwon Kim, Seung Hee Kim, David Medvigy, Anup K. Prasad, *David Stack*, Craig Tremback, Robert Walko, and Ghassem Asrar “Assessment of Agro-Ecosystem over California using Multi-Model Simulations and Satellite Observations” AOGS – AGU (WPGM) Joint Assembly, Singapore, 13 - 17 August, 2012.
86. Ghassem R. Asrar, Anup K. Prasad, **Hesham M. El-Askary**, Menas Kafatos and Ashok Jaswal “Retreat of Himalayan Glaciers: impact of anthropogenic pollution and dust storms on the regional climate” AOGS – AGU (WPGM) Joint Assembly, Singapore, 13 - 17 August, 2012.
87. **Hesham M. El-Askary**, Anup K. Prasad, *Heba M. Marey*, Mohamed E. El-Raey, Ghassem R. Asrar and Menas Kafatos “A multi sensor approach for studying and analyzing the formation and dynamics of the black cloud over Cairo, Egypt” IEEE International Geoscience and Remote Sensing Symposium IGARSS2012, Munich, Germany, 22 - 27 July, 2012.
88. **Hesham M. El-Askary**, Anup K. Prasad, *Heba M. Marey*, Mohamed E. El-Raey, Ghassem R. Asrar and Menas Kafatos “Studying and analyzing the formation and dynamics of the black cloud over Cairo, Egypt, using a multi sensor approach”, European Geoscience Union, Vienna, Austria, April 22-27, 2012.
89. C.M. Goodess, M.D. Agnew, D. Hemming, C. Giannakopoulos and the **CIRCE RL11 Team**, “Integrated assessment in the Mediterranean: the CIRCE case studies” European Geoscience Union, Vienna, Austria, April 22-27, 2012.
90. **Hesham Mohamed El-Askary**, Walaa Sheta, Anup Krishna Prasad, *Hanan Ali*, Mohamed Abdel Rahman, Ayman El-Desouki, Menas Kafatos, “Studying Air Quality Dynamics using A Linear Genetic Programming Approach over Remotely Sensed Atmospheric Parameters: case study (Cairo, Egypt)”, American Geophysical Union, SanFrancisco, December 05-09, 2011.
91. Anup Prasad, **Hesham El-Askary**, Ghassem Asrar, Menas Kafatos, Ashok Jaswal, “Impact of dust storms and anthropogenic aerosols on the snow cover and glaciers of the Indo-Gangetic plains and Himalaya region”, American Geophysical Union, SanFrancisco, December 05-09, 2011.
92. Menas Kafatos, Ghassem R Asrar, **Hesham Mohamed El-Askary**, *Nikolaos Hatzopoulos*, Katharine Hayhoe, Jinwon Kim, Lewis Ziska, David Medvigy, Anup Krishna Prasad, Craig Tremback, Robert L Walko, “Assessing Impacts of Climate Variability and Change on the Agro-ecosystems in California and Southwestern United States”, American Geophysical Union, SanFrancisco, December 05-09, 2011.
93. *H. S. Marey*; J. C. Gille; **H. M. El-Askary**; E. A. Shalaby; M. El-Raey, “Analysis of carbon monoxide levels over Nile Delta, Egypt, using MOPITT satellite data”, American Geophysical Union, SanFrancisco, December 05-09, 2011.
94. Menas Kafatos, Ghassem R Asrar, **Hesham Mohamed El-Askary**, Anup Prasad, Katharine Hayhoe, Jinwon Kim, and Craig Tremback, “Multi-Model Simulations and satellite observations for Assessing Impacts of Climate

- Variability on the Agro-ecosystems” The Third Santa Fe Conference on Global and Regional Climate Variability, October 31-November 4, 2011.
95. Anup K. Prasad, **Hesham M. El-Askary**, Ghassem R. Asrar, Menas Kafatos and Ashok Jaswal, “Wintertime and Pre-monsoon warming over Himalayan-Tibet Glaciers and Indo-Gangetic plains: Role of desert dust and anthropogenic emissions”, International Symposium on Remote Sensing ISRS 2011. The Ocean Resort, YEOSU, Korea, November, 2 – 4 2011.
 96. Anup K. Prasad, **Hesham M. El-Askary**, *Sunmin Park*, Woo-Kyun Lee and Menas Kafatos, “Dust Cloud detection over China-Korea-Japan using CALIPSO, Cloudsat during yellow dust season”, International Symposium on Remote Sensing ISRS 2011. The Ocean Resort, YEOSU, Korea, November 2 – 4, 2011.
 97. Anup K. Prasad, **Hesham M. El-Askary**, Ghassem R. Asrar, Menas Kafatos and Ashok Jaswal, “Wintertime and Pre-monsoon warming over Himalayan-Tibet Glaciers and Indo-Gangetic plains: Role of desert dust and anthropogenic emissions”, International Symposium on Remote Sensing ISRS 2011. The Ocean Resort, YEOSU, Korea, November 2 – 4, 2011.
 98. C.M. Goodess, M.D. Agnew, D. Hemming, C. Giannakopoulos and the **CIRCE R11 Team**, “Integrated assessment in the Mediterranean: The CIRCE case studies” WCRP Open Science Conference: Climate Research in Service to Society, 24-28 October Denver, CO, USA, 2011.
 99. Anup Prasad, Ghassem Asrar, **Hesham El-Askary**, Menas Kafatos, “Impact of dust storms and anthropogenic emissions on the Indo-Gangetic Basin and melting of Himalayan Glaciers” WCRP Open Science Conference: Climate Research in Service to Society, 24-28 October Denver, CO, USA, 2011.
 100. Menas Kafatos, **Hesham Mohamed El-Askary**, Anup Krishna Prasad, “Multi Sensor Observations on the Implications of desert dust transport to the Nile Delta, the Indo-Gangetic Basin and Himalayan Glaciers”, The Sixth International Workshop on Sandstorms and Environmental Impact Assessments, Glyfada-Athens, Greece, on 7-9 September 2011.
 101. Menas Kafatos, Ghassem Asrar, **Hesham El-Askary**, Jinwon Kim, Woo-Kyun Lee, Seon K. Park, Anup Prasad, Craig Tremback, Robert Walko, “Multi-Model Simulations and Satellite Observations for Agriculture and Ecosystems Climate Change Impacts”, IEEE International Geoscience and Remote Sensing Symposium IGARSS2011, 24 July ~ 29 July, Vancouver, Canada, 2011.
 102. Ghassem Asrar, Anup Prasad, **Hesham El-Askary**, Menas Kafatos, “Multi-Sensor Observations of Climate Change Impacts on the Indo-Gangetic Basin and Himalayan Glaciers”, IEEE International Geoscience and Remote Sensing Symposium IGARSS2011, 24 July ~ 29 July, Vancouver, Canada, 2011.
 103. *Sunmin P.*, **El-Askary H.**, *Kwon T.H.*, Woo-Kyun L., and Kafatos M., “Spatial and Temporal Characteristics of Air Pollutants over Seoul”, International Symposium of Remote Sensing, 2nd Workshop on Environmental Geospatial Information, 27 October ~ 29 October, 2010, Jeju, Korea
 104. *H. S. Marey*; J. C. Gille; **H. M. El-Askary**; E. A. Shalaby; M. El-Raey, “Study of the formation of the “Black Cloud” and its dynamics over Cairo, Egypt using MODIS and MISR sensors”, American Geophysical Union, San Francisco, December 13-17, 2010.

