



**GADJAH MADA UNIVERSITY
UGM
YOGYAKARTA**

FWS Seminar, Bangkok, 2005

UNIVERSITAS GADJAH MADA

(UGM)

Presented by :
Bambang Sutopo

Head of Instrumentation and Control Lab.
Electrical Engineering Department
Gadjah Mada University

University Boulevard



Graduation Building



FWS Seminar, Bangkok, 2005

University Building



ENTRANCE



UNIVERSITY

- **Established : in 1949**
 - Faculty of Law,
 - Faculty of Social and Politics
 - Civil Engineering

- **Now :**
 - **Faculties : 18**
 - **Study programs : 76**

GATE TO THE FACULTY



Administration Building Faculty of Engineering



Faculty of Engineering

- There are eight departments :
 1. Architecture Engineering
 2. Chemical Engineering
 3. Civil Engineering
 4. Electrical Engineering
 5. Geological Engineering
 6. Geodetical Engineering
 7. Mechanical Engineering
 8. Nuclear Engineering

Electrical Engineering Building



Electrical Engineering Department

- Established : in 1963
 - Power Engineering
 - Electronics

Electrical Engineering Department

- There five concentrations :
 1. Power Engineering
 2. Electronics
 3. Control Engineering
 4. Tele-communications
 5. Computer Sistem Engineering

Electrical Engineering Laboratory

- There are ninth laboratories :
 1. High Voltage
 2. Distribution and Transmission
 3. Basic Electrical Engineering
 4. Electrical Power
 5. Electronics
 6. Informatics
 7. Instrumentation and Control
 8. Electronic Systems
 9. High Frequency and telecommunications

Electrical Engineering Staff

There are 56 members.

- **Academic degree :**
 1. **Doctor degree : 6**
 2. **Master Degree : 36**
 3. **Undergraduate degree : 14**
- **Structural Level :**
 - **Profesor : 1**
 - **Senior Lecturers : 14**
 - **Lecturers : 19**
 - **Assistants : 22**

Electrical Engineering Students

- S1 degree (Undergraduate) :
 - 160 students/year
- S2 degree (Post-graduate) :
 - 40 students/year
- S3 degree (Doctorat) :
 - Several students/year

Instrumentation and Control Lab.



Laboratory Staff

- Ir. Bambang Sutopo, M.Phil
 - Power Electronics
 - Microcontroler
- Ir. Samiaji Herjunanto, M.Sc
 - Control Engineering
 - Identification System and Recognition
- Ir Oyas Wahyunggoro, M.T
 - PID and Fuzzy Logic Controller
 - PLC
- Ir. Priyatmadi, M.T
 - Adaptive Control Algorithm
 - Robotics
 - Microprocessor System

Some Published Papers

- 1. SPEED CONTROL DC MOTOR UNDER VARYING LOAD USING PHASE-LOCKED LOOP SYSTEM**, Wisnu Djatmiko, W., Sutopo, B., Proc. of the International Conf. on Electrical, Electronics, Communication, and Information, CECI, 2001, March 7-8, Jakarta
- 2. ENERGY SAVING ALGORITHM ON INDUCTION MOTORS CONTROLLED BY A 68HC11 MICROCONTROLLER SYSTEM USING FUZZY LOGIC APPROACHING**, Sutopo, B., Supari, and Widjaya, F.D., IEEE Conference, PEDS, Oktober, 2001, Bali
- 3. IMPLEMENTATION of ADAPTIVE SYSTEM ALGORITHM ON TMS320C25 DSP**, Priyatmadi, and Sutopo, B, Seminar on Inteleegent Technology, 2002, Surabaya.

