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Aircraft design education at universities: benefits and difficulties

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Abstract

The value of teaching aircraft design at university by means of student design projects is explored. It is argued that conceptual design is an essential part of engineering education and it provides a foundation for the development of engineering judgement, which is required to establish a balance between safety, economics and functionality of an engineering system. The design process is constituted by two elements – a creative process involving the postulation of design alternatives, and an analytical process, which evaluates the envisaged designs. Detail design teaches vocational skills and instils an awareness of the complex, multidisciplinary and integrated nature of the aeronautical engineering business. The factors that limit the quality of design education include: support staff, time, financial resources, teamwork and lecturing staff. © 2000 Published by Elsevier Science Ltd. All rights reserved.