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105. **H. M. El-Askary**; A. K. Prasad; M. Kafatos, “Black cloud and transport of anthropogenic pollution across the Mediterranean Sea over Nile Delta region in Egypt during Fall season”, American Geophysical Union, San Francisco, December 13-17, 2010.
106. W. Lee; S. Yoo; S. Choi; H. Kwak; S. Park; M. Kafatos; **H. M. El-Askary**; A. K. Prasad, “Regional climate change modeling and observations for Korea”, American Geophysical Union, San Francisco, December 13-17, 2010.
107. M. Kafatos; **H. M. El-Askary**; G. Galanis; N. Hatzopoulos; X. Liu; D. P. Ouzounov; A. K. Prasad; C. Tremback, “An Integrated Modeling and Observing System with Near Real-Time Applications”, American Geophysical Union, San Francisco, December 13-17, 2010.
108. A. K. Prasad; P. Chan; **H. M. El-Askary**; N. Hatzopoulos; J. Kim; X. Liu; D. P. Ouzounov; S. K. Park; C. Tremback; M. Kafatos, “An Integrated Modeling and Observing System for Hazards and Regional Climate Simulations”, American Geophysical Union, San Francisco, December 13-17, 2010.
109. Prasad A. K., **El-Askary H.**, El-Raey M., and Kafatos M., “Contribution of dust transport to the local pollution during biomass burning season over Nile Delta” 7th Annual Meeting and Geosciences World Community Exhibition, Hyderabad International Convention Centre, India, July 5-9, 2010.
110. **El-Askary H.**, Hattab M., El-Raey M., and Kafatos M., “Impact of Sea Level Rise on the Low Land Area South East of Alexandria, Egypt” American Geophysical Union, San Francisco, December 14-19, 2009.
111. Prasad A.K., **El-Askary H.**, and Kafatos M., “Long term MSU tropospheric and ground temperature trends (1979-2008) over Africa” American Geophysical Union, San Francisco, December 14-19, 2009.
112. El-Sayed H., and **El-Askary H.**, “Environmental Investigation of Lake Maryut, West of Alexandria, Egypt using Remote Sensing technology”, Contemporary Environmental Issues in Arid and Semi-Arid Regions Alexandria, Egypt, November 2008.
113. Aboelfetouh Y., **El-Askary H.**, and El-Raey M., “Investigating the vertical profiles distribution of the Tropospheric Emission Spectrometer (TES) parameters over Cairo, Egypt,” Contemporary Environmental Issues in Arid and Semi-Arid Regions Alexandria, Egypt, November 2008.
114. Osman M., **El-Askary H.**, and Ramadan A. M., “Analysis of Climate Change Indicators over the Mediterranean Basin,” Contemporary Environmental Issues in Arid and Semi-Arid Regions Alexandria, Egypt, November 2008.
115. Hamdy S., **El-Askary H.**, and El-Raey M., “Change Detection Analysis of Coral Reefs over Hurghada using Satellite Images” Contemporary Environmental Issues in Arid and Semi-Arid Regions Alexandria, Egypt, November 2008.
116. **El-Askary H.**, “Atmospheric related applications, High Performance computing perspective” U.S.–Egypt Workshop on High Performance computing and its applications for remote sensing, Cairo, Egypt, May 12–15, 2008.
117. **El-Askary H.**, and Kafatos M., “Investigation of major atmospheric contributors to the Black Cloud episodes over Cairo,” First International Conference: From Deserts to Monsoons, Crete, Greece, 1-6 June, 2008.
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118. Goddess C.M., Angew M., Giannakopoulos C., Hemming D., Kostopoulou E., Fadel M., **El-Askary H.**, Bindi M., Lionello P., Pino C., Gruenzweig J., Oweis T., Karrou M., Sanchez-Arcilla A., Aranda C. M., Senouci M., Harzallah A., El Raey M., Betts R., and McCarthy M., "Cross-sectoral impacts and adaptation assessments," European Geosciences Union, General Assembly 2008, Vienna, Austria, 13-18 April, 2008.
119. **El-Askary H.**, and Kafatos M., "Analyzing the influence of the Nile Delta major pollution episode during autumn time," European Geosciences Union, General Assembly 2008, Vienna, Austria, 13-18 April, 2008.
120. **El-Askary H.**, and Kafatos M., "Remote Sensing of Dust Storms and Air Pollution Episodes over Cairo and Greater Delta Region," 6th AARSE International Conference on Earth Observation & Geoinformation Sciences in Support of Africa's Development, Cairo, Egypt, 30 October – 2 November 2006.
121. **El-Askary H.**, Kader M., Sultan, H., and Sherif A., "Aerosol Variability over Cairo using Remote Sensing Technology," U.S.–Egypt Workshop on Predictive Methodologies for Global Weather-Related Disasters Cairo, Egypt, March 13–15, 2006.
122. Kafatos M., Singh R. P., **El-Askary H.**, and Qu J., "Natural and Anthropogenic Aerosols in the World's Megacities and Climate Impacts" *Eos Trans. AGU*, 85(17), Joint. Assem. Suppl., San Francisco, USA December 5-9, 2005.
123. Kafatos M., **El-Askary H.**, and Kallos G., "Potential of Dust Storms Early Warning Using Multiple Remote Sensing Measurements and Mesoscale Modeling," 35th COSPAR Scien. Assem. Paris, France July 18-25, 2004.
124. **El-Askary H.**, Gautam R., Singh R., and Kafatos M., "Mapping of Dust Storms over the Indo-Gangetic Basin using Multi Sensor Data," *Committee On Space Research 35th COSPAR Scientific Assembly*, Paris, France July 18-25, 2004.
125. Kafatos M., **El-Askary H.**, and Kallos G., "Potential For Early Warning of Dust Storms," *Int. Symp. on Sand and Dust Storm*, Beijing, China September 12-14, 2004.
126. **El-Askary H.**, Kafatos M. and Chiu L., "ENSO impact on Precipitation Variability over the Virginia and Mid-Atlantic," *Eos Trans. AGU*, 85(17), Joint. Assem. Suppl., San Francisco, USA December 13-17, 2004.
127. Menas Kafatos, Chaowei Yang, Ruixin Yang, Jianhe Qu, David Wong, **Hesham El-Askary**, Sudipta Sarkar, Foudan Salem, Long Chiu, Richard Gomez, Mohamed Hegazy, Jim McManus, George Taylor, and Hank Wolf. "Remote Sensing & GIS Distributed Applications," *Proceedings of Geoinformatics*, Nanjing, China, June 1-3, 2002.
128. **El-Askary H.**, Sarkar S., Chiu L., Kafatos M., and El-Ghazawi T., "Rain Gauge Derived Precipitation Variability over Virginia and its Relation with the EL NINO Southern Oscillation (ENSO)," *Committee On Space Research 34th COSPAR Scientific Assembly*, The Second World Space Congress, Houston, TX, USA, 10-19 October 2002.
129. **Hesham El-Askary**, Mohamed Hegazy, Steven Jackson, Menas Kafatos, David Wong and Long Chiu, "Flash Flood Risk Estimation in GIS using Morphometric Parameters," *Conference on Earth-Observing and Atmosphere-Land-Ocean Interaction (COAA)* Fairfax, VA. USA, 26 October 2002.
130. **Hesham El-Askary**, Sudipta Sarkar, Long Chiu, Menas Kafatos and Tarek El-Ghazawi "EL NINO Southern Oscillation impact on Virginia

