

SUMAR TOOLS OÜ

EU48685 Smart manufacturing and material technologies competence centre

Applied research: Knowledge base for 3D model based manufacturing process design and redesign (sub-project PR1.4)

Period of the sub-project: 01.09.15.-30.06.19.

Amount of support: 114000.00 EUR

Description of the sub-project

The automatic preparation of technological processes based on 3D features is divided into three stages:

- Recognition of manufacturing features based on 3D model
- Choosing appropriate technologies, using predefined rules
- Generation of manufacturing operations

Recognition of manufacturing features is configurable and it is possible to add user-specific forms there.

Using the knowledge base to save rules helps to accumulate knowledge and then re-use it in standardized way.

Operations are generated using the CAM system NX.

The objective and result of the sub-project

The objective of the sub-project is to increase the efficiency of production processes and optimize the technological parameters. The use of feature based machining software in preparation of a technological process significantly increases the speed of preparation and provides better quality technology. This will be achieved by:

- Using standardized technological processes; and
- Avoiding human mistakes.

The sub-project results in a knowledge base configured for local conditions to generate manufacturing processes in metal cutting industry.

Supporting fund: EU Regional Development Fund

The project is supported by the Competence Centre action and is carried out in cooperation with IMECC OÜ.



European Union
European Regional
Development Fund



Investing
in your future