

**Kareem Mahmoud TONBOL**

Associate Professor, Head of Meteorology &amp; Hydrographic Survey Program.

College of Maritime Transport &amp; Technology (CMTT), Arab Academy for Science, Technology &amp; Maritime Transport (AASTMT), Abu Qeer, P.O. Box 1029 Alexandria, Egypt.

**Tel** : +201065544817 (Cellular)**Fax** : 002035623362 (Work)**E-mail** : [ktonbol@aast.edu](mailto:ktonbol@aast.edu): [ktonbol@gmail.com](mailto:ktonbol@gmail.com)**URL** : <http://www.aast.edu/cv.php?ser=84150>**Scopus Author ID** : <https://www.scopus.com/authid/detail.url?authorId=56109158200>**Research ID** : <http://www.researcherid.com/rid/O-7027-2015>**ORCID ID** : <http://orcid.org/0000-0003-3615-3466>**Skype** : ktonbol

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**EDUCATION**

**2004 – 2008** : Ph.D. in Physical Oceanography, Faculty of Science, Alexandria University, Alexandria, Egypt.  
Thesis entitled “Hydrographic Structure and Circulation Patterns of the South East Sector of the Mediterranean Sea.”

**2001 - 2004** : M.Sc. in Physical Oceanography, Faculty of Science, Alexandria University, Alexandria, Egypt.  
Thesis entitled “Deep and Shallow Water Waves in Front of the Egyptian Mediterranean Coast (Damietta Area).”

**1999 - 2000** : Pre-Master Advanced Courses in Physical Oceanography, Faculty of Science, Alexandria University, Alexandria, Egypt.

**1994 - 1998** : B.Sc. in Mathematics and Physical Oceanography, Faculty of Science, Alexandria University, Alexandria, Egypt.

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**Employment****Administrative Leadership Positions:**

**Place** : College of Maritime Transport & Technology, Arab Academy for Science, Technology & Maritime Transport,

**Period** : From 01/10/2012 Till now.

**Job Title** : Head of Meteorology & Hydrographic Survey Program.

**Job Description**

1. Management of the Program, including academics, operations, finance, and fundraising,
2. Teaching Meteorology & Physical Oceanography,
3. Managing and Running Automatic Weather Observing System (AWOS),
4. Updating and creating new training courses & course coordination for the following subjects: Meteorology – Physical Oceanography – GIS – Marine Pollution – Hydrographic Survey – Statistics,

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5. Representing the Arab Academy for Science, Technology & Maritime Transport (AASTMT) in the meetings of the Permanent Arab Committee on Meteorology & its Sub-committees in the League of Arab States (LAS),
6. Representing the Arab Academy for Science, Technology & Maritime Transport (AASTMT) in the meetings of the World Meteorology Organization (WMO).

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**Academic Positions:**

**Place** : College of Maritime Transport & Technology, Arab Academy for Science, Technology & Maritime Transport.

**Period** : From 01/04/2018 Till now.

**Job Title** : Associate Professor of Meteorology & Physical Oceanography.

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**Place** : Institute of Upgrading Studies, Arab Academy for Science & Technology & Maritime Transport.

**Period** : From 01/12/2008 Till 30/09/2012

**Job Title** : Assistant Professor of Meteorology & Physical Oceanography.

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**Place** : Institute of Upgrading Studies, Arab Academy for Science & Technology & Maritime Transport.

**Period** : From 01/01/2001 Till 30/11/2008 (**Part Time**)

**Job Title** : Assistant Professor of Meteorology & Physical Oceanography.

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**Place** : Oceanography Department, Faculty of Science, Alexandria University.

**Period** : From 23/09/2008 Till 30/11/2008.

**Job Title** : Assistant Professor of Meteorology & Physical Oceanography.

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**Place** : Oceanography Department, Faculty of Science, Alexandria University

**Period** : From 01/05/2004 Till 22/09/2008

**Job Title** : Senior Teaching Assistant.

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**Place** : Oceanography Department, Faculty of Science, Alexandria University

**Period** : From 18/9/1999 Till 30/04/2004

**Job Title** : Teaching Assistant.

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**Place** : Faculty of Education, Alexandria University.

**Period** : From 18/9/1998 to 30/6/1999.

**Job Title** : Teaching Assistant.

**Research Focus:** Physical oceanography, climate change impacts on coastal systems, sea level rise, sea surface temperature, air temperature, maritime transport and environmental protection, meteorological and oceanographic data analysis, climate and ocean modeling and integrated coastal zone management.

