電機系 DEPARTMENT OF ELECTRICAL ENGINEERING

# Intelligent Robotics and Informatics Systems Lab. (IRIS)

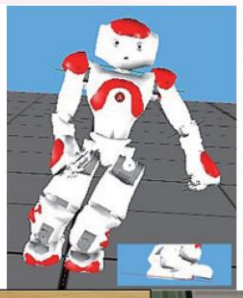
- **Lab Feature：** The IRIS Lab. aims at system design and development of intelligent architectures based on reinforcement learning (RL) for industrial applications. We have designed an innovative adaptive multi-behavioral robotic system for walking assistants based on the developed technique. The technique also has been applied to the autonomous porting vehicle systems of the ASE Group. Our RL contributions have been applied to a variety of industrial applications such as navigation in SLAM, dispatching multiple AGVs in factories, automatic fine-tuning for manufacturing recipes, medical diagnosis, e. t. c.

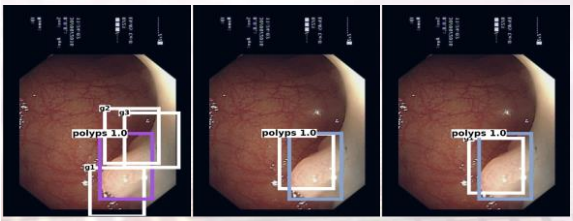
## Research Topics:

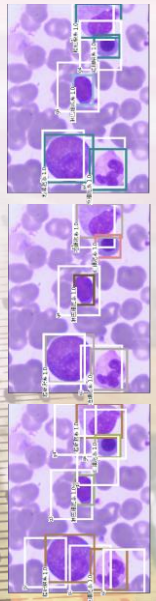
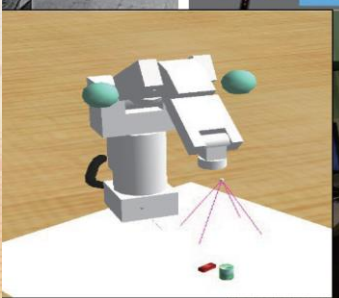
- Robotic Assistant Surgery
- Cooperative Autonomous Multi-Agents
- Assistant Robotics
- Compliance Control
- Deep Reinforcement learning on Medical Images
- Deep Reinforcement learning on Factory Automation

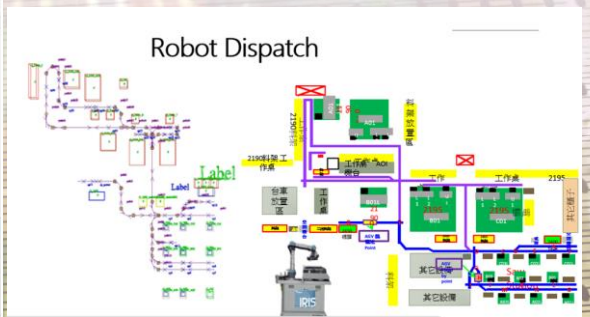
## Projects:

- The Transverse activity on Intelligent robotics
- Autonomous dispatch and cooperative control on multiple porting robots for lights-off Factories
- Autonomous navigation and control of mobile robots under complicated environments
- Image-Based Deep Reinforcement Learning for Robotic Manipulation Control

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