

CMI

# HASHIMOTO LAB.

[From Manufacturing Technology to Manufacturing Science]

## Collaborative Research Center for Manufacturing Innovation

<http://www.hashimoto-lab.iis.u-tokyo.ac.jp/>  
**Ecological Manufacturing Science**

Mechanical  
Engineering  
department

### From Manufacturing Technology to Manufacturing Science

#### Head for Manufacturing Science

Aiming for a rapid progress of manufacturing technology that supports the base of aircraft industry, in which major development is expected hereafter, a project through industry-university-government cooperation has launched last fiscal year. In April 2013, The Collaborative Research Center for Manufacturing Innovation (CMI) has been founded in the Institute of Industrial Science, The University of Tokyo and a full-scale R&D among six laboratories has started. At present, 13 industrial members are conducting researches with the University of Tokyo.

#### Research Policy

- ① We are aiming for a rapid progress by enhancing the skill of manufacturing technology into manufacturing science.
- ② In the short term, aircraft manufacturing technology will be the research target but we will expand it into other industrial fields in the future.

#### Research Content

- ① Rapid and high value manufacturing: High speed, high accuracy processing of difficult-to-cut materials (titanium, CFRP and etc.)
- ② Environmentally conscious manufacturing: Minimizing cutting oil(MQL)
- ③ Manufacturing with the minimum natural resources and less amount of rare metals: Reducing electric power of cutting, reducing chips, and etc.



- CMI is in charge of manufacturing technology located in the middle.
- CMI covers from basic technology research to one step short of practical use.
- Conventional collaborative researches stop within a narrow field and the fields vary.
- In CMI, we can control broad areas by discussing common pains at the same time.

Research achievements will be shared within all CMI members.