**Reviews:**

Manuscripts: Reviewed manuscripts submitted for publication in peer-reviewed scientific journals in the “Journal of Operational Oceanography,” “Journal of Ocean & Coastal Management,” “Journal of Renewable Energy and Sustainable Development” & “Journal of Shipping and Ocean Engineering”.

**Professional Memberships:**

1. European Geosciences Union (EGU)
2. Scientific and Technical Committee & Editorial Review Board on Marine and Environmental Sciences.

**Supervision and Mentoring:**

1. Directed and supervised to completion four Ph.D. dissertations.
2. Have directed & supervised forty students’ graduation projects at the AASTMT. The students worked 6 hours/week for one academic year.

**External/Internal Examiner at Ph.D. Defenses:** Have served as the external/internal examiner on dissertations for M.Sc. students.

**Grants and Projects:** Have obtained research funding for 4 different projects from local agencies, international institutions, and private foundations, as either principal or co-principal including:

- 1- The AASTMT Principal Investigator of an ARCA project funded by the IDRC-Canada, entitled “Downscaling sea level rise in the Mediterranean Sea under different future climate change scenarios (2065-2100). May 2016 – Feb 2017 (10 months) for 59,000 EGP.
- 2- The AASTMT Principal Investigator of an AASTMT project funded by the AASTMT entitled “Threats of sea level rise and saltwater intrusion to Nile delta aquifer, consideration climatic flooding scenarios”. May 2017 – April 2018 (12 months) for 100,000 EGP.
- 3- A member of the team of Erasmus+ 2017 project funded by the European Union, entitled “Climate Change Management through Mitigation and Adaptation / (AdapTM)”, Project no. (585917-EPP-1-2017-1-ITEPPKA2-CBHE-JP), 15<sup>th</sup> October 2017-14th October 2020 for 770.788,00 Euro, to develop a master program in Environmental Science.  
Partners: (Italy) University of Catania (UNICT) – (Lithuania) Klaipeda University (KU) – (Slovenia) Euro-Mediterranean University (EMUNI). From Egypt: Arab Academy for Science and Technology and Maritime Transport (AASTMT) - Suez Canal University (SCU) - South Valley University (SVU) - Alexandria University (AU).
- 4- The AASTMT Principal Investigator of an ARCA project funded by the IDRC-Canada entitled “Downscaling atmospheric components over Egypt under different future climate change scenarios (2065-2100)”. Oct 2017 – Jul 2018 (10 months) for 85,000 EGP.

**Training Courses, Workshops and Conferences:**

9-13 September 2018	COSIMENA Summer School 2018: Modeling Climate Change for a Multidisciplinary Perspective: How Can We Achieve Climate Resilience, Sustainable Mobility, and Tourism in the MENA Region? Alexandria, Egypt.
19-20 February 2018	ICSLRAPC 2018: 20th International Conference on Sea Level Rise Analysis and Past Changes, Paris, France.
06-10 October 2015	The Twelfth International Conference on the Mediterranean Coastal Environment (MEDCOAST 15), Varna, Bulgaria.
9 April 2013	Workshop on Capacity Development of Meteorological, Hydrological and Climate Services in Affected Arab Countries, Marrakech, Morocco
10-12 December 2012	Workshop on Climate Risk Management in the Mediterranean Cities, Plan Bleu, Cairo, Egypt.

	School and Conference: The Circulation of the Atmosphere and Oceans: A Modern Prospective, Miramare, Trieste, Italy.
13-22 September 2010	International MedCLIVAR-ICTP-ENEA Summer School on the Mediterranean Climate System and Regional Climate Change, Miramare, Trieste, Italy.
11-22 January 2010	International Summer School for Observing, Assimilating and Forecasting the Ocean, Perth, Australia.
30 April – 11 May 2007	ICTP Advanced School on Oceanography (ASO): “World Climate and Overturning Circulation in Oceans and Mediterranean Seas,” Miramare, Trieste - Italy
14-26 August 2006	Summer School Climate Changes Impact On Marine Ecosystem, Middle East Technical University, Ankara, TURKEY.