PRESENTATIONS AND INVITED TALKS IN PROFESSIONAL MEETINGS

1. IEEE Talk here
2. Center for Environment & Water Research Institute, King Fahd University of Petroleum & Minerals, Dhahran- Kingdom of Saudi Arabia Vistos KFUPM, VIISTAS OF BIODIVERSITY IN THE ARABIAN GULF
 - Title: "EOS4SDGs: Filling the biodiversity knowledge gap in the Arabian Gulf"
November 2020
3. Solar Cities
4. Ministry of Water Resources and Irrigation, Cairo, Egypt. Session Moderator: Cairo Water Week 2020, Virtual.
 - Title: " Innovative Solutions for Water Security" **October, 2020**
5. Let Nile Flow
6. Candaian Chamber
7. Bib Alex COVID
8. World Bank
9. Ministry of Water Resources and Irrigation, Cairo, Egypt. Invited Keynote Speaker and Moderator: Cairo Water Week 2019.
 - Title: " Research and Innovation in Facing Water Scarcity " **October, 2019**
10. Ministry of Immigration and Expats, Cairo, Egypt. Invited Keynote Speaker : Egypt Can Conference for Education.
 - Title: "Ask the Experts Session" **December, 2018**
11. Ministry of Water Resources and Irrigation, Cairo, Egypt. Invited Keynote Speaker: Cairo Water Week
 - Title: "Global Climate Change and Pression Agriculture" **October, 2018**
12. Arab Academy for Science, Technology and Maritime Transport, Alexandria, Egypt. Invited Keynote Speaker : 12th International Conference of African Association of Remote Sensing of the Environment
 - Title: "Earth Observations Solution Addressing SDGs in support of Key environmental Challanges" **October, 2018**
13. Beirut Arab University, Lebanon. Invited Speaker: Urban Health & Wellbeing Building Collaborative Intelligence for Better Lives in Cities
 - Title: "Collaborative actions to achieve the 3rd UN Sustainable Development Goal" **October, 2018**
14. TU Berlin Campus El Gouna, Hurghada, Egypt. Invited Keynote Speaker: Commencement Ceremony and 15th Community Forum El Gouna.
 - Title: "Earth Observations and Environmental Issues" **October, 2018**
15. Cost InDust meeting, Larnaca, Cyprus.
 - Title: "Earth Observations, Dust and Solar Energy" **October, 2018**
16. Panel discussion in the 6th China-Africa Water Forum
 - Title: "Science view in Water management contribution to more enhanced economic growth" **July 2018**
17. Orange County Business Council, CA, USA
 - Title: "Game Changer Award" **March 2018**
18. Planet Earth Institute, London UK.
 - Title: "Spotlight Seminar: The Future of Renewable Energy in Africa" **November 2017**

