



**Ezgi ORBAY AKCENGİZ**

Researcher/Instructor,  
RÜZGEM

PhD, Candidate, Dept. of  
Aerospace Engineering

## Expertise areas:

- Aerodynamics and CFD
- Airfoils, Wind Turbines, Helicopters
- CFD simulations of High-Rise Buildings
- Ship Airwake CFD Simulations

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# Recent Related Projects:

- RÜZGEM Big Wind Tunnel FAN Cooling CFD Simulations, January-March 2020.
- RÜZGEM Pressure Probe CFD Simulations, January-March 2020.
- RÜZGEM Big Wind Tunnel Digital Twin CFD Simulations, January 2019 - Ongoing.
- BAP Project, Burgulu Yüksek Binaların Tasıyıcı Sistem ve Aerodinamik Özelliklerinin İncelenmesi, METU BAP-08-11-2016-064, July 2016-Dec 2018. (Bekir Özer Ay, Nilay Sezer Uzol, Sinan Bilgen, Ezgi Orbay)
- BAP Project, Döner Kanat Aerodinamiği ve Hesaplamalı Akışkanlar Dinamiği – Autogyro tasarım ve analizleri, METU BAP-08-11-2016-058, July-Dec 2016. (Nilay Sezer Uzol, Ezgi Orbay, Halil Çiçek, Semih Özmen)
- Ship Airwake CFD Simulations, MS Thesis, September 2013-2016.

# Recent Publications:

- Orbay Akcengiz, E. and Sezer Uzol, N. (2019). “Ship Airwake Investigations on SFS2 with a Hovering Helicopter Rotor by Computational Fluid Dynamics Simulations”, ARF 2019 - The 8th Asian/Australian Rotorcraft Forum, 30 Oct – 2 Nov 2019, Ankara, Turkey.
- Orbay Akcengiz, E. ve Sezer Uzol, N. (2019). “Rüzgar Türbini Rotorları için Kalın Kanat Profillerinin HAD Simülasyonları”, 5. İzmir Rüzgâr Sempozyumu, 3-5 Ekim 2019, İzmir, Türkiye.
- Orbay Akcengiz, E. and Sezer Uzol, N. (2018). “Unsteady CFD Simulations of Bluff Bodies with Sharp Edges”, CFD++ Users’ Conference, 1-3 Aug 2018, Bilkent, ANKARA, TURKEY.
- Orbay, E., Bilgen, S., Sezer Uzol, N., Ay, B. Ö. and Ostovan, Y. (2017). “Numerical and Experimental Investigation of Aerodynamic Loads for Tall Buildings with Prismatic and Twisted Forms”, The International Conference on Wind Energy Harvesting 2017, 20-21 April 2017, Coimbra, Portugal.
- Orbay, E. and Sezer Uzol, N. (2016). “Computational Fluid Dynamics Simulations of Ship Airwake with a Hovering Helicopter Rotor”, ICCFD9 - Ninth International Conference on Computational Fluid Dynamics, 11-15 July 2016, İstanbul, Turkey.
- Ezgi Orbay, Computational Fluid Dynamics Simulations of Ship Airwake with a Hovering Helicopter Rotor, MS Thesis, Dept. of Aerospace Engineering, METU, September 2016. (Advisor: Prof. Dr. Oğuz Uzol, Co-Advisor: Asst. Prof. Dr. Nilay Sezer Uzol)