國立高雄第一科技大學
National Kaohsiung First University of Science and Technology

Department of Construction Engineering

National Kaohsiung First University of Sci & Tech
(First Tech)

by
Ken Chien-Liang Lin

October 23, 2017

Welcome ...

Mr. Carlino Velazquez

Mr. Victor Leguizamon

Highlights

- Organization / Students / Curricula
- Features / Goals of the Department
- Research / Industrial Service
- Faculty / Facility
- IEET Engineering Education Accreditation

Organization / Students / Curricula (1/2)

1. Undergraduate (128 credits)

Four-year program - 130 students per year

2. Master of Science (32 credits, including thesis, 6 credits)

Two-year program - 21 students per year

Four areas of specialization

1. Structure Eng.
2. Eng. Mgmt.
3. Geotechnical Eng.
4. Architecture & Building Tech.

Organization / Students / Curricula (2/2)

3. On-Job Master – (33 credits, including thesis, 6 credits)

Two-year program - 16 students per year

4. Ph.D. program in **College of Eng.** – 5 students per year

(1) Construction engineering (2 students)
(2) Eng. Management (3 students)

Features/Goals of the Department

Enhance

Teaching & Research in
(1) Disaster prevention
(2) Eng. Management
(3) Ecological Eng.
(4) Green building

Sustainable construction

Promote

(1) Education
(2) Industrial services

Cultivate

Construction professionals with both theoretical and practical knowledge/discipline towards sustainable construction

Research / Industrial Service

Four areas of specialization

1. Structure Eng.
2. Eng. Mgmt.
3. Geotechnical Eng.
4. Architecture and Building Tech.

Two College-Level Centers

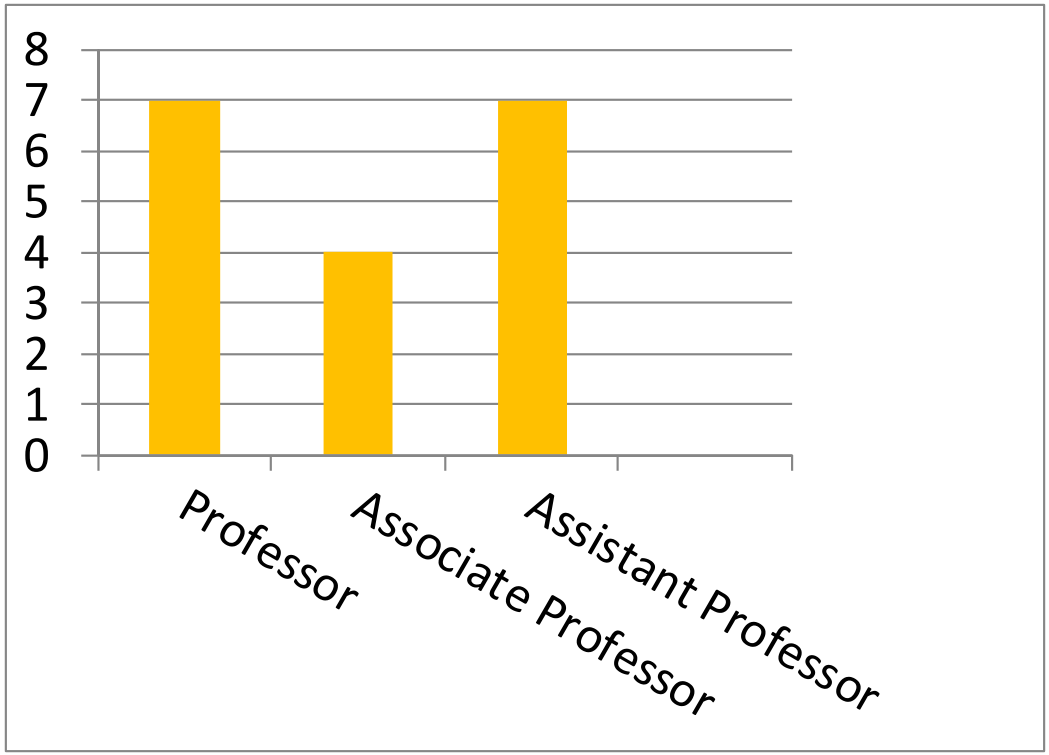
(1) Ecological Engineering Technology Center

(2) Research Center of Advanced Engineering Construction

Faculty (1/2)

- Currently we have 18 full-time faculties.
- All possess extensive industrial and teaching experiences.

