

## Hasan Volkan Oral (MSci, Ph.D)

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**Keywords:** Renewable Energy, Wind Energy, Wind Farms, Solar Power, Alternative Renewable Energy Resources Development, Environmental Management Systems, Health and Safety Applications, Carbon Credits Certification, Environmental Due Diligence Reporting for Environmental Affairs, Carbon Footprint Monitoring, Carbon Management, Agricultural & Environmental Engineering, SEVESO Directive Implications

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## Education

### **Postdoctoral Study**— October 2011- September 2012

Wyler Department of Dryland Agriculture  
Jacob Blaustein Institutes for Desert Research  
Ben-Gurion University of the Negev  
SedeBoqer Campus, 84990, Israel

### **PhD**—*October 2002 – May 2010*

Boğaziçi University, Institute of Environmental Sciences, Istanbul, Turkey  
Dissertation title: *Impacts of land use change on soil respiration and elemental carbon in the forests of Karasu District*  
Advisor: Prof. Dr. Turgut T. ONAY; Co-advisor: Prof. Dr. OrhanYenigün

### **MSc**—*October 2000 – July 2002*

Boğaziçi University, Institute of Environmental Sciences, Istanbul, Turkey  
M.S. thesis title: *Land use change analysis of Erdemli-KızKalesi region using GIS methodology*

**BSc—October 1995 – July 1999**

Cukurova University, Dept. of Plant Protection, Adana, Turkey

B.S Thesis Title: *Determination the effect of Natural Foliar Fertiliser (NUTRIFOL) on cotton pests White Flies (Bemisia tabaci)*

## **Experience**

**Senior Project Manager of SEVESO Implications, MSDS CLP-REACH**

**Regulations: September 2015- Present**

Ulus Engineering, Environmental Consulting- İstanbul

**Environmental Safety Management Department Head - February 2015 – September 2015**

Doruk Chemical Management Systems - İstanbul

**Environmental Management Projects Coordinator and Supervisor – June 2014- October 2014**

Dokay Engineering- Ankara

**Carbon Markets and Environmental Management Supervisor— November 2012- April 2014**

Polat Energy (Joint venture of EDF EnergieNouvel PSP Investments)- Istanbul

**Postdoctoral researcher —October 2011 – September 2012**

Ben Gurion University, Jacob Blaustein Desert Research Institute

c\o JhonathanEphrath, PhD & Shimon Rachmilevich, PhD

**Visiting Guest Scholar Researcher—2005 – 2008**

Kumamoto University, Department of Civil and Environmental Engineering

c\o Katsuaki Koike, PhD

**Graduate Research and Teaching Assistant—December 2001- August 2011**

“Minamata Mercury Disease” in ESC301 Environmental Dimension and “Carbon Cycle and interactions with Climate Change” in ESC 375 Global Climate Change lecture series taught at the Institute of Environmental Sciences of Bogazici University; technical sessions of the “Environmental Geographical Information Systems” course taught at Institute of Environmental Sciences of Bogazici University.

## Projects

### Past Projects

- Carbon Management Applications at Polat Energy WEPPs.  
Position: Supervisor
- Environmental Management System Applications at Polat Energy WEPPs  
Position: Supervisor
- Israel Ministry of Agriculture Project “Monitoring the host parasite relations between Orobanche sp. (Broomrape) and Tomato plants” (2011 – 2012)

Supported By: Israel Ministry of Agriculture

Project Directors: Jonathan Ephrath, PhD and Shimon Rachmilevitch, PhD

Position: Researcher

*Responsible for conducting physiological experiments and associating the remote sensing analyses.*

- COST Project “Greenhouse-gas budget of soils under changing climate and land use (Burnout) -- COST 639” – An Intergovernmental Scientific Network Project (2006 -2011)

Supported By: European Union COST office and TUBITAK (National Scientific and Technical Council of Turkey”

Project Director: Turgut T. ONAY, PhD

Position: Researcher

*Participated as the GIS & Remote Sensing Specialist and soil respiration measurement expert*

*I conducted in situ soil respiration measurements, soil physico-chemical experiments and performed GIS & Remote Sensing analyses.*

Conclusions: Conversion from forest to agricultural production areas was investigated as one of the significant types of land use in Northern Part of Turkey, Karasu Region. The in situ soil carbon dioxide respiration measurements and laboratory analysis were indicated that forested area emits to the atmosphere more carbon dioxide than the deforested area.

- “Flood Disaster Assessment of Turkey using Geographical Information Systems” – Joint project with Kumamoto University - Japan - Faculty of Engineering (2004-2005)

Supported by Boğaziçi University Research Fund

Project Director: Orhan Yenigün, Ph.D.

Position: Researcher

*Participated as the GIS & Remote Sensing Specialist*

*I applied GIS & Remote Sensing analyses to obtain inundation maps.*

Conclusions: The flood disaster assessment in Japan was investigated in the project. The benefits and outcomes were proposed to apply in Silifke Region of Turkey where is suffering severe flooding. A new GIS based flood disaster assessment strategy has been offered to launch in Silifke Region.

