

Department of Electrical Engineering  
Computer, Control and Eleectronic Engineering Sub-Study Program

# CONTROL SYSTEMS and INSTRUMENTATION Laboratory

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# ***Department of Electrical Engineering Structure***

## **Electrical Engineering Study Program:**

- Electrical Energy Engineering Sub-Study Program (undergraduate+graduate)
- Telecommunication Engineering Sub-Study Program (undergraduate + graduate)
- **Computer, Control and Electronic Engineering Sub-Study Program (undergraduate + graduate)**
- Information and Communication Technology Sub-Study Program (graduate only)
- Computer Engineering and Network (3 year diploma program)
- Other *Diploma Programs* in cooperation with external parties.

## **Informatic Engineering Study Program:**

*(to be established in the near future)*

# ***Supporting Laboratories***

## **Electrical Engineering Study Program:**

**The Computer, Control and Electronic Engineering Sub-Study Program is supported by “3 in 1” laboratories:**

- Computer Laboratory
- **Control Systems and Instrumentation Laboratory**
- Electronic and Devices Laboratory



**Control Systems and Instrumentation  
Laboratory**

# Control Systems and Instrumentation Laboratory

The letters 'LSKI' are rendered in a large, 3D, white block font with grey shading to give them a three-dimensional appearance. They are positioned to the right of the main title, partially overlapping the red border of the title box.

## **VISION:**

To be a leading .....

**ROBOTICS and Process CONTROL  
TRAINING and RESEARCH CENTER**

..... in the country

## **Mission Statement :**

1. Education: *Teaching and Learning*
2. Training: *Industrial Community Services*
3. Research: *Contribution to Science and Technology Advances*

# ***What's available ?***

- **Rooms** (shared with Computer Laboratory):
  - 1 large room for laboratory courses
  - 1 lecturer room
  - 1 storage and technician room
  - 1 small room for research on Robotics
- **Staff** (shared by 3 laboratories: 3 in 1):
  - 2 laboratory technicians
  - 10 lecturers (4 studying overseas: 2 in Japan, 1 in Germany, 1 in Australia)
  - 1 foreign lecturer, a German volunteer

- **Students** (currently working):
  - 1 Ph.D. student, research on: *Process Control Technology*
  - at least 3 MS and BS students, research on: *Microcontroller and Robotics*
  - 20-30 students taking laboratory courses (BS and MS students) every semester

LSK

## • **Supported Courses:**

- Control Systems (Odd Semester)
- Digital Control Systems (Even Semester)
- Control System Design (Odd Semester)
- Industrial Automation (Odd/Even Sem.)
- Industrial Robotics (Even Semester)
- Electronic Instrumentation Systems (Odd Semester)
- Special Topics in Control Engineering (Every semester)
- Laboratory Course for MS students (Odd Semester)

- **Laboratory Equipment (for teaching and learning purposes):**

- 1 unit Programmable Logic Controller (PLC) – *Alan Bradley*
- 4 units 8031 Microcontroller Training Modules
- 2 sets of Servomotor Control Systems Training Modules
- 1 set *LabView* from National Instruments
- (shared with the Computer Lab.) PCs
- Self made equipment
- (shared with other labs) Measuring Equipment and Sensors for Instrumentation

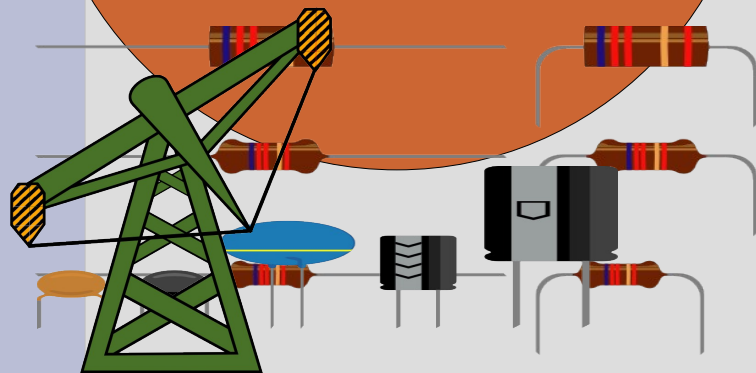
# ***FUTURE PLAN at the NEW CAMPUS***

## **FOCUS FIELD of STUDIES:**

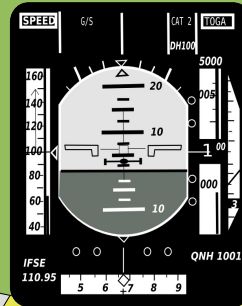
# LSKI



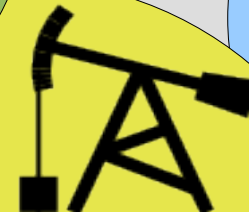
**PROCESS  
CONTROL  
TECHNOLOGY**



**SENSOR**



**INDUSTRIAL  
AUTOMATION**



**ROBOTICS**

**If the only tool you have is a hammer -- everything looks like a nail. (Anonymous)**