- 7 Professors
- 4 Associate Professors
- 7 Assistant Professors



Faculty (2/2)

- All faculty members possess Ph.D. degree from **Taiwan, U.S.** and **Japan**.
- Averagely, each faculty has 8 years of industrial experience, and 16 years of teaching experience.

Countries	Taiwan	U.S.	Japan	Total
Number of people	2	11	5	18
Percentage (%)	11	61	28	100

Structure Engineering (1/4)

Tai-Ping Chang
Professor

Research Areas：
1. Structural Dynamics
2. Random Vibration
3. Fluid-Structure Interaction

Education：Columbia U.

Chin-Tung Cheng
Professor

Research Areas：
1. Earthquake Engineering
2. Composite Structures
3. RC Structures

Education： State U. of New York at Buffalo

Structure Engineering (2/4)

Kuo-Chen Yang
Professor

Research Areas：
1. Steel Structures
2. Bridges Engineering
3. Seismic design of structures

Education： National Taiwan U. of Sci. & Tech.

Ching-Jong Wang
Associate Professor

Research Area：
1. Applied Mechanics
2. Finite Element Method
3. Structural Design

Education：U. of Arizona

Structure Engineering (3/4)

Keng-Chang Kuo
Assistant Professor

Research Area：
1. Earthquake engineering (wood struct & non-struct components)
2. Integrated design of structural systems and arch. space

Education：Kyoto U.

Chia-Shang Chang Chien
Assistant Professor

Research Area：
1. Seismic isolation and energy dissipation technologies
2. Earthquake engineering
3. Structural control
4. Smart structural systems

Education：National Chiao Tung U., Taiwan

Structure Engineering (4/4)

Yen-Yu Lin

Assistant Professor

Research Area：

1. Construction materials performance
2. Pavement engineering and management
3. Infrastructure life cycle assessment
4. Roadway sustainability rating system
5. Carbon footprint assessment for construction

Education：U. of Washington

Construction Management (1/2)

Wei Lo
Professor

Research Areas：
1. Construction Planning & Management
2. BOT / Turnkey / Contract Administration
3. Construction Dispute
4. Negotiation and Claims

Education：North Western U.

Li-Chun Chao
Professor

Research Areas：
1. Decision and Risk Analysis
2. Cost Estimation in Engineering Systems
3. Project Management

Education：**Purdue U.**

Construction Management (2/2)

Chien-Liang Lin
Associate Professor

Research Areas：
1. Productivity Measurement / Analysis / Control
2. System Thinking / System Dynamics
3. Operations Research

Education：**Penn State U.**

Jeng-Rong Lee
Assistant Professor

Research Areas：
1. Management of Information System
2. Artificial Intelligence

Education：**Ohio State U.**

Geotechnical Engineering (1/2)

Chia-Cheng Fan
Professor

Research Area：
1. Slope engineering and ecological engineering technology
2. Soil-structure interaction
3. Pile foundation
4. Reinforced earth retaining structure
5. Mechanical behavior of plant root system in the soil

Education：U. of Illinois at Urbana-Champaign

Chih-Wei Lu
Professor

Research Area：
1. Liquefaction analysis and performance based design using numerical models
2. Quick evaluation for liquefaction induced settlement of shallow foundation
3. Liquefaction countermeasures
4. Landslide, deep seated failure
5. Progressive failure and creep

Education：Kyoto U.

Geotechnical Engineering (2/2)

Chi-Shen Lin
Assistant Professor

Research Area：
1. Numerical analysis for rock mechanics
2. Engineering geology
3. DDA in rock mechanics

Education：U. of Colorado

DDA: Discontinuous Deformation Analysis

Architecture/Building Technology (1/2)

Kai-Lin Hsu
Associate Professor

Research Area：
1. Concrete science
2. Life cycle management
3. Inspection, rehabilitation of civil infrastructures

Education：U. of Tokyo

Chia-Liang Weng
Associate Professor

Research Area：
1. Building Production
2. Green Building and Construction
3. Constructional Recycle

Education：U. of Tokyo

Architecture/Building Technology (2/2)

Yu-Pei Ke
Assistant Professor

Research Area：
1. Air Condition and Ventilation
2. Energy Conservation
3. Building Physics

Education：Penn. State U.