- “Olive Oil Mill Wastewater Using Land Treatment Systems”, International Joint Project- Turkey & Greece (2001-2006)

Supported by: TUBITAK ( Turkish Scientific and Technical Research Council) & GSRT (Greece General Secretariat for Research and Technology)

Project Director: Turgut T. Onay, PhD

Position: Researcher

*Responsible for preparing a questionnaire to be asked the Olive Oil producers in Turkey and associating slow rate waste water management experiments.*

Conclusions: The comparison between Turkey and Greece at the field of land treatment systems were conducted in the study. The new type of land treatment system has been proposed to apply in olive oil mills in Turkey.

## **Publications**

### **SCI Referred Journals**

Review paper submitted for SCI referred Journal- Agricultural Forest and Meteorology :  
“Sustainable forestry to combat deforestation-a closer look” (**Under Revision**)

A Study On Olive Oil Mill Wastewater Management in Turkey: A Questionnaire and Experimental Approach, Erses A.S., **Oral H.V.**, Onay T.T., Yenigün O (**Resources, Conservation and Recycling 60 (2012), 64– 71**).

Temporal Variations of Rootbiomass of Carbon (C) and Nitrogen (N) in roots under various tree species- Akburak,S., **Oral H.V.**,Ozdemir,E., Makineci,E (**Scandinavian Journal of Forest Research-DOI:10.1080/02827581.2012.679680**).

Carbon and nitrogen accumulation in forest floor and surface soil under different geographic origins of Maritime pine (*PinuspinasterAiton.*) plantations-**Forest Systems (07/2013; 22(2):214-221. DOI: 10.5424/fs/2013222-03441**

Interactions of brassinosteroids and polyamines enhance copper stress tolerance in *Raphanussativus*, Choudhary, S.P., Oral,H.V., Bhardwaj,R., Yu,Q-J., Phan Tran, L-S(**Journal of Experimental Botany**)

Land use change from forestry to agriculture in Karasu, Turkey: Impact on soil carbon and *in situ* respiration- **Oral H.V.**, Küçüker M.A., Güney M., Copty N., Onay T.T., Yenigün O. (**Journal of Environmental Management**).

Impact of deforestation on soil carbon stock and its spatial distribution in the Western Black Sea Region of Turkey- Küçüker M.A., Güney M., **Oral H.V.**,Copty N., Onay T.T., Yenigün O(**Journal of Environmental Management**).

## **Conference Proceedings**

“Air Pollution Emission Inventory and Distribution over Ankara and Surrounding Cities”, ATMOS-2015 Conference, Istanbul Technical University, 28-30 April 2015.

“Use of GFP to determine the influence of competition on root dynamics,” ISRR 2012: “Roots to the Future,”June 26-29, 2012,Dundee, Scotland.

“The Use of Geographical Information Systems in Catchment Hydrology Modeling: A Case Study from Göksu River with a Focus on Local Data Gathering and Harmonization Processes,” 1<sup>st</sup> International Conference on Sustainable Watershed Management, September 19-23, 2011, Istanbul, Turkey.

“Application of Geographic Information System for Assessments of Land Use Change in Karasu District of Turkey,” International Conference “100 Years of Bulgarian Soil Science” May 16-18, 2011, Sofia, Bulgaria.

"Kriging-based estimation of the change in soil carbon stock in the coastal Black Sea region, Turkey," EGU General Assembly, May 2010, Wien, Austria.

"The Impact of Land Use Change On Soil Carbon In Karasu Forest," The International Land Use Workshop at Denizli Pamukkale University, September 13-20, 2009, Denizli, Turkey.

"In-situ Soil Carbon Dioxide Flux Measurement from Forest Floor in Karasu Forests in Western Black Sea Region of Turkey," 12th IACMAG The 12th International Conference of International Association for Computer Methods and Advances in Geomechanics (IACMAG), October 1-6, 2008 Goa, India.

"Remote Sensing and The Geographic Information Systems Based Olive Oil Mill Wastewater Management in Turkey," 32nd ISRSE Remote Sensing on Environment, June 20-30, 2007, Costa Rica, San Jose.

"Remote Sensing Technologies and Geographical Information Systems Based Flood Disaster Management of Turkey," 32nd ISRSE Remote Sensing on Environment, June 20-30, 2007, Costa Rica, San Jose.

"Treatment of Olive Oil Mill Wastewater by Slow-Rate System Using Reed and Alfalfa Plant Species," 7th International Symposium On Waste Management Problems In Agro-Industries September 27-29, 2006, Rethymno, Crete, Greece.

"Olive Oil Mill Waste Water Control By Slow-Rate Land Treatment Systems," 10th International Conference on Wetland Systems for Water Pollution Control, September 23-29, 2006, Portugal.

"Geographic Information Systems Analysis for Flooding Disasters at Bartin-Silifke Watersheds," DSI (State Water Agency of Turkey) 1st National Flooding Symposium, May 10-12, 2006 Ankara, Turkey.

