

My name is Bengisu Yilmaz. I am 26 year old and the only child of an adventurous family from south of Turkey. I have traveled a few latitude to get a higher education degree at Sabanci University, Istanbul. Travelling north is continued after receiving my master degree at the beginning of 2017. Currently, I am working at NDTonAIR project as an early stage researcher at Prof. K. Baršauskas Ultrasound Research Institute, Kaunas University of Technology on evaluation of the bonding quality using different NDT techniques: ultrasonic, EM and thermography.

Through my education, I have been a part of numerous interdisciplinary research projects with a focus on polymer-matrix laminated composite materials. My research journey started at the summer internship that I attended in junior year of college. My responsibilities at the internship project -which named Fractional Factorial Design of Composites Materials for Roll-Over Protection System (ROPS) Cabins were to conduct academic research in order to define state of art, to suggest design optimization methodologies on material selection, and to start the finite element modelling. After completing my internship, I was highly motivated to pursue an academic career in the field of composite materials. Therefore, I chose my graduation project as Design and Demonstration of Vertical Axis Wind Turbine (VAWT). I worked on glass-fiber reinforced turbine blade manufacturing and simulation of the turbine blades under real-life wind conditions as a part of the research group. Following, I started my master education at Sabanci University and joined Think-Composite group.

As the Think-Composite team, we have worked collaboratively on multiscale polymer-matrix composite manufacturing and characterization with different specialization on each group member. In our projects, I enjoyed being a part of a large research group and gained experience by working in a multidisciplinary environment. Particularly, the group studies consisted of advanced laboratory work such as polymer synthesis, nanofiber production with electrospinning, polymer-matrix composite sample manufacturing with carbon-fiber prepreg and film adhesives, glass-fiber reinforced polymer matrix composite manufacturing with resin infusion and hand lay-up methods. We investigated the mechanical and thermal behavior of the manufactured samples with the correlations between conventional and newly introduced non-destructive characterization techniques. In addition, my specification in the team focused on the structural damage and defect analysis of composite samples with non-destructive testing methodologies such as visual in-situ monitoring, acoustic and computed tomography of composite parts. Furthermore, the laboratory experience followed by various characterization methods helped me understand how much I enjoy conducting research with different non-destructive testing methodologies.

Apart from my research, I volunteered at several non-governmental organizations during my bachelor such as Greenpeace Mediterranean, Educational Reform Initiatives of Turkey, and CDP (Carbon Disclosure Project) Turkey. In addition, I worked as teaching assistant for two years of my master study. Between all work/study hours, I enjoy having time with my friends/family and practice yoga. I love discovering new artists, visiting contemporary museums and attending live music/audiovisual performances.