Ping-Chuan Hsieh
Assistant Professor

Research Area：
1. Architectural Design
2. Building Construction
3. Open Building
4. Universal Design

Education：Tokyo Metropolitan U.

Facility

- In order to meet the needs of teaching/research of the department, 8 laboratories were established.
- Department equipment assets amounted to NT$ 125 million. (USD $ 4.2 million)
- The Seismic Disaster Prevention Lab. is certified by TAF to assure the quality of technique and service.

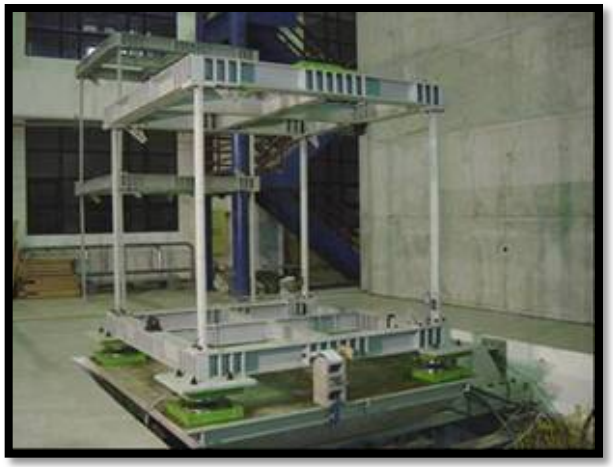
1. Seismic Disaster Prevention Lab.
2. Construction Materials Lab.
3. Soil and Rock Mechanics Lab.
4. Building Environment Lab.
5. Engineering Inspection & Analysis Lab
6. Construction Information Lab.
7. Surveying Lab.
8. Architechural and Building Technology Workshop

Seismic Disaster Prevention Lab. (SDP)

SDP Lab. , the largest seismic experiment center among universities of southern Taiwan, has been collaborating with Taiwan's National Center for Research on Earthquake Engineering (NCREE) , and completing many large-scale seismic experiments.

Seismic Disaster Prevention Lab.

Front view of SDP Lab.



Seismic simulation shaking table (3x3m)

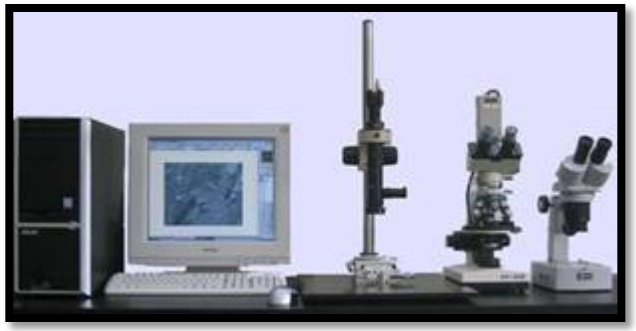
Reaction wall & Strong floor

Reaction frames

Construction Materials Lab.

Universal Testing Machine (200-Ton)

Tiles abrasion tester



Digital Image Measuring and Processing System

Soil and Rock Mechanics Lab.

Ground penetrating radar

One-dimensional consolidation testing system

Permeability testing apparatus

Building Environment Lab.

Weather Observation station

Radon gas detector

Thermal Comfort Data logger

Infrared thermography scanner

Surveying Lab.

Theodolite & Spirit level

Engineering Inspection & Analysis Lab.

