Prof. Dr. Ismail H. Tuncer
Dept. of Aerospace Engineering

Expertise areas:

- Atmosperic flow simulations
- Micro-siting of wind turbines
- Wind power forecasting
- Wind turbine aerodynamics

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Recent Projects:

- "Wind Energy Potential Estimation Based on a Mesoscale Weather Prediction Model and High-Resolution CFD tools", *Grant No:* 215M385, *Funding Agency:* TUBITAK.
- "Micro-siting for Wind Turbines Based on Navier-Stokes Solutions Coupled With WRF", *Grant No:* 212M104, *Funding Agency:* TUBITAK.
- "Data Assimilation into MM5 (Mesoscale Model for atmospheric flows) in a Parallel Computing Environment", Grant No: 107Y105, Funding Agency: TUBITAK.
- "Aerodynamics Shape Optimization Based on Potential Flow Solutions", *Funding Agency:* TAI (Turkish Aircraft Industries)

Recent Publications:

- Leblebici, E., Tuncer, I.H., Sep 2015, “Wind Power Estimations using OpenFOAM Coupled with WRF”, 2015,11th EAWE PhD Seminar on Wind Energy in Europe, Stuttgart, Germany.
- Ozgen, S., Yırtıcı, O., Tuncer, I.H. ,Sep 2015, “Ice Accretion Prediction On Horizontal Axis Wind Turbine Blades”, Ankara International Aerospace Conference, AIAC-2015-163, Ankara, Turkey.
- Tuncer, I.H., May 2015, “Micro Scale Atmospheric Flow Solutions Coupled With A Meso-Scale Weather Prediction Model”, 26th Parallel Computational Fluid Dynamics Conference, Montreal Canada.
- Bas, O., Tuncer, I.H., Kaynak, U., 2014, “A Mach-uniform preconditioner for incompressible and subsonic flows”, Int. J. Numer. Meth. Fluids, Volume 74, 2014, pp:100–112
- Leblebici, E., Ahmet, G., Tuncer, I.H.,“CFD Coupled with WRF for Wind Power Prediction”, EAWE 10th PhD Seminar on Wind Energy in Europe, 28-31 October 2014, Orléans, France.
- Leblebici, E., Ahmet, G., Tuncer, I.H., 2014, “ Yüksek Çözünürlüklü Atmosferik Akış Çözümleri ile Rüzgar Güç Potansiyeli Tahmini”, V. Ulusal Havacılık ve Uzay Konferansı, Kayseri.