

**UNIVERSITY OF TURKISH AERONAUTICAL ASSOCIATION**  
**GRADUATE SCHOOL OF AERONAUTICS AND ASTRONAUTICS**  
**AEROSPACE ENGINEERING PROGRAM**

**GRADUATE SEMINAR SERIES**

**AEROELASTICITY ANALYSIS OF ADVANCED COMPOSITE PLATES**

by

**Taha Alptulga Mustafa Haznedar**

This seminar aims to explain the aeroelastic behavior of advanced composite plates, emphasizing flutter and divergence phenomena. Aeroelasticity is crucial in designing lightweight structures for aerospace applications, and advanced composites offer unique challenges and opportunities in this context. The analysis delves into the dynamic interaction between aerodynamic forces and structural deformations, particularly focusing on flutter, where oscillations occur due to the coupling of structural and aerodynamic forces, and divergence, which involves the uncontrolled increase in structural deformations. During the seminar, I will delve into the underlying principles governing these phenomena, exploring their implications for aircraft design and structural stability, attendees will gain insights into the causes, analysis methods, and mitigation strategies for flutter and divergence, with a focus on their role in ensuring the safety and performance of aerospace systems.

Date: January 23, 2024 Tuesday

Time: 16:00

Location: 102 Amfi