

Department of Aerospace Engineering SEMINAR

Advanced Methods in Aerospace Engineering System Design

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METU Aerospace Auditorium



As we delve into the intricacies of aerospace engineering, our focus will be on pushing the boundaries of innovation and addressing the challenges that arise in the pursuit of optimal system performance. Keeping ourselves in the perspective of spacecraft design, we will navigate the multidisciplinary landscape that defines modern system design from propulsion systems to materials science, and from advanced control algorithms to integration methodologies. This seminar aims to equip you with a comprehensive understanding of the latest advancements, fostering a deep appreciation for the complexities inherent in crafting spacecraft that can transcend the limits of our atmosphere, and give an overview of a specific 14 weeks of course that will be taught on this subject.

After graduating from Aerospace Engineering Department of the Middle East Technical University (METU), Turkey, in 2008, Dr. Burak Yaglioglu participated in the European master program in space science and technology SpaceMaster and received M.Sc. degrees from JMUW, Germany and LTU, Sweden in 2011. Within this program he conducted his thesis research on Fractionated Spacecraft Architecture Design in University of Tokyo, Japan. Since April 2011, he has been working for TUBITAK UZAY which is the Space Technologies Research Institute of the Scientific and Technological Research Council of Turkey (TUBITAK). Here, he involved in the development of LEO Earth Observation Satellites RASAT (2011), GOKTURK-2 (2012) and IMECE (~2023), led a 3U CubeSat development under APSCO Student Small Satellite Program and led the system analysis and design of the GEO Communications Satellite TURKSAT 6A (~2023). Currently, he is the project manager of the first Turkish Lunar Mission. His expertise includes space systems engineering, mission design and analysis and orbital dynamics.