19. World Youth Forum (WYF)
 - Title: "Future of Global Climate Change" **November 2017**
20. German Arab Chamber of Industry and Commerce
 - Title: "9th Egyptian-German Renewables Day" **October 2017**
21. Bibliotheca Alexandrina Library, Egypt
 - Title: "what you don't know about Hurricanes and Climate Change" **October 2017**
22. Egypt Can 2016 Conference, Hurghada Egypt
 - Title: "Dynamical Solar Atlas of Egypt" **December 2016**
23. Faculty of Science, Alexandria University
 - Title: "Sign of Climate Change on Egypt and the World" **December 2015**
24. Bibliotheca Alexandrina Library
 - Title: "Earth's Spheres and Climate Change, Are we in denial ?" **December 2015**
25. Department of Geosciences and Environment, California State University, Los Angeles.
 - Title: "Remote Sensing of dust and atmospheric pollutants" **June 2015**
26. California State University Fullerton - Osher Lifelong Learning Institute (OLLI).
 - Title: "Earth's Spheres and the Changing Climate" **June 2015**
27. University of California Irvine, the 2015 Children's Water Education Festival.
 - Title: "Are we hurting our Earth's Spheres?" **March 2015**
28. National Observatory of Athens, 2nd South Eastern Europe GEO Workshop on Integrating Earth Observation Data and Services for Monitoring the Environment and protecting the Citizens.
 - Title: "Different Earth observation possibilities in Egypt: case studies" **October 2014**
29. Zewail City, Egypt
 - Title: "On the Extreme events associated with Earth's Dynamic Spheres and the Changing Climate" **October 2014**
30. Chapman University, Office of Undergraduate Research, CA
 - Title: "Earth's Changing Climate and extreme events" **June 2014**
31. Environmental Technology & Management Association, Dhahran, Saudi Arabia
 - Title: "Remote Sensing of Dust Storms and Atmospheric Pollution : An Integrated Multisensor Approach and Case Studies" **March 2014**
32. King Fahd University of Petroleum & Minerals Dhahran, Saudi Arabia
 - Title: "5-Days workshop in Remote Sensing and Image Processing" **March 2014**
33. Newport Beach City Hall,
 - Title: "Invited to give public comments on Climate Change Impact on Newport coastal areas" **January 2014**
34. American University, Cairo
 - Title: "Climate Change and its Impact on Extreme Local Weather" **January 2014**
35. Chapman University, Civic Engagement Initiative's Damage Control:
 - The Casualties of Climate Change (Invited panelist) **December 2013**
36. Chapman University, Town and Gown
 - Title: "Earth's Spheres and the Changing Climate: Are we in Denial?" **November 2013**
37. Orange County Public Library, STEAM for Teens
 - Title: "Changing Climate and Hazards, Are we in Denial? " **September 2013**
38. Chapman University, Office of Undergraduate Research, CA
 - Title: "Synergistic use of remote sensing and modeling for tracing dust storms and atmospheric pollution: case studies" **June 2013**
39. Dean's Office, Faculty of Science, Alexandria University, Alexandria, Egypt

- Title: "New Findings on the black cloud episode over Cairo" **April 2013**
- 40. Chapman University, Office of Undergraduate Research, CA
 - Panel: "Incorporating Undergraduate Research in Classroom" **October 2012**
- 41. Chapman University, Homecoming Master Classes
 - Title: "Global Environmental Change" **October 2011**
- 42. Istituto Nazionale di Geofisica e Vulcanologia Sede di Bologna, Italy
 - Title: "Climate Change Impact on Sea Level Rise on Northern Egypt" **May 2011**
- 43. The Nicholas Academic Centers, CA "2010 Visiting Scholar Series"
 - Title: "Hazards, Global Change and Satellite Technology" **October 2010**
- 44. National Authority of Remote Sensing and Space Sciences, Cairo, Egypt
 - Title: "Decision Support System for Managing Natural Hazards" **June 2010**
- 45. Center for Climate/Environment Change Prediction Research (SSRC), Ewha University, Seoul, Korea.
 - Title: "Impact of Sea Level Rise on the Low Land Area South East of Alexandria, Egypt" **January 2010**
- 46. Department of Environmental Science and Ecological Engineering, Korea University, Seoul, Korea.
 - Title: "Remote Sensing Techniques and Applications in Climate Change and Global Environmental Change workshop" **June 2009**
- 47. Schmid College of Science, Chapman University, Science Forum Series
 - Title: "Remote Sensing of atmospheric pollution" **February 2009**
- 48. Istituto Nazionale di Geofisica e Vulcanologia, Bologna, Italy held in Athens
 - Title: "Climate change and Impact Research" **May 2008**
- 49. Arab Academy School (IGCSE section) Alexandria, Egypt
 - Title: "Global Warming Night, Egypt where we stand?" **December 2007**
- 50. Habbi Center For Environmental Rights, Al Ain Al Sokhna, Egypt
 - Title: "Climate Change and its impact on Egypt" **December 2007**
- 51. Environment (Bea3ty) Channel, Nile Sat, Cairo, Egypt
 - Title: "Using the satellite technology for studying the black cloud over Cairo and the Delta, Egypt" **November 2007**
- 52. Channel 5, Direct broadcasting Alexandria, Egypt
 - Title: "Using the satellite technology for studying the black cloud over Cairo and the Delta, Egypt" **September 2007**
- 53. Stockholm Environment Institute (SEI), Oxford, UK
 - Title: "Adaptation and stake holders to Climate change and Sea Level Rise in Alexandria, Egypt" **June 2007**
- 54. Istituto Nazionale di Geofisica e Vulcanologia, Bologna, Italy
 - Title: "Urban and Coastal case studies for Climate change and Sea Level Rise in Alexandria, Egypt" **May 2007**
- 55. Department of Chemistry, Faculty of Science, Alexandria University, Alexandria, Egypt
 - Title: "Remote Sensing of Fires" **November 2005**
- 56. Department of Environmental Studies, Faculty of Science, Alexandria University, Alexandria, Egypt
 - Title: "Remote Sensing of Natural Hazards" **October 2005**
- 57. Department of Environmental Studies, Faculty of Science, Alexandria University, Alexandria, Egypt
 - Title: "Regional Monitoring of Environmental Physics Climate Related Anomalies" **September 2005**
- 58. University of Athens, Athens, Greece
 - Title: "Environmental Impacts and Assessments for different Climate Related Applications Over Egypt" **April 2005**

