



METADATA

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Other Titles: Parametric Design with PTC - Creo Parametric

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Authors: Azariadis-Topaloglou, F., Professor, Univ. of the Aegean, Kyratzi, S., Lecturer, Univ. of the Aegean, Bailas, K., Laboratory and Teaching staff, Univ. of the Aegean

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Abstract

The modern design engineer now relies on new CAD/CAM/CAE systems daily for product development, optimization, and production. In these processes, Parametric Design has a critical role since, through it, the geometric model of the product is produced, which is necessary for the design cycle. Parametric Design has evolved to such an extent that it has even changed the way engineers are trained in university institutions. Nowadays, emphasis is placed on training young engineers in issues related to the design process, interaction with the design software, and the efficient use and exploitation of its available functions. The book aims to present the fundamental principles of Parametric Design, which are integrated into the respective CAD/CAM/CAE software. The book does not aim to educate its readers in a specific software but to explain concepts that will help them understand in depth how the respective systems

work. Modern parametric design software has converted to a very high degree, and therefore, if the user is properly trained, they can use any related software successfully with no increased need for further training. Understanding the theoretical background will greatly help students or graduates understand these systems' functions better, faster, and more efficiently. The fundamental knowledge they will acquire will also help solve specialized problems both in the context of their studies, e.g., for preparing a diploma thesis, and at a professional level. In this way, they will have the flexibility and will be able to master the functions offered by modern systems to an advanced degree with less time and training costs. The book focuses on the "why" and not the "how" and can therefore be included in the cognitive load of those who will choose to enter the field of research in universities or industry.