

Department of Biomechatronic Engineering

Introduction

The Department of Biomechatronic Engineering of National Chiayi University (NCYU) was founded in 2000, and was located in the Lantan main campus.

The department aims to cultivate the students in the fields of product, management, harvest, processing, and quality control for biological systems by applying the mechatronics technology. After completing all the technical courses, students with capability of developing mechatronic system, automation technology, biological products processing and storage, biological system facilities and environmental control are expected.

Course design

There are graduate and undergraduate programs in the Department of Biomechatronic Engineering. Fundamentals and application of science is the core curriculum. Integration of different fields is emphasized in order to enhance the students with capability to apply knowledge. Control, inspection, and development of mechatronic system are concentrated to meet the requirements of biological industry. The courses include Calculus, General Physics, General Physics Lab, General Chemistry, Graphics, Machine Shop Practice, Electronics, Electronics Lab, Electrical Engineering, Electrical Engineering Lab, Engineering Statics, Dynamics, Mechanics of Materials, Engineering Mathematics, Biological Industry Machinery, Internal combustion engines, Internal combustion engines Lab, Biological Industry Machinery Lab, Thermodynamics, Physical Properties of Biological Materials, Thermodynamics, Automatic Control, Electronics and Electrical Circuits, Principles and Applications of Sensors, Principles and Applications of Microprocessors, Fluid Mechanics, Mechatronics.

Faculty

The department currently has 14 full-time faculty members and one non-tenure track contract lecture. Their major studies cover biomechatronics and micro/biomechatronics fields. Welcome researchers and scholars who are interested in the field to join our programs.

Facility

The department has a teaching building and a practice plant, including computer classroom, electronic engineering lab., graphics classroom, machine shop, mechanical materials lab., biological materials analysis lab., engineering measurements lab., pneumatics lab., and mechatronics integration lab. In addition, teaching equipment includes tractors, a large variety of biological processing machinery, engine dynamic testing device, CAD/CAM equipment, robotics, sensors experimental devices, and automatic machinery for undergraduate and graduate programs.

Prospective

The goal of our department is to establish integrated research programs of mechatronics and control techniques. The students will engage in the related fields of biological industry for engineering

system design, manufacture and maintenance. They also can study in the graduate program of bio mechatronic engineering, mechanical engineering, electrical engineering, and food engineering for further education.

More information

Please visit the department home page: http://www.ncyu.edu.tw/bioeng_eng/ for more information.

Application home page: <https://admissions.ncyu.edu.tw/fsc/indexfsc.aspx>.