59. Ocean-Land-Atmosphere Studies (COLA), Maryland, USA
 - Title: "Precipitation Variability over Virginia and its relation with El Nino Southern Oscillation" **April 2004**
60. George Mason University, Colloquia Series, Fairfax, VA, USA
 - Title: "Multi Sensor Detection of Dust Storms" **November 2003**
61. Michael Baker Corporation, Alexandria, VA, USA
 - Title: "Geoenvironmental Monitoring for Fairfax County Assessment of Natural Resources and Hazards" **January 2002**
62. Earth Analysis Data Center (EDAC), University of New Mexico, Albuquerque, USA
 - Title: "Estimating Flash Flood Hazard Risk using remote sensing and GIS Technology" **June 2002**
63. Earth Analysis Data Center (EDAC), University of New Mexico, Albuquerque, USA
 - Title: "The Ground Precipitation Gauge Data Study over Virginia Drainage Basins" **June 2002**
64. Department of Environmental Studies, Faculty of Science, Alexandria University, Alexandria, Egypt
 - Title: "Remote Sensing Applications Over Egypt" **July 2001**
65. Fairfax County Geographic Information Services, Fairfax, VA, USA
 - Title: "A plan of work for Estimating Flash Flood Hazard in Pond Branch Basin in Fairfax County" **November 2001**
66. National Authority for Remote Sensing and Space Sciences (NARSS), Cairo, Egypt
 - Title: "Introducing new Remote Sensing Techniques and possible uses; Hyperspectral Sensing" **November 2000**

CAREER DEVELOPMENT TRAINING COURSES

- Attended a workshop on Maximizing Student Learning and Professor Motivation to Teach, Chapman University, Institute for Excellence in Teaching and the Chancellor's Office. **January 2014**
 - Attended the National Professional Science Master's Association, regional workshop on "Green and Growing: Environmentally-Focused Professional Science Master's Programs", Hosted by California State University, Monterey Bay, CA. **September 2012**
 - Attended the Teacher Misbehavior workshop, Chapman University teaching mentor program, Faculty dialogues on teaching and learning. **October 2011**
 - Attended the Teaching well and loving it: Challenges and Best Practices workshop, Chapman University teaching mentor program, Faculty dialogues on teaching and learning **November 2011**
 - Attended workshop on writing research proposals, Alexandria University. **January 2008**
 - Attended workshop on research management, Alexandria University **October 2006**
 - Attended workshop on ways of teaching and student interaction, Faculty of Fine Arts, Alexandria University, Egypt **July 2005**
 - Attended workshop on Skills of Interactive Presentation **June 2005**
 - Attended workshop on Skills of Interactive Communication **June 2005**
 - Attended work shop and a certified user of HYSPLIT model in National Oceanic and Atmospheric Administration (NOAA), Air Resources Laboratory USA, **April 2005**
 - Attended a workshop for Earth Science Satellite Remote Sensing Data Processing, Analysis and Applications, George Mason University **March 2003**
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COURSES TAUGHT/CO-TAUGHT (UNDERGRADUATE AND GRADUATE)

Faculty of Science, Alexandria University	<ol style="list-style-type: none"> 1. PHY 351: Electrodynamics and Remote Sensing Techniques 2. GEOG 324: Geophysics, Photo Geology and Survey 3. ENV 405: Remote Sensing 4. ENV 523: Laser Applications in Environmental Science 5. ENV 623: Environmental Research Methodology 6. ENV 624: Environmental Data Analysis 7. ENV 628: Atmospheric Changes 8. ENV 629: Environmental Remote Sensing 9. ENV 633: Applied Geophysics 10. ENV 406: Environmental Pollution and Environmental Health 11. ENV 321: Environmental Geology and Non-Living Resources
College of Science, George Mason University	<ol style="list-style-type: none"> 1. EOS 759: Introduction to Natural hazards and remote sensing 2. EOS 753: Earth observation
Chapman University	<ol style="list-style-type: none"> 1. ENV112: Introduction to Natural Hazards and Global Environmental change 2. ENV329: Remote Sensing of the Environment 3. HGEC510: Introduction to Natural Hazards 4. PHYS520: Physical Principles of Remote Sensing 5. HGEC500: Seminar Series in Natural Hazards 6. CS500: Seminar Series in Computational Sciences 7. HGEC664: Topics in Natural Hazards 8. CS770: Topics Earth Systems Science

INTERN STUDENTS (*Outside Chapman University*)

Sawyer Johnson	Santiago Canyon College Summer Intern. Tracking the Effect of Algal Mats on Coral Bleaching Using Remote Sensing, (Summer 2014)
Nehal Idris	Saddleback College Summer Intern. Change Detection Analysis of Coastal Habitat Using Remote Sensing Technologies in the Western Arabian Gulf (Saudi Arabian Coast) over a thirty-year Period (Summer 2014)
Nicholas Pham	Troy High School Summer Intern. Studying Aerosols Chemistry over the Gulf Region using Aura satellite data, (Summer 2014).
Natalie Doung	Troy High School Summer Intern. Aerosols Impact on Vegetation, (Summer 2014).
Ha Bin Kim	Troy High School Summer Intern. Carbon Emissions, (Summer 2014).
Chris Dao	Troy High School Summer Intern. Wavelet Decomposition of atmospheric related parameters over the Arizona Haboob events, (Summer 2013).
Ray Gaddi	Troy High School Summer Intern. Studying different sensors and satellite paths and parameters addressing major dust storm, (Summer 2012).

