

Engaging and Motivating Students through the Use of Problem-based Learning

Abstract: Aircraft Design is generally conducted through many reviews, Conceptual, Preliminary, and detailed to name a few. The process is multidisciplinary in nature and entails many subject areas such as aerodynamics, structures, aircraft performance, propulsion, stability, and control, to name a few. Aircraft Design is taught in many universities as a part of the Aeronautical Engineering curriculum, in the final year of their degree programme. By the start of their final year, the students have acquired basic skills in aerospace science and can embark on integrating the acquired skills. The talk will focus on Aircraft Design, underpinned by the Problem-Based Learning (PBL) methodology, a concept used to enhance multidisciplinary skills using planned project scenarios. Working in small collaborative groups students learn what they need to know in order to solve a problem. In this talk the role of PBL is examined in the art and science of Aircraft Design.