

Short Summer Training for UEC students on Sep. 2011 in KMUTT

Period: 5 weeks (from 26th Aug to 29th Sep)

Location: KMUTT (King Mongkut's University of Technology Thonburi)
126 Pracha-utid Road, Bangmod, Toongkru, Kingdom of Thailand

KMUTT Supervisory staff:

Asst. Prof. Kosin Chamnongthai (kosin.cha@kmutt.ac.th)

TA Sukritta Paripurana

UEC Leader: Asst. Prof. Kohji Higuchi (higuchi@ee.uec.ac.jp)

Number of Training Students:

Three Trainee students Yasuko Yamagishi, Ryo Nakamata and Yuji Fukaishi from Department of Mechanical Engineering and Intelligent Systems is accepted to stay at KMUTT for training.

Program Agenda:

1st week: - Guidance for life style in KMUTT

- Set up PC for linking to internet
- Introduction to our purpose in KMUTT
- Yamagishi Introduce to research in UEC
- Nakamata introduce to geo-surface change detection by RADAR image
- Fukaishi introduce to about Vacuum tube amplifier

2nd week:- Guidance for life style in KMUTT

- To convert Signal flow & Date flow from Block Diagram
- Learn about feature extraction with image processing
- Simulation of Vacuum tube amplifier in LTSPICE

3rd week:- To make operation's element & VHDL's program

- Improve performance of change detection
- Experiments of vacuum tube amplifier

4th week:- To modify and to confirm simulation

- Summarize the results and make a presentation materials
- Experiments of vacuum tube amplifier

5th-week:- Make the slide for presentation

- Last presentation of training result

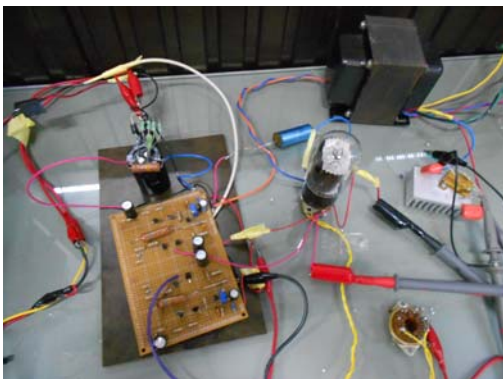
Training results

In this program, Ms. Yamagishi makes a simulation for FPGA. First, she learn how to design of pipeline and how to use VHDL, after she make a simulation of filter for FPGA.

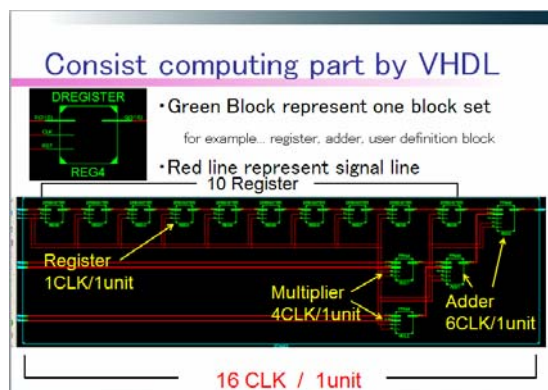
In this program, Mr. Nakamata learn to shape information, after he obtain location and shape information of image edge by contour tracing

In this program, Mr. Fukaishi manufactured vacuum tube amplifier and simulation of vacuum tube amplifier in LTSPICE. First, he learned how to design of vacuum tube amplifier and manufactured amplifier. After that, he experimented the vacuum tube amplifier.

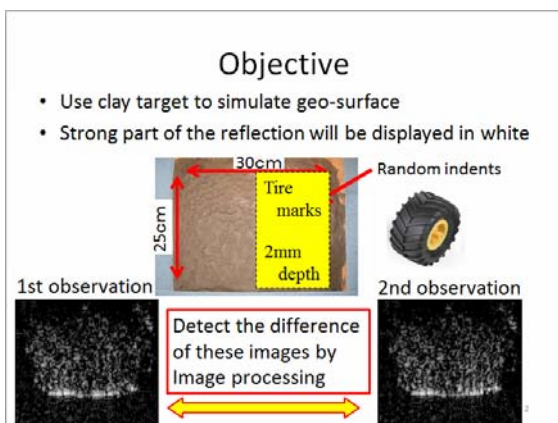
In the last week, they showed the results of this training by the presentation.



Vacuum tube amplifier



Composition of the IIR filter using a pipelining In FPGA



Radar Image change detection using image Processing