

PERSONAL INFORMATION

Yassmin Mahmoud

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Essa_y.h@yahoo.com.

Sex Female | Nationality Egyptian

WORK EXPERIENCE

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| 2019 – present | Post-doc researcher
Institute of Marine Sciences (<i>ISMAR-CNR</i>), Roma, Italy |
| 2018 – 2019 | Post-doc researcher
Institute of Atmospheric Sciences and Climate (<i>ISAC-CNR</i>), Roma, Italy |
| 2014 – present | Assistant Researcher
Central Laboratory for Agricultural Climate - Agricultural Research Centre, Egypt |
| 2012 – 2014 | Research Assistant
Central Laboratory for Agricultural Climate - Agricultural Research Centre, Egypt. |
| 2010 – 2012 | Agro-meteorologist and Remote sensing analyst
Central Laboratory for Agricultural Climate - Agricultural Research Centre, Egypt |

EDUCATION

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| 2014 – 2018 | Ph.D. in Meteorology,
Thesis Title: ‘Climate change outlook and its impact on drought in North Africa’
Faculty of Science, Cairo University, Egypt. |
| 2012 - 2014 | M.SC in Meteorology,
Thesis Title: ‘Assessment and monitoring Drought over Egypt’
Faculty of Science, Cairo University, Egypt. |
| 2011 – 2012 | Diploma in Meteorology
Faculty of Science, Cairo University, Egypt. |
| 2004 – 2009 | B. Sc. in Math and Computer Science
Faculty of Science, Cairo University, Egypt. |

Training and Fellowships

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| 28 Apr. – 11 May. 2019 | Seventh Workshop on Collaborative Scientific Software Development
International Centre for Theoretical Physics (ICTP), Trieste, Italy. |
| 4 – 5 Feb, 2019 | International conference of Climate service for West Africa
Consiglio Nazionale delle Ricerche (CNR) [National Research Council], Roma, Italy. |
| Feb. – Aug. 2017 | International Fellowship in “Environment Sciences”, as part in Sciences for DIPLOMAzia2 Program,
Institute of Atmospheric Sciences and Climate (CNR-ISAC), Italy. |
| 12 – 23 Jun. 2017 | Fourth Workshop on Water Resources in Developing Countries: Hydroclimate Modeling and Analysis Tools |

International Centre for Theoretical Physics (ICTP), Trieste, Italy.

- 3-10 Oct. 2016 Training course on ‘Climate Change and Sustainability’
New Delhi, India.
- 18 Apr. 2016 International workshop on “Modelling the Water-Food-Energy (WEF) Nexus in the Arab World – The Case of Egypt”,
Cairo, Egypt
- 3 - 4 Dec. 2012 International Workshop on "Early Warning System for Drought Preparedness and Drought Management"
Beirut, Lebanon.
- 2-13 Sep. 2012 Training course entitled “Regional Climate Model RegCM4.3 and its use in agriculture, desertification, irrigation, and air pollution”.
Egyptian Meteorological Authority, Egypt.
- 18-21 Jun. 2012. International Workshop on "Develop a framework to reduce the risk of drought on urban areas in Syria",
Damascus, Syria.
- 27 Nov. - 1 Dec. 2011 2nd International Training course entitled “Drought Monitoring Using Remote Sensing Technique” organized by the Arab Centre - ACSAD in cooperation with the German Agency for Technical Cooperation
Cairo, Egypt.
- 24-28 Dec. 2010. Training course entitled “Processing and visualization of ETA Model outputs”,
Cairo, Egypt.
- 16-21 Oct. 2010. 1st International Training course entitled “Drought Monitoring Using Remote Sensing Technique” organized by the Arab Centre - ACSAD in cooperation with the German Agency for Technical Cooperation.
Cairo, Egypt.
- 10 – 14 Oct. 2010. Training course entitled “Climate change and agriculture” within the training program included the activities of the Food and Agriculture Organization of the project "Risk Management of Climate Change”
Cairo, Egypt.

PERSONAL SKILLS

Mother tongue(s) Arabic

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
Italian	B2	B2	A2	A2	A2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Fields of Interest Meteorology, Agro-meteorology, Climate Models, Climate Change and variability, Extreme events, Drought monitoring, Remote sensing applications, Water resources, Weather and Climate Prediction, and Impact of climate change on different sectors.

