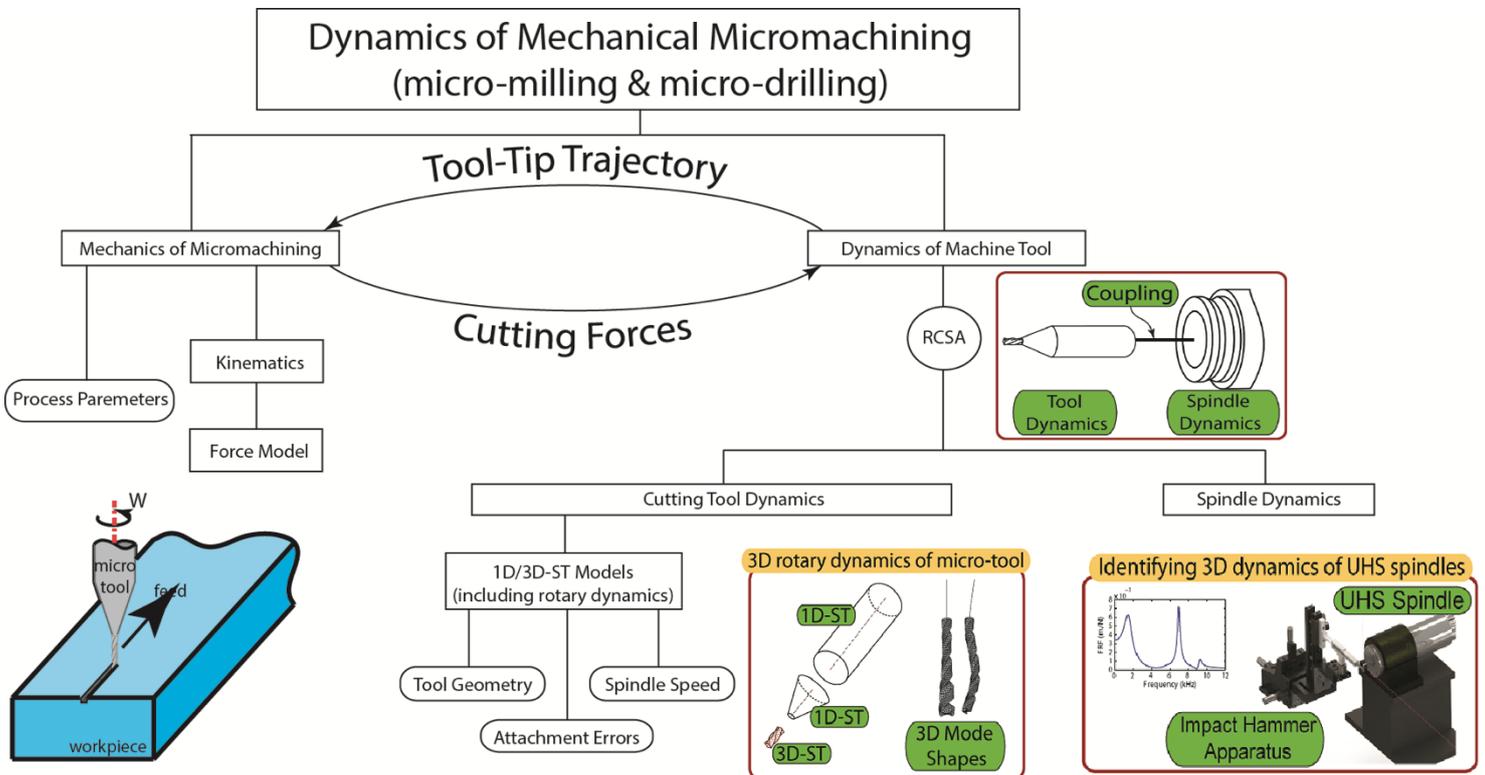


# M.Sc. Position Available on Modeling Dynamic Cutting Process of Micro-Machining

We are looking for a M.Sc. student to work on a joint project under the supervision of **Dr. Ender Cigeroglu** (Middle East Technical University) and **Dr. Bekir Bediz** (Sabanci University). The project will be on developing a simulation framework to predict tool-tip trajectory in micro-machining operations including the nonlinear gyroscopic effects and cutting mechanics. The overview of the project is given below.



The objectives of the project are:

- to develop a (spectral) modeling approach to capture the nonlinear dynamics of cutting tools
- to merge the dynamics of cutting tools with spindle dynamics
- to develop a mechanistic model for micromachining process
- to couple the dynamic model of the machine tool with the mechanistic model of the micro-machining process

Interested candidates, please send your resume to Dr. Ender Cigeroglu (ender@metu.edu.tr) and Dr. Bekir Bediz (bbediz@sabanciuniv.edu).