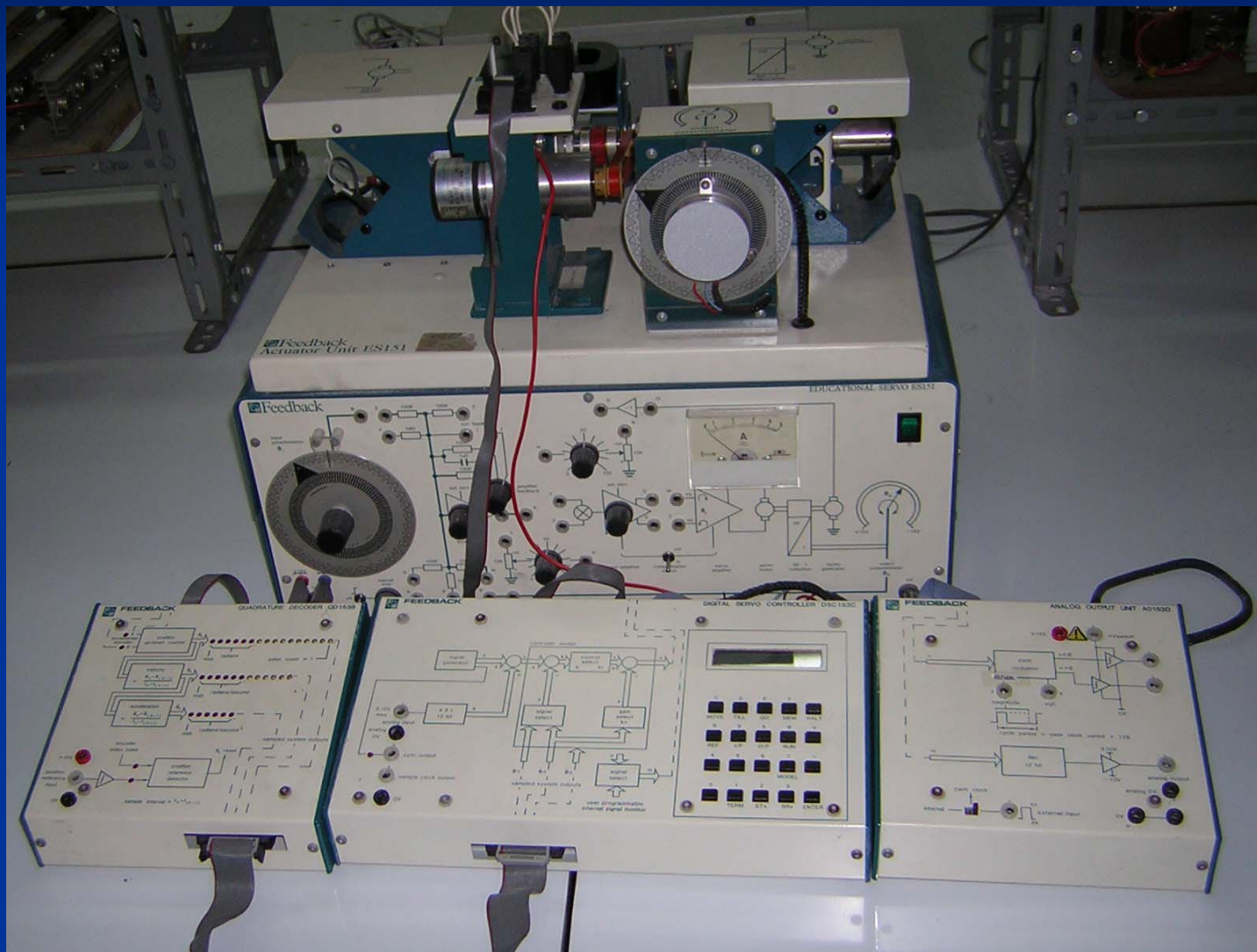
Level Control System



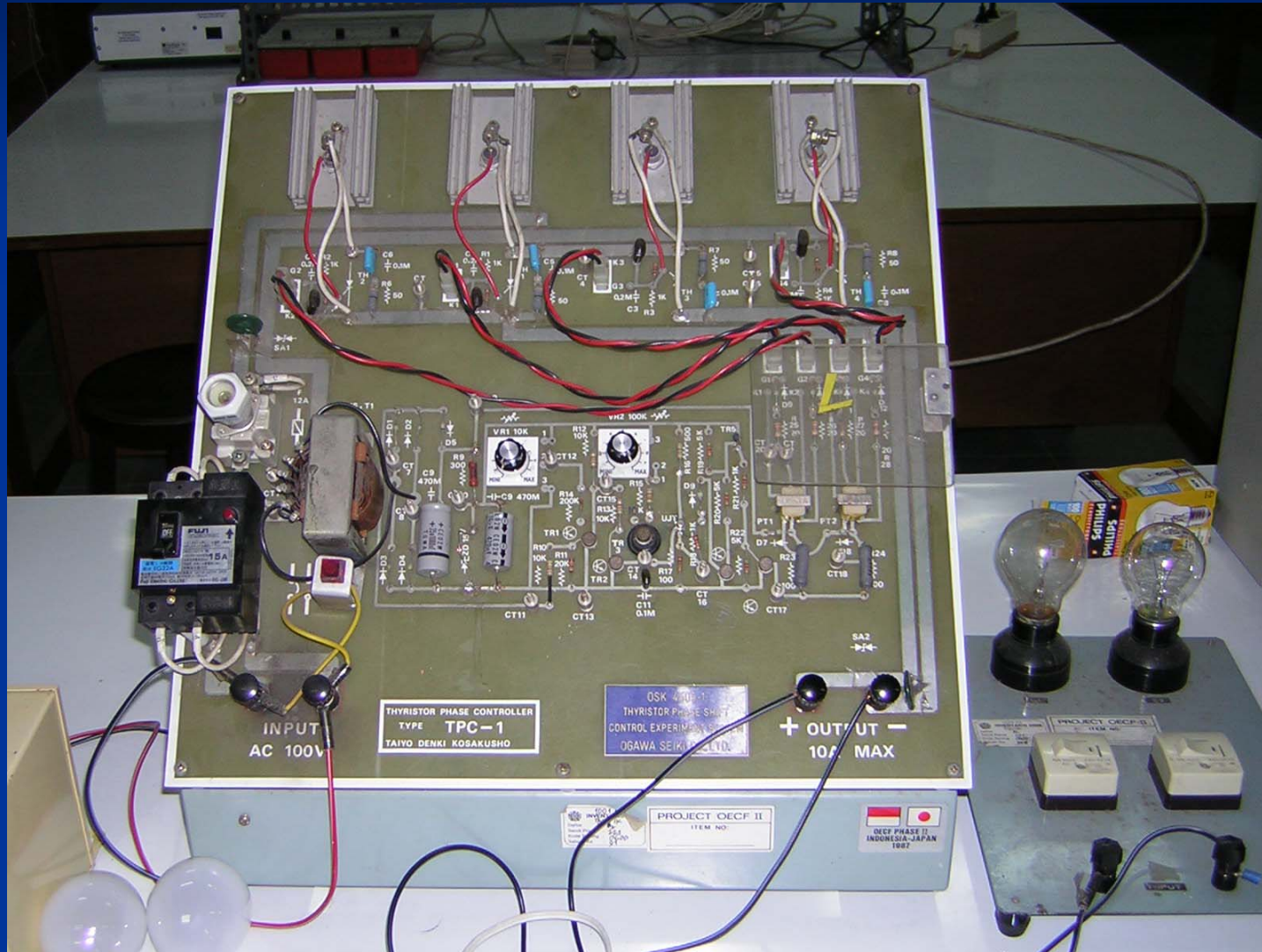
