

Medical Robot Practice in China

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Intelligent Technology and Machine Lab

Robotics Institute

Beijing Univ. of Aeronautics and Astronautics, China

- **ITM: Intelligent Technology and Machine**
- **Mission:** Link to industry by medium-long term R&D Projects and training of young researchers
- **Three Main Research Fields**
 - **Medical Robot and Instruments**
 - Mini/Micro Robot Systems
 - Mechatronics Equipments
- **Human resources**
 - 2 Professors, 8 Associated Prof, 6 Engineers, 25 PhD and 60 Master Students
 - Prof **WANG Tianmiao**: Director of Robotics Institute, BUAA; Head of expert group on Robotics in National 863 Hi-tech Program
- **Annual figures of activity**
 - Research projects 30, funding 2 M\$
 - Papers in journals and in conferences 60
 - Patens 5



Medical robot practice in China

- During the past five years, we have addressed many aspects concerning medical robot techniques, including medical robot type synthesis, robot control algorithm, image process, surgical planning, as well as registration method and 3D position tracking. These projects are funded by Chinese national 863 program.
- Through all our previous research work, we have accumulated lots of valuable experience on the research and development of various medical robot systems, such as neurosurgery and orthopedic surgery.
- All the research work in these systems has been successfully applied to the clinical applications. Up to now, 1,200 cases have been done in hospitals.



Our key technology

- New robot structure: safety, dexterity
- Friendly human-computer interaction interface
- Medical Image Processing and Analysis
- Intra-operative Navigation
- Biomechanics Analysis

We are looking for partners!

If interested, please contact Associate Prof.
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