- Job-related skills** More than 11 years' experience in weather and climate models and analyzing the output using the recent and advanced tools, Environmental Satellite data, Drought monitoring, early warning system for reducing a risk on agricultural system, GIS, and Remote sensing analysis. Working for more than 3 years in the Copernicus Climate Change Service (C3S) Quality Assessment of ECV Products service as an evaluator to the atmospheric variables.
- Computer Skills** Linux, Python, R, Visual Basic, big data analysis, visualizing tools (ESMValTool, CDO – NCO – NCL- GRADS,...), and version control system (Git)

ADDITIONAL INFORMATION

Research Projects

- Member in the international project 'Optimizing Water Management for Cultivated Lands through Remote Sensing Analyses and Climate Change Scenarios (OptiMED-Water)'
- Member in the project of 'Regional Climate Change database for Agriculture sector in Egypt'
- Member in the German-Egyptian project of 'Enhancing Water Availability in Egypt through analysis and modification of local surface-atmosphere fluxes (EWA Egypt)'

Publications

- Paloscia, S., Fontanelli, G., Pettinato, S., Santi, E., Ramat G., Da Ponte, E., Abdel-Wahab, M. M., **Essa, Y. H.**, Khalil, A. A., Ouessar, M., Dhaou, H., Sghaier, A., Kassouk, Z., Chabaane, Z. L., Souissi, N. (2020). Water management and climate change monitoring in Tunisia and Egypt using remote sensing techniques. EGU 2020-3100. <https://doi.org/10.5194/egusphere-egu2020-3100>
- Abdel-Wahab, M. M., **Essa, Y. H.**, Khalil, A. A., Elfadli, K., and Panegrossi, G. (2018). Water Loss in Egypt Based on the Lake Nasser Evaporation and Agricultural Evapotranspiration. *EnvironmentAsia*, 11(2):192-204.
- Khalil, A.A, Mohamed, A. A., and **Essa, Y. H.** (2017). Using Remote Sensing Techniques and Historical Records to Estimate Agricultural Area. *Scientific Modelling and Research*, 2(1): 37-47.
- Khalil, A.A., **Essa, Y. H.**, and El sharkawi, H. M. (2016). Assessment of future winter chill in Egypt. *International Journal of Advanced Research* (2016), 4(12), 2667-2676.
- Khalil, A.A., **Essa, Y. H.**, Hassan, H.A, and Abolmaaty, S.M. (2016). Plant diseases for major crops in Egypt under future climate conditions. *International Journals of Current Agricultural Sciences*. Vol. 6, Issue, 12, pp. 149-154.
- Khalil, A.A., **Essa, Y. H.**, Hashem, F. A., and Refaie. K.M. (2016). Water consumption variability for major crops in Egypt under climate change conditions. *International Journal of Advanced Research*, 4(9), 1157 – 1168.
- **Essa, Y. H.**, Khalil, A. A., and Abdel-Wahab, M. M. (2016). Assessment of Agricultural Drought under Climate Change. *Research Journal Of Fisheries And Hydrobiology* 11(6), June, Pages: 1-11.
- Khalil, A.A., **Essa, Y. H.** and Abdel-Wahab, M. M. 2015. Evapotranspiration mapping over Egypt using MODIS / Terra satellite data. *International Journal of Advanced Research* (2015), Volume 3, Issue 12, 512 – 522.
- Khalil A.A. and **Essa, Y.H.** (2015). Atlas for evapotranspiration over Egypt. Central laboratory for agricultural climate (CLAC) – Agricultural research center (ARC) – Egypt, ISBN: 978-977-

302-446-8.

- Khalil, A. A., **Essa, Y. H.**, and El-Sayed, M. (2015). Atlas for Drought Monitoring Over Egypt. Central laboratory for agricultural climate (CLAC) – Agricultural research center (ARC) – Egypt, ISBN: 978-977-302-445-1.
- Khalil, A. A., **Essa, Y. H.**, and Hassanein, M. K. (2014). Monitoring Agricultural Land Degradation in Egypt Using MODIS NDVI Satellite Images. Nature and Science 2014; 12(8); 15-21.
- Hassanein M. K., Khalil, A. A., and **Essa, Y. H.** (2013). Assessment of Drought Impact in Africa Using Standard Precipitation Evapotranspiration Index. Nature and Science 2013; 11(12); 75-81.
- Khalil, A. A., Abdel-Wahab, M. M., Hassanein, M. K., Ouldbdey, B., Katlan, B., and **Essa, Y. H.** (2013). Drought Monitoring over Egypt by using MODIS Land Surface Temperature and Normalized Difference Vegetation Index. Nature and Science 2013; 11(11); 116-122.
- Hassanein, M. K., Abolmaaty, S. M., Khalil, A. A., Taqi, M. O., **Essa, Y. H.**, and Shawki. H. H. (2013). Geographical Distribution and Developmental Pattern of Buffalo in Egypt. World Rural Observations 2013; 5(4).