

# **History and Mission**

The Department of Engineering Science (ES) at NCKU, founded in 1965, was the first multidisciplinary educational department in Taiwan. The master program was offered in 1979, the doctoral program in 1993, and master program of continuous education (MPCE) in 1999. Our programs are consistently ranked among the best at NCKU, and we are justifiably proud of our faculties, students and facilities. Each year, about 65 undergraduates, 90 master students, and 16 Ph.D students are enrolled. Currently we have 266 undergraduates, 225 students in the M.S. and Ph.D program, 98 students in the MPCE program. More than 4000 ES alumni have made significant contributions to the engineering field, and have held positions of high responsibility in government and private industry. Our education mission is to nurture the next generation of engineers and scientists having a strong ability of integrating knowledge on electrical science, mechanics, information, and other novel technology. The cultivation of leadership skills, innovative thinking, and international perspective is also emphasized. Our diverse curriculum and discipline can help foster student interest in engineering and give students sufficient knowledge and abilities needed to succeed in the global engineering community.

### Teaching and Learning

The most salient feature of the ES department is that it is an integrated science department consisting of mechanic, electronic and computer sciences. The curriculum of the ES department is emphasized on the fundamental and essential knowledge in the three science areas, and it is designed to provide students a comprehensive and efficient training in the fundamental principles of engineering analysis and mathematical techniques for modeling, simulating, designing and solving physical problems in the engineering field. All students have to take some required courses from the three areas. Our faculty members are all outstanding researchers in those areas and thus they are able to timely incorporate their new research findings with courses they are teaching. The training of integrating theory and practice is achieved by means of homework and project assignments, tutorials, individual and/or group works based on real or virtual projects that help students learn the current practices in industry as much as possible.

# Research and Development

Currently, research in the ES department can be categorized into the following five

- (A) Electrical Control and Communication;
- (B) Computer Science and Its Applications;
- (C) Quantum Computing and Bio Technology;
- (D) Applied Mechanics;
- (E) System Integration

## **Application Information for International Students:**

#### Fall Semester:

Available for undergraduate and graduate programs Application Period: January - April annually

#### Spring Semester:

Available for graduate programs Application Period: July - October annually

### Minimum number of credits for graduation:

Bachelor Degree program: 130 Master Degree program: 24 Ph.D. Degree program: 18