

# Computer - Based Rapid Tooling System in Mold Design

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## ABSTRACT

Facing with the competition in global manufacturing, it is critical to shorten product life cycle and to reduce the manufacturing cost in industry. In response to this demand, the practical concern is the close integration of computer-aided Rapid tooling technique with the design-knowledge supported system, and also is one of necessary and efficient way to improve the moulding process. It becomes the topic of this research. This main aim in this research is to build up the computer-aided moulding system for rapid tooling via the integration of several API (Win 32 and Solidwork) and the knowledge-management system under VB-platform. There are two main modules, the moulded product and the molding modules. The Moulded product modules deals with the setup of solid model of product by using parametric design notation, The Molding modules concerns with the functional design-automation of parting surface and or line with respect to the moulded product and then constructs the two-pieces or multi-pieces mold with Boolean operation. Finally the system outputs the 2D engineering drawing for its manufacturing.

Keywords : Rapid Tooling ; Parting Surface ; Boolean operation ; Knowledge Management System

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