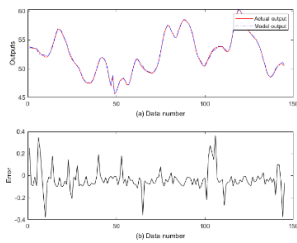# 電機系 DEPARTMENT OF ELECTRICAL ENGINEERING

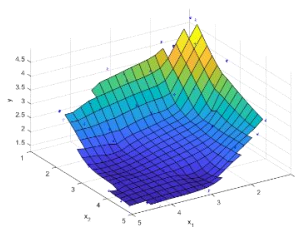## *Advanced Intelligent Control and Machine Learning Laboratory*

Main Research

- ◆ **Stability analysis of systems**
- ◆ **Intelligent control and its applications**
- ◆ **Pattern recognition**
- ◆ **Application of machine learning algorithms**
- ◆ **Implementation and application of robots**
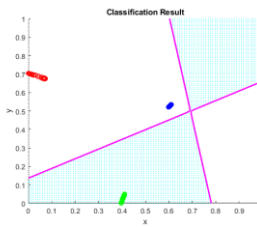- ◆ **Implementation and control of autonomous quadcopter**

- ICASI 2017 First Prize Paper Award
- ICASI 2016、2018 Best Paper Award
- 2015 Dr. Shechtman Youth Research Investigators Award
- 2014 Youth Automatic Control Engineering Award
- 2014 Taiwan Intelligent Robot Competition The Second Place
- RoboCup Japan Open 2013 Tokyo The Second Place
- 2013 Taiwan Intelligent Robot Competition The Championship
- ARIS2013 First Prize of the Best Paper Award
- The 2012 International Innovation and Invention Poster Competition Golden Award
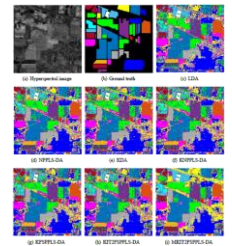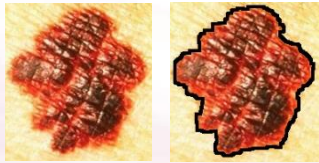
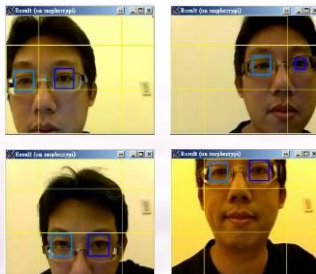**Modeling and prediction analysis**

System identification

Feature extraction and classification

Dimensionality reduction and classification
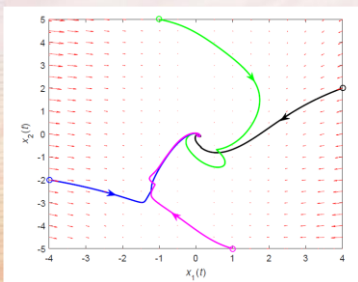
Clustering analysis for image recognition
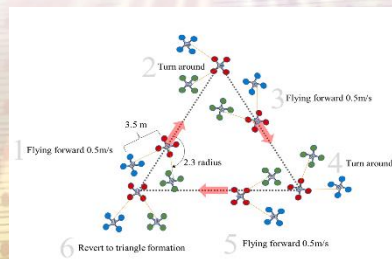
Tracking control of eye recognition

Face detection for wheelchair control

Autonomous wheelchair tracking control

Stability analysis

The formation navigation strategy of quadrotors

Autonomous quadrotor formation control