

Expertise areas:



**Assoc. Prof. Dr.
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Dept. of Aerospace
Engineering

- Wind turbine blade structural mechanics and composite materials
- Fracture, fatigue and life prediction
- Experimental and computational mechanics
- Materials, component and structural testing

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Recent Projects:

“Strengthening of composite L-brackets against delamination”, Grant No: 00785.STZ.2011–1, Funding Agency: SANTEZ

“Investigation of contact and friction in bolted flanges”, Grant No: 0055.STZ.2013-1, Funding Agency: SANTEZ

“Investigation of the fracture behavior of material interfaces using photoelastic techniques”, Grant No: BAP-03-13-2010-02, Funding Agency: METU.

“Experimental study of initiation and propagation of slip between plates”, Grant No: BAP-08-11-2012-117, Funding Agency: METU

Recent Publications:

- Topac, O.T., Gozluklu, B., Gurses, E., and Coker, D., “Experimental and computational study of the dynamic damage process in CFRP composite beams under low-velocity impact,” accepted for Composites Part A: Applied Science and Manufacturing, 2016.
- Gozluklu, B., Uyar, I., and Coker, D., “Intersonic delamination in curved thick composite laminates under quasi-static loading”, *Mechanics of Materials*, 80, 163-182, 2015.
- Amireghbali, A. and Coker, D., “Elastic analysis of a circumferential crack in an isotropic curved beam using the modified mapping–collocation method”, *Journal of Computational and Applied Mathematics*, 264, 131–138, 2014.
- Gozluklu, B. and Coker, D., “Modeling of the delamination of L-shaped unidirectional laminated composites.” *Composite Structures*, 94, 1430-1442, 2012.
- Arca M.A. and Coker D. Experimental investigation of CNT effect on curved beam strength and interlaminar fracture toughness of CFRP laminates, TORQUE2014, The Science of Making Torque from Wind, *Journal of Physics: Conference Series*, 524, 2014, doi:10.1088/1742-6596/524/1/012038, Copenhagen, Denmark, 18-20 June 2014.
- Uyar, I. Gozluklu, B. Coker, D., “Dynamic delamination in curved composite laminates under quasi-static loading,” TORQUE2014, The Science of Making Torque from Wind, *Journal of Physics: Conference Series*, 524, 2014, doi:10.1088/1742-6596/524/1/012042, Copenhagen, Denmark, 18-20 June 2014.
- Gulasik, H. and Coker, D., “Delamination-Debond Behaviour of Composite T- Joints in Wind Turbine Blades,” TORQUE2014, The Science of Making Torque from Wind, *Journal of Physics: Conference Series*, 524, 2014, doi:10.1088/1742-6596/524/1/012043, Copenhagen, Denmark, 18-20 June 2014.