

## CURRICULUM VITAE AND LIST OF PUBLICATIONS

### CURRICULUM VITAE

**Name and Second Name:** Hakki BALTACI

**Date of Birth:** 20/01/1980

**Title:** Assoc. Prof.

**Office phone:** +90 262 6053216

**E-mail:** hbaltaci@gtu.edu.tr

**Language skills:** English – 82.5 (YOKDIL)

**Research Area:** Atmospheric Sciences, Climate Change, Synoptic Climatology, Extreme Atmospheric Events, Remote Sensing, Numerical Weather Prediction

Degree	Department/Faculty	University	Year
Bachelor's degree	Meteorological Engineering	Istanbul Technical University	2004
Master	Eurasia Institute of Earth Sciences	Istanbul Technical University	2010
Ph. D	Eurasia Institute of Earth Sciences	Istanbul Technical University	2015

**Master Thesis Title and Thesis Supervisor (s):** “Investigating of the relationship between landslide and precipitation and the assessment of minimum threshold values for eastern Black Sea region (Rize, Trabzon, Giresun)” – Prof. Dr. Mehmet KARACA

**Title of Doctorate Thesis and Supervisor (s):** “Atmospheric circulation types in Marmara Region (NW Turkey) and their influence on precipitation” - Prof. Dr. Tayfun KINDAP

### Working Experience:

Work Title	University/Company	Year
Forecaster	Sabiha Gokcen International Airport	2000-2003
Forecaster-Group Leader	Regional Weather Forecast and Early Warning Center, Istanbul	2003-2020
Assoc. Prof.	Gebze Technical University, Institute of Earth and Marine Sciences	2020-

### Supervised Master Theses:

1. Cagla S.O. Alemdar, (2020), The sources of high PM10 in Istanbul and effect of meteorological conditions on high PM10 concentrations, Marmara University, Environmental Engineering.

### **Supervised Doctoral Theses:**

1. Hilal Arslan, (2020), Investigation of triggering atmospheric mechanisms of PM10 concentrations in western Turkey and their effects on respiratory diseases, Marmara University, Institute of Pure and Applied Sciences, Occupational Safety.

### **Tasks Performed in Projects:**

#### **NATIONAL PROJECTS**

---

**2019-2020:** The sources of high PM10 in Istanbul and effect of meteorological conditions on high PM10 concentrations (Funded By: Marmara University Scientific Research Project), **Researcher.**

**2019-2020:** Saharan dust transport to Turkey: Background atmospheric mechanisms and impacts on health diseases, (Funded By: Marmara University Scientific Research Project), **Researcher.**

#### **INTERNATIONAL PROJECTS**

---

**2018-2020:** Evaluation of easterly wave disturbances over the Tropical South Atlantic in the present climate using the CMIP6 models (Federal University of Alagoas, Institute of Atmospheric Sciences, Alagoas, Brazil, CNPq project, **Researcher.**

### **Administrative Tasks:**

### **Memberships of Scientific Organizations:**

1. United Nations Framework Convention on Climate Change (UNFCCC)
2. Management Committee Substitute at International Network to Encourage the Use of Monitoring and Forecasting Dust Products
3. Working Group at DAMOCLES (Understanding and Modeling Compound Climate and Weather Events)

### **Awards:**

1. The Best Thesis Award of Istanbul Technical University for the Academic Year 2015-16
2. Scientific Travel Award from TUBITAK (The Scientific and Technological Research Council of Turkey), 2015.
3. Scientific Travel Award from Istanbul Technical University, 2014.
4. Science of the Total Environment Certificate of Reviewing awarded November, 2016 In recognition of the review made for the journal
5. Science of the Total Environment Certificate of Outstanding Contribution in Reviewing awarded November, 2016 In recognition of the contributions made to the quality of the journal

## Undergraduate and graduate courses taught in the last two years:

Academic year	Term	Course Title	Weekly Hour		Number of Students
			Theoric	Application	
2018-2019	Fall	Meteorology	3	0	42
2019-2020	Fall	Research Methods in Social Sciences	3	0	61
		Business Statistics and Forecasting Methods	3	0	59

