

Department of Mechatronic Engineering

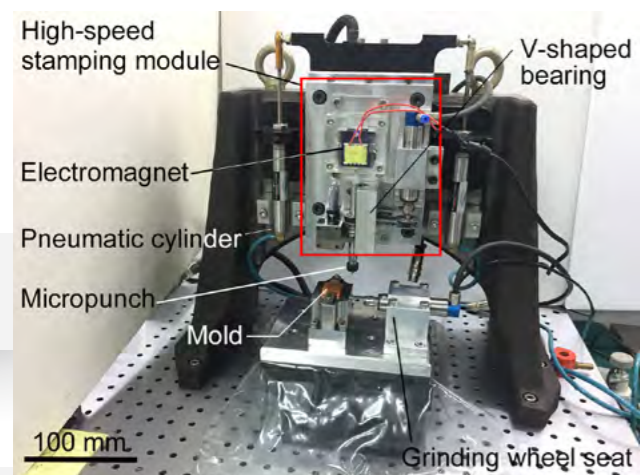
Contact Information

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Introduction

The Bachelor's courses incorporate two specialized areas: 1) precision machinery, and 2) opto-mechatronic integration. Students can choose a specific field of interest, while also engaging in cross-domain study. The Master's courses focus on 1) precision machinery design and manufacture, and 2) opto-mechatronic integration systems in the fields

of theoretical and applied research. A number of professional laboratories have been set up to meet the needs of teaching and research. PhD classes focus on advanced opto-mechatronic integration systems for training professional engineers or R&D talents as their goal.



Instructional Objectives

Bachelor's:

1. Cultivate opto-mechatronic integration talents with theoretical and practical abilities.
2. Cultivate opto-mechatronic integration talents in line with industrial needs or educational majors.
3. Cultivate opto-mechatronic integration talents with humanistic accomplishments, professional ethics and lifelong learning abilities.

Master's /PhD:

1. Cultivate professional engineers or R&D talents with the capabilities of opto-mechatronic integration.
2. Cultivate professional engineers or R&D talents for innovative research and industrial applications in opto-mechatronic integration.
3. Cultivate professional engineers or R&D talents with humanistic qualities, professional ethics and lifelong learning abilities.

Degree Requirements

Bachelor's Coursework & Program Requirements:

Required Credits	Elective Credits	Total Credits
101	27	128

Master's Coursework & Program Requirements:

Required Credits	Elective Credits	Total Credits
4	24	28

PhD Coursework & Program Requirements:

Required Credits	Elective Credits	Total Credits
4	18	22

Highlights of the Curriculum

Intelligent Automation Control Systems, Opto-Mechatronic Integration Systems, Precision-Micro Machine Tool, Precision Measurement and Sensing Technologies, Micro/Nano Electromechanical Systems

The Department of Mechatronic Engineering is also focused on teacher training. If students are interested in the teaching profession, they can fulfil the qualifications for the education

curriculum in their freshman or sophomore years. For students that have registered in the teacher training program, they may obtain teaching accreditation after graduation. In addition, postgraduate students also have the opportunity to register in education courses in order to obtain teacher accreditation.

Career Prospects

Further Study

In terms of further education, graduates may choose to pursue further studies in this department or register in Master's and PhD courses in other domestic or international programs.

Career

Opto-mechatronic integration is a growing trend in modern engineering and industry, offering many career choices. Employment possibilities are as follows:

1. An engineer or technical talents in the hardware or software industries of precision machinery, automated production, electronics, photoelectric and display, and information technology etc.
2. Opto-mechatronic integration talents in the 3C industry.
3. Technology-intensive opto-mechatronic integration engineers in the high-tech industry.
4. Senior engineers and R&D talents in the field of opto-mechatronic integration engineering.

