SUPER – Stuttgart University Program for Experiencing Research 
Project Information

Institute's Information
Name of Institute  Inst. for Machine Tools, University of Stuttgart 
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Duration of Project/Number of Students
June/July
June/July/August  2019
Number of Students  2

Name of Project  Dynamic process interactions in sawing processes -
experiment and simulation towards intelligent machining

Beneficial Skills 
& Knowledge  basic knowledge about machining processes and process
 dynamics, basic knowledge about finite element simulation

Description of Work
Sawing processes are very often applied in industry for the separation
of workpiece material from bulk material blocks or profiles. In order to
improve the productivity of the sawing processes a deep understanding,
calculation and simulation of the process dynamics as well as layout methods
are necessary. In this project, the process dynamics of bandsawing and
circular sawing shall be investigated in more detail by experiments and
simulation approaches. Modern machine equipment and latest measuring
technology as well as sophisticated simulation software can be used.
The work will be accompanied by travels to machine tool manufacturers,
tool suppliers and end users. The potentials of an intelligent process control shall be analysed, finally.