



Lütfi Taner TUNÇ

Faculty Member
Industrial Engineering

PhD: Sabanci University

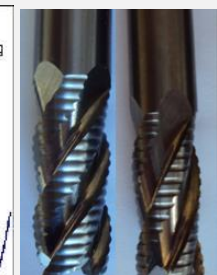
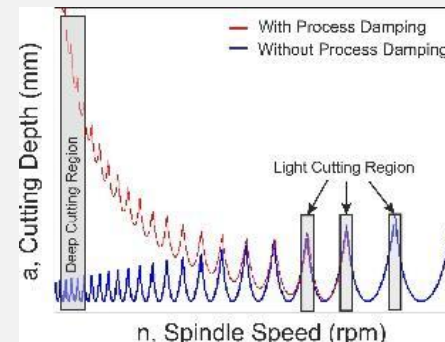
Website:
myweb.sabanciuniv.edu/ttunc/

Email:
ttunc@sabanciuniv.edu

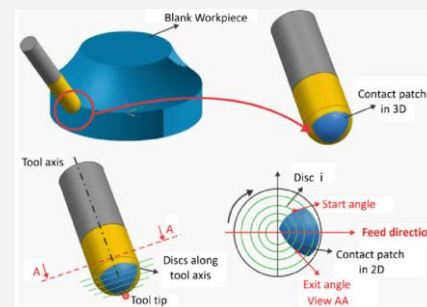
Keywords:
Machining, Manufacturing,
Abrasive Process, Process
Digital Twin, Process
Optimization, Autonomous
manufacturing

Multi-Axis Manufacturing

Machining Process Modeling

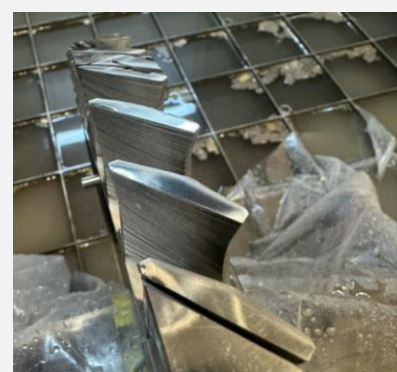
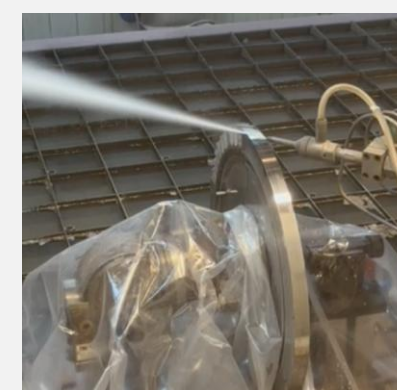
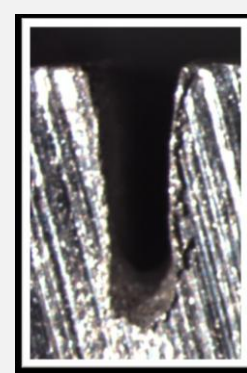


- Milling of thin-wall parts
- 5-axis milling
- AI/ML assisted machining
- Machining dynamics & stability
- Process monitoring
- Process modelling & simulation
- Tool path planning & modification
- Process damping
- Machining of AM metals



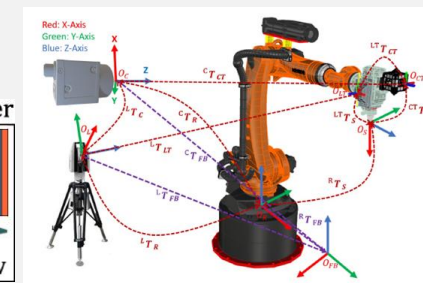
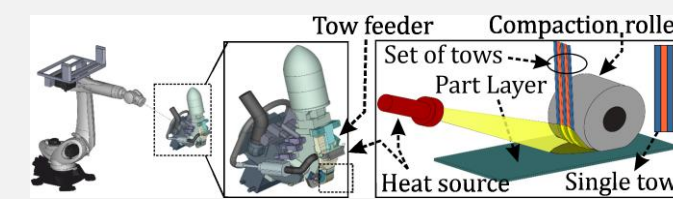
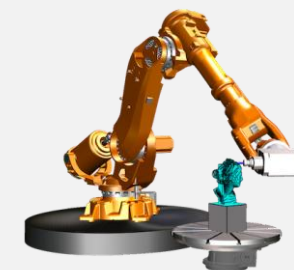
Abrasive Water Jet Machining

- Modelling of kerf geometry
- Machining of heat-resistant alloys
- 5-axis Abrasive Water Jet Machining
- Parameter selection
- Tool path planning & correction



Robotic Manufacturing

- Robotic machining
- Automated fiber placement
- Manufacturing automation
- Structural dynamics of robots
- Accuracy of robotic milling



Manufacturing of Polymeric Materials

- Non-planar additive manufacturing
- Variable stiffness composites
- FEM integrated tool path planning

