Product Design and Conceptual Process Planning Integration By Using Machining Features
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Abstract
The integration of conceptual process planning and early design stages is a vital activity in the modern industrial environment. Since major manufacturing time is committed in product specification and design, it is critical to be able to assess manufacturing as early as possible in the design process.

In this research, an algorithm is developed to build an (Integration of Product Design and Process Planning) system called IPDPP to demonstrate the integration of conceptual process planning and design using manufacturing features. The developed system (IPDPP) validates the calculation of manufacturing time using feature technology. The application of the prototype system improved communication between design and process planning. The (IPDPP) system has been tested on product (Shaft 8E-200) in State Company for Electrical Industries. It resulted in reduction of manufacturing time.

Keywords: Process planning, manufacturing features, machining parameters.