UNDERGRADUATE SCIENCE PROJECTS ADVISOR (*Chapman University*)

Kiyoko Nakatsui	Possible Precursor Events to Earthquakes and the Resulting Effects on Organic Material in the Surrounding Water Bodies (Spring 2015)
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Elizabeth Flowers	Remote Sensing of Antarctic Peninsula Krill Populations using Adelie Penguins as an Indicator Species (Spring 2015)
Ariane Jong	How Much of Our Pollution is OUR Pollution? The transport of anthropogenic aerosols across the Pacific Ocean from China to the United States (Spring 2015)
Patsornkarn Vorapharuek	Air pollution: a case study of Bangkok, Thailand. An expanding “megacity” (Spring 2015)
Jordynn Brennan	Remote Sensing of different marine parameters associated with the Great Pacific Garbage Patch (Fall 2014)
Shea Pickering	Environmental and Health Impacts in Dominican Republic Based off Aerosol Pollutants and Other Confounding Factors (Summer 2013)
Krista Rasmussen	The impact of Haboob events on Precipitation patterns in Arizona: A Cross-Correlation Analysis (SURF winner, Summer 2013)
Malia Horch	Human Impact on Climate Change in the Antarctic Region (SURF winner, Summer 2012)
Jennifer Magaña	Multisensor and Model Observations Approach in Studying the Great Pacific Garbage Patch (Spring 2012)
Jeanette Pineda	Impact of Black Carbon Aerosol on Health of Arctic Glaciers (Spring 2012)
Amanda L. Kristedja	Utilizing Remote Sensing Data to Detect the Deepwater Horizon Oil Spill Properties (Spring 2011)
Brenden Brown, Connor O’Brien and Haley Holroyd	El Nino in the Eastern Pacific (Spring 2010)
Lauren Curtis	Aerosol Optical Thickness Inter-comparison for Selected Locations Around the World (Spring 2010)
Michael Mehlhaff	Impact of Retreating Glaciers in Greenland and Chile (Spring 2010)
Camille Del Fierro and Ravi Lloyd	Measures of Chlorophyll Content versus Black Carbon along the California Coast (Spring 2010)
Tara Dalbow and Darin Nakatsu	Atmospheric Pollution Over L.A. & Johannesburg (Spring 2010)
Tyler Reymore, Rajiv Melwani and Pasqual Gutierrez	Sustaining the Present and Greening the Future: A Case Study on recognizing The Frontier Project’s technology (Spring 2010)
Aileen Gaudinez	Applying SVD and PCA to LiDAR based topography data (Fall 2010)

GRADUATE COMMITTEES CHAIR AND CO-ADVISOR

MS. Degrees	<ol style="list-style-type: none"> 1. Kendall Holmes “Remote Sensing of Coral Reefs in the Gulf Region” School of Computational Sciences, Schmid College of Science and Technology, Chapman University. Current 2. Rachel Baugh “How Climate Change Affects Thermohaline Circulation in the North Atlantic” School of Earth and Environmental Sciences, Schmid College of Science and Technology, Chapman University. Current 3. Jeanette Pineda “Environmental Risks in the Southwest United States and Associated Health Impacts ” School of Earth and Environmental
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Sciences, Schmid College of Science and Technology, Chapman University. **Current**

