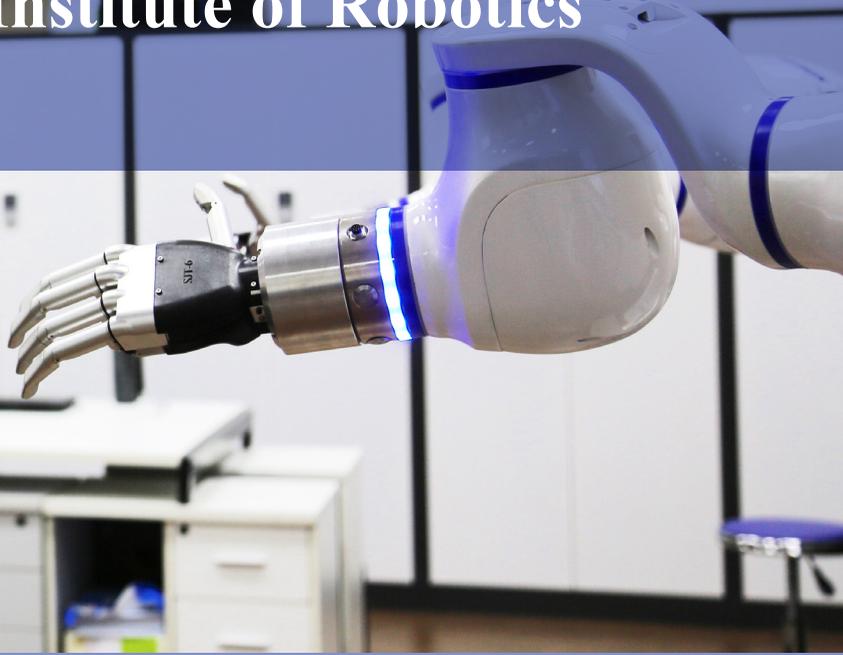




Institute of Robotics



1. Description

The Institute of Robotics (RI) at Shanghai Jiao Tong University (SJTU) was established in 1979 to conduct fundamental and applied robotics research. Now the SJTU RI is among the top three institutions for robotics research in China, with numerous world-class lab equipment and facilities occupying 3,000 square meters on SJTU campus and 5,000 square meters in the Lingang Institute of Intelligent Manufacturing. Benefitting from the diversified expertise of the faculty members in RI, robotics researches on fundamentals as well as applications are actively carried out, spanning a wide range of topics such as kinematics, dynamics and control, bio-mechanics, intelligent prostheses, industrial robotic systems, field robots, service robots, ubiquitous robotic presence, surgical robots, rehabilitation robots, assistive robots, and soft robots. There are currently 11 professors, 16 associate professors and 3 assistant professors working in the institute.

2. Key Research Fields

- Biomechanics
- Rehabilitation Robots and Neural Interfacing
- Surgical Robots and Medical Instruments
- Soft Robots and Bio-inspired Systems
- Precision Actuation and Control
- Field Robots and Rescue Applications
- Modular Robots and Multi-robot Systems
- Autonomous Unmanned Aerial Vehicles
- Industrial Robotic Systems and Applications

3. Labs, Centers and Groups

- Lab of biomechanics
- Lab of rehabilitation robots and neural interfacing
- Lab of industrial robotic systems and applications
- Lab of robotic manufacturing and intelligent machining
- Lab of precision actuation and control
- Lab of field robots and rescue applications
- Lab of modular robots and multi-robot systems
- Lab of surgical robots and medical instruments
- Lab of soft robots and bio-inspired systems
- Lab of rehabilitation robots and service robots
- Lab of autonomous unmanned aerial vehicles

4. Instrumentation & Facilities

- Leica absolute tracker AT930
- VICON motion capture systems
- Bertec instrumented treadmills
- Laser scanning interferometer
- Magstim BiStim² stimulator
- Tobii pro spectrum eye tracker
- Marathon 2 vacuum transport system
- Kistler test stand
- Leica M165C digital stereo microscope
- Objet30 3D printer
- Aerotech ANT130-L linear nanopositioner
- Phantom high speed camera M310
- OT bioelettronica quattrocento surface/intramuscular EMG amplifier
- NIRx NIRSport mobile fNIRS system
- Brain products actiChamp 32-Channel amplifier
- Motoman industrial material handling robot
- Lion precision spindle error analyzer
- Universal robots UR10 manipulator
- dSPACE controller DS1103
- NPOINT NPXY100Z25 nanopositioner

5. Website

<http://www.robot.sjtu.edu.cn/>

6. Director

Director: Prof. ZHU Xiangyang

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