

# Short Summer Training for UEC Students in September 2011 at KMITL

**Period:** 29th August to 3rd October 2011 (35days)

**Location:** Instrumentation and Control Engineering Department, Faculty of Engineering  
King Mongkut's Institute of Technology Ladkrabang  
Ladkrabang District, Bangkok 10520

**KMITL Host Professor:**

Assoc. Prof. Dr. Taworn BENJANARASUTH (kbtaworn@kmitl.ac.th)

**UEC Supportive Professors:**

Assoc. Prof. Dr. Chisato KANAMORI (kanamori@mce.uec.ac.jp)

Prof. Dr. Hisayuki AOYAMA (aoyama@mce.uec.ac.jp)

**Training Students:**

渡部 聡(知能機械工学専攻 博士前期課程 1年)

滝沢 優(知能機械工学科 2年)

高瀬俊也(知能機械工学科 2年)

**Program Agenda:**

In this training program, students from UEC can join to the technical training course, which is set up for the KMITL students in the Control Engineering Laboratory to start their graduation research program.

**1st week**

Technical Training Topics

Basic review of mathematics for control engineers

Social Events

Orientation and Welcome Party

– Vice President for International Affairs/ Host Professor/ International Affairs Officers

Meeting with President of KMITL

Introduction to KMITL and Bangkok

**2nd week**

Technical Training Topics

Mathematical modeling

Time responses and performance specifications

Basic control experiments by electronic circuits

Introduction to Matlab/Simulink

Social Events

Factory tours (Thu. 8 Sep. 2011)

– Bangchak Petroleum Public Company Limited (refinery plant on Sukhumvit 64 Rd.)

Cultural tours (Fri. 9 Sep. 2011)

– Emerald Buddha Temple and Grand Palace

– National Museum of Thailand

**3rd week**

Technical Training Topics

Basic electronic circuits system simulations

Basic concept of PID controller

Modeling of DC motor

**4th week**

Technical Training Topics

Basic experiments and simulations on DC motor speed control

Modeling and simulations on two-inertia control systems

Social Events

Factory tours (Fri. 23 Sep. 2011)

– Airport Rail Link (Maintenance Depot and Train Control Center in Klongton district)

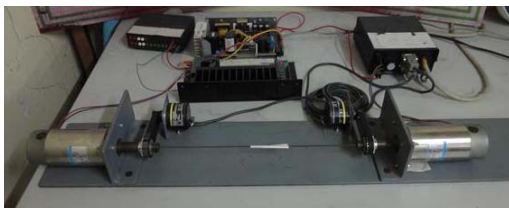
**5th week**

Technical Training Topics

Experiments on two-inertia control systems

Social Events Certificate award ceremony

– Vice President for International Affairs



Two-inertia control system experiments



Orientation for summer training students from Japan