4. “Sabry Abd El Mohsen Mohamed “Geo electric survey, ground and remotely sensed data analysis for studying environmental pollution over selected areas in Alexandria and Elbehera Governorates”, Department of Physics, Faculty of Science, Alexandria University, Egypt. **Current**
 5. Kristen Whitney “Remote Sensing Using MODIS Offshore of Southern California and the East Pacific Garbage Patch” School of Computational Sciences, Schmid College of Science and Technology, Chapman University. **2014**
 6. Thomas Banh “Mapping the Progression of Phytophthora Ramorum” School of Earth and Environmental Sciences, Schmid College of Science and Technology, Chapman University. **2014**
 7. Xinyi Zhang “Analysis of the Dust Aerosols effect on the Sierra Nevada Glaciers using Remote Sensing over 13 years”, School of Earth and Environmental Sciences, Schmid College of Science and Technology, Chapman University. **2014**
 8. Tommy Ta “Change Detection of Glacial Retreat in the Sierra Nevada’s from 2000 to 2014”, School of Earth and Environmental Sciences, Schmid College of Science and Technology, Chapman University. **2014**
 9. Andrew Fontenot “Impacts of Dust storms on the cyclogenesis of Hurricanes”, School of Computational Sciences, Schmid College of Science and Technology, Chapman University. **2013**
 10. Luciano Rodriguez “Precipitation data analysis over California climate divisions”, School of Computational Sciences, Schmid College of Science and Technology, Chapman University. **2013**
 11. Daniel Kalahale “Sea level rise and Coastal erosion: A look at Hawaii's changing coastline, current threats and adaptations for the future”, School of Earth and Environmental Sciences, Schmid College of Science and Technology, Chapman University. **2013**
 12. Yibing Jiang “Monitoring of tropospheric CO2 spatial and temporal distribution changes over China”, School of Earth and Environmental Sciences, Schmid College of Science and Technology, Chapman University. **2013**
 13. Mubei Sun “Analysis of snow cover changes in the Himalayan region using MODIS snow products and in-situ temperature data”, School of Earth and Environmental Sciences, Schmid College of Science and Technology, Chapman University. **2013**
 14. David Stack “Extending the APSIM crop model: a pilot study in regional scale yield simulation”, School of Earth and Environmental Sciences, Schmid College of Science and Technology, Chapman University. **2012**
 15. Mariam Osmane, “Analysis of Climate Change Indicators over the Mediterranean Basin”, Department of Environmental Studies, Faculty of Science, Alexandria University, Egypt. **2012**
 16. Yasmin Ahmed Sami Abo el Fetouh, “Satellite for Remote Sensing of Air Pollution Over Egypt”, Institute of Graduate Studies and Research, Department of Environmental Studies, Alexandria University, Egypt. **2012**
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	<ol style="list-style-type: none"> 17. Sunmin Park “Comparative analysis on interpolation methods for spatial distribution of air pollutants in Seoul” Department of Climate Environment Graduate School of Life and Environmental Sciences, Korea University, Seoul, Korea. <u>2011</u> 18. Hossam El-Dien Mohammed El-Sayed “Environmental Investigation on Lake Maryut, West of Alexandria, Egypt: Geochemical, Geophysical and Remote Sensing Studies”, Department of Geology, Faculty of Science, Alexandria University, Egypt. <u>2010</u> 19. Sara Hamdy Abd Elmoula, “Remote Sensing of Coral Reefs Case Study: South of Suez Gulf”, Institute of Graduate Studies and Research, Department of Environmental Studies, Alexandria University, Egypt. <u>2009</u> 20. Rania Farouk, “Air pollution Monitoring using Micro tops instrument over Alexandria”, Department of Environmental Studies, Faculty of Science, Alexandria University, Egypt. <u>2008</u>
Ph.D Degrees	<ol style="list-style-type: none"> 1. Justin Gapper, “Remote Sensing of Coral reefs”, Main Advisor (Chapman University) <u>Current</u> 2. Wenzhao Lee, “Synergistic use of earth observations and modeling on marine environment” Main Advisor (Chapman University) <u>Current</u> 3. Sunmin Park, “Topic Under Consideration”, second Advisor (UCR) <u>Current</u> 4. Justin Lee, “Machine learning of Drought related indicators”, Main Advisor (Chapman University) <u>Current</u> 5. Kristen Whitney, “Remote Sensing of Soil Salinity and Vegetation”, Main Advisor (Chapman University) <u>Current</u> 6. Luciano Rodriguez, “Climate Change impact on the California climate Divisions”, Main Advisor (Chapman University) <u>Current</u> 7. Andrew Fontenot, “Dust Impact on Hurricanes Formation”, Main Advisor (Chapman University) <u>2017</u> 8. Heballah Saed, “Remote Sensing of Air quality over Cairo, Case study: Black Cloud”, Institute of Graduate Studies and Research, Department of Environmental Studies, Alexandria University, Egypt, (Channel 2 years at NCAR, BO, Colorado). <u>2011</u> 9. Abhishek Agarwal, “Efficient PCA Fusion Techniques for Monitoring Dust Storms using MISR Multi-angle Observations”, George Washington University, USA (Not Official Yet)

AWARDS RECEIVED

Honor Awards	<ul style="list-style-type: none"> • Game Changer Award – Orange County Business Council, <u>2018</u> • Award of Alumni Achievement – Alexandria University, <u>2017</u> • Wang Fradkin Professor Award – Chapman University’s highest faculty award in recognition of exceptional merit in scholarly or creative activity. <u>2015</u> • Valerie Scudder Award – in recognition of outstanding achievement in teaching, scholarly/creative activity, and service to the University <u>2012</u> • Award of Excellence in Scholarly/Creative Activity, Chapman University <u>2011</u>
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	<ul style="list-style-type: none"> • Faculty of Science Award for winning the Saudi Arabia Prize for the best article in Environmental Management 2006 • Postdoctoral Fellowship, Center for Earth Observing and Space Research George Mason University 2004–2005 • Medal in the Honor Society of International Scholars (Phi Beta Delta) 2002 • Governmental Scholarship for Doctoral Degree in Environmental physics and Remote Sensing from George Mason University, USA 2000 – 2004 • University medal for graduating as the first of Faculty of Science among all departments and highest score ever in the history of the Faculty of Science 1997
Winning Competitions	<ul style="list-style-type: none"> • Saudi Arabia Prize for Best Published Article in Environmental Management among 150 articles from the Arab Administrative Development Organization, affiliated with the League of Arab States 2006 • University medal for winning first position in Faculty of Science, Alexandria University, and third position over the Country's Universities in the competition of ideal student 1996
Travel Awards	<ul style="list-style-type: none"> • Travel Award to Tunisia representing Egyptian universities after winning ideal student competition 1996

AFFILIATIONS

- Member of the Honor Society of International Scholars (Phi Beta Delta).
- Associate member of the Committee on Space Research (COSPAR).
- Member of the American Geophysical Union (AGU).
- Member of the European Geophysical Union (EGU).
- Member of the Asia Oceania Geoscience Society (AOGS).
- Member of the Egyptian nonprofit organization “Friends of the Environment”
- Member of the Sensors committee through NARSS for research and development.
- Member of the IEEE and remote sensing society.
- Elected Member, The international advisory council of the climate change center affiliated with the Korea Green Foundation.

TECHNICAL PROFICIENCY

Technical Area	Product	Proficiency
Remote Sensing/Image Processing	• ENVI	• Expert
	• ERDAS	• Good
	• Matlab	• Very Good
	• Orbit Viewer	• Very Good
GIS Software	• ESRI Products	• Very Good
	• IDRISI GIS	• Good
Statistics/Time Series Analysis	• Matlab	• Expert
	• SPSS	• Very Good

	<ul style="list-style-type: none"> • EXCEL • SPlus 	<ul style="list-style-type: none"> • Expert • Good
Operating Systems	<ul style="list-style-type: none"> • SGI Irix, Linux • Windows NT, XP, Prof. 	<ul style="list-style-type: none"> • Very Good • Expert
Programming Languages	<ul style="list-style-type: none"> • C++ • Java Script • HTML 	<ul style="list-style-type: none"> • Good • Very Good • Very Good

RESEARCH INTERESTS

- Impact of dust on Hurricanes formation and other marine ecosystems including coral reefs
- Global environmental change.
- Atmospheric pollution over megacities.
- Visualizing and Analyzing Earth Science data.
- Interdisciplinary studies in Earth system science, including precipitation and climate Phenomena coupling.
- Dust storms monitoring using multisensor approaches.
- Change detections and Land use/land cover assessments.
- Model coupling with remote sensing for dust storms detection.
- Flash Flood Hazards Mitigation and detecting the effect of the ENSO signal with different climatic parameters and GIS applications.

