METADATA

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Abstract

The modern design engineer now relies on new CAD/CAM/CAE systems on a daily basis to develop, optimise and produce products. In these processes, Parametric Design plays a crucial role, since it is through it that the geometric model of the product is produced, which is essential in the design cycle. Parametric Design has evolved to such an extent that it has even changed the way engineers are trained in universities. Nowadays, emphasis is placed on educating young engineers on issues related to the design process, interaction with software and the efficient use and utilization of the available functionality. The aim of the book is to present the fundamental principles of Parametric Design, which are incorporated in the respective CAD/CAM/CAE software. The aim of the text is not to educate its readers on a specific software, but to explain concepts that will help them to understand in depth how the respective systems work. Modern

Parametric Design software has converged to a very large extent and, therefore, if the user is properly trained, he/she can use any related software successfully without an increased need for further training. An understanding of the theoretical background will greatly assist students or graduates to understand the functions of these systems better, faster and more efficiently. The fundamental knowledge, which the readers will acquire, will also help in solving specialized problems both in the context of their studies, e.g. in the preparation of a thesis, and on a professional level, as they will have flexibility and will be able, with less time and training costs, to master the offered functions of modern systems to an advanced degree. The book focuses on the 'why' rather than the 'how' and can therefore be included in the knowledge 'baggage' of those who choose to enter the field of research in universities or industry.

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