## PUBLICATIONS

### A. Peer-reviewed Journal Articles:

- A 1. Baltacı H., Arslan H., Akkoyunlu B.O. 2020. High PM10 source regions and their influence respiratory diseases in Canakkale, Turkey. *International Journal of Environmental Science and Technology*, <https://doi.org/10.1007/s13762-020-02914-7>
- A 2. Baltacı H., Alemdar C.S.O, Akkoyunlu B.O. 2020. Background atmospheric conditions of high PM10 concentrations in Istanbul, Turkey. *Atmospheric Pollution Research*, 11: 1524-1534
- A 3. Baltacı H., Akkoyunlu B.O., Arslan H., and Gomes H. 2020. Long-term variability and trends of extended winter snowfall in Turkey and the role of teleconnection patterns. *Meteorological Applications*, 27(2), e1891. <https://doi.org/10.1002/met.1891>
- A 4. Baltacı H. 2020. The role of atmospheric processes associated with a flash-flood event over northwestern Turkey. *Pure and Applied Geophysics*, 177: 3513-3526
- A 5. Arslan H., Baltacı H., Akkoyunlu B.O., Karanfil S., Tayanc M. 2020. Wind speed variability and wind power potential over Turkey: Case studies for Çanakkale and İstanbul. *Renewable Energy* 145: 1020-1032.
- A 6. Baltacı H., Akkoyunlu B.O., Arslan H., Yetemen O., and Ozdemir E.T. 2019. The influence of meteorological conditions and atmospheric circulation types on PM10 levels in western Turkey. *Environmental Monitoring and Assessment* 191:466.
- A 7. Baltacı H. 2019. Spatiotemporal variability of climate extremes in the Marmara Region (NW Turkey). *International Journal of Global Warming* 18(3/4): 239-252.
- A 8. Akkoyunlu B.O., Baltacı H., and Tayanc M. 2019. Atmospheric conditions of extreme precipitation events in western Turkey for the period 2006-2015. *Natural Hazards and Earth System Sciences* 19:107-119.
- A 9. Baltacı H., Akkoyunlu B.O., and Tayanc M. 2018. An Extreme Hailstorm on 27 July 2017 in Istanbul, Turkey: Synoptic scale circulation and thermodynamic evaluation. *Pure and Applied Geophysics* 175 (11): 3727-3740.
- A 10. Baltacı H., Akkoyunlu B.O., and Tayanc M. 2018. Relationships between teleconnection patterns and Turkish Climatic Extremes. *Theoretical and Applied Climatology* 134 (3-4): 1365-1386.
- A 11. Baltacı H. 2017. Meteorological analysis of flash floods in Artvin (NE Turkey) on 24 August, 2015. *Natural Hazards and Earth System Sciences* 17:1221-1230.
- A 12. Baysal A., Baltacı H., Ozbek N., Destanoglu O., Ustabasi G.S., and Gumus G. 2017. Chemical characterization of surface snow in Istanbul (NW Turkey) and their association with atmospheric circulations. *Environmental Monitoring and Assessment* 189: 275.

- A 13.** [Baltacı H.](#) 2017. [Spatial and temporal variation of the extreme Saharan dust event over Turkey in March 2016.](#) *Atmosphere*, 8, 41.
- A 14.** [Baltacı H.](#), [Kindap T.](#), [Ünal A.](#), and [Karaca M.](#) 2017. [The influences of atmospheric circulation types on regional patterns of precipitation in Marmara \(NW Turkey\).](#) *Theoretical and Applied Climatology* 127(3): 563-572.
- A 15.** [Ozbek N.](#), [Baltacı H.](#), and [Baysal, A.](#) 2016. [Investigation of fluorine content in PM2.5 airborne particles of Istanbul, Turkey.](#) *Environmental Science and Pollution Research* 23 (13): 13169-13177.
- A 16.** [Baltacı H.](#), [Göktürk O.M.](#), [Kindap T.](#), [Ünal A.](#), and [Karaca, M.](#) 2015. [Atmospheric Circulation Types in Marmara Region \(NW Turkey\) and their influence on precipitation.](#) *International Journal of Climatology* 35:1810-1820.

