Hydraulics Laboratory

Fluid Mechanics Laboratory

Field Experiment

Field Trip Study

Research Laboratory

Hydraulics Research Laboratory

Research Program

Physical and mathematical modeling on open channel flow, Hydro-machinery, innovation on open channel flow and pipe flow, hydraulic

Irrigation Technology Research Laboratory

Research Program

Soil-water-plant relationship, soil and water conservation, irrigation water management, irrigation system management at scheme and on farm levels, pressurized irrigation systems, pump, surface and subsurface irrigation, drainage, measuring and controlling irrigation equipments.

Research Laboratory of Water Resources Computer Modeling and Information System

Research Program

Hydrological modeling, Meteorological Modeling, water resources modeling, weather forecasting, global climate change and impaction irrigation, Database development, GIS, telemetering and forecasting, development of information system and decision modeling for water resources management, feasibility and environmental impact assessment.

Intelligent Agro-Hydrological Monitoring and Management (INAM) Research Laboratory

Research Program

Research on hydrological process for water management to using on agricultural land by application of information technology and communication in development of monitoring system, information management and processing and decision working in water management

Department of Irrigation Engineering
Faculty of Engineering
at Kamphaengsaen Kasetsart University

Irrigation Engineering is the discipline related to the application of engineering knowledge to planning, design, construction and management of water resources for crop cultivation efficiently.

Irrigation Engineering degree program is offered only at the Department of Irrigation Engineering and College of Irrigation Engineering with the main purpose for irrigation development of the country.

Location

Department of Irrigation Engineering

Faculty of Engineering at Kamphaengsaen Kasetsart University,

Nakhon Pathom 73140, Thailand

Tel: (662) 942-8010-19 ext. 3500-3 , (6634) 351897 ,

(6634) 281-074 , (6634) 281-658 , (6691) 278-9800

Brief History

Department of Irrigation Engineering is the first department in Faculty of Engineering, Kasetsart University. The department was originated as the School of Irrigation Engineers under the Royal Irrigation Department, Ministry of Agriculture. The school was founded by M.L.Xujati Kambhu on August 1st , 1938.

During the begining period of operation, 2 years diploma program on irrigation engineering was offered covering the main subjects on

- Irrigation Engineering
- Irrigation Agronomy
- Hydraulic
- Hydrology
- Survey
- Engineering Design and Drawing
- Construction Techniques
- Field Practices

75 years after established, there are important timelines as follow :

- 1949: The school was renamed to "School of Irrigation Engineering" offering 3 years diploma program on irrigation engineering. All graduates were employed as irrigation engineers by Royal Irrigation Department.
- 1951: School of Irrigation Engineering was affiliated to Kasetsart University.
- 1954: The school was upgraded to Faculty of Irrigation Engineering offering 5 years degree program on irrigation engineers.
- 1964: The 5 years curriculum on irrigation engineers was revised to 4 years degree program on irrigation engineering.
- 1966: Faculty of Engineering was established. Department of Irrigation Engineering was the first department of the faculty. Professor Arun Intharapalit was the first department head.
- 1969: Master degree program on irrigation engineering was initiated.
- 2000: Doctoral degree program on irrigation engineering was initiated.
- 2002: Department of Irrigation Engineering was re-organized to be one of 3 departments in the new Faculty of Engineering at Kamphaengsaen on 22nd April.

Department of Irrigation Engineering offers Bachelor, Master and Doctoral Degree Programs as detail below.

B.Eng. (Civil-Irrigation Engineering) is 4 years program. In the first 2 years , students will study the basic courses on engineering and sciences. While the last 2 years the students will focus the courses on irrigation engineering, civil engineering and water resources engineering. The graduate will get the B.Eng.(Civil-Irrigation Engineering)

Courses offered.

- Introduction to Irrigation Engineering
- Engineering Statistics
- Engineering Hydrology
- Groundwater Engineering
- Design of Farm Irrigation Systems
- Water and Land Resources Management Engineering
- Engineering Management
- Computer Application for Irrigation Engineering
- Irrigation Field Study
- Drainage and Flood Protection
- Design of Canal and Conveyance Structures
- Design of Small Dams and Water Control Structures
- Design of Pipe and Pressurized Irrigation Systems
- Feasibility Study and Environmental Impact Assessment of Water Resources Development Projects
- Management of Water resources Project
- Irrigation Engineering Project

M.Eng. is the 2 years thesis base program. The applicant must obtain the Bachelor degree on irrigation engineering, civil engineering or water resources engineering or equivalent. Master degree students must complete thesis and publish their work before completion of the program. The graduate will get M.Eng. (Irrigation Engineering)

Plan A1

The total minimum requirement		36 credits
a. Major requirement	not less than	4 credits (Non-credit)
– Seminar		4 credits (Non-credit)
b. Thesis	not less than	36 credits

Plan A2

The total minimum requirement		36 credits
a. Major requirement	not less than	24 credits
– Seminar		2 credits
– Compulsory major courses		9 credits
– Elective major courses	not less than	13 credits
b. Thesis	not less than	12 credits

D.Eng. is the 3 years thesis base program. The graduate will get D.Eng. (Irrigation Engineering)

Plan 1.1

The total minimum requirement		48 credits
a. Major requirement	not less than	5 credits (Non-credit)
– Seminar		4 credits (Non-credit)
– Compulsory major courses		1 credits (Non-credit)
b. Thesis	not less than	48 credits

Plan 1.2

The total minimum requirement		72 credits
a. Major requirement	not less than	7 credits (Non-credit)
– Seminar		6 credits (Non-credit)
– Compulsory major courses		1 credit (Non-credit)
– Elective major courses	not less than	13 credits
b. Thesis	not less than	72 credits