Robotics and its Controller



DC Motor Control System

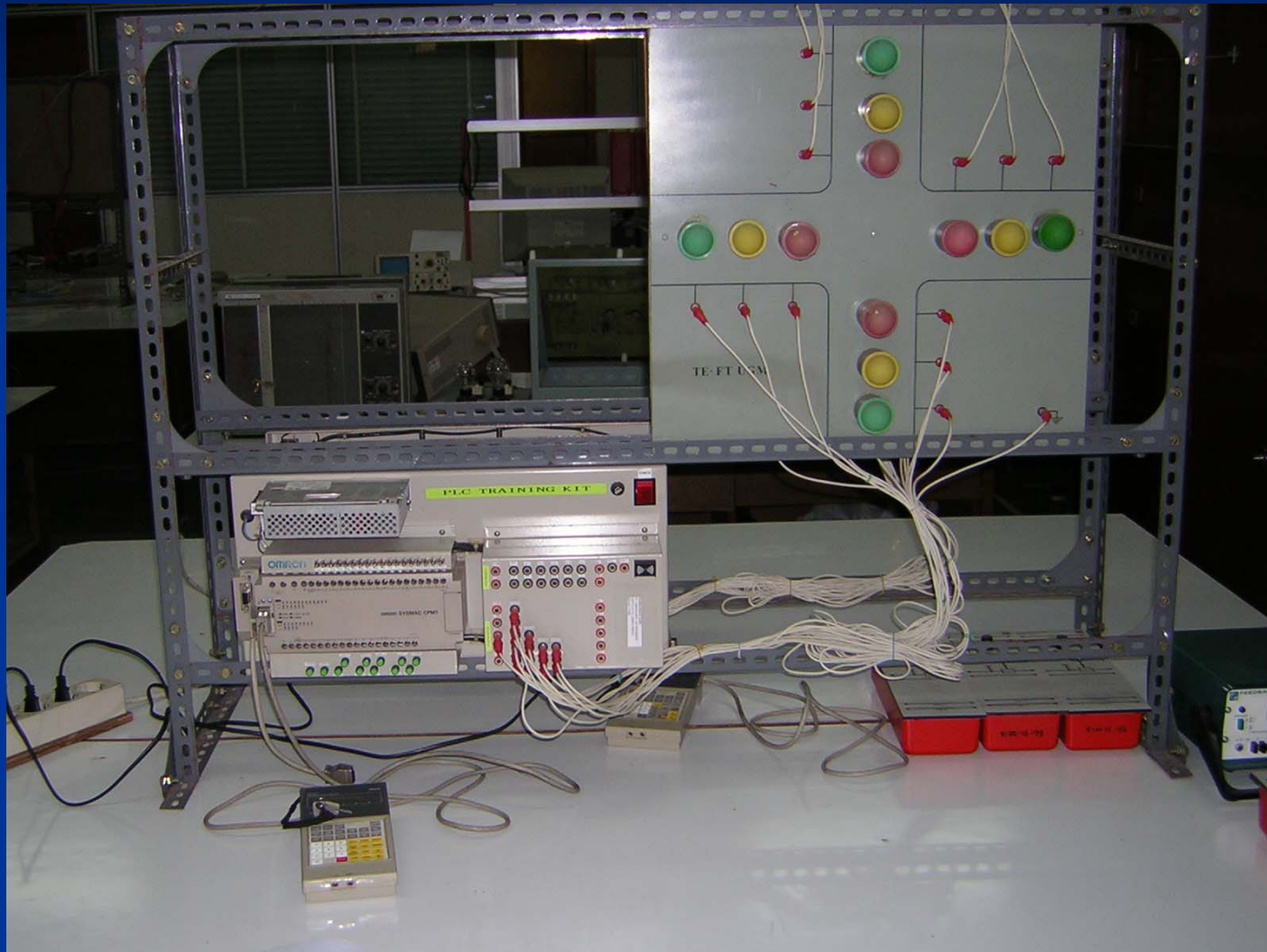


Thyristor Control System



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PLC System



Thank you