## **B. Conference Proceedings:**

- B 1.** [Baltacı H.](#), [Arslan H.](#), [Akkoyunlu B.O.](#) “High-PM10 Concentrations and Respiratory Diseases in Canakkale, Turkey”. 1<sup>st</sup> International Conference on Applications of Air Quality in Science and Engineering Purposes, 10-12 February 2020, Kuwait, pp 389-395.
- B 2.** [Baltacı H.](#), [Akkoyunlu B. O.](#) “Synoptic climatology of Black Sea-effect snowfall events in Istanbul, Turkey”. 11<sup>th</sup> International Statistics Congress (ISC2019), 04-08 October 2019, Bodrum, Mugla, Turkey.
- B 3.** [Arslan H.](#), [Baltacı H.](#), [Akkoyunlu B. O.](#) “The Impacts of PM10 and SO2 Concentrations on Hospital Admissions for Pneumonia and Chronic Obstructive Pulmonary Disease in Canakkale, Turkey”. 32<sup>th</sup> European Meeting of Statisticians (EMS) Conference, 22-26 July 2019, University of Palermo, Italy.
- B 4.** [Baltacı H.](#), [Arslan H.](#), [Akkoyunlu B. O.](#) “The role of atmospheric processes associated with a flash-flood event over northwestern Turkey”. 12<sup>th</sup> HYMEX Workshop, 20-23 May 2019, Split, Croatia.
- B 5.** [Baltacı H.](#), [Alemdar C. S. O.](#), [Akkoyunlu B. O.](#) “Background sources and meteorological conditions of high PM10 concentrations in Istanbul, Turkey”. 4<sup>th</sup> International Mediterranean Science and Engineering Congress (IMSEC 2019), 25-27 April 2019, Alanya, Antalya, Turkey, pp38.
- B 6.** [Baltacı H.](#), [Akkoyunlu B. O.](#), and [Tayanç M.](#) “The influence of weather-type on PM10 levels in western Turkey”. 1<sup>st</sup> Eurasia Environment Chemistry Conference, 01-04 November 2018, Side, Antalya, Turkey, pp38.
- B 7.** [Baltacı H.](#), [Akkoyunlu B. O.](#), and [Tayanç M.](#) “Spatiotemporal variability and trends of snowfall in Turkey”. 11<sup>th</sup> International Statistics Days Conference (ISDC), 03-07 October 2018, Bodrum, Mugla, Turkey, pp243.
- B 8.** [Baltacı H.](#) “Spatio-Temporal variability of temperature extremes in the Marmara Region (NW Turkey)”. 7<sup>th</sup> Global Conference on Global Warming, 24-28 June 2018, Izmir, Turkey, pp10-14.
- B 9.** [Baltacı H.](#) “Temporal behavior of atmospheric circulation types in Marmara Region (NW Turkey)”. 2<sup>nd</sup> Baltic Earth Conference, The Baltic Sea in Transition, 11-15 June 2018, Helsingor, Denmark, pp149-150.
- B 10.** [Baltacı H.](#) “Climatology, precipitation types and atmospheric conditions of extreme precipitation events in western Turkey”. *Regional Climate System Modelling for the European Sea Regions*, 14-16 March 2018, Palma de Mallorca, Spain, pp19-20.
- B 11.** [Tayanç M.](#), [Erkan K.](#), [Akkoyunlu B.O.](#), and [Baltacı H.](#) “Statistical Analysis of Temperature and Precipitation Series of Turkey”. 9<sup>th</sup> International Conference on Image Processing, Wavelet and Applications, 5-8 November 2017, Kars, Turkey.

- B 12.** Akkoyunlu B.O, Doğruel M., Baltacı H., Erkan K., and Tayanç M. “Harmonic Analysis of Turkish Climatic Series”. *9<sup>th</sup> International Conference on Image Processing, Wavelet and Applications*, 5-8 November 2017, Kars, Turkey.
- B 13.** Hacılı T., Baltacı H., Akkoyunlu B.O., and Tayanç M. “The Relationship between Climate Extremes and Teleconnection Patterns over Turkey”. *International Sustainability Congress (ISC) pp 176-186*, 1-3 December 2016 ,Istanbul, Turkey.
- B 14.** Baltacı H., Kindap T., Unal A., and Karaca M. “*Detection of Volcanic Ash Using Multispectral Satellite Data*”, *OSTIV 2015 (Organization Scientifique Et Technique Internationale Du Vol A Voile)*, 06-08 February 2015, Winterthur, Switzerland.
- B 15.** Baltacı H., Kindap T., Unal A., and Karaca M. “*Detection of Overshooting Cloud Tops (OTs) and Their Relationship to Severe Weather over Europe*”, *OSTIV 2014 (Organization Scientifique Et Technique Internationale Du Vol A Voile)*, 29 July-07 August 2014, Lezsno, Poland.
- B 16.** Baltacı H., Kindap T., Unal A., Gökçürk O.M., Baltacıbası S., Pozzoli L., Incecik S., and Karaca M. “The Effects of Synoptic Circulation Types on PM10 Concentrations in the Northwestern of Turkey”, *Air Quality Management at Urban, Regional and Global Scales, 4th International Symposium and IUAPPA Regional Conference*, 10-13 September 2012, Istanbul, Turkey.
- B 17.** Baltacı H., Kindap T., Unal A., and Karaca M. “Analysis of Synoptic Weather Types and Its Influence on Precipitation in Marmara Region (NW Turkey)” *Geophysical Research Abstracts Vol. 14, EGU2012-4171-1*, 22-27.04.2012, Vienna, Austria.
- B 18.** Baltacı H. “Radiosonde observations of Gravity Waves in the Lower Atmosphere over Istanbul” *OSTIV 2011 (Organization Scientifique Et Technique Internationale Du Vol A Voile)*, 23-25 September 2011, Antalya, Turkey.

### **C. National / international books or chapters:**

#### **C2. National / international chapters:**

**C2.1.** Baltacı H., Akkoyunlu B.O., and Tayanç M. 2019. [An Extreme Hailstorm on 27 July 2017 in Istanbul, Turkey: Synoptic scale circulation and thermodynamic evaluation.](#) *Meteorology and Climatology of the Mediterranean and Black Seas*, 7-20.

**C2.2.** Da Silva M.C.L., Gomes H.B., Baltacı H. 2020. [Distúrbios Ondulatorios de Leste no Oceano Atlântico Tropical Sul.](#) *Meteorologia Em Topicos*, 247-287 (in Portuguese).

#### **D. Peer-reviewed Journal Articles in National:**

**D 1.** Baltacı H. 2018. 18 Temmuz 2017 Tarihinde İstanbul’ da Meydana Gelen Sel Olayının Meteorolojik Analizi. *Marmara Fen Bilimleri Dergisi*, 55-60, DOI: 10.7240/marufbd.397544.

**D 2.** Akkoyunlu B.O., Oruc I., Alpman E., Doğan B., Baltacı H. 2020. İnsansız Hava Aracı ile Atmosferik Parçacık Örnekleme Sisteminin Dizaynı ve Yapımı. *International Journal of Advances in Engineering and Pure Sciences*, DOI: 10.7240/jeps.742540.

## **E. Papers presented at national scientific meetings and published in proceedings:**

- E 1. Baltacı H., Adas G.T., and Baysal A. “Effect of meteorological conditions on human health in Istanbul, Turkey: Respiratory diseases”. *8<sup>th</sup> Atmospheric Sciences Symposium (ATMOS2017)*, 1-4 November 2017, Istanbul, Turkey.
- E 2. Baltacı H., Akkoyunlu B.O., Tayanç M. “Türkiye’de Mart 2016 Döneminde Meydana Gelen Sahra Kaynaklı Toz Olayının Mekansal ve Zamansal Olarak İncelenmesi”. *VII. National Air Pollution and Control Symposium (in Turkish)*, 1-3 November 2017, Antalya, Turkey.
- E 3. Baltacı H., Akkoyunlu B.O., and Tayanç M. “Türkiye İklim Uç Değerlerine Uzaketkileşim Paternlerinin Etkisi”. *VII. National Air Pollution and Control Symposium (in Turkish)*, 1-3 November 2017, Antalya, Turkey.
- E 4. Tayanç M., Eren E.S., Aydın Y., Baltacı H., Göktürk O.M., Erkan K., and Akkoyunlu B.O. “Türkiye’de Güncel İklim Değişikliği”. *VII. National Air Pollution and Control Symposium (in Turkish)*, 1-3 November 2017, Antalya, Turkey.
- E 5. Baltacı H., Kindap T., Chun K.P., Yetemen Ö., Ünal A., Tayanç M., and Karaca, M. “Trends in climate extremes in the Marmara Region (NW Turkey) and their connection to the atmospheric circulation types”. *7th Atmospheric Science Symposium pp 744-758*, 28-30 April 2015, Istanbul, Turkey.
- E 6. Baltacı H., O.M. Göktürk, Kindap T., Unal A., and Karaca M. “Synoptic Weather Patterns and Their Relation on Precipitation in the Marmara Region”, *3rd Turkey Climate Change Congress*, 3-5 June 2013, Istanbul, Turkey.
- E 7. Baltacı H., Sen O.L., Kindap T. and Karaca, M. “Determination of rainfall thresholds for the landslides of Eastern Black Sea Region” *National Geographical Congress with International Participation*, 7-10 September 201, Istanbul, Turkey.
- E 8. Baltacı H., Sen O.L., and Karaca, M. “Investigating of The Relationship Between Landslide and Precipitation and The Assessment of Minimum Threshold Values For Eastern Black Sea Region (Rize, Trabzon, Giresun)”, *1<sup>st</sup> International Meteorology Symposium*, 27-28 May 2010, Ankara, Turkey.

## **F. Art and design events:**

## **G. Other publications:**