"Coastline change detection on the north coast of Istanbul," Geological Remote Sensing Group, Conference of Mapping hazardous terrains using remote sensing, December 4-5, 2004, London, England.

"Geographic Information Systems (GIS) Analysis of Flood Disasters & Establishing GIS Based Decision Support Systems in Turkey," AKUT-CENDIM (The Rescue & Search Association of Turkey) 1st International Disaster Symposium March 23-24, 2006, Istanbul, Turkey.

"Olive Oil Industries in Turkey: A Survey Study," International Conference on Water Economics, Statistics and Finance, IWA, July 8-10, 2005, Rethymno, Greece.

"Land use change analysis of Erdemli-Kızkalesi region by using GIS methodology," MEDCOAST Sixth International Conference on the Mediterranean Coastal Environment Conference, October 7-11, 2003, Italy.

“A comparative Study In Treated Wastewater Reuse For the Mediterranean Countries,” International Water Association National Foundation For Agricultural Research, September 26-29, 2002, Iraklio, Greece.

## **Awards and Honors**

Financial support from **Israeli Ministry of Agriculture** entitled project “Monitoring the host parasite relations between *Orobanche* sp. (Broomrape) and Tomato plants` to continue postdoctoral study at Ben Gurion University, Jacob Blaustein Desert Research Institute *June 2012 – October 2012*.

Financial support from **Israeli Foreign Ministry Research Scholarship** to pursue a postdoctoral research study at Ben Gurion University, Jacob Blaustein Desert Research Institute, *October 2011 - June 2012*.

Financial support from **Boğaziçi University Foundation** to attend the International Environment Conference at Bishkek Kyrgyzstan, *May 18-24, 2009*.

Financial support from **Boğaziçi University Foundation** to attend 12<sup>th</sup> International Association for Computer Methods and Advances in Geomechanics (IACMAG) at Goa, India, *October 1-6, 2008*.

Financial support from **ISPRS (International Society for Photogrammetry and Remote Sensing)** to attend ISRSE 32<sup>nd</sup> International Conference on Remote Sensing of Environment at Costa Rica, *June 20-30, 2007*.

Financial support from **Boğaziçi University Foundation** to attend ISRSE 32<sup>nd</sup> International Conference on Remote Sensing of Environment at Costa Rica, *June 20-30, 2007*.

**TUBITAK** (The Scientific & Technological Council of Turkey) B-2214, “On Board Research Scholarship” for graduate research at Japan Kumamoto University, October 2006 – January 2007

**The Ousseimi Foundation** Scholarship grant for the duration of the CERG 2006 Course, Geneva, Switzerland, April- June 2006.

Financial support from **Boğaziçi University Foundation** to run the technical study of “Flood Disaster Assessment of Turkey by using Geographical Information Systems,” a joint project with Japan Kumamoto University, July 11<sup>th</sup> – September 11<sup>th</sup>, 2005.

**TUBITAK** Scholarship for the “Olive Oil Mill Wastewater Using Land Treatment Systems,” an international joint project between Turkey and Greece, Creta, Greece, September 2004.

Financial support from **Boğaziçi University Foundation** to attend MEDCOAST Sixth International Conference on the Mediterranean Coastal Environment Conference at Italy, October 7-11, 2003.

## **Professional and Synergistic Activities**

- Attended to ISRR 2012, “Roots to the Future,” June 26-29, 2012 Dundee, Scotland.
- Attended to 100 Years of Bulgarian Soil Science, May 16-18, 2011, Sofia, Bulgaria.
- Attended to the International Land Use Workshop at Denizli, Pamukkale University, September 20-13, 2009, Denizli, Turkey.
- Attended to the International Environment Conference, May 18-24, 2009, Bishkek, Kyrgyzstan.
- Attended to 12<sup>th</sup> IACMAG Conference, October 1-6, 2008, Goa, India.
- Attended to 32<sup>nd</sup> ISRSE Remote Sensing on Environment, June 20-30, 2007, Costa Rica, San Jose.
- Attended to DSI (State Water Agency of Turkey) 1<sup>st</sup> National Flooding Symposium, May 10-12, 2006 Ankara, Turkey.
- Attended to Postgraduate Training Course in Study and Management of Geological Risks, CERG 2006, April 20 to June 20, 2006, Geneva, Switzerland.
- Attended to AKUT (The Rescue-Search Association of Turkey) 1<sup>st</sup> International Disaster Symposium March 23-24, 2006 Istanbul, Turkey.
- Attended to international Conference on Water Economics, Statistics and Finance, IWA, July 8-10, 2005, Rethymno, Greece.
- Attended to Geological Remote Sensing Group, Conference of Mapping hazardous terrains using remote sensing, December 4-5, 2004, London, England.
- Attended to MEDCOAST Sixth International Conference on the Mediterranean Coastal Environment Conference, October 7-11, 2003, Italy.
- Attended to Oil Spills, Oil Pollution and Remediation, Third International Conference, September 16-18, 2003, Istanbul, Turkey.
- Attended to international Water Association National Foundation For Agricultural Research, September 26-29, 2002, Iraklio, Greece.