### **Publications**

- 1- Shaltout, M. and **Tonbol, K.M. (2018)**. Downscaling Global Climate Models: The Case of Egypt. Working Paper No. 6, Alexandria Research Center for Adaptation to Climate Change (ARCA). January 2018. DOI: 10.13140/RG.2.2.24806.52801.
- 2- Khedr, A., Abdelrahman, S., **Tonbol, K. M. (2018)**. Sea Level Characteristics Referenced to Specific Geodetic Datum in Alexandria, Egypt. Proceedings of the 20<sup>th</sup> International Conference on Sea Level Rise Analysis and Past Changes (ICSLRAPC), 19-20 February, Paris, France. 12 (2): 73-81. urn:dai:10.1999/1307-6892/10008544.
- 3- **Tonbol, K.M.**, El-Geziry, T.M. and Elbessa Mohamed (2017). Evaluation of Changes and Trends of Air Temperature within the Southern Levantine Basin. *Weather*, 73 (2): 60–66. DOI: 10.1002/wea.3186.
- 4- **Tonbol, K.M.**, and El-Geziry, T.M. (2015). The Daily SST Variations within the South-Eastern Mediterranean Sea. Proceedings of the Twelfth International Conference on the Mediterranean Coastal Environment (MEDCOAST 15), 06-10 October, Varna, Bulgaria. 2: 1005-1016.
- 5- Shaltout, M., **Tonbol, K.M.** and Omstedt, A. (2015). Sea-Level Change and Projection for Future Flooding Along the Egyptian Mediterranean Coast. *Oceanologia* 57: 293-307. <https://doi.org/10.1016/j.oceano.2015.06.004>.
- 6- **Tonbol, K.M.**, and Shaltout, M. (2013). Tidal and non-tidal sea level off Port Said, Nile Delta, Egypt. *JKAU: Mar. Sci.*, 24 (2): 69-83. doi: 10.4197/Mar. 24-2.5.
- 7- Shaltout, M. and **Tonbol, K.M. (2013)**. Long Term Variation of Water Exchange Through Gibraltar Strait Based on Sea Level Observations of Ceuta and Gibraltar: Building Information for Modeling Thermohaline Structure in the Mediterranean Basin. *JKAU: Mar. Sci.*, 24 (2): 39-67. DOI: 10.4197/Mar. 24-2.4.
- 8- Shaltout, M. and **Tonbol, K.M. (2011)**. Modeling of wave propagation off Damietta - Port Said Coast, Egypt. *Bull. AIN Journal*, 27: 56-67.
- 9- Sharaf El Din, S.H., Eid, F.M., Ibrahiem, O.M., and **Tonbol, K.M. (2007)**. Hydrographic Variations in the deep and shallow areas of the Egyptian Mediterranean Coast. Proceedings of the IUGG XXIV, 2–13 July, Perugia, Italy.
- 10- Eid, F.M., Sharaf El Din, S.H., Ibrahiem, O.M., and **Tonbol, K.M. (2007)**. Circulation Patterns of South East Sector of the Mediterranean Sea. Proceedings of the MEDCOAST 05, 25–29 October, Kusadasi, Turkey.
- 11- Alam El-Din, K.A., Sharaf El-Din, S.H., and **Tonbol, K.M. (2004)**. Currents in front of Manzalah Lake, Egypt. *Egyptian Journal of Aquatic Research*, 30 (A): 121-141.

### **EXTRACURRICULAR ACTIVITIES**

**Accomplishments as Head of Meteorology & Hydrographic Survey Program, CMTT, AASTMT, included:**

1. Preparation of self-report submitted to International Hydrographic Organization (IHO), Monaco, for accreditation of CAT-B Program offered by the College of Maritime Transport & Technology, Arab Academy for Science, Technology & Maritime Transport (2016).
2. Preparation of self-report submitted to Central Evaluation and Accreditation Agency (ZEVA), Hannover, Germany, for accreditation of B. Sc. Programs offered by the College of Maritime Transport & Technology, Arab Academy for Science, Technology & Maritime Transport (2016).
3. Installation of an Automatic Weather Observing System (AWOS) for education & research purposes at CMTT (2014).
4. Establishment of a hydrographic survey lab for education & research purposes at the CMTT (2013).
5. Establishment of a Physical Lab used for undergraduate students at the CMTT (2012).
6. Member of the Organizing Committee of the International Conference on "Global Climate Change, Biodiversity and Sustainability, Challenges and Opportunities." AASTMT, Alexandria, Egypt, (15 – 18 April 2013).

#### **Certificates**

Office Administration (MOS) : During the period From 04/04/2004 To 30/06/2004

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#### **SKILLS**

**Computer Skills** : Excellent Knowledge of MS Office, Surfer, ODV, Adobe Photoshop, SPSS, Statistica, MATLAB, STWAVE, WINDOGRAPHER & WRPLOT.

**Language Skills** : Fluent in spoken and written Arabic and English. Local TOEFL with score 570 PBT

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#### **PERSONAL DATA**

**Date of Birth** : 21/11/1976

**Place of Birth** : Alexandria, Egypt

**Nationality** : Egyptian

**Marital Status** : Married, father of daughter & son.

#### **REFERENCES FURNISHED UPON REQUEST**