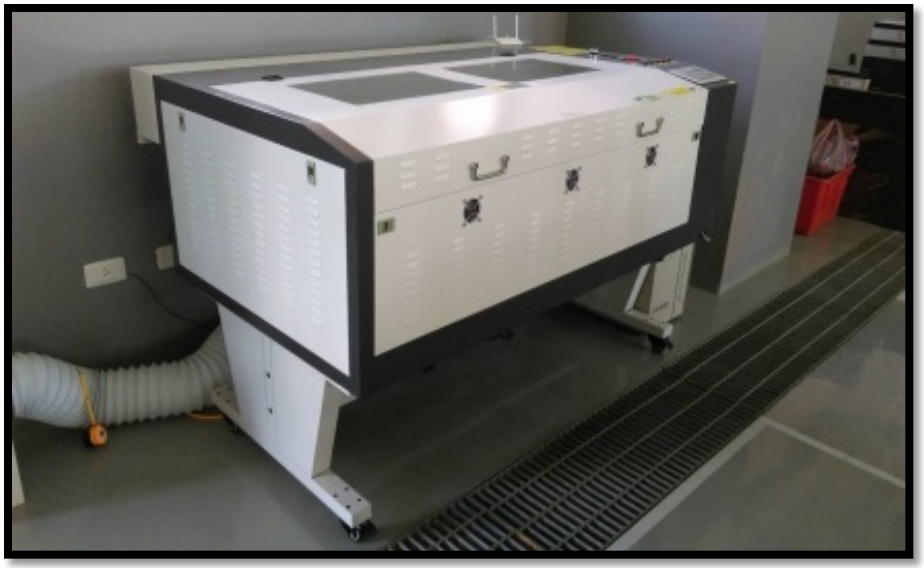
Impact-echo meter

Ultrasonic detector for concrete

rebound-number meter

Rebar radiography-measuring meter

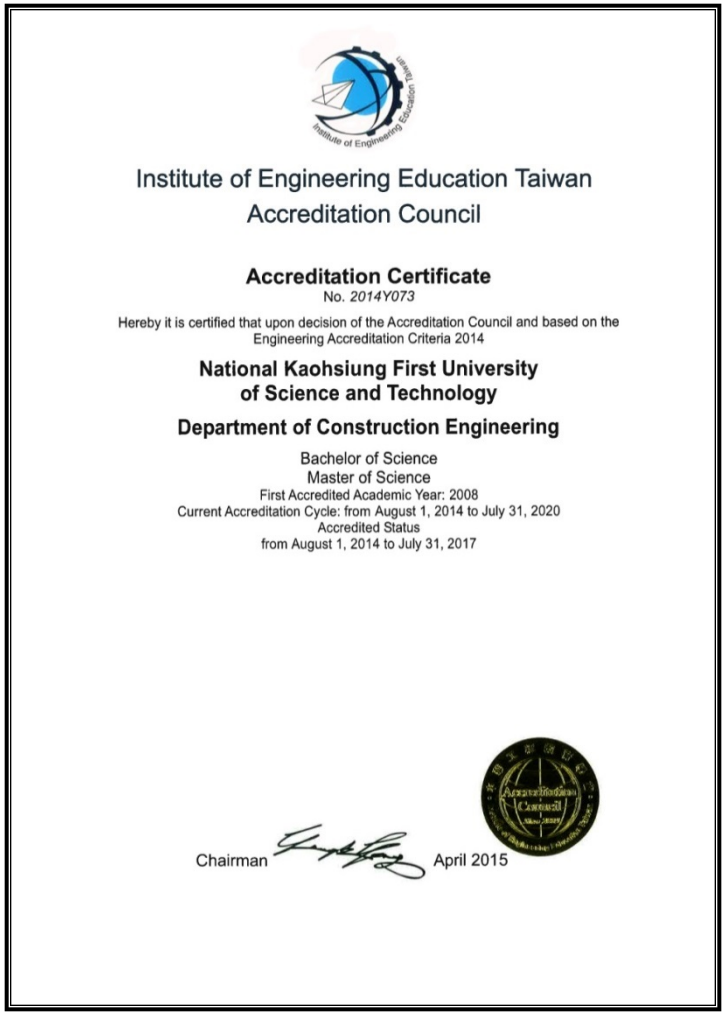
Architechural and Building Technology Workshop



Architectural model
hyperthermic cutting machine

Stone cladding on exterior wall system

IEET Engineering Education Accreditation



Institute of Engineering Education Taiwan
Accreditation Council

Accreditation Certificate
No. *2014Y073*

Hereby it is certified that upon decision of the Accreditation Council and based on the Engineering Accreditation Criteria 2014

National Kaohsiung First University of Science and Technology

Department of Construction Engineering

Bachelor of Science
Master of Science
First Accredited Academic Year: 2008
Current Accreditation Cycle: from August 1, 2014 to July 31, 2020
Accredited Status
from August 1, 2014 to July 31, 2017

Chairman April 2015

Accreditation Body:

Institute of Engineering Education, Taiwan （IEET）

Accreditation Number:

No. 2014Y073

Accreditation Programs:

Department of Construction Engineering

Bachelor of Science

Master of Science

First Accredited Academic Year :

2008

Current Accreditation Cycle:

From August 1, 2014 to July 31, 2020

The End

Thank you
for your attention