

Thesis title: *Study on the integration between the process planning and the scheduling in flexible manufacturing systems.*

ABSTRACT

Object of this thesis is the study of a system for the integration of process planning and the scheduling in flexible manufacturing systems. Objective of this thesis is to achieve a system able to pass by the geometric – technological informations to the informations need to obtain non linear process plan, that have an operations sequence non fixed. These process plans are rappresented by a suitable graph. The proposed approach comprises two phases. A first phase involves the use of a CAD/CAM system by which are picked out some informations contained in a table. This is the input file of the first software that develops the informations in the table and adds some upright lines that need to be compiled by the user. After the second software takes the informations in this table and gives the useful informations to create the graph. In this study three different benchmark are analysed and the tables, that the system CAD/CAM provides, are importated in EXCEL®. The final table, holding the informations to obtain non linear process plans are achieved by the utilization of the two software. The future development is the creation of a flexible and integrated scheduling. This semiautomatic approach allow to achieve the main element for the graph creation on which a scheduling algorithm is made.