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New Technologies

ROUGH MILLING WITH END MILL CUTTER IN APLLICATION FOR FREE FORM SURFACES MACHINING

Goran M. Mladenovic^{1*},Ljubodrag M. Tanovic¹, Radovan M. Puzovic¹, Milos D. Pjevic¹, Mihajlo D. Popovic¹, Ivana Jevtic²

¹University of Belgrade, Faculty of Mechanical Engineering, Department of Production Engineering, 11000 Belgrade, Serbia

²University of Belgrade, Innovation Centre of the Faculty of Mechanical Engineering, 11120 Belgrade, Serbia *Corresponding author e-mail: gmladenovic@mas.bg.ac.rs

Abstract

This paper has presented the development of a sequel of conducted research in the field of free form surface machining at the Faculty of Mechanical Engineering in Belgrade. In order to machine as much as a possible material, it was developed machining strategy for rough machining with end mill cutter with a big diameter as the part of free form surface machining. Rough machining according to the developed strategy allows obtaining an approximate shape of the free form surface in the shortest possible machining time. After rough machining, one part isn't present big deep of cut for finish machining with ball end mill cutter which is also the final step in machining. Using this strategy is possible to reduce the cost of production and according to that cost of the final product. The developed strategy was implemented in the CAM application and using it NC code was generated. Experimental verification of generated NC code was performed on horizontal working centre and measurement of a machined part was performed after machining too. With analysis of measured dimensions, it was verified usage of developed strategy which was implemented in CAM application.

Keywords

CAD/CAM systems, Free form surfaces, Rough machining, End mill cutter

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