



Institute of Mechatronics Design and Knowledge- based Engineering

1. Description

Institute of Mechatronics Design and Knowledge-based Engineering is mainly engaged in mechanical design and manufacturing, computational material science, innovation design and interdisciplinary subject. The institute has undertaken more than 60 projects including the national 973 program projects and national major scientific equipment and equipment development projects. More than 400 papers have been published in international journals. The institute has received National Science and Technology Progress Awards in 2014. Research achievements have been successfully applied in many industries such as motors, air-conditioning systems, electromechanical equipment, precision optical instruments and intelligent robots. There are currently 3 professors and 5 associate professors working in the institute.

2. Key Research Fields

- Micro-Channel Tubes and Application
- Multiscale Simulation
- Forming of Lightweight Material
- Intelligent Design
- Intelligent Instrument/Equipment

3. Labs, Centers and Groups

- Microchannel tube forming processing lab
- Joint lab of industrial robot and intelligent manufacturing
- 3D printing and innovation design lab

4. Instrumentation & Facilities

- Folded microchannel tube forming and testing equipment
- Forming limit test equipment
- Burst pressure testing equipment of tubes
- FANUC M20i/35M, UR5, bumblebee Xb3
- Kinect vision system
- SR 300 vision system
- Laser scanning confocal microscopy
- Flow cytometer
- Laser endoscopy

5. Website

<http://kbe.sjtu.edu.cn/>

6. Director

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