TEACHING COURSES INCLUDE

Remote Sensing And GIS	<ul style="list-style-type: none"> • Physical principles of Remote Sensing • Earth Observation and remote sensing Data/Systems • Introduction Hyperspectral Sensing • Environmental Remote Sensing • Remote Sensing Applications and Climate Change • Advanced Remote Sensing • Introduction to Geographic Information System • GIS applications
Earth Sciences	<ul style="list-style-type: none"> • Earth System Sciences and Global Change • Natural Hazards • Introduction to Meteorology • Atmospheric Processes and Climate Change • Observing Earth & its Climate • Introduction to Earth System Science • Physics of the Atmosphere
Physics and Geophysics	<ul style="list-style-type: none"> • Electricity and Magnetism • Electronics and Waves • Heat and Thermodynamics • Optics and Properties of Matter • Introduction to Laser and its Applications • Applied Geophysics

SYNERGISTIC ACTIVITIES

- **Title:** e-shape for strengthening the benefits for Europe of the Global Earth Observation System of Systems (GEOSS) – establishing ‘EuroGEOSS’ **Funding:** EU HORIZON 2020 (2019-2022) **Role:** Showcase participant
- **Title:** International Network to Encourage the Use of Monitoring and Forecasting Dust Products (inDust); COST Action CA16202, **Funding:** EU HORIZON 2020 (2018-2021) **Role:** Dissemination and capacity building Vice-Leader
- **Title:** “GEO-CRADLE, which stands for Coordinating and integrating state-of-the-art Earth Observation Activities in the regions of North Africa, Middle East and Balkans and Developing Links with GEO related initiatives toward GEOSS” **Funding:** EU HORIZON 2020 (2016-2019) **Role:** Regional Co-coordinator.
- **Title:** "REU Site: Summer Undergraduate Research Fellowships in Earth and Environmental Sciences (SURFEES)" **Funding:** NSF (2014-2017) **Role:** CO-I
- **Title:** “Natural and Anthropogenic Aerosols Transport over the Arabian Gulf”, **Funding:** King Fahd University of Petroleum & Minerals (KFUPM), Dhahran, Saudi Arabia (2013-2016) **Role:** CO-PI/International Consultant
- **Title:** “Studying Air Quality Dynamics using Remotely Sensed Atmospheric Parameters” at the King Fahd University of Petroleum & Minerals (KFUPM), Dhahran, Saudi Arabia **Funding:** King Abdel Aziz City for Science and Technology (KACST), Saudi Arabia (2013-2015) **Role:** CO-PI/International Consultant
- **Title:** “Enhancing Wildland Fire Decision Support and Warning Systems” **Funding:** Jet Propulsion Laboratory (JPL) (2013-2014) **Role:** CO-I
- **Title:** “Studying the impact of Sea Level Rise (SLR) over the Nile Delta: A Multisensor Approach” **Funding:** Chapman University (2012-2014) **Role:** PI
- **Title:** “Collaborative Research: Type 1 - Multi-Model Regional Simulation of Climate Change Impacts on Agriculture and Ecosystems in the Southwestern United States” **Funding:** USDA-NSF-NIFA (2011-2013) **Role:** CO-I
- **Title:** “Studying Air Quality Dynamics using A Linear Genetic Programming Approach over Remotely Sensed Atmospheric Parameters: case study (Cairo, Egypt)” **Funding:** NSF Award for US-Egypt joint research agreement (Contract No 0922772) (2009-2012), **Role:** PI
- **Title:** “Air Quality Over Cairo: Remote Sensing and Ground Observations” **Funding:** USDA Award for US-Egypt joint research agreement (Contract No. 58-3148-7-044) (2006-2009), **Role:** CO-PI
- **Title:** “Climate Change and Impact Research: the Mediterranean Environment (CIRCE)” **Funding:** The Commission of the European Union FP6 (Contract No. 036961 GOCE) (2006-2010), **Role:** CO-PI
- **Title:** “Global and Environmental Change: Hazards and Regional impact” **Funding:** NASA Award (Contract No. NNX06AF30G) (2004-2008), **Role:** CO-I
- CO-I NASA, Congress awards Virginia Access Middle Atlantic Geospatial Information Consortium (Virginia Access – Magic)
- Served as a reviewer for many journals including IEEE Transactions of Geosciences and Remote Sensing, Remote Sensing of the Environment, Journal of Geophysical Research, Atmospheric Environment, Atmospheric Chemistry and Physics and Advances in Space Research and others.
- Lead guest editor of the special issue “Remote sensing and Modeling of Atmospheric Dust and Studying its Impact on Environment, Weather, and Climate”, in Advances in Meteorology Journal, <http://www.hindawi.com/journals/amete/si/745645/cfp/>
- Program Chair Interface 2013: Chapman University Symposium on Big Data and Analytics: 44th Symposium on the Interface of Computing Science and Statistics, <http://www.chapman.edu/events/past-events/interface-2013/index.aspx>

- Received a notification about my chapter "Analyzing Black Cloud Dynamics over Cairo, Nile Delta Region and Alexandria using Aerosols and Water Vapor Data" that I have published with InTech in the book "Air Quality-Models and Applications" has so far been accessed 3000 times and has achieved impressive readership results.