Kaya Onur Dag

Ph.D.

22 March 1989

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www.kayaonurdag.com

Education

2018-2019 M.B.A. (non-thesis)
Bahcesehir University

2013-2016 Ph.D. in Wind Energy
Technical University of Denmark
Development of a cutting edge wind farm CFD solver from scratch

2011-2013 M.Sc. in Wind Energy
Technical University of Denmark
Majoring in Mechanics and Aerodynamics

2006-2011 B.Sc. in Mechanical Engineering
The University of Sakarya

Work Experience

2023-cont. Loads, Software & Noise Team Leader
Siemens Gamesa Renewable Energy
Responsible of the loads, software and noise teams. Also continuing within the blade load sensor improvement and the wake adapt projects for both ON and OF machines.

2021-2022 Loads and Control Team Leader
Siemens Gamesa Renewable Energy
Responsible of the loads and control teams. Also involved in blade load sensor improvement and wake adapt projects.

2019-2021 Wind Turbine Loads Engineer
Siemens Gamesa Renewable Energy
Running load loops, fatigue envelopes, aeroelastic and aerodynamic blade design investigations, certification documents

2016-2017 Researcher -postdoc
Technical University of Denmark
Taking part in CFD and offshore wave loads projects

2012/06-09 Wind climate intern
ECOFYS
Wind resource data analysis, lidar data evaluation, turbulence calculations, site specific extreme wind extrapolations with long term national masts

2011/03-08 Wind & site analyzer
Lagerwery Wind
AEP calculations, wind data analysis, site visits, wind data correlations, siting and feasibility calculations for investors

2009/07-08 Wind power plant erection field intern
SARILAR Heavy Transport & Commerce
Field engineer assistant in some different Vestas and Enercon erection sites

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Undergrad Designs

2013/01-04 Blade designer
15kw wind turbine design
A 15kw low-wind stall turbine project funded by Student Association of Wind Energy in Yildiz Tech. University.

2012/09-11 Aerodynamic blade designer & load analyzer
5MW wind turbine design
A 5MW wind turbine design project. A 63m blade was designed and fatigue calculations were conducted with HAWC2 with IEC load cases.

Skills

Language — Turkish(Native), English(5/5), Danish(1/5)

Fluid dyn. — Atmospheric CFD, Large-eddy simulation, actuator disk/line techinques, 3D viscous and inviscid panel codes, steady/unsteady blade-element momentum techniques

Software — Linux/Windows shell scripting, Matlab, FORTRAN, MPI, Python, HPC tools, aeroelastic tools (HAWC2, Nerea, BHawC), XFoil, TensorFlow, CAD softwares

Publications

2019 *A new tip correction for actuator line computations*
Kaya Onur Dag & Jens Nørkær Sørensen
Wind Energy, Vol: 23, Issue: 2
https://doi.org/10.1002/we.2419

2017 *Combined pseudo-spectral / actuator line model for wind turbine applications*
Kaya Onur Dag
DTU Wind Energy Ph.D. Thesis, Vol. 67
https://doi.org/10.1002/we.1865

2017 *Consistent modelling of wind turbine noise propagation from source to receiver*
Emre Barlas, Wei Jun Zhu, Wen Zhong Shen, Kaya Onur Dag, Patrick Moriarty
The Journal of the Acoustical Society of America 142, 3297

2014 *A refined tip correction based on decambering*
Jens Nørkær Sørensen, Kaya Onur Dag, Néstor Ramos García
Wind Energy, Vol: 19, Issue: 5

2013 *Modification of airfoil characteristics due to the influence of the free vortices in the wake of a rotor*
Kaya Onur Dag
DTU Wind Energy M.Sc. Thesis, M-0026