Extendible Operation Sequencing for Turn-Milled Components

Author(s)
T. Mwinuka, S. Hinduja, O.O. Owodunni

Abstract
Research in operation sequencing has hitherto been based on fixed heuristics with no obvious scientific basis. Often, the heuristics contain no technological considerations. This paper provides a scientific approach for the sequencing of features based on maximising the stiffness of the intermediate component. In the case of intersecting feature volumes, preference is given to a feature with a lower machining cost. This scientific approach is embedded within a flexible environment in which heuristic rules can be constructed from a rich vocabulary covering geometric and technological attributes, without the need for additional programming. Examples illustrating the capabilities of the system are described.

Keywords
CAPP